TENDER DOCUMENT

FOR

Earthwork, Repair & Construction of Distribution Network of Nabinagar, Amba, Aurangabad, Madanpur and Gaya Divisions of Right Main Canal, Bihar and its Structures under North Koel Reservoir Project, Jharkhand and Bihar

TENDER NO: WAP/NK/RMC/DISTRIBUTION/BIHAR/2026

Price Schedule (Amba)

WAPCOS

(भारत सरकार का उपक्रम–जल शक्ति मंत्रालय)

(A Government of India Undertaking-Ministry of Jal Shakti)

Preamble to the Price Schedule

1. In case of Percentage Rate Tenders, contractor shall fill up the usual printed form, stating at what percentage below/above (in figures as well as in words) the total estimated cost given in Price Schedule; he will be willing to execute the work. The tender submitted shall be treated as invalid if :-
    - The contractor does not quote percentage above/below/ at per on the total amount of tender or any section/sub head of the tender.
    - The percentage above/below/ at per is not quoted in figures & words both on the total amount of tender or any section/sub head of the tender.
    - The percentage quoted above/below/ at per is different in figures & words on the total amount of tender or any section/sub head of the tender.
2. In case the lowest tendered amount (amount worked on the basis of percentage above/below) of two or more contractors is same, such lowest contractors will be asked to submit sealed revised offer in the form of letter mentioning percentage above/ below on estimated cost of tender including all sub sections/sub heads as the case may be, but the revised percentage quoted above/below on tendered cost or on each sub section/ sub head should not be higher than the percentage quoted at the time of submission of tender. The lowest tender shall be decided on the basis of revised offers.
3. In case any of such contractor refuses to submit revised offer, then it shall be treated as withdrawal of his tender before acceptance and 50% of earnest money shall be forfeited.
4. If the revised tendered amount of two more contractors received in revised offer is again found to be equal, the lowest tender, among such contractors, shall be decided by draw of lots in the presence of Evaluation Committee of the Employer and the lowest contractors those have quoted equal amount of their tenders.
5. In case all the lowest contractors those have quoted same tendered amount, refuse to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD of each bidder.
6. Contractor(s), whose earnest money is forfeited because of non-submission of revised offer, shall not be allowed to participate in the re-tendering process of the work.
7. Only percentage rate quoted tenders shall be considered. Any tender containing item rates is liable to be rejected. Percentage quoted by the contractor in percentage rate tender shall be accurately filled in figures and words, so that there is no discrepancy.
8. In Percentage Rate Tender, the tenderer shall quote percentage below/above (in figures as well as in words) at which he will be willing to execute the work. He shall also work out the total amount of his offer and the same should be written in figures as well as in words in such a way that no interpolation is possible. In case of figures, the word 'Rs.'

should be written before the figure of rupees and word ‘P’ after the decimal figures, e.g. ‘Rs. 2.15P and in case of words, the word ‘Rupees’ should precede and the word ‘Paisa’ should be written at the end.

9. Contractor should satisfy himself with the total amount of the contract (as worked out in the Price Schedule) for the execution of the complete work.
10. Any error, if any in the Price Schedule, Design, Drawings to be bought in the notice of WAPCOS on or before Pre-BID meeting.

Note:

1. The estimated amounts for items are given in the Estimate.
2. The tenderer has to quote their offer in percentage above/below/ at-par the estimated amount.
3. The percentage rate shall be quoted up to 2 decimals.
4. **The Percentage (%) rate quoted for the contract shall be inclusive of all charges, except GST @18% as indicated in the Price Schedule**. GST as applicable shall be paid on submission of proof and Bill shall be accepted only after Bill is uploaded at GST Portal, subject to receipt of the same by Employer on back to back terms.
5. **The rate for carriage of materials shall be on actual lead at site at the time of execution, if the lead is more than provided in the BOQ, nothing will be paid extra. However, if the lead is less than the BOQ, then a proportionate rate will be deducted.**
6. **The final rates on which the works is to be executed are to be approved by the competent authority based on the Financial Bids submitted by the Bidders. In case any item scheduled/non-scheduled whose rates have not been included in the BOQ, then the rate shall be decided by the competent authority for payment.**
7. The payment will be made as per the actual work done and item wise measurement basis.
8. Rate filled at any other place in the document shall not be considered.
9. Where there is a discrepancy between the words and figures, the lesser of the two will only be taken in to consideration.
10. Where there is an arithmetical discrepancy in the page total as well as grand total, the corrected total by the Employer will govern.
11. The rates quoted shall be for carrying out the work in conformity to the IS Standards and Technical Specifications and other Terms and Conditions set out in the Bid Document
12. All pages in the BOQ should be signed without omission. All corrections/over writing should be properly attested by the Bidder.
13. Change in the Quantities - If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item/items, the rates as in the agreement for the relevant items shall be paid.
14. The Method of measurement of completed work for payment shall be in accordance with the requirement as stated in the individual section of Technical Specifications or as per CPWD Specifications.
15. The contractor shall carry out the site establishment works/temporary works at his own cost. Nothing shall be paid over and above the contract amount.
16. **The rates quoted by the bidder shall be deemed to include all costs related to leads and lifts of disposal of earth work required for the proper execution of the work, as described in the BOQ. If the actual lead and lift is more than provided in the BOQ, nothing will be paid extra and No extra payment shall be made whatsoever admissible on these accounts.**
17. **The rates quoted by the bidder shall be deemed to include all costs related to dewatering (including above nominal) and shoring (including above nominal) that is necessary for the execution of works. No extra payment shall be made whatsoever admissible on these accounts.**

Bihar Distribution Network- Amba Division
(Total Cost – Rs. 64.12 Crores)

Summary of Cost

Sr. No.	Name of Canal	Cost (Rs. in Cr.)
1	Mahuary Sub Dy.	16.96
2	Basdiha Dy.	25.76
3	Amba Mr.	1.10
4	Karma Dy.	16.55
5	Karma Basantpur Mr.	2.24
6	Ratanpur Mr.	1.50
	Total	**64.12**

Amba Division – Mahuary Sub Dy.
(Total Cost – Rs. 16.96 Crores)

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND

ABSTRACT OF COST (MAHUARY SUB DISTRIBUTARY & ITS DISTRIBUTARIES)

S. No.	Items	Qty.	Unit	Rate	Seigniorage Charges	Amount (Rs.) Including Seigniorage Charges	Reference for Rate	Page No.
1	Earthwork							
	MAHUARY SUB DISTRIBUTARY	1	Job	50172332.86	0.00	₹ 5,01,72,332.86	AOC Earthwork Mahuary Sub Distributary	23
	BARIAWA MINOR	1	Job	12263083.25	0.00	₹ 1,22,63,083.25	AOC Earthwork Bariawa	25
	ITMA MINOR	1	Job	8942204.36	0.00	₹ 89,42,204.36	AOC Earthwork Itma Minor	27
	MALI MINOR	1	Job	7654382.27	0.00	₹ 76,54,382.27	AOC Earthwork Mali Minor	29
	THUMBHI MINOR	1	Job	9522660.85	0.00	₹ 95,22,660.85	AOC Earthwork Thumbhi	31
	SOTHIDIH MINOR	1	Job	4685192.34	0.00	₹ 46,85,192.34	AOC Earthwork Sothidih	33
2	Head Regulator							
	BARIAWA MINOR	1	No.	3124871.39	23889.44	₹ 31,48,760.82	HR (AOC) Bariawa Minor	52
	ITMA MINOR	1	No.	2211754.48	16204.70	₹ 22,27,959.18	HR (AOC) Itma Minor	54
	MALI MINOR	1	No.	2342994.52	18336.02	₹ 23,61,330.54	HR (AOC) Mali Minor	56
	THUMBHI MINOR	1	No.	1873822.79	13326.06	₹ 18,87,148.84	HR (AOC) Thumbhi Minor	58
	SOTHIDIH MINOR	1	No.	363751.14	2979.09	₹ 3,66,730.22	Pipe HR AOC Sothidih	58
3	Falls							
	MAHUARY SUB DISTRIBUTARY							
	0.610 m Fall at Ch. 0.075 Km	1	No.	2010078.15	18092.27	₹ 20,28,170.42	Fall (AOC) Mahuary Sub Dy	80
	1.524 m Fall at Ch. 0.955 Km	1	No.	3380083.03	30645.02	₹ 34,10,728.04		81
	0.457 m Fall at Ch. 2.200 Km	1	No.	1631911.62	14568.97	₹ 16,46,480.59		82
	1.830m Fall at Ch. 4.520 Km	1	No.	3979777.22	36487.97	₹ 40,16,265.19		83
	1.372 m Fall at Ch. 7.214 Km	1	No.	2880386.39	26143.71	₹ 29,06,530.10		84
	1.524 m Fall at Ch. 9.150 Km	1	No.	2581260.31	23194.96	₹ 26,04,455.27		85
	0.914 m Fall at Ch. 11.900 Km	1	No.	1408277.11	12482.08	₹ 14,20,759.19		86
	0.914 m Fall at Ch. 15.550 Km	1	No.	1869078.27	16306.25	₹ 18,85,384.52		87
	0.610 m Fall at Ch. 17.875 Km	1	No.	721725.76	6302.68	₹ 7,28,028.44		88
	0.610 m Fall at Ch. 18.28 Km	1	No.	689678.15	5946.65	₹ 6,95,624.79		89
	BARIAWA MINOR							
	0.457 m Fall at Ch. 2.050 Km	1	No.	728097.46	6253.72	₹ 7,34,351.18	Fall (AOC) Bariwa Minor	90
	0.610 m Fall at Ch. 6.100 Km	1	No.	474162.19	3982.95	₹ 4,78,145.14		92
	ITMA MINOR							
	1.676 m Fall at Ch. 0.900 Km	1	No.	1644746.42	14198.46	₹ 16,58,944.88	Fall (AOC) Itma Minor	94
	0.305 m Fall at Ch. 3.950 Km	1	No.	375680.72	3110.37	₹ 3,78,791.09		95
	0.457 m Fall at Ch. 4.600 Km	1	No.	273259.09	2176.37	₹ 2,75,435.46		96
	MALI MINOR							
	0.610 m Fall at Ch. 1.000 Km	1	No.	449688.61	3748.45	₹ 4,53,437.06	Fall (AOC) Mali Minor	97
	0.457 m Fall at Ch. 3.125 Km	1	No.	305904.93	2472.70	₹ 3,08,377.63		99
	THUMBHI MINOR							
	0.457 m Fall at Ch. 0.545 Km	1	No.	1007693.02	8639.73	₹ 10,16,332.74	Fall (AOC) Thumbhi Minor	101
	0.914 m Fall at Ch. 0.965 Km	1	No.	696249.30	6002.11	₹ 7,02,251.41		102
	1.220 m Fall at Ch. 3.300 Km	1	No.	710473.34	6118.83	₹ 7,16,592.16		104
	1.067 m Fall at Ch. 4.010 Km	1	No.	540762.82	4563.94	₹ 5,45,326.76		106
	1.067 m Fall at Ch. 5.010 Km	1	No.	526359.31	4394.82	₹ 5,30,754.13		108
	SOTHIDIH MINOR							
	1.067 m Fall at Ch. 2.450 Km	1	No.	763414.77	6347.55	₹ 7,69,762.32	Fall (AOC) Sothidih Minor	107
4	*Cross Drainage*							
	MAHUARY SUB DISTRIBUTARY							
	CD At Km 14.480	1	No.	1359568.79	12031.08	₹ 13,71,599.87	C.D. Main canals-AOC Mahuary Sub Dy	179
	CD At Km 15.400	1	No.	1148831.08	10207.01	₹ 11,59,038.08		180
	CD At Km 16.100	1	No.	1314652.15	11657.24	₹ 13,26,309.39		181

S. No.	Items	Qty.	Unit	Rate	Seigniorage Charges	Amount (Rs.) Including Seigniorage Charges	Reference for Rate	Page No.
5	*Pipe Culvert*							
	BARIAWA MINOR							
	At Km 6.830	1	No.	390146.03	3259.43	₹ 3,93,405.46	Pipe Culvert AOC Bariawa	192
	THUMBHI MINOR							
	At Km 5.545	1	No.	389791.90	3259.43	₹ 3,93,051.33	Pipe Culvert AOC Thumbhi Minor	193
6	*Inlet*							
	MAHUARY SUB DISTRIBUTARY							
	Inlet At Km 1.700	1	No.	173346.72	1234.50	₹ 1,74,581.22	INLET AOC Mahuary Sub Dy	200
	Inlet At Km 12.200	1	No.	173346.72	1234.50	₹ 1,74,581.22		201
	THUMBHI MINOR							
	Inlet At Km 1.750	1	No.	173346.72	1234.50	₹ 1,74,581.22	INLET AOC Thumbhi Minor	202
7	*Repair of Structures*							
	MAHUARY SUB DISTRIBUTARY	25	No.	1397389.214	10818.50	₹ 14,08,207.71	Abstract (Repair St.)	228
	BARIAWA MINOR	13	No.	363759.8733	2750.24	₹ 3,66,510.11	Abstract (Repair St.)	233
	ITMA MINOR	8	No.	237801.7108	1750.73	₹ 2,39,552.44	Abstract (Repair St.) Itma	236
	MALI MINOR	7	No.	122219.7248	776.57	₹ 1,22,996.29	Abstract (Repair St.) Mali	240
	THUMBHI MINOR	8	No.	165560.1151	2266.05	₹ 1,67,826.17	Abstract (Repair St.)	245
	SOTHIDIH MINOR	12	No.	170021.3433	3070.51	₹ 1,73,091.86	Abstract (Repair St.)	249
	APPROACH ROAD	25	No.	521018.55	7578.59	₹ 1,32,14,928.62	Approach Road AOC	285
8	Outlets							
	MAHUARY SUB DISTRIBUTARY	64	No.	127744.47	1100.17	₹ 82,46,057.00	Outlet-AOC	289
	BARIAWA MINOR	27	No.	127744.47	1100.17	₹ 34,78,805.30		289
	ITMA MINOR	6	No.	127744.47	1100.17	₹ 7,73,067.84		289
	MALI MINOR	7	No.	127744.47	1100.17	₹ 9,01,912.48		289
	THUMBHI MINOR	12	No.	127744.47	1100.17	₹ 15,46,135.69		289
	SOTHIDIH MINOR	4	No.	127744.47	1100.17	₹ 5,15,378.56		289
9	Kilometer Stone	48	No.	3853.40	0.00	₹ 1,84,963.20	Rates '!F61	322
	TOTAL (In Rs.)					**₹ 16,96,49,295.13**		
	TOTAL (In Lacs)					**1696.49**		

	Carriage of Materials -Abstract		
1	Steel & Cement (30 Km)	M.T.	**742.00**
2	RCC Hume Pipe (30 Km)	Per Meter	
	150 mm dia	Per Meter	**82.00**
	600 mm dia	Per Meter	**919.00**
	1000 mm dia	Per Meter	**1470.00**
	1200 mm dia	Per Meter	**1838.00**
3	Bricks (15 Km)	Per 1000 no	**3.18**
4	Boulder (60 Km)	Cumecs	**1159.0**
5	Coarse Sand (60 Km)	Cumecs	**1075.00**
6	Stone Chips/Aggregate (100 Km)	Cumecs	**1398.0**

CARRIAGE OF MATERIAL BY TIPPER OF 18 CUM CAPACITY INCLUDING OVER HEAD CHARGES & C.P																		
Sr No	Name Of Materials	Unit	Gross Tipper Capacity Per Trip	(For Void) Multiplying Factor	Net Tipper capacity (Payable Quantity) Per Trip	Cost of Loading,Unloading & Stacking Per Trip of Tipper (Tipperr capacity 18 cum x Xa_1	Cost of Haulage Per cum			Cost of Haulage Per Tipper of 18 cum capacity (Tipper capacity 18 Cum x H)			Lead in KM			Carriage of Cost =[(18Hsa.Ls+18Hua.Lu+18Hka.Lk)+18 X_a	Per Unit Rate =(col 17 / Net Payable capacity)
							For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed		
						$18X_a$	H_{Sa}	H_{ua}	H_{ka}	$18H_{Sa}$	$18H_{Ua}$	$18H_{Ka}$	L_S	L_U	L_K		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Boulder (60 Kms)	M^3	18	0.80	14.4	6507.00	9.10	11.10	22.20	163.80	199.80	399.60	50	10	0	16695	1159.00
2	Stone Aggregate (100 Kms)	M^3	18	0.924	16.63	6507.00	9.10	11.10	22.20	163.80	199.80	399.60	90	10	0	23247	1398.00
3	Sand (60 Kms)	M^3	18	0.924	16.63	6507.00	9.10	11.10	22.20	163.80	199.80	399.60	45	10	5	17874	1075.00

CARRIAGE OF MATERIAL BY TIPPER OF 25 TONNES CAPACITY INCLUDING OVER HEAD CHARGES & C.P																	
Sr No	Name Of Materials	Unit	Gross Tipper Capacity Per Trip	(For Void) Multiplying Factor	Net Tipper capacity (Payable Quantity) Per Trip	Cost of Loading,Unloading & Stacking Per Trip of Tipper (Tipperr capacity 25 t x X_b)	Cost of Haulage Per cum			Cost of Haulage Per Tipper of 8 tonne capacity (Tipper capacity 8x H)			Lead in KM			Carriage of Cost =[(25Hsa.Ls+25Hua.Lu+25Hka.Lk)+25 X_a	Per Unit Rate =(col 17 / Net Payable capacity)
							For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed		
						$25X_b$	H_{Sb}	Hub	H_{Kb}	$25H_{Sb}$	$25H_{Ub}$	$25H_{Kb}$	L_S	L_U	L_K		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	**Cement & Steel (30 Kms)**	M.T	25	1	25	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	20	10	0	18550	742.00
2	**Brick ($9^{3/4}$x$4^{3/4}$x$2^{3/4}$) (15 Kms)**	Per % 0	5000	1	5000	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	10	5	0	15900	3180.00
3	**R.C.C hume, A.C. pipe (30 Km)**																
a	**150 mm dia**	mtr	225	1	225	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	82.00
b	**500 mm & 600 mm dia**	mtr	20	1	20	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	919.00
c	**900mm & 1000 mm dia**	mtr	12.5	1	12.5	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	1470.00
d	**1100 & 1200 m dia**	mtr	10	1	10	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	1838.00

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND CONCRETE MIX RATIO TABLE						
Sl. No.	Mixes	Unit by Volume (Cum)	Crushed Aggregate			
			Cement (bags of 50 kg)	Sand (Cum)	Coarse Aggregate (Cum)	Boulder (Cum)
1	M -10 (1:3:6)	1.00	4.49	0.47	0.94	
2	M -15 (1:2:4)	1.00	6.48	0.45	0.90	
3	M -20 (1:1.5:3)	1.00	8.25	0.43	0.86	
4	M -25 (1:1:2)	1.00	11.34	0.39	0.79	
5	M-30 (1:0.75:1.5)	1.00	13.96	0.36	0.73	
6	RR Masonary (1:4)	1.00	2.880	0.40		1.00
7	Brick Work (1:4)	1.00	2.304	0.320		
8	Cement Plaster (1:4)	1.00	1.037	0.015		
9	Cement Punning	1.00	0.0015			

DETAIL QUANTITIES OF EARTHWORK
MAHUARY SUB DISTRIBUTARY.

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
0		0.000	0	0	0.000	0	0.000
100	100	1.001	0.501	50.050	10.282	5.141	514.100
200	100	1.838	1.420	141.950	9.426	9.854	985.400
300	100	1.740	1.789	178.900	8.305	8.866	886.550
400	100	0.228	0.984	98.400	9.875	9.090	909.000
500	100	0.452	0.340	34.000	12.795	11.335	1133.500
600	100	1.316	0.884	88.400	13.083	12.939	1293.900
700	100	0.172	0.744	74.400	7.012	10.048	1004.750
800	100	0.618	0.395	39.500	8.548	7.780	778.000
900	100	1.586	1.102	110.200	9.712	9.130	913.000
1000	100	0.622	1.104	110.400	7.785	8.749	874.850
1100	100	2.015	1.319	131.850	6.294	7.040	703.950
1200	100	1.562	1.789	178.850	5.847	6.071	607.050
1300	100	1.846	1.704	170.400	5.492	5.670	566.950
1400	100	1.148	1.497	149.700	5.481	5.487	548.650
1500	100	0.792	0.970	97.000	5.607	5.544	554.400
1600	100	0.000	0.396	39.600	29.711	17.659	1765.900
1700	100	2.571	1.286	128.550	7.859	18.785	1878.500
1800	100	2.168	2.370	236.950	6.083	6.971	697.100
1900	100	1.279	1.724	172.350	7.350	6.717	671.650
2000	100	1.042	1.161	116.050	8.738	8.044	804.400
2100	100	0.966	1.004	100.400	10.006	9.372	937.200
2200	100	0.392	0.679	67.900	9.556	9.781	978.100
2300	100	3.753	2.073	207.250	9.806	9.681	968.100
2400	100	2.812	3.283	328.250	9.812	9.809	980.900
2500	100	1.500	2.156	215.600	10.033	9.923	992.250
2600	100	0.491	0.996	99.550	10.861	10.447	1044.700
2700	100	1.822	1.157	115.650	6.790	8.826	882.550
2800	100	1.106	1.464	146.400	7.123	6.957	695.650
2900	100	0.669	0.888	88.750	7.979	7.551	755.100
3000	100	1.414	1.042	104.150	8.299	8.139	813.900
3100	100	1.721	1.568	156.750	9.027	8.663	866.300
3200	100	1.556	1.639	163.850	8.007	8.517	851.700
3300	100	1.642	1.599	159.900	8.184	8.096	809.550
3400	100	0.645	1.144	114.350	9.962	9.073	907.300
3500	100	0.551	0.598	59.800	9.260	9.611	961.100
3600	100	0.746	0.649	64.850	9.301	9.281	928.050
3700	100	1.096	0.921	92.100	9.515	9.408	940.800
3800	100	1.023	1.060	105.950	9.993	9.754	975.400
3900	100	0.732	0.878	87.750	8.572	9.283	928.250
4000	100	4.706	2.719	271.900	5.158	6.865	686.500
4100	100	1.884	3.295	329.500	5.449	5.304	530.350
4200	100	2.604	2.244	224.400	5.942	5.696	569.550
4300	100	2.030	2.317	231.700	5.334	5.638	563.800
4400	100	2.459	2.245	224.450	7.077	6.206	620.550

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
4500	100	4.057	3.258	325.800	12.858	9.968	996.750
4600	100	0.501	2.279	227.900	10.782	11.820	1182.000
4700	100	0.392	0.447	44.650	9.234	10.008	1000.800
4800	100	1.292	0.842	84.200	9.320	9.277	927.700
4900	100	1.981	1.637	163.650	7.726	8.523	852.300
5000	100	1.687	1.834	183.400	9.667	8.697	869.650
5100	100	7.895	4.791	479.100	7.775	8.721	872.100
5200	100	3.991	5.943	594.300	5.917	6.846	684.600
5300	100	1.979	2.985	298.500	4.903	5.410	541.000
5400	100	7.223	4.601	460.100	4.931	4.917	491.700
5500	100	3.034	5.129	512.850	5.891	5.411	541.100
5600	100	1.824	2.429	242.900	3.576	4.734	473.350
5700	100	2.148	1.986	198.600	3.967	3.772	377.150
5800	100	5.296	3.722	372.200	7.364	5.666	566.550
5900	100	3.048	4.172	417.200	7.670	7.517	751.700
6000	100	3.402	3.225	322.500	4.548	6.109	610.900
6100	100	2.859	3.131	313.050	3.997	4.273	427.250
6200	100	2.695	2.777	277.700	7.338	5.668	566.750
6300	100	2.245	2.470	247.000	9.018	8.178	817.800
6400	100	1.815	2.030	203.000	11.076	10.047	1004.700
6500	100	2.383	2.099	209.900	7.650	9.363	936.300
6600	100	7.615	4.999	499.900	6.339	6.995	699.450
6700	100	3.369	5.492	549.200	4.425	5.382	538.200
6800	100	1.669	2.519	251.900	4.225	4.325	432.500
6900	100	1.651	1.660	166.000	4.842	4.534	453.350
7000	100	2.569	2.110	211.000	7.180	6.011	601.100
7100	100	2.398	2.484	248.350	4.927	6.054	605.350
7200	100	3.427	2.913	291.250	6.303	5.615	561.500
7300	100	2.473	2.950	295.000	4.642	5.473	547.250
7400	100	2.447	2.460	246.000	4.396	4.519	451.900
7500	100	2.265	2.356	235.600	6.445	5.421	542.050
7600	100	2.093	2.179	217.900	6.371	6.408	640.800
7700	100	2.020	2.057	205.650	5.699	6.035	603.500
7800	100	1.993	2.007	200.650	5.053	5.376	537.600
7900	100	1.933	1.963	196.300	5.245	5.149	514.900
8000	100	1.909	1.921	192.100	4.839	5.042	504.200
8100	100	2.225	2.067	206.700	5.265	5.052	505.200
8200	100	17.575	9.900	990.000	6.865	6.065	606.500
8300	100	4.968	11.272	1127.150	4.256	5.561	556.050
8400	100	2.155	3.562	356.150	5.291	4.774	477.350
8500	100	1.671	1.913	191.300	5.237	5.264	526.400
8600	100	1.769	1.720	172.000	5.351	5.294	529.400
8700	100	2.054	1.912	191.150	5.362	5.357	535.650
8800	100	1.704	1.879	187.900	4.141	4.752	475.150
8900	100	11.614	6.659	665.900	6.056	5.099	509.850
9000	100	12.376	11.995	1199.500	5.593	5.825	582.450
9100	100	1.057	6.717	671.650	6.191	5.892	589.200

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
9200	100	17.046	9.052	905.150	7.347	6.769	676.900
9300	100	14.359	15.703	1570.250	7.141	7.244	724.400
9400	100	8.618	11.489	1148.850	4.598	5.870	586.950
9500	100	4.111	6.365	636.450	4.585	4.592	459.150
9600	100	2.741	3.426	342.600	4.205	4.395	439.500
9700	100	3.452	3.097	309.650	4.942	4.574	457.350
9800	100	3.603	3.528	352.750	6.128	5.535	553.500
9900	100	2.914	3.259	325.850	5.392	5.760	576.000
10000	100	6.511	4.713	471.250	4.131	4.762	476.150
10100	100	3.851	5.181	518.100	3.420	3.776	377.550
10200	100	1.941	2.896	289.600	3.282	3.351	335.100
10300	100	1.191	1.566	156.600	4.703	3.993	399.250
10400	100	1.676	1.434	143.350	4.154	4.429	442.850
10500	100	2.665	2.171	217.050	4.492	4.323	432.300
10600	100	14.558	8.612	861.150	5.188	4.840	484.000
10700	100	3.245	8.902	890.150	3.930	4.559	455.900
10800	100	2.981	3.113	311.300	4.812	4.371	437.100
10900	100	3.275	3.128	312.800	3.661	4.237	423.650
11000	100	3.672	3.474	347.350	6.397	5.029	502.900
11100	100	3.767	3.720	371.950	5.667	6.032	603.200
11200	100	3.210	3.489	348.850	4.593	5.130	513.000
11300	100	3.621	3.416	341.550	5.593	5.093	509.300
11400	100	2.258	2.940	293.950	2.099	3.846	384.600
11500	100	2.060	2.159	215.900	1.273	1.686	168.600
11600	100	1.177	1.619	161.850	2.594	1.934	193.350
11700	100	1.243	1.210	121.000	1.360	1.977	197.700
11800	100	0.861	1.052	105.200	4.665	3.013	301.250
11900	100	6.497	3.679	367.900	3.821	4.243	424.300
12000	100	11.927	9.212	921.200	12.051	7.936	793.600
12100	100	3.226	7.577	757.650	7.105	9.578	957.800
12200	100	2.423	2.825	282.450	4.351	5.728	572.800
12300	100	2.147	2.285	228.500	4.602	4.477	447.650
12400	100	1.411	1.779	177.900	4.357	4.480	447.950
12500	100	1.225	1.318	131.800	3.998	4.178	417.750
12600	100	1.124	1.175	117.450	3.910	3.954	395.400
12700	100	0.806	0.965	96.500	3.154	3.532	353.200
12800	100	0.665	0.736	73.550	3.913	3.534	353.350
12900	100	0.568	0.617	61.650	3.889	3.901	390.100
13000	100	0.632	0.600	60.000	3.392	3.641	364.050
13100	100	0.777	0.705	70.450	3.385	3.389	338.850
13200	100	4.583	2.680	268.000	2.853	3.119	311.900
13300	100	2.450	3.517	351.650	5.075	3.964	396.400
13400	100	1.471	1.961	196.050	5.641	5.358	535.800
13500	100	6.399	3.935	393.500	6.662	6.152	615.150
13600	100	4.485	5.442	544.200	8.102	7.382	738.200
13700	100	5.678	5.082	508.150	5.347	6.725	672.450
13800	100	2.361	4.020	401.950	5.254	5.301	530.050

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
13900	100	1.756	2.059	205.850	4.789	5.022	502.150
14000	100	1.898	1.827	182.700	5.260	5.025	502.450
14100	100	1.183	1.541	154.050	6.140	5.700	570.000
14200	100	1.149	1.166	116.600	5.522	5.831	583.100
14300	100	1.094	1.122	112.150	7.174	6.348	634.800
14400	100	0.552	0.823	82.300	5.089	6.132	613.150
14500	100	0.145	0.349	34.850	5.813	5.451	545.100
14600	100	1.286	0.716	71.550	9.083	7.448	744.800
14700	100	0.725	1.006	100.550	9.339	9.211	921.100
14800	100	2.390	1.558	155.750	8.171	8.755	875.500
14900	100	0.587	1.489	148.850	7.381	7.776	777.600
15000	100	0.751	0.669	66.900	6.063	6.722	672.200
15100	100	0.724	0.738	73.750	5.147	5.605	560.500
15200	100	0.727	0.726	72.550	4.539	4.843	484.300
15300	100	1.015	0.871	87.100	4.213	4.376	437.600
15400	100	0.662	0.839	83.850	4.507	4.360	436.000
15500	100	0.657	0.660	65.950	6.948	5.728	572.750
15600	100	2.957	1.807	180.700	7.727	7.338	733.750
15700	100	3.755	3.356	335.600	4.599	6.163	616.300
15800	100	3.322	3.539	353.850	6.119	5.359	535.900
15900	100	2.990	3.156	315.600	9.771	7.945	794.500
16000	100	2.548	2.769	276.900	12.023	10.897	1089.700
16100	100	1.988	2.268	226.800	12.702	12.363	1236.250
16200	100	1.664	1.826	182.600	9.655	11.179	1117.850
16300	100	0.604	1.134	113.400	6.736	8.196	819.550
16400	100	1.367	0.986	98.550	5.521	6.129	612.850
16500	100	0.802	1.085	108.450	6.630	6.076	607.550
16600	100	0.439	0.621	62.050	7.653	7.142	714.150
16700	100	0.357	0.398	39.800	6.657	7.155	715.500
16800	100	0.486	0.422	42.150	3.870	5.264	526.350
16900	100	1.396	0.941	94.100	2.559	3.215	321.450
17000	100	7.730	4.563	456.300	7.270	4.915	491.450
17100	100	6.868	7.299	729.900	9.316	8.293	829.300
17200	100	5.707	6.288	628.750	5.506	7.411	741.100
17300	100	2.260	3.984	398.350	5.686	5.596	559.600
17400	100	1.461	1.861	186.050	4.158	4.922	492.200
17500	100	0.824	1.143	114.250	4.125	4.142	414.150
17600	100	0.425	0.625	62.450	5.217	4.671	467.100
17700	100	0.041	0.233	23.300	5.390	5.304	530.350
17800	100	0.000	0.021	2.050	6.405	5.898	589.750
17900	100	0.744	0.372	37.200	5.328	5.867	586.650
18000	100	0.690	0.717	71.700	4.413	4.871	487.050
18100	100	0.237	0.464	46.350	3.853	4.133	413.300
18200	100	0.509	0.373	37.300	5.288	4.571	457.050
18300	100	1.315	0.912	91.200	4.069	4.679	467.850
18400	100	1.295	1.305	130.500	4.440	4.255	425.450
18500	100	1.604	1.450	144.950	4.813	4.627	462.650

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
18600	100	0.633	1.119	111.850	3.999	4.406	440.600
18700	100	0.419	0.526	52.600	3.911	3.955	395.500
18800	100	0.543	0.481	48.100	4.553	4.232	423.200
18900	100	0.000	0.272	27.150	6.168	5.361	536.050
19000	100	0.560	0.280	28.000	3.567	4.868	486.750
19100	100	1.063	0.812	81.150	4.650	4.109	410.850
19200	100	0.490	0.777	77.650	4.086	4.368	436.800
19300	100	0.397	0.444	44.350	3.979	4.033	403.250
19400	100	0.375	0.386	38.600	6.698	5.339	533.850
19500	100	0.421	0.398	39.800	6.757	6.728	672.750
19600	100	0.711	0.566	56.600	4.944	5.851	585.050
19700	100	0.354	0.533	53.250	5.355	5.150	514.950
19800	100	0.073	0.214	21.350	5.781	5.568	556.800
19900	100	0.089	0.081	8.100	5.850	5.816	581.550
20000	100	0.106	0.098	9.750	6.604	6.227	622.700
20100	100	0.121	0.114	11.350	7.209	6.907	690.650
Total				**48450.450**			**127647.550**
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							**48450.450**
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							**127647.550**
NET QUANTITY OF EARTHWORK IN FILLING							**79197.10**

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK BARIAWA MINOR							
0	0	0.000	0	0	0.000	0	0.000
100	100	0.654	0.327	32.700	6.311	3.156	315.550
200	100	0.430	0.542	54.200	7.650	6.981	698.050
300	100	0.423	0.427	42.650	2.317	4.984	498.350
400	100	0.359	0.391	39.100	7.199	4.758	475.800
500	100	0.407	0.383	38.300	1.818	4.509	450.850
600	100	0.198	0.303	30.250	3.626	2.722	272.200
700	100	0.431	0.315	31.450	4.163	3.895	389.450
800	100	1.850	1.141	114.050	5.445	4.804	480.400
900	100	1.120	1.485	148.500	2.661	4.053	405.300
1000	100	1.071	1.096	109.550	2.630	2.646	264.550
1100	100	0.365	0.718	71.800	3.839	3.235	323.450
1200	100	0.229	0.297	29.700	4.179	4.009	400.900
1300	100	0.251	0.240	24.000	5.846	5.013	501.250
1400	100	0.747	0.499	49.900	4.469	5.158	515.750
1500	100	0.280	0.514	51.350	2.960	3.715	371.450
1600	100	0.359	0.320	31.950	2.630	2.795	279.500
1700	100	6.780	3.570	356.950	3.443	3.037	303.650
1800	100	0.771	3.776	377.550	3.866	3.655	365.450
1900	100	1.126	0.949	94.850	3.942	3.904	390.400
2000	100	0.609	0.868	86.750	3.231	3.587	358.650
2100	100	1.102	0.856	85.550	3.627	3.429	342.900
2200	100	0.847	0.975	97.450	3.118	3.373	337.250
2300	100	0.512	0.680	67.950	6.012	4.565	456.500
2400	100	0.191	0.352	35.150	3.902	4.957	495.700
2500	100	0.007	0.099	9.900	3.314	3.608	360.800
2600	100	1.037	0.522	52.200	5.003	4.159	415.850
2700	100	1.101	1.069	106.900	2.587	3.795	379.500
2800	100	0.779	0.940	94.000	3.492	3.040	303.950
2900	100	0.044	0.412	41.150	3.351	3.422	342.150
3000	100	0.238	0.141	14.100	3.064	3.208	320.750
3100	100	0.618	0.428	42.800	4.142	3.603	360.300
3200	100	0.512	0.565	56.500	4.128	4.135	413.500
3300	100	0.487	0.500	49.950	2.813	3.471	347.050
3400	100	0.466	0.477	47.650	3.461	3.137	313.700
3500	100	6.973	3.720	371.950	7.389	5.425	542.500
3600	100	0.428	3.701	370.050	3.295	5.342	534.200
3700	100	0.605	0.517	51.650	4.502	3.899	389.850
3800	100	0.294	0.450	44.950	5.010	4.756	475.600
3900	100	0.522	0.408	40.800	1.786	3.398	339.800
4000	100	0.186	0.354	35.400	3.675	2.731	273.050
4100	100	0.071	0.129	12.850	4.290	3.983	398.250
4200	100	0.029	0.050	5.000	2.137	3.214	321.350
4300	100	0.017	0.023	2.300	3.142	2.640	263.950
4400	100	4.357	2.187	218.700	3.809	3.476	347.550

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
4500	100	0.735	2.546	254.600	3.219	3.514	351.400
4600	100	0.143	0.439	43.900	3.396	3.308	330.750
4700	100	0.128	0.136	13.550	1.431	2.414	241.350
4800	100	0.039	0.084	8.350	2.757	2.094	209.400
4900	100	0.124	0.082	8.150	4.275	3.516	351.600
5000	100	1.031	0.578	57.750	1.812	3.044	304.350
5100	100	0.285	0.658	65.800	3.335	2.574	257.350
5200	100	0.225	0.255	25.500	3.458	3.397	339.650
5300	100	0.391	0.308	30.800	3.719	3.589	358.850
5400	100	0.121	0.256	25.600	4.966	4.343	434.250
5500	100	0.093	0.107	10.700	5.688	5.327	532.700
5600	100	0.785	0.439	43.900	2.524	4.106	410.600
5700	100	0.349	0.567	56.700	2.220	2.372	237.200
5800	100	0.344	0.347	34.650	3.477	2.849	284.850
5900	100	0.172	0.258	25.800	4.267	3.872	387.200
6000	100	0.000	0.086	8.600	4.038	4.153	415.250
6100	100	0.630	0.315	31.500	2.491	3.265	326.450
6200	100	0.365	0.498	49.750	1.993	2.242	224.200
6300	100	0.189	0.277	27.700	2.328	2.161	216.050
6400	100	0.080	0.135	13.450	4.030	3.179	317.900
6500	100	0.000	0.040	4.000	4.263	4.147	414.650
6600	100	0.990	0.495	49.500	3.375	3.819	381.900
6700	100	0.657	0.824	82.350	2.653	3.014	301.400
6800	100	0.456	0.557	55.650	3.294	2.974	297.350
6900	100	0.344	0.400	40.000	2.014	2.654	265.400
7000	100	0.272	0.308	30.800	2.220	2.117	211.700
7100	100	0.231	0.252	25.150	1.715	1.968	196.750
Total				**4894.650**			**25737.450**
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							**4894.650**
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							**25737.450**
NET QUANTITY OF EARTHWORK IN FILLING							**20842.80**

Chainge	Length	Earthwork in Cutting			Earthwork in filling		
		Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK ITMA MINOR							
0		0.000	0	0	0.000	0	0.000
100	100	0.324	0.162	16.200	3.980	1.990	199.000
200	100	0.073	0.199	19.850	4.081	4.031	403.050
300	100	1.275	0.674	67.400	4.396	4.239	423.850
400	100	0.178	0.727	72.650	4.039	4.218	421.750
500	100	0.077	0.128	12.750	2.957	3.498	349.800
600	100	0.034	0.056	5.550	4.002	3.480	347.950
700	100	0.029	0.032	3.150	4.839	4.421	442.050
800	100	0.000	0.015	1.450	6.337	5.588	558.800
900	100	4.620	2.310	231.000	5.302	5.820	581.950
1000	100	2.324	3.472	347.200	2.964	4.133	413.300
1100	100	1.705	2.015	201.450	3.255	3.110	310.950
1200	100	1.255	1.480	148.000	3.611	3.433	343.300
1300	100	1.185	1.220	122.000	2.342	2.977	297.650
1400	100	0.373	0.779	77.900	3.345	2.844	284.350
1500	100	0.065	0.219	21.900	3.777	3.561	356.100
1600	100	0.007	0.036	3.600	2.944	3.361	336.050
1700	100	0.000	0.004	0.350	4.296	3.620	362.000
1800	100	0.000	0.000	0.000	5.531	4.914	491.350
1900	100	0.657	0.329	32.850	5.557	5.544	554.400
2000	100	0.398	0.528	52.750	4.427	4.992	499.200
2100	100	0.227	0.313	31.250	2.840	3.634	363.350
2200	100	0.150	0.189	18.850	2.470	2.655	265.500
2300	100	0.077	0.114	11.350	2.400	2.435	243.500
2400	100	0.008	0.043	4.250	3.158	2.779	277.900
2500	100	0.000	0.004	0.400	5.398	4.278	427.800
2600	100	0.984	0.492	49.200	3.864	4.631	463.100
2700	100	0.895	0.940	93.950	1.908	2.886	288.600
2800	100	0.193	0.544	54.400	3.958	2.933	293.300
2900	100	0.095	0.144	14.400	3.788	3.873	387.300
3000	100	2.462	1.279	127.850	2.186	2.987	298.700
3100	100	0.870	1.666	166.600	3.028	2.607	260.700
3200	100	0.260	0.565	56.500	3.468	3.248	324.800
3300	100	0.357	0.309	30.850	3.289	3.379	337.850
3400	100	0.063	0.210	21.000	4.077	3.683	368.300
3500	100	0.000	0.032	3.150	5.201	4.639	463.900
3600	100	0.000	0.000	0.000	5.733	5.467	546.700
3700	100	0.000	0.000	0.000	5.608	5.671	567.050
3800	100	0.041	0.021	2.050	5.033	5.321	532.050
3900	100	0.224	0.133	13.250	5.213	5.123	512.300
4000	100	0.021	0.123	12.250	2.769	3.991	399.100
4100	100	0.012	0.017	1.650	3.139	2.954	295.400
4200	100	0.268	0.140	14.000	3.838	3.489	348.850
4300	100	0.108	0.188	18.800	3.694	3.766	376.600
4400	100	0.226	0.167	16.700	3.870	3.782	378.200

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
4500	100	0.173	0.200	19.950	2.582	3.226	322.600
4600	100	0.494	0.334	33.350	4.117	3.350	334.950
4700	100	0.510	0.502	50.200	3.706	3.912	391.150
4800	100	0.138	0.324	32.400	2.858	3.282	328.200
Total				**2336.600**			**18374.600**
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							**2336.600**
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							**18374.600**
NET QUANTITY OF EARTHWORK IN FILLING							**16038.00**

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK MALI MINOR							
0		0.000	0	0	0.000	0	0.000
100	100	0.624	0.312	31.200	2.345	1.173	117.250
200	100	0.190	0.407	40.700	3.749	3.047	304.700
300	100	0.000	0.095	9.500	6.204	4.977	497.650
400	100	0.000	0.000	0.000	5.643	5.924	592.350
500	100	0.000	0.000	0.000	6.274	5.959	595.850
600	100	0.002	0.001	0.100	3.370	4.822	482.200
700	100	0.404	0.203	20.300	3.832	3.601	360.100
800	100	0.342	0.373	37.300	3.740	3.786	378.600
900	100	0.194	0.268	26.800	4.335	4.038	403.750
1000	100	0.838	0.516	51.600	3.589	3.962	396.200
1100	100	0.281	0.560	55.950	2.966	3.278	327.750
1200	100	0.121	0.201	20.100	3.895	3.431	343.050
1300	100	0.031	0.076	7.600	4.152	4.024	402.350
1400	100	0.556	0.294	29.350	3.898	4.025	402.500
1500	100	0.437	0.497	49.650	3.444	3.671	367.100
1600	100	0.326	0.382	38.150	3.231	3.338	333.750
1700	100	0.197	0.262	26.150	2.938	3.085	308.450
1800	100	0.209	0.203	20.300	1.971	2.455	245.450
1900	100	0.040	0.125	12.450	2.833	2.402	240.200
2000	100	3.213	1.627	162.650	3.211	3.022	302.200
2100	100	0.307	1.760	176.000	5.387	4.299	429.900
2200	100	0.514	0.411	41.050	3.363	4.375	437.500
2300	100	0.481	0.498	49.750	3.460	3.412	341.150
2400	100	0.446	0.464	46.350	3.535	3.498	349.750
2500	100	0.569	0.508	50.750	4.630	4.083	408.250
2600	100	0.389	0.479	47.900	3.434	4.032	403.200
2700	100	0.275	0.332	33.200	3.162	3.298	329.800
2800	100	1.183	0.729	72.900	3.148	3.155	315.500
2900	100	0.725	0.954	95.400	3.897	3.523	352.250
3000	100	0.621	0.673	67.300	2.545	3.221	322.100
3100	100	0.343	0.482	48.200	3.332	2.939	293.850
3200	100	0.579	0.461	46.100	3.143	3.238	323.750
3300	100	0.498	0.539	53.850	3.469	3.306	330.600
3400	100	0.503	0.501	50.050	3.402	3.436	343.550
3500	100	0.393	0.448	44.800	0.234	1.818	181.800
3600	100	0.234	0.314	31.350	4.146	2.190	219.000
3700	100	0.232	0.233	23.300	4.222	4.184	418.400
3800	100	0.587	0.410	40.950	2.803	3.513	351.250
3900	100	0.412	0.500	49.950	2.831	2.817	281.700
4000	100	0.237	0.325	32.450	3.286	3.059	305.850
Total				**1741.450**			**14140.600**
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							**1741.450**
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							**14140.600**
NET QUANTITY OF EARTHWORK IN FILLING							**12399.15**

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK THUMBHI MINOR							
0		0.000	0	0	0.000	0	0.000
100	100	0.341	0.171	17.050	4.993	2.497	249.650
200	100	0.462	0.402	40.150	2.671	3.832	383.200
300	100	0.321	0.392	39.150	1.969	2.320	232.000
400	100	0.372	0.347	34.650	2.086	2.028	202.750
500	100	0.276	0.324	32.400	3.988	3.037	303.700
600	100	1.048	0.662	66.200	3.465	3.727	372.650
700	100	0.474	0.761	76.100	2.073	2.769	276.900
800	100	0.353	0.414	41.350	1.681	1.877	187.700
900	100	0.208	0.281	28.050	3.152	2.417	241.650
1000	100	2.051	1.130	112.950	3.508	3.330	333.000
1100	100	0.992	1.522	152.150	0.986	2.247	224.700
1200	100	0.468	0.730	73.000	2.181	1.584	158.350
1300	100	0.329	0.399	39.850	6.758	4.470	446.950
1400	100	0.938	0.634	63.350	6.758	6.758	675.800
1500	100	0.510	0.724	72.400	1.938	4.348	434.800
1600	100	0.276	0.393	39.300	3.934	2.936	293.600
1700	100	0.000	0.138	13.800	5.260	4.597	459.700
1800	100	3.682	1.841	184.100	3.060	4.160	416.000
1900	100	4.261	3.972	397.150	2.888	2.974	297.400
2000	100	0.793	2.527	252.700	2.075	2.482	248.150
2100	100	0.179	0.486	48.600	3.370	2.723	272.250
2200	100	0.130	0.155	15.450	4.046	3.708	370.800
2300	100	1.049	0.590	58.950	2.476	3.261	326.100
2400	100	0.892	0.971	97.050	4.043	3.260	325.950
2500	100	0.694	0.793	79.300	3.190	3.617	361.650
2600	100	0.625	0.660	65.950	2.120	2.655	265.500
2700	100	1.311	0.968	96.800	3.348	2.734	273.400
2800	100	1.152	1.232	123.150	2.963	3.156	315.550
2900	100	0.098	0.625	62.500	3.983	3.473	347.300
3000	100	0.193	0.146	14.550	3.442	3.713	371.250
3100	100	0.044	0.119	11.850	3.881	3.662	366.150
3200	100	0.001	0.023	2.250	5.501	4.691	469.100
3300	100	2.429	1.215	121.500	4.515	5.008	500.800
3400	100	1.538	1.984	198.350	4.239	4.377	437.700
3500	100	0.755	1.147	114.650	2.010	3.125	312.450
3600	100	0.418	0.587	58.650	3.019	2.515	251.450
3700	100	0.206	0.312	31.200	2.279	2.649	264.900
3800	100	0.144	0.175	17.500	1.410	1.845	184.450
3900	100	0.000	0.072	7.200	4.582	2.996	299.600
4000	100	1.047	0.524	52.350	3.050	3.816	381.600
4100	100	1.748	1.398	139.750	3.926	3.488	348.800
4200	100	0.831	1.290	128.950	4.032	3.979	397.900
4300	100	0.127	0.479	47.900	3.586	3.809	380.900
4400	100	0.082	0.105	10.450	4.555	4.071	407.050

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
4500	100	0.041	0.062	6.150	4.431	4.493	449.300
4600	100	0.004	0.023	2.250	3.525	3.978	397.800
4700	100	0.000	0.002	0.200	4.479	4.002	400.200
4800	100	0.032	0.016	1.600	4.499	4.489	448.900
4900	100	0.032	0.032	3.200	4.556	4.528	452.750
5000	100	0.245	0.139	13.850	4.905	4.731	473.050
5100	100	1.244	0.745	74.450	3.448	4.177	417.650
5200	100	0.699	0.972	97.150	3.893	3.671	367.050
5300	100	0.533	0.616	61.600	4.644	4.269	426.850
5400	100	0.349	0.441	44.100	5.684	5.164	516.400
5500	100	0.248	0.299	29.850	4.156	4.920	492.000
5600	100	0.161	0.205	20.450	4.485	4.321	432.050
5700	100	0.072	0.117	11.650	4.739	4.612	461.200
5800	100	0.319	0.196	19.550	4.245	4.492	449.200
Total				**3766.750**			**20855.650**
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							**3766.750**
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							**20855.650**
NET QUANTITY OF EARTHWORK IN FILLING							**17088.90**

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK SOTHIDIH MINOR							
0		0.000	0	0	0.000	0	0.000
100	100	0.000	0.000	0.000	5.042	2.521	252.100
200	100	0.000	0.000	0.000	4.426	4.734	473.400
300	100	0.000	0.000	0.000	5.222	4.824	482.400
400	100	0.096	0.048	4.800	4.173	4.698	469.750
500	100	0.356	0.226	22.600	2.361	3.267	326.700
600	100	0.709	0.533	53.250	2.346	2.354	235.350
700	100	0.532	0.621	62.050	2.402	2.374	237.400
800	100	0.243	0.388	38.750	3.047	2.725	272.450
900	100	0.000	0.122	12.150	4.239	3.643	364.300
1000	100	0.080	0.040	4.000	2.928	3.584	358.350
1100	100	1.586	0.833	83.300	2.965	2.947	294.650
1200	100	0.967	1.277	127.650	2.291	2.628	262.800
1300	100	0.063	0.515	51.500	2.657	2.474	247.400
1400	100	0.093	0.078	7.800	4.556	3.607	360.650
1500	100	0.000	0.047	4.650	5.442	4.999	499.900
1600	100	0.000	0.000	0.000	6.361	5.902	590.150
1700	100	0.017	0.009	0.850	4.611	5.486	548.600
1800	100	0.466	0.242	24.150	1.628	3.120	311.950
1900	100	0.613	0.540	53.950	2.055	1.842	184.150
2000	100	0.528	0.571	57.050	2.283	2.169	216.900
2100	100	0.673	0.601	60.050	2.583	2.433	243.300
2200	100	0.557	0.615	61.500	3.493	3.038	303.800
2300	100	0.385	0.471	47.100	4.392	3.943	394.250
2400	100	0.137	0.261	26.100	4.355	4.374	437.350
2500	100	0.740	0.439	43.850	3.758	4.057	405.650
2600	100	0.657	0.699	69.850	2.408	3.083	308.300
2700	100	0.347	0.502	50.200	2.515	2.462	246.150
2800	100	0.254	0.301	30.050	3.279	2.897	289.700
2900	100	0.188	0.221	22.100	4.183	3.731	373.100
Total				**1019.300**			**9990.950**
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							**1019.300**
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							**9990.950**
NET QUANTITY OF EARTHWORK IN FILLING							**8971.65**

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

MAHUARY SUB DISTRIBUTARY (0.000 TO 20.150 KM)

JUNGLE CLEARANCE QUANTITY

Reaches (km)	Length (m)	Perimeter (m)	Quantity	
0.00 - 0.955	955	7.680	7334.40	Sqm
0.995 - 3.985	2990	6.960	20810.40	Sqm
3.985 - 5.790	1805	6.630	11967.15	Sqm
5.790-7.260	1470	6.320	9290.40	Sqm
7.260-9.550	2290	5.920	13556.80	Sqm
9.550-11.100	1550	5.640	8742.00	Sqm
11.100-12.000	900	5.340	4806.00	Sqm
12.000-14.020	2020	4.930	9958.60	Sqm
14.020-15.940	1920	4.500	8640.00	Sqm
15.940-17.220	1280	4.080	5222.40	Sqm
17.220-17.875	655	3.600	2358.00	Sqm
17.875-18.140	265	3.210	850.65	Sqm
18.140-18.400	260	2.790	725.40	Sqm
18.400-19.200	800	2.440	1952.00	Sqm
19.200-19.400	200	2.020	404.00	Sqm
19.400-20.150	750	1.300	975.00	Sqm
	TOTAL		**107593.20**	**Sqm**

LIP CUTTING QUANTITY

Reaches (km)	Length (m)	Perimeter (m)	Thickness (m)	Quantity	
0.00 - 0.955	955	7.680	0.15	1100.16	Cum
0.995 - 3.985	2990	6.960	0.15	3121.56	Cum
3.985 - 5.790	1805	6.630	0.15	1795.07	Cum
5.790-7.260	1470	6.320	0.15	1393.56	Cum
7.260-9.550	2290	5.920	0.15	2033.52	Cum
9.550-11.100	1550	5.640	0.15	1311.30	Cum
11.100-12.000	900	5.340	0.15	720.90	Cum
12.000-14.020	2020	4.930	0.15	1493.79	Cum
14.020-15.940	1920	4.500	0.15	1296.00	Cum
15.940-17.220	1280	4.080	0.15	783.36	Cum
17.220-17.875	655	3.600	0.15	353.70	Cum
17.875-18.140	265	3.210	0.15	127.60	Cum
18.140-18.400	260	2.790	0.15	108.81	Cum
18.400-19.200	800	2.440	0.15	292.80	Cum
19.200-19.400	200	2.020	0.15	60.60	Cum
19.400-20.150	750	1.300	0.15	146.25	Cum
	TOTAL			**16138.98**	**Cum**

BARIAWA MR. (0.000 TO 7.200 KM)				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	Length (m)	Perimeter (m)	Quantity	
0.00 - 2.350	2350	3.85	9047.50	Sqm
2.350 - 3.600	1250	3.42	4275.00	Sqm
3.600 - 4.400	800	3.03	2424.00	Sqm
4.400 - 5.070	670	2.72	1822.40	Sqm
5.070 -5.250	180	2.44	439.20	Sqm
5.250 - 5.790	540	2.22	1198.80	Sqm
5.790 - 6.100	310	2.04	632.40	Sqm
6.100 - 6.400	300	1.66	498.00	Sqm
6.400 - 6.650	250	1.39	347.50	Sqm
6.650 - 7.200	550	1.2	660.00	Sqm
	TOTAL		**21344.80**	**Sqm**

LIP CUTTING QUANTITY					
Reaches (km)	Length (m)	Perimeter (m)	Thickness (m)	Quantity	
0.00 - 2.350	2350	3.85	0.15	1357.13	Cum
2.350 - 3.600	1250	3.42	0.15	641.25	Cum
3.600 - 4.400	800	3.03	0.15	363.60	Cum
4.400 - 5.070	670	2.72	0.15	273.36	Cum
5.070 -5.250	180	2.44	0.15	65.88	Cum
5.250 - 5.790	540	2.22	0.15	179.82	Cum
5.790 - 6.100	310	2.04	0.15	94.86	Cum
6.100 - 6.400	300	1.66	0.15	74.70	Cum
6.400 - 6.650	250	1.39	1.15	399.63	Cum
6.650 - 7.200	550	1.2	2.15	1419.00	Cum
	TOTAL			**4869.22**	**Cum**

ITMA MR. (0.000 TO 4.880 KM)				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	Length (m)	Perimeter (m)	Quantity	
0.00 - 3.200	3200	2.05	6560.00	Sqm
3.200 - 3.650	450	1.75	787.50	Sqm
3.650 - 3.800	150	1.59	238.50	Sqm
3.800 - 4.400	600	1.38	828.00	Sqm
4.400 - 4.880	480	1.19	571.20	Sqm
	TOTAL		**8985.20**	**Sqm**

LIP CUTTING QUANTITY					
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Thickness (m)**	**Quantity**	
0.00 - 3.200	3200	2.05	0.15	984.00	Cum
3.200 - 3.650	450	1.75	0.15	118.13	Cum
3.650 - 3.800	150	1.59	0.15	35.78	Cum
3.800 - 4.400	600	1.38	1.15	952.20	Cum
4.400 - 4.880	480	1.19	2.15	1228.08	Cum
	TOTAL			**3318.18**	**Cum**

MALI MR. (0.000 TO 4.050 KM)				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Quantity**	
0.00 -0.060	60	2.04	122.40	Sqm
0.060-0.200	140	1.82	254.80	Sqm
0.200-1.220	1020	1.67	1703.40	Sqm
1.220-1.370	150	1.49	223.50	Sqm
1.370-2.000	630	1.32	831.60	Sqm
2.000-4.050	2050	1.18	2419.00	Sqm
	TOTAL		**5554.70**	**Sqm**

LIP CUTTING QUANTITY					
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Thickness (m)**	**Quantity**	
0.00 -0.060	60	2.04	0.15	18.36	Cum
0.060-0.200	140	1.82	0.15	38.22	Cum
0.200-1.220	1020	1.67	0.15	255.51	Cum
1.220-1.370	150	1.49	0.15	33.53	Cum
1.370-2.000	630	1.32	1.15	956.34	Cum
2.000-4.050	2050	1.18	2.15	5200.85	Cum
	TOTAL			**6502.81**	**Cum**

THUMBHI MR (0.000 TO 5.900 KM)				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Quantity**	
0.00 - 2.050	2050	2.76	5658.00	Sqm
2.050 -2.550	500	2.45	1225.00	Sqm
2.550 - 3.300	750	2.22	1665.00	Sqm
3.300 - 3.900	600	1.92	1152.00	Sqm
3.900 -4.700	800	1.58	1264.00	Sqm
4.700 - 5.200	500	1.39	695.00	Sqm
5.200 -5.900	700	1.13	791.00	Sqm
	TOTAL		**12450.00**	**Sqm**

LIP CUTTING QUANTITY					
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Thickness (m)**	**Quantity**	
0.00 - 2.050	2050	2.760	0.15	848.70	Cum
2.050 -2.550	500	2.450	0.15	183.75	Cum
2.550 - 3.300	750	2.220	0.15	249.75	Cum
3.300 - 3.900	600	1.920	0.15	172.80	Cum
3.900 -4.700	800	1.580	0.15	189.60	Cum
4.700 - 5.200	500	1.390	0.15	104.25	Cum
5.200 -5.900	700	1.130	0.15	118.65	Cum
	TOTAL			**1867.50**	**Cum**

SOTHIDIH MR. (0.000 TO 2.950 KM)				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Quantity**	
0.00 - 0.030	30	1.95	58.50	Sqm
0.030 - 0.700	670	1.66	1112.20	Sqm
0.700 -1.700	1000	1.48	1480.00	Sqm
1.700 - 2.950	1250	1.2	1500.00	Sqm
	TOTAL		**4150.70**	**Sqm**

LIP CUTTING QUANTITY					
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Thickness (m)**	**Quantity**	
0.00 - 0.030	30	1.95	0.15	8.78	Cum
0.030 - 0.700	670	1.66	0.15	166.83	Cum
0.700 -1.700	1000	1.48	0.15	222.00	Cum
1.700 - 2.950	1250	1.2	0.15	225.00	Cum
	TOTAL			**622.61**	**Cum**

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND						
ABSTRACT OF QUANTITY OF EARTHWORK FOR MAHUARY SUB DISTRIBUTARY						
Sl. No.	**Reference Clause no.**	**Particular**	**Quantity**	**Unit**	**Rate (in Rs.)**	**Amount in Rs.**
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	107593.20	Sqm	**11.80**	1270072.087
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	48450.45	Cum	**156.50**	7582495.425
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	19380.18	Cum	**17.22**	333678.5229
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	79197.10	Cum	**165.12**	13076705.23
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	23759.13	Cum	**174.89**	4155234.25
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (25% of net filling)	19799.28	Cum	**217.92**	4314658.01
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	35638.70	Cum	**319.14**	11373733.12
6	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.				

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
			16138.98	Cum	**196.10**	3164853.98
7	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	79197.10	Cum	**61.88**	4900902.24
TOTAL COST OF EARTHWORK (in Rs.)						**50172332.86**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**501.723**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR BARIAWA MINOR						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	21344.80	Sqm	**11.80**	251962.3422
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	4894.65	Cum	**156.50**	766012.725
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	1957.86	Cum	**17.22**	33709.4822
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	20842.80	Cum	**165.12**	3441478.94
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	6252.84	Cum	**174.89**	1093559.19
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (25% of net filling)	5210.70	Cum	**217.92**	1135515.74
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	9379.26	Cum	**319.14**	2993297.04
6	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.				
			4869.22	Cum	**196.10**	954854.04

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
7	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	25737.45	Cum	**61.88**	1592693.75
TOTAL COST OF EARTHWORK (in Rs.)						**12263083.25**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**122.631**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR ITMA MINOR						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	8985.20	Sqm	**11.80**	106064.8044
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	2336.60	Cum	**156.50**	365677.9
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	934.64	Cum	**17.22**	16092.1774
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	16038.00	Cum	**165.12**	2648129.77
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	4811.40	Cum	**174.89**	841465.75
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (25% of net filling)	4009.50	Cum	**217.92**	873750.24
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	7217.10	Cum	**319.14**	2303265.29
6	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.				
			3318.18	Cum	**196.10**	650695.10

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
7	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	18374.60	Cum	**61.88**	1137063.33
TOTAL COST OF EARTHWORK (in Rs.)						**8942204.36**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**89.422**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR MALI MINOR						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	5554.70	Sqm	**11.80**	65569.84474
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	1741.45	Cum	**156.50**	272536.925
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	696.58	Cum	**17.22**	11993.37599
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	12399.15	Cum	**165.12**	2047297.56
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	3719.75	Cum	**174.89**	650546.20
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (25% of net filling)	3099.79	Cum	**217.92**	675505.69
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	5579.62	Cum	**319.14**	1780679.13
6	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.				
			6502.81	Cum	**196.10**	1275200.06

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
7	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	14140.60	Cum	**61.88**	875053.48
TOTAL COST OF EARTHWORK (in Rs.)						**7654382.27**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**76.544**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR THUMBHI MINOR						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	12450.00	Sqm	**11.80**	146964.6546
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	3766.75	Cum	**156.50**	589496.375
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	1506.70	Cum	**17.22**	25941.62853
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	17088.90	Cum	**165.12**	2821650.14
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	5126.67	Cum	**174.89**	896603.32
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (25% of net filling)	4272.23	Cum	**217.92**	931003.27
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	7690.01	Cum	**319.14**	2454188.20
6	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.				
			1867.50	Cum	**196.10**	366216.75

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
7	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	20855.65	Cum	**61.88**	1290596.52
TOTAL COST OF EARTHWORK (in Rs.)						**9522660.85**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**95.227**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR SOTIDIH MINOR						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	4150.70	Sqm	**11.80**	48996.48128
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	1019.30	Cum	**156.50**	159520.45
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	407.72	Cum	**17.22**	7019.924859
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	8971.65	Cum	**165.12**	1481362.61
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	2691.50	Cum	**174.89**	470715.56
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (25% of net filling)	2242.91	Cum	**217.92**	488775.49
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	4037.24	Cum	**319.14**	1288445.57
6	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.				
			622.61	Cum	**196.10**	122092.84

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
7	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	9990.95	Cum	**61.88**	618263.41
TOTAL COST OF EARTHWORK (in Rs.)						**4685192.34**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**46.852**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND DETAILS OF QUANTITIES FOR EARTH WORK FOR MAHUARY SUB DISTRIBUTARY				
S.No.	**Items**	**No.**	**Quantity**	**Unit**
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***107593.20***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	48450.450	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	19380.18	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	79197.100	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	23759.13	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	19799.28	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	35638.70	Cum
6	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.	1	16138.98	Cum

S.No.	Items	No.	Quantity	Unit
7	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	79197.10	Cum

S.No.	Items	No.	Quantity	Unit
	DETAILS OF QUANTITIES FOR EARTH WORK FOR BARIAWA MR.			
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***21344.80***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation)** **Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	4894.650	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	1957.86	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	20842.800	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	6252.84	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	5210.70	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	9379.26	Cum
6	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.	1	4869.22	Cum

S.No.	Items	No.	Quantity	Unit
7	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	25737.45	Cum

S.No.	Items	No.	Quantity	Unit
	DETAILS OF QUANTITIES FOR EARTH WORK FOR ITMA MR.			
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***8985.20***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	2336.600	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	934.64	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	16038.000	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	4811.40	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	4009.50	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	7217.10	Cum
6	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.	1	3318.18	Cum

S.No.	Items	No.	Quantity	Unit
7	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	18374.60	Cum

S.No.	Items	No.	Quantity	Unit
	DETAILS OF QUANTITIES FOR EARTH WORK FOR MALI MR.			
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***5554.70***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	1741.450	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	696.58	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	12399.150	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	3719.75	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	3099.79	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	5579.62	Cum
6	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.	1	6502.81	Cum

S.No.	Items	No.	Quantity	Unit
7	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	14140.60	Cum

S.No.	Items	No.	Quantity	Unit
	DETAILS OF QUANTITIES FOR EARTH WORK FOR THUMBHI MINOR			
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***12450.00***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	3766.750	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	1506.7	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	17088.900	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	5126.67	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	4272.23	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	7690.01	Cum
6	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.	1	1867.50	Cum

S.No.	Items	No.	Quantity	Unit
7	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	20855.65	Cum

S.No.	Items	No.	Quantity	Unit
	DETAILS OF QUANTITIES FOR EARTH WORK FOR SOTHIDIH MINOR			
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***4150.70***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	1019.300	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	407.72	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	8971.650	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	2691.50	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	2242.91	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	4037.24	Cum
6	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.	1	622.61	Cum

S.No.	Items	No.	Quantity	Unit
7	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	9990.95	Cum

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF BARIAWA MINOR				
Calculation procedure of Gate's weight for estimation purpose				
1	**Weight of 1 Vertical lift gate including embedded parts**	**0.1332x(L^2XHxh)^0.659**		
	(L) is length = clear vent width in m + 0.50m.	2.285	0.500	**2.79**
	(H) is height of gate in m = clear vent height in m+ 0.20m.	1.350	0.200	**1.55**
	(h) is head of water above sill of gate in m	1.350	0.3	**1.650**
	Weight of lift gate including embedded parts	**0.95**		**T**
2	**Capacity of screw hoist in tone including 25%reserve capacity (Hoist**	**2.50 xWt of gate**		
		2.5	0.95	2.4
	Weight of screw hoist with all accessories	300 kg per tonne capacity of hoist		
		300	2.4	715.48
	Weight of screw hoist with all accessories	**0.72**		**T**
3	**Weight of hoist bridge:**			
(i)	Columns with bracings/Anchors/Stiffeners	400 kg per meter height		
		1.650	400	660
	Columns with bracings/Anchors/Stiffeners	**0.66**		**T**
(ii)	Beams with cross beams/stiffeners	400 kg per meter span		
		1.65	400	660
	Beams with cross beams/stiffeners	**0.66**		**T**
(iii)	Railing/ Chequered plate/Ladder etc	10% of wt. of columns/beams		
		1.32	10%	0.132
	Railing/ Chequered plate/Ladder etc	**0.132**		**T**
Total Weight of One Gate		**3.12**		**T**

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF ITMA MINOR				
Calculation procedure of Gate's weight for estimation purpose				
1	**Weight of 1 Vertical lift gate including embedded parts**	**0.1332x(L^2XHxh)^0.659**		
	(L) is length = clear vent width in m + 0.50m.	0.860	0.500	**1.36**
	(H) is height of gate in m = clear vent height in m+ 0.20m.	1.600	0.200	**1.80**
	(h) is head of water above sill of gate in m	1.600	0.3	**1.900**
	Weight of lift gate including embedded parts	**0.45**		**T**
2	**Capacity of screw hoist in tone including 25%reserve capacity (Hoist**	**2.50 xWt of gate**		
		2.5	0.45	1.1
	Weight of screw hoist with all accessories	300 kg per tonne capacity of hoist		
		300	1	336.89
	Weight of screw hoist with all accessories	**0.34**		**T**
3	**Weight of hoist bridge:**			
(i)	Columns with bracings/Anchors/Stiffeners	400 kg per meter height		
		1.900	400	760
	Columns with bracings/Anchors/Stiffeners	**0.76**		**T**
(ii)	Beams with cross beams/stiffeners	400 kg per meter span		
		1.9	400	760
	Beams with cross beams/stiffeners	**0.76**		**T**
(iii)	Railing/ Chequered plate/Ladder etc	10% of wt. of columns/beams		
		1.52	10%	0.152
	Railing/ Chequered plate/Ladder etc	**0.152**		**T**
Total Weight of One Gate		**2.46**		**T**

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF MALI MINOR				
Calculation procedure of Gate's weight for estimation purpose				
1	**Weight of 1 Vertical lift gate including embedded parts**	**0.1332x(L^2XHxh)^0.659**		
	(L) is length = clear vent width in m + 0.50m.	0.880	0.500	**1.38**
	(H) is height of gate in m = clear vent height in m+ 0.20m.	1.020	0.200	**1.22**
	(h) is head of water above sill of gate in m	1.020	0.3	**1.320**
	Weight of lift gate including embedded parts	**0.28**		**T**
2	**Capacity of screw hoist in tone including 25%reserve capacity (Hoist capacity shall be rounded off to next 1 tonne)**	**2.50 xWt of gate**		
		2.5	0.28	1.0
	Weight of screw hoist with all accessories	300 kg per tonne capacity of hoist		
		300	1	300.00
	Weight of screw hoist with all accessories	**0.30**		**T**
3	**Weight of hoist bridge:**			
(i)	Columns with bracings/Anchors/Stiffeners	400 kg per meter height		
		1.320	400	528
	Columns with bracings/Anchors/Stiffeners	**0.528**		**T**
(ii)	Beams with cross beams/stiffeners	400 kg per meter span		
		1.32	400	528
	Beams with cross beams/stiffeners	**0.528**		**T**
(iii)	Railing/ Chequered plate/Ladder etc	10% of wt. of columns/beams		
		1.056	10%	0.1056
	Railing/ Chequered plate/Ladder etc	**0.1056**		**T**
Total Weight of One Gate		**1.74**		**T**

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF THUMBHI MINOR				
Calculation procedure of Gate's weight for estimation purpose				
1	**Weight of 1 Vertical lift gate including embedded parts**	**0.1332x(L^2XHxh)^0.659**		
	(L) is length = clear vent width in m + 0.50m.	1.400	0.500	**1.90**
	(H) is height of gate in m = clear vent height in m+ 0.20m.	1.260	0.200	**1.46**
	(h) is head of water above sill of gate in m	1.260	0.3	**1.560**
	Weight of lift gate including embedded parts	**0.53**		**T**
2	**Capacity of screw hoist in tone including 25%reserve capacity (Hoist**	**2.50 xWt of gate**		
		2.5	0.53	1.3
	Weight of screw hoist with all accessories	300 kg per tonne capacity of hoist		
		300	1.3	400.44
	Weight of screw hoist with all accessories	**0.40**		**T**
3	**Weight of hoist bridge:**			
(i)	Columns with bracings/Anchors/Stiffeners	400 kg per meter height		
		1.560	400	624
	Columns with bracings/Anchors/Stiffeners	**0.624**		**T**
(ii)	Beams with cross beams/stiffeners	400 kg per meter span		
		1.56	400	624
	Beams with cross beams/stiffeners	**0.624**		**T**
(iii)	Railing/ Chequered plate/Ladder etc	10% of wt. of columns/beams		
		1.248	10%	0.1248
	Railing/ Chequered plate/Ladder etc	**0.1248**		**T**
Total Weight of One Gate		**2.31**		**T**

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND ANALYSIS OF RATE OF HEAD REGULATOR GATE			
1	Cost of material **(A)** (Structural Steel WRD M-181)	Rs.	55116.67
2	Wastage **5%** =	Rs.	2755.83
3	Cost of miscellaneous material like electrodes,oxygen, acetylene nut bolt, rope	Rs.	35825.84
	Total 1+2+3= ***(B)*** =	Rs.	93698.34
4	Labour charge 30%(B) =	Rs.	28109.50
5	Overhead charge + Contractor profit **@15% A**	Rs.	8267.50
6	Workshop and energy charge ,**12 % of (B)**	Rs.	11243.80
7	Transportation and erection charge ,**15 % of B**	Rs.	14054.75
	Total = B+4+5+6+7 = ***C***	Rs.	155373.89
8	Other incidental charge , **3 % = of C**	Rs.	4661.22
	Total C+8 = D	Rs.	**160035.11**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
ABSTRACT OF COST HR FOR BARIAWA MR OFFTAKING FROM RD-0+975 KM (LT.) AT MAHUARY SUB DISTRIBUTARY								
S. No.	**Item of Works**	**Qty.**	**Unit**	**Rate (As per WRD SOR 2025 & PL 2025)**	**Amount (Rs)**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	269.928	Cum	**156.50**	42243.71			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	31.51	Cum	**6381.70**	201111.11	10.21	14.18	28.36
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	163.85	Cum	**6914.20**	1132900.63	67.59	70.46	140.91
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	25.66	Cum	**8151.40**	209136.29	14.55	10.01	20.27
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	4.06	MT	**73574.90**	298697.57			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	3.12	MT	**160035.11**	499540.96			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	427.83	Sqm	**578.60**	247542.77			
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	14.40	Sqm	**680.10**	9793.44			
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry. (WRD M-002)	4.55	Cum	**694.61**	3160.13			
10	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	4.55	Cum	**1237.00**	5627.73			
11	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)	1.51	Cum	**1377.70**	2077.71			
12	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.51	Cum	**516.50**	778.93			
13	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	3.07	Sqm	**63.20**	194.20			
14	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	Cum	**5588.70**	11177.40			
15	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (3.18 PWD NH SOR CHHATISGARH 2025)	4.20	Sqm	**66.00**	277.20			
16	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications.	10.50	RM	**499.80**	5247.90			
17	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully	49.63	Sqm	**149.30**	7410.32			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
18	**Carriage of materials**							
	Coarse Sand (60 Km lead)	94.643	Cum	**1075.00**	101741.51			
	Coarse Aggregates (100 Km lead)	191.051	Cum	**1398.00**	267089.56			
	Cement (30 km lead)	92.346	MT	**742.00**	68520.98			
	Boulder (60 Km lead)	4.55	Cum	**1159.00**	5272.87			
	Steel (30 Km lead)	7.18	MT	**742.00**	5328.47			
	TOTAL (In Rs.)				**3124871.39**			
	TOTAL (In Rs.)				**3124871.39**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	94.64	Cum	**584.64**	55332.24	5533.22		
	Coarse Aggregate	191.05	Cum	**944.26**	180401.99	18040.20		
	Boulders	4.55	Cum	**694.61**	3160.13	316.01		
	Total					23889.44		
	For 1 nos. HR, Total Seigniorage charges					**23889.44**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST HR FOR ITMA MR OFFTAKING FROM RD-3+985 KM (LT.) AT MAHUARY SUB DISTRIBUTARY								
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	196.261	Cum	**156.50**	30714.78			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	22.01	Cum	**6381.70**	140485.51	7.13	9.91	19.81
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	112.36	Cum	**6914.20**	776911.14	46.35	48.32	96.63
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	17.41	Cum	**8151.40**	141888.35	9.87	6.79	13.75
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.69	MT	**73574.90**	197650.33			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	2.46	MT	**160035.11**	393379.97			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	332.71	Sqm	**578.60**	192506.18			
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	12.56	Sqm	**680.10**	8540.70			
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry. (WRD M-002)	0.81	Cum	**694.61**	562.63			
10	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.81	Cum	**1237.00**	1001.97			
11	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)	0.57	Cum	**1377.70**	781.98			
12	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.57	Cum	**516.50**	293.17			
13	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	4.46	Sqm	**63.20**	282.12			
14	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No	**5588.70**	11177.40			
15	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (3.18 PWD NH SOR CHHATISGARH 2025)	4.20	Sqm	**66.00**	277.20			
16	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications.	10.50	RM	**499.80**	5247.90			
17	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	37.46	Sqm	**149.30**	5593.04			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
18	**Carriage of materials**							
	Coarse Sand (60 Km lead)	65.012	Cum	**1075.00**	69887.43			
	Coarse Aggregates (100 Km lead)	130.765	Cum	**1398.00**	182809.18			
	Cement (30 km lead)	63.352	MT	**742.00**	47007.49			
	Boulder (60 Km lead)	0.81	Cum	**1159.00**	938.79			
	Steel (30 Km lead)	5.14	MT	**742.00**	3817.20			
	TOTAL (In Rs.)				**2211754.48**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	65.01	Cum	**584.64**	38008.36	3800.84		
	Coarse Aggregate	130.76	Cum	**944.26**	123475.96	12347.60		
	Boulders	0.81	Cum	**694.61**	562.63	56.26		
	Total					16204.70		
	For 1 nos. HR, Total Seigniorage charges					**16204.70**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF COST HR FOR MALI MR OFFTAKING FROM RD-4+520 KM (LT.) AT MAHUARY SUB DISTRIBUTARY							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	209.062	Cum	**156.50**	32718.21			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	22.29	Cum	**6381.70**	142271.00	7.22	10.03	20.06
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	131.79	Cum	**6914.20**	911222.82	54.36	56.67	113.34
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	17.75	Cum	**8151.40**	144659.84	10.06	6.92	14.02
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.17	MT	**73574.90**	233480.03			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1.74	MT	**160035.11**	278519.09			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	383.17	Sqm	**578.60**	221704.13			
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	12.56	Sqm	**680.10**	8540.70			
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry. (WRD M-002)	0.81	Cum	**694.61**	562.63			
10	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.81	Cum	**1237.00**	1001.97			
11	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)	0.58	Cum	**1377.70**	800.17			
12	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.58	Cum	**516.50**	299.98			
13	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	2.84	Sqm	**63.20**	179.74			
14	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	no	**5588.70**	11177.40			
15	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (3.18 PWD NH SOR CHHATISGARH 2025)	4.20	Sqm	**66.00**	277.20			
16	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications.	10.50	RM	**499.80**	5247.90			
17	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	43.73	Sqm	**149.30**	6528.71			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
18	**Carriage of materials**							
	Coarse Sand (60 Km lead)	73.623	Cum	**1075.00**	79144.75			
	Coarse Aggregates (100 Km lead)	148.004	Cum	**1398.00**	206910.03			
	Cement (30 km lead)	71.649	MT	**742.00**	53163.45			
	Boulder (60 Km lead)	0.81	Cum	**1159.00**	938.79			
	Steel (30 Km lead)	4.91	MT	**742.00**	3645.99			
	TOTAL (In Rs.)				**2342994.52**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	73.62	Cum	**584.64**	43042.96	4304.30		
	Coarse Aggregate	148.00	Cum	**944.26**	139754.55	13975.46		
	Boulders	0.81	Cum	**694.61**	562.63	56.26		
	Total					18336.02		
	For 1 nos. HR, Total Seigniorage charges					**18336.02**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF COST HR FOR THUMBHI MR OFFTAKING FROM RD-7+214 KM (LT.) AT MAHUARY SUB DISTRIBUTARY							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	144.112	Cum	**156.50**	22553.47			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	19.69	Cum	**6381.70**	125663.19	6.38	8.86	17.72
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	86.01	Cum	**6914.20**	594668.35	35.48	36.98	73.97
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	17.98	Cum	**8151.40**	146530.25	10.19	7.01	14.20
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.23	MT	**73574.90**	164268.73			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	2.31	MT	**160035.11**	369227.61			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	285.73	Sqm	**578.60**	165322.88			
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	11.59	Sqm	**680.10**	7879.64			
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry. (WRD M-002)	2.16	Cum	**694.61**	1500.36			
10	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	2.16	Cum	**1237.00**	2671.92			
11	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)	0.92	Cum	**1377.70**	1272.99			
12	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.92	Cum	**516.50**	477.25			
13	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	3.52	Sqm	**63.20**	222.17			
14	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	no	**5588.70**	11177.40			
15	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (3.18 PWD NH SOR CHHATISGARH 2025)	4.20	Sqm	**66.00**	277.20			
16	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications.	10.50	RM	**499.80**	5247.90			
17	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	28.30	Sqm	**149.30**	4224.88			
18	**Carriage of materials**							

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	Coarse Sand (60 Km lead)	52.855	Cum	**1075.00**	56818.73			
	Coarse Aggregates (100 Km lead)	106.813	Cum	**1398.00**	149324.62			
	Cement (30 km lead)	52.050	MT	**742.00**	38621.24			
	Boulder (60 Km lead)	2.16	Cum	**1159.00**	2503.44			
	Steel (30 Km lead)	4.54	MT	**742.00**	3368.56			
	TOTAL (In Rs.)				**1873822.79**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	52.85	Cum	**584.64**	30900.93	3090.09		
	Coarse Aggregate	106.81	Cum	**944.26**	100859.27	10085.93		
	Boulders	2.16	Cum	**694.61**	1500.36	150.04		
	Total					13326.06		
	For 1 nos. HR, Total Seigniorage charges					**13326.06**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILS OF QUANTITIES OF HR FOR BARIAWA MR OFFTAKING FROM RD-0+975 KM (LT.) AT MAHUARY SUB DISTRIBUTARY							
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section A-A	*2*	*5.26*	*1.36*	*2.350*	*33.609*	*Cum*
	Section B-B	*2*	*5.25*	*2.07*	*3.912*	*84.904*	*Cum*
	Section C-C	*2*	*3.67*	*1.59*	*2.290*	*26.771*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*2.83*	*1.36*	*2.350*	*9.054*	*Cum*
	Left Bank Sec a to d	1	3.66	2.94	2.200	*23.681*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.56*	*1.10*	*2.940*	*3.648*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.78*	*2.10*	*2.940*	*34.295*	*Cum*
	Floor						
	U/S key	*1*	*1.4625*	*3.5175*	*0.850*	*4.373*	*Cum*
	Floor	*1*	*3.325*	*3.5175*	*0.650*	*7.602*	*Cum*
		1	*0.172*	*2.285*	*0.150*	*0.059*	*Cum*
		1	*4.76*	*2.285*	*0.800*	*8.701*	*Cum*
		1	*0.104*	*2.285*	*0.000*	*0.238*	*Cum*
		1	*5.079*	*2.285*	*1.150*	*13.346*	*Cum*
		1	*0.9*	*2.285*	*0.200*	*0.411*	*Cum*
		1	*0.135*	*2.285*	*0.200*	*0.062*	*Cum*
		1	*2.984*	*2.285*	*0.700*	*4.773*	*Cum*
		1	*1.0375*	*2.285*	*1.900*	*4.504*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*1*	*2.200*	*2.285*	*0.600*	*3.016*	*Cum*
	Toe Wall Base D/S Portion	*1*	*2.285*	*0.850*	*1.200*	*2.331*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*3.000*	*0.900*	*1.685*	*4.550*	*Cum*
						269.93	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor						
		1	*0.629*	*4.020*	*0.150*	*0.38*	*Cum*
		1	*1.860*	*2.787*	*0.150*	*0.78*	*Cum*
		1	*0.934*	*2.285*	*0.150*	*0.32*	*Cum*
		1	*5.207*	*2.285*	*0.150*	*1.78*	*Cum*
		1	*5.306*	*2.285*	*0.150*	*1.82*	*Cum*
		1	*1.423*	*2.285*	*0.150*	*0.49*	*Cum*
		1	*0.829*	*2.285*	*0.150*	*0.28*	*Cum*
		1	*1.956*	*2.285*	*0.150*	*0.67*	*Cum*
		1	*0.692*	*2.285*	*0.150*	*0.24*	*Cum*
	PCC Below Abutment						
	Section A-A	*2*	*5.258*	*1.360*	*0.300*	*4.29*	*Cum*
	Section B-B	*2*	*5.250*	*2.067*	*0.300*	*6.51*	*Cum*
	Section C-C	*2*	*3.667*	*1.594*	*0.300*	*3.51*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*2.833*	*1.360*	*0.300*	*1.16*	*Cum*
	Left Bank Sec a to d	*1*	*3.660*	*2.941*	*0.150*	*1.61*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.564*	*1.100*	*0.300*	*0.37*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.780*	*2.098*	*0.300*	*3.50*	*Cum*
	Toe Wall Base D/S Portion	*1*	*2.285*	*0.850*	*0.300*	*0.58*	*Cum*
	Toe Wall Stem D/S Portion	*1*	*2.285*	*0.450*	*0.900*	*0.93*	*Cum*
	Toe Wall Base (For Brick Pitching)	*1*	*3.000*	*0.450*	*0.300*	*0.41*	*Cum*
	Toe Wall Stem (For Brick Pitching)	*1*	*3.000*	*0.300*	*0.900*	*0.81*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*10*	*0.600*	*0.600*	*0.300*	*1.08*	*Cum*
	TOTAL					**31.51**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Abutment						
	Section A-A	*2*	*5.26*	*0.45*	*0.50*	*2.37*	*Cum*
		2	*5.26*	*0.71*	*0.85*	*6.30*	*Cum*
		2	*5.26*	*0.96*	*0.70*	*7.07*	*Cum*
	Section B-B	*2*	*5.25*	*1.24*	*1.41*	*18.44*	*Cum*
		2	*5.25*	*1.67*	*2.20*	*38.51*	*Cum*
	Section C-C	*2*	*3.67*	*0.45*	*0.50*	*1.65*	*Cum*
		2	*3.67*	*0.82*	*1.24*	*7.48*	*Cum*
		2	*3.67*	*1.19*	*0.75*	*6.57*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*2.83*	*0.45*	*0.50*	*0.64*	*Cum*
		1	*2.83*	*0.71*	*0.85*	*1.70*	*Cum*
		1	*2.83*	*0.96*	*0.70*	*1.90*	*Cum*
	Left Bank						
	Section a-a	*1*		2.805	*0.50*	*1.40*	*Sqm*
		1		*2.66*	*0.20*	*0.53*	*Sqm*
		1		*1.49*	*1.35*	*2.01*	*Sqm*
						3.95	***Sqm***
	Section b-b	*1*		*2.81*	*0.50*	*1.40*	*Sqm*
		1		*2.24*	*0.20*	*0.45*	*Sqm*
		1		*1.36*	*1.35*	*1.84*	*Sqm*
						3.69	***Sqm***
	Section c-c	*1*		*2.81*	*0.50*	*1.40*	*Sqm*
		1		*1.67*	*0.20*	*0.33*	*Sqm*
		1		*1.08*	*1.35*	*1.45*	*Sqm*
						3.19	***Sqm***
	Section d-d	*1*		*2.81*	*0.50*	*1.40*	*Sqm*
		1		*0.48*	*0.20*	*0.10*	*Sqm*
		1		*0.48*	*1.35*	*0.65*	*Sqm*
						2.15	***Sqm***
	Bottom Key	*1*	*3.66*	*1.46*	*0.70*	*3.75*	*Cum*
	Top Stem Area	*1*	*3.66*	*3.24*		*11.87*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.56*	*0.70*	*0.90*	*0.71*	*Cum*
		2	*0.56*	*0.53*	*1.24*	*0.73*	*Cum*
		2	*0.56*	*0.35*	*0.50*	*0.20*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.78*	*1.70*	*0.90*	*8.50*	*Cum*
		2	*2.78*	*1.28*	*1.24*	*8.84*	*Cum*
		2	*2.78*	*0.70*	*0.50*	*1.94*	*Cum*
	TOTAL					**129.15**	**Cum**
	Floor						
	U/S key	*1*	*1.46*	*3.52*	*0.70*	*3.60*	*Cum*
	Floor	*1*	*3.33*	*3.52*	*0.50*	*5.85*	*Cum*
		1	*0.17*	*2.29*		*0.39*	*Cum*
		1	*4.76*	*2.29*	*0.65*	*7.07*	*Cum*
		1	*0.10*	*2.29*		*0.24*	*Cum*
		1	*5.08*	*2.29*	*0.70*	*8.12*	*Cum*
		1	*0.90*	*2.29*	*0.20*	*0.41*	*Cum*
		1	*0.14*	*2.29*		*0.31*	*Cum*
		1	*0.79*	*2.29*	*0.45*	*0.81*	*Cum*
		1	*2.98*	*2.29*	*0.55*	*3.75*	*Cum*
	D/S key	*1*	*1.04*	*2.29*	*1.75*	*4.15*	*Cum*
	TOTAL					**163.85**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Floor	*1*	*3.78*	*3.52*	*0.20*	*2.66*	*Cum*
		1	*4.76*	*2.29*	*0.20*	*2.18*	*Cum*
		1	*5.08*	*2.29*	*0.20*	*2.32*	*Cum*
		1	*0.95*	*2.29*	*0.20*	*0.43*	*Cum*
		1	*2.98*	*2.29*	*0.20*	*1.36*	*Cum*
	Top Slab	*1*	*5.25*	*2.00*	*0.39*	*4.10*	*Cum*
	75mm Th. Wearing coat on top slab	*1*	*4.25*	*2.00*	*0.08*	*0.64*	*Cum*
	Dirt wall	*2*	*8.92*	0.82	*0.50*	*7.31*	*Cum*
		2	*8.92*	*0.40*	*0.43*	*3.03*	*Cum*
	Parapet	*2*	*2.84*	*0.45*	*0.18*	*0.44*	*Cum*
		2	*2.84*	*0.35*	*0.25*	*0.50*	*Cum*
		2	*2.84*	*0.22*	*0.55*	*0.68*	*Cum*
	TOTAL					**25.66**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	**Length**	**Nos.**		**Weight per m**	**Quantity**	**Unit**
	Slab Per Span						
a1	*16*	*3.545*	*29*		*1.578*	*162.241*	*Kg*
a2	*10*	*5.650*	*16*		*0.616*	*55.728*	*Kg*
a3	*10*	*5.150*	*2*		*0.616*	*6.350*	*Kg*
a4	*10*	*3.465*	*18*		*0.616*	*38.449*	*Kg*
a5	*10*	*5.550*	*11*		*0.616*	*37.635*	*Kg*
	Dirt Wall						
d1	*12*	*4.460*	*26*		*0.888*	*102.938*	*Kg*
d2	*12*	*5.550*	*14*		*0.888*	*68.975*	*Kg*
	Crash Barrier						
x1	*12*	*2.501*	*50*		*0.888*	*111.007*	*Kg*
x2	*16*	*1.265*	*50*		*1.578*	*99.817*	*Kg*
x3	*10*	*2.985*	*24*		*0.616*	*44.163*	*Kg*
	Floor R/F						
	U/S Key						
	12	*7.386*	*9*		*0.888*	*59.009*	*Kg*
	12	*2.984*	*29*		*0.888*	*76.818*	*Kg*
	floor raft						
	12	*6.797*	*9*		*0.888*	*54.303*	*Kg*
	12	*15.326*	*18*		*0.888*	*244.889*	*Kg*
	12	*2.984*	*137*		*0.888*	*362.900*	*Kg*
	0.25 % Skin Reinforcement for Transition walls	*129.15*	*0.25%*	*0.32*	*7850*	*2534.55*	*Kg*
	TOTAL Weight of steel (in kg)					4059.78	Kg
	TOTAL Weight of Steel (in Tonne)					**4.06**	**MT**
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1		3.12		**3.12**	**MT**
	*Separate sheet attached						
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section A-A	*4*	*5.26*		*0.50*	*10.52*	*Sqm*
		4		*0.45*	*0.50*	*0.90*	*Sqm*
		4	*5.26*		*0.85*	*17.88*	*Sqm*
		4		*0.71*	*0.85*	*2.40*	*Sqm*
		4	*5.26*		*0.70*	*14.72*	*Sqm*
		4		*0.96*	*0.70*	*2.69*	*Sqm*
	Section B-B	*4*	*5.25*		*1.41*	*29.65*	*Sqm*
		4		*1.24*	*1.41*	*7.02*	*Sqm*
		4	*5.25*		*2.20*	*46.20*	*Sqm*
		4		*1.67*	*2.20*	*14.67*	*Sqm*
	Section C-C	*4*	*3.67*		*1.24*	*18.19*	*Sqm*
		4		*0.82*	*1.24*	*4.08*	*Sqm*
		4	*3.67*		*0.75*	*11.00*	*Sqm*
		4		*1.19*	*0.75*	*3.58*	*Sqm*
	U/S Transition wall						
	Right Bank (Section D-D)	*2*	*2.83*		*0.50*	*2.83*	*Sqm*
		2		*0.45*	*0.50*	*0.45*	*Sqm*
		2	*2.83*		*0.85*	*4.82*	*Sqm*
		2		*0.71*	*0.85*	*1.20*	*Sqm*
		2	*2.83*		*0.70*	*3.97*	*Sqm*
		2		*0.96*	*0.70*	*1.34*	*Sqm*
	Left Bank						
	Bottom Key	*2*	*3.66*		*0.70*	*5.12*	*Sqm*
		2		*1.46*	*0.70*	*2.05*	*Sqm*
	Section a-a	*2*	*1.22*		*0.50*	*1.22*	*Sqm*
		2		*2.81*	*0.50*	*2.81*	*Sqm*
		2	*1.22*		*0.20*	*0.49*	*Sqm*
		2		*2.66*	*0.20*	*1.06*	*Sqm*
		2	*1.22*		*1.35*	*3.29*	*Sqm*
		2		*1.49*	*1.35*	*4.03*	*Sqm*
	Section b-b	*2*	*1.22*		*0.50*	*1.22*	*Sqm*
		2		*2.81*	*0.50*	*2.81*	*Sqm*
		2	*1.22*		*0.20*	*0.49*	*Sqm*
		2		*2.24*	*0.20*	*0.90*	*Sqm*
		2	*1.22*		*1.35*	*3.29*	*Sqm*
		2		*1.36*	*1.35*	*3.67*	*Sqm*
	Section c-c	*2*	*1.22*		*0.50*	*1.22*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		2.81	0.50	2.81	Sqm
		2	1.22		0.20	0.49	Sqm
		2		1.67	0.20	0.67	Sqm
		2	1.22		1.35	3.29	Sqm
		2		1.08	1.35	2.91	Sqm
	Section d-d	2	1.22		0.50	1.22	Sqm
		2		2.81	0.50	2.81	Sqm
		2	1.22		0.20	0.49	Sqm
		2		0.48	0.20	0.19	Sqm
		2	1.22		1.35	3.29	Sqm
		2		0.48	1.35	1.30	Sqm
	D/S Transition wall						
	Sec 4-4	4	0.56		0.90	2.03	Sqm
		4		0.70	0.90	2.52	Sqm
		4	0.56		1.24	2.80	Sqm
		4		0.53	1.24	2.60	Sqm
		4	0.56		0.50	1.13	Sqm
		4		0.35	0.50	0.70	Sqm
	Avg. of Sec 1-1 & 3-3	4	2.78		0.90	10.01	Sqm
		4		1.70	0.90	6.11	Sqm
		4	2.78		1.24	13.79	Sqm
		4		1.28	1.24	6.36	Sqm
		4	2.78		0.50	5.56	Sqm
		4		0.70	0.50	1.40	Sqm
	Floor						
	U/S key	2	1.46		0.70	2.05	Sqm
		2		3.52	0.70	4.92	Sqm
	Floor	2	3.33		0.50	3.33	Sqm
		2		3.52	0.50	3.52	Sqm
		2	0.17		0.00	0.00	Sqm
		2		2.29	0.00	0.00	Sqm
		2	4.76		0.65	6.19	Sqm
		2		2.29	0.65	2.97	Sqm
		2	0.10			0.21	Sqm
		2		2.29		4.57	Sqm
		2	5.08		0.70	7.11	Sqm
		2		2.29	0.70	3.20	Sqm
		2	0.90		0.20	0.36	Sqm
		2		2.29	0.20	0.91	Sqm
		2	0.14			0.27	Sqm
		2		2.29		4.57	Sqm
		2	2.98		0.55	3.28	Sqm
		2		2.29	0.55	2.51	Sqm
	D/S key	2	1.04		1.75	3.63	Sqm
		2		2.29	1.75	8.00	Sqm
	Toe Wall Base D/S Portion	2	2.29		0.30	1.37	Sqm
		2		0.85	0.30	0.51	Sqm
	Toe Wall Stem D/S Portion	2	2.29		0.90	4.11	Sqm
		2		0.45	0.90	0.81	Sqm
	Top Slab	2	5.25		0.39	4.10	Sqm
		2		2.00	0.39	1.56	Sqm
	Dirt wall	4	8.92		0.50	17.83	Sqm
		4		0.82	0.50	1.64	Sqm
		4	8.92		0.43	15.16	Sqm
		4		0.40	0.43	0.68	Sqm
	Parapet	4	2.84		0.18	1.99	Sqm
		4		0.45	0.18	0.31	Sqm
		4	2.84		0.25	2.84	Sqm
		4		0.35	0.25	0.35	Sqm
		4	2.84		0.55	6.25	Sqm
		4		0.22	0.55	0.48	Sqm
	TOTAL					**427.83**	**Sqm**
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	2	3.00	2.40		14.40	Sqm
	TOTAL					**14.40**	**Sqm**
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.**(WRD M-002)**						
	Boulder Apron in D/S Portion	1	3.00	0.90	1.69	4.55	***Cum***
	TOTAL					**4.55**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)						
	In D/S Portion below C.C. Blocks	*1*	*2.20*	*2.29*	*0.15*	*0.75*	*Cum*
	In D/S Portion below Stone Chips	*1*	*2.20*	*2.29*	*0.15*	*0.75*	*Cum*
	TOTAL					**1.51**	**Cum**
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	U/S transition	*2*	*1.65*	*0.48*		*1.59*	*Sqm*
	On Abutment Top	*2*	*5.06*	*0.45*		*1.49*	*Sqm*
	TOTAL					**3.07**	**Sqm**
12	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2	1			**2.00**	**No.**
13	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications**. (3.18 PWD NH SOR CHHATISGARH 2025)**	2	5.25	0.40		**4.20**	**Sqm**
14	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications. **(RCD 15.22 - (ii))**	2	5.25			**10.50**	**RM**
15	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compa.cted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Abutment						
	Section A-A	*2*	*5.26*	*0.89*		*9.351*	*Cum*
	Section B-B	*2*	*5.25*	*1.76*		*18.501*	*Cum*
	Section C-C	*2*	*3.67*	*1.33*		*9.754*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	1	*2.83*	*0.88*		*2.498*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.56*	*0.92*		*1.034*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.78*	*1.53*		*8.496*	*Cum*
	TOTAL					**49.63**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF HR FOR ITMA MR OFFTAKING FROM RD-3+985 KM (LT.) AT MAHUARY SUB DISTRIBUTARY						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section A-A	*2*	*2.90*	*2.13*	*3.520*	*43.384*	*Cum*
	Section B-B	*2*	*5.25*	*1.72*	*2.041*	*36.818*	*Cum*
	Section C-C	*2*	*0.50*	*1.54*	*2.041*	*3.139*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*3.73*	*1.76*	*3.520*	*23.055*	*Cum*
	Left Bank Sec a to d	1	4.25	3.57	2.859	*43.390*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.50*	*1.10*	*2.241*	*2.455*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.66*	*1.93*	*2.241*	*22.997*	*Cum*
	Floor						
	U/S key	*1*	*1.8*	*2.668*	*0.850*	*4.082*	*Cum*
	Floor	*1*	*4.334*	*2.668*	*0.650*	*7.516*	*Cum*
		1	*0.418*	*0.86*	*0.450*	*0.162*	*Cum*
		1	*0.718*	*0.86*	*0.350*	*0.216*	*Cum*
		1	*0.416*	*0.86*	*0.550*	*0.358*	*Cum*
		1	*3.829*	*0.86*	*1.200*	*3.952*	*Cum*
		1	*0.9*	*0.86*	*0.200*	*0.155*	*Cum*
		1	*0.135*	*0.86*	*0.200*	*0.023*	*Cum*
		1	*2.367*	*0.86*	*0.650*	*1.323*	*Cum*
		1	*0.7275*	*0.86*	*0.661*	*0.414*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*1*	*2.200*	*0.860*	*0.600*	*1.135*	*Cum*
	Toe Wall Base D/S Portion	*1*	*0.860*	*0.850*	*1.200*	*0.877*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*3.000*	*0.900*	*0.300*	*0.810*	*Cum*
						196.26	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor						
		1	*0.629*	*4.476*	*0.150*	*0.42*	*Cum*
		1	*2.500*	*2.668*	*0.150*	*1.00*	*Cum*
		1	*1.246*	*0.860*	*0.150*	*0.16*	*Cum*
		1	*0.813*	*0.860*	*0.150*	*0.10*	*Cum*
		1	*4.129*	*0.860*	*0.150*	*0.53*	*Cum*
		1	*1.069*	*0.860*	*0.150*	*0.14*	*Cum*
		1	*1.279*	*0.860*	*0.150*	*0.16*	*Cum*
		1	*0.579*	*0.860*	*0.150*	*0.07*	*Cum*
		1	*0.692*	*0.860*	*0.150*	*0.09*	*Cum*
	PCC Below Abutment						
	Section A-A	*2*	*2.900*	*2.125*	*0.300*	*3.70*	*Cum*
	Section B-B	*2*	*5.250*	*1.718*	*0.300*	*5.41*	*Cum*
	Section C-C	*2*	*0.500*	*1.538*	*0.300*	*0.46*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*3.732*	*1.755*	*0.300*	*1.96*	*Cum*
	Left Bank Sec a to d	*1*	*4.250*	*3.571*	*0.150*	*2.28*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.498*	*1.100*	*0.300*	*0.33*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.662*	*1.928*	*0.300*	*3.08*	*Cum*
	Toe Wall Base D/S Portion	*1*	*0.860*	*0.850*	*0.300*	*0.22*	*Cum*
	Toe Wall Stem D/S Portion	*1*	*0.860*	*0.450*	*0.900*	*0.35*	*Cum*
	Toe Wall Base (For Brick Pitching)	*1*	*3.000*	*0.450*	*0.300*	*0.41*	*Cum*
	Toe Wall Stem (For Brick Pitching)	*1*	*3.000*	*0.300*	*0.900*	*0.81*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*3*	*0.600*	*0.600*	*0.300*	*0.32*	*Cum*
	TOTAL					**22.01**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section A-A	*2*	*2.90*	*0.45*	*0.50*	*1.31*	*Cum*
		2	*2.90*	*1.09*	*1.51*	*9.52*	*Cum*
		2	*2.90*	*1.73*	*1.21*	*12.12*	*Cum*
	Section B-B	*2*	*5.25*	*1.07*	*0.83*	*9.32*	*Cum*
		2	*5.25*	*1.32*	*0.91*	*12.61*	*Cum*
	Section C-C	*2*	*0.50*	*0.98*	*0.53*	*0.52*	*Cum*
		2	*0.50*	*1.14*	*1.21*	*1.38*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*3.73*	*0.45*	*0.50*	*0.84*	*Cum*
		1	*3.73*	*0.90*	*1.51*	*5.08*	*Cum*
		1	*3.73*	*1.36*	*1.21*	*6.12*	*Cum*
	Left Bank						
	Section a-a	*1*		3.5	*0.50*	*1.75*	*Sqm*
		1		*3.19*	*0.61*	*1.94*	*Sqm*
		1		*1.68*	*1.60*	*2.69*	*Sqm*
						6.38	***Sqm***
	Section b-b	*1*		*3.50*	*0.50*	*1.75*	*Sqm*
		1		*2.88*	*0.20*	*0.58*	*Sqm*
		1		*1.68*	*2.01*	*3.38*	*Sqm*
						5.70	***Sqm***
	Section c-c	*1*		*3.50*	*0.50*	*1.75*	*Sqm*
		1		*1.95*	*0.20*	*0.39*	*Sqm*
		1		*1.21*	*2.01*	*2.44*	*Sqm*
						4.58	***Sqm***
	Section d-d	*1*		*3.50*	*0.50*	*1.75*	*Sqm*
		1		*0.48*	*0.20*	*0.10*	*Sqm*
		1		*0.48*	*2.01*	*0.96*	*Sqm*
						2.81	***Sqm***
	Bottom Key	*1*	*4.25*	*1.80*	*0.70*	*5.36*	*Cum*
	Top Stem Area	*1*	*4.25*	*4.87*		*20.68*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.50*	*0.70*	*0.91*	*0.64*	*Cum*
		2	*0.50*	*0.53*	*0.53*	*0.28*	*Cum*
		2	*0.50*	*0.35*	*0.50*	*0.17*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.66*	*1.53*	*0.91*	*7.41*	*Cum*
		2	*2.66*	*1.17*	*0.53*	*3.29*	*Cum*
		2	*2.66*	*0.69*	*0.50*	*1.84*	*Cum*
	TOTAL					**98.46**	**Cum**
	Floor						
	U/S key	*1*	*1.80*	*2.67*	*0.70*	*3.36*	*Cum*
	Floor	*1*	*4.33*	*2.67*	*0.50*	*5.78*	*Cum*
		1	*0.42*	*0.86*	*0.30*	*0.11*	*Cum*
		1	*0.72*	*0.86*	*0.20*	*0.12*	*Cum*
		1	*0.42*	*0.86*	*0.55*	*0.20*	*Cum*
		1	*3.83*	*0.86*	*0.75*	*2.47*	*Cum*
		1	*0.90*	*0.86*	*0.20*	*0.15*	*Cum*
		1	*0.14*	*0.86*		*0.12*	*Cum*
		1	*0.53*	*0.86*	*0.55*	*0.25*	*Cum*
		1	*2.37*	*0.86*	*0.50*	*1.02*	*Cum*
	D/S key	*1*	*0.73*	*0.86*	*0.51*	*0.32*	*Cum*
	TOTAL					**112.36**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Floor	*1*	*4.45*	*2.67*	*0.20*	*2.38*	*Cum*
		1	*0.60*	*2.67*	*0.41*	*0.65*	*Cum*
		1	*0.67*	*0.86*	*0.20*	*0.12*	*Cum*
		1	*3.83*	*0.86*	*0.20*	*0.66*	*Cum*
		1	*0.95*	*0.86*	*0.20*	*0.16*	*Cum*
		1	*2.37*	*0.86*	*0.20*	*0.41*	*Cum*
	Top Slab	*1*	*5.25*	*2.00*	*0.39*	*4.10*	*Cum*
	75mm Th. Wearing coat on top slab	*1*	*4.25*	*2.00*	*0.08*	*0.64*	*Cum*
	Dirt wall	*2*	*5.75*	0.82	*0.50*	*4.72*	*Cum*
		2	*5.75*	*0.40*	*0.43*	*1.96*	*Cum*
	Parapet	*2*	*2.84*	*0.45*	*0.18*	*0.44*	*Cum*
		2	*2.84*	*0.35*	*0.25*	*0.50*	*Cum*
		2	*2.84*	*0.22*	*0.55*	*0.68*	*Cum*
	TOTAL					**17.41**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	**Length**	**Nos.**		**Weight per m**	**Quantity**	**Unit**
	Slab Per Span						
a1	*16*	*2.120*	*29*		*1.578*	*97.024*	*Kg*
a2	*10*	*5.650*	*9*		*0.616*	*31.347*	*Kg*
a3	*10*	*5.150*	*2*		*0.616*	*6.350*	*Kg*
a4	*10*	*1.980*	*18*		*0.616*	*21.971*	*Kg*
a5	*10*	*5.450*	*6*		*0.616*	*20.158*	*Kg*
	Dirt Wall						
d1	*12*	*4.460*	*26*		*0.888*	*102.938*	*Kg*
d2	*12*	*5.550*	*14*		*0.888*	*68.975*	*Kg*
	Crash Barrier						
x1	*12*	*2.321*	*28*		*0.888*	*57.690*	*Kg*
x2	*16*	*1.274*	*28*		*1.578*	*56.295*	*Kg*
x3	*10*	*1.560*	*24*		*0.616*	*23.080*	*Kg*
	Floor R/F						
	U/S Key						
	12	*8.700*	*4*		*0.888*	*30.892*	*Kg*
	12	*1.600*	*33*		*0.888*	*46.871*	*Kg*
	floor raft						
	12	*3.394*	*4*		*0.888*	*12.051*	*Kg*
	12	*9.319*	*8*		*0.888*	*66.180*	*Kg*
	12	*1.600*	*79*		*0.888*	*112.206*	*Kg*
	0.25 % Skin Reinforcement for Transition walls	*98.46*	*0.25%*	*0.25*	*7850*	*1932.35*	*Kg*
	TOTAL Weight of steel (in kg)					2686.38	Kg
	TOTAL Weight of Steel (in Tonne)					**2.69**	**MT**
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1		2.46		**2.46**	**MT**
	*Separate sheet attached						
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section A-A	*4*	*2.90*		*0.50*	*5.80*	*Sqm*
		4		*0.45*	*0.50*	*0.90*	*Sqm*
		4	*2.90*		*1.51*	*17.50*	*Sqm*
		4		*1.09*	*1.51*	*6.56*	*Sqm*
		4	*2.90*		*1.21*	*14.05*	*Sqm*
		4		*1.73*	*1.21*	*8.36*	*Sqm*
	Section B-B	*4*	*5.25*		*0.83*	*17.43*	*Sqm*
		4		*1.07*	*0.83*	*3.55*	*Sqm*
		4	*5.25*		*0.91*	*19.13*	*Sqm*
		4		*1.32*	*0.91*	*4.80*	*Sqm*
	Section C-C	*4*	*0.50*		*0.53*	*1.06*	*Sqm*
		4		*0.98*	*0.53*	*2.08*	*Sqm*
		4	*0.50*		*1.21*	*2.42*	*Sqm*
		4		*1.14*	*1.21*	*5.51*	*Sqm*
	U/S Transition wall						
	Right Bank (Section D-D)	*2*	*3.73*		*0.50*	*3.73*	*Sqm*
		2		*0.45*	*0.50*	*0.45*	*Sqm*
		2	*3.73*		*1.51*	*11.26*	*Sqm*
		2		*0.90*	*1.51*	*2.72*	*Sqm*
		2	*3.73*		*1.21*	*9.04*	*Sqm*
		2		*1.36*	*1.21*	*3.28*	*Sqm*
	Left Bank						
	Bottom Key	*2*	*4.25*		*0.70*	*5.95*	*Sqm*
		2		*1.80*	*0.70*	*2.52*	*Sqm*
	Section a-a	*2*	*1.42*		*0.50*	*1.42*	*Sqm*
		2		*3.50*	*0.50*	*3.50*	*Sqm*
		2	*1.42*		*0.61*	*1.73*	*Sqm*
		2		*3.19*	*0.61*	*3.88*	*Sqm*
		2	*1.42*		*1.60*	*4.53*	*Sqm*
		2		*1.68*	*1.60*	*5.37*	*Sqm*
	Section b-b	*2*	*1.42*		*0.50*	*1.42*	*Sqm*
		2		*3.50*	*0.50*	*3.50*	*Sqm*
		2	*1.42*		*0.20*	*0.57*	*Sqm*
		2		*2.88*	*0.20*	*1.15*	*Sqm*
		2	*1.42*		*2.01*	*5.69*	*Sqm*
		2		*1.68*	*2.01*	*6.75*	*Sqm*
	Section c-c	*2*	*1.42*		*0.50*	*1.42*	*Sqm*
		2		*3.50*	*0.50*	*3.50*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	*1.42*		*0.20*	*0.57*	*Sqm*
		2		*1.95*	*0.20*	*0.78*	*Sqm*
		2	*1.42*		*2.01*	*5.69*	*Sqm*
		2		*1.21*	*2.01*	*4.87*	*Sqm*
	Section d-d	*2*	*1.42*		*0.50*	*1.42*	*Sqm*
		2		*3.50*	*0.50*	*3.50*	*Sqm*
		2	*1.42*		*0.20*	*0.57*	*Sqm*
		2		*0.48*	*0.20*	*0.19*	*Sqm*
		2	*1.42*		*2.01*	*5.69*	*Sqm*
		2		*0.48*	*2.01*	*1.93*	*Sqm*
	D/S Transition wall						
	Sec 4-4	*4*	*0.50*		*0.91*	*1.81*	*Sqm*
		4		*0.70*	*0.91*	*2.55*	*Sqm*
		4	*0.50*		*0.53*	*1.06*	*Sqm*
		4		*0.53*	*0.53*	*1.11*	*Sqm*
		4	*0.50*		*0.50*	*1.00*	*Sqm*
		4		*0.35*	*0.50*	*0.70*	*Sqm*
	Avg. of Sec 1-1 & 3-3	*4*	*2.66*		*0.91*	*9.70*	*Sqm*
		4		*1.53*	*0.91*	*5.57*	*Sqm*
		4	*2.66*		*0.53*	*5.64*	*Sqm*
		4		*1.17*	*0.53*	*2.47*	*Sqm*
		4	*2.66*		*0.50*	*5.32*	*Sqm*
		4		*0.69*	*0.50*	*1.38*	*Sqm*
	Floor						
	U/S key	*2*	*1.80*		*0.70*	*2.52*	*Sqm*
		2		*2.67*	*0.70*	*3.74*	*Sqm*
	Floor	*2*	*4.33*		*0.50*	*4.33*	*Sqm*
		2		*2.67*	*0.50*	*2.67*	*Sqm*
		2	*0.42*		*0.30*	*0.25*	*Sqm*
		2		*0.86*	*0.30*	*0.52*	*Sqm*
		2	*0.72*		*0.20*	*0.29*	*Sqm*
		2		*0.86*	*0.20*	*0.34*	*Sqm*
		2	*0.42*			*0.83*	*Sqm*
		2		*0.86*		*1.72*	*Sqm*
		2	*3.83*		*0.75*	*5.74*	*Sqm*
		2		*0.86*	*0.75*	*1.29*	*Sqm*
		2	*0.90*		*0.20*	*0.36*	*Sqm*
		2		*0.86*	*0.20*	*0.34*	*Sqm*
		2	*0.14*			*0.27*	*Sqm*
		2		*0.86*		*1.72*	*Sqm*
		2	*2.37*		*0.50*	*2.37*	*Sqm*
		2		*0.86*	*0.50*	*0.86*	*Sqm*
	D/S key	*2*	*0.73*		*0.51*	*0.74*	*Sqm*
		2		*0.86*	*0.51*	*0.88*	*Sqm*
	Toe Wall Base D/S Portion	*2*	*0.86*		*0.30*	*0.52*	*Sqm*
		2		*0.85*	*0.30*	*0.51*	*Sqm*
	Toe Wall Stem D/S Portion	*2*	*0.86*		*0.90*	*1.55*	*Sqm*
		2		*0.45*	*0.90*	*0.81*	*Sqm*
	Top Slab	*2*	*5.25*		*0.39*	*4.10*	*Sqm*
		2		*2.00*	*0.39*	*1.56*	*Sqm*
	Dirt wall	*4*	*5.75*		*0.50*	*11.50*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*5.75*		*0.43*	*9.78*	*Sqm*
		4		*0.40*	*0.43*	*0.68*	*Sqm*
	Parapet	*4*	*2.84*		*0.18*	*1.99*	*Sqm*
		4		*0.45*	*0.18*	*0.31*	*Sqm*
		4	*2.84*		*0.25*	*2.84*	*Sqm*
		4		*0.35*	*0.25*	*0.35*	*Sqm*
		4	*2.84*		*0.55*	*6.25*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**332.71**	**Sqm**
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.00*	*2.09*		*12.56*	*Sqm*
	TOTAL					**12.56**	**Sqm**
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.**(WRD M-002)**						
	Boulder Apron in D/S Portion	*1*	*3.00*	*0.90*	*0.30*	*0.81*	***Cum***
	TOTAL					**0.81**	**Cum**
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	In D/S Portion below C.C. Blocks	*1*	*2.20*	*0.86*	*0.15*	*0.28*	*Cum*
	In D/S Portion below Stone Chips	*1*	*2.20*	*0.86*	*0.15*	*0.28*	*Cum*
	TOTAL					**0.57**	**Cum**
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	U/S transition	*2*	*2.40*	*0.48*		*2.30*	*Sqm*
	On Abutment Top	*2*	*6.31*	*0.45*		*2.16*	*Sqm*
	TOTAL					**4.46**	**Sqm**
12	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2	1			**2.00**	**No.**
13	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications**. (3.18 PWD NH SOR CHHATISGARH 2025)**	2	5.25	0.40		**4.20**	**Sqm**
14	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications. **(RCD 15.22 - (ii))**	2	5.25			**10.50**	**RM**
15	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compa.cted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Abutment						
	Section A-A	2	*2.90*	*1.85*		*10.740*	*Cum*
	Section B-B	2	*5.25*	*1.20*		*12.621*	*Cum*
	Section C-C	2	*0.50*	*0.99*		*0.985*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	1	*3.73*	*1.77*		*6.610*	*Cum*
	D/S Transition wall						
	Sec 4-4	2	*0.50*	*0.65*		*0.647*	*Cum*
	Avg. of Sec 1-1 & 3-3	2	*2.66*	*1.10*		*5.859*	*Cum*
	TOTAL					**37.46**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF HR FOR MALI MR OFFTAKING FROM RD-4+520 KM (LT.) AT MAHUARY SUB DISTRIBUTARY						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section A-A	*2*	*7.07*	*1.53*	*4.344*	*94.102*	*Cum*
	Section B-B	*2*	*5.25*	*1.71*	*2.320*	*41.704*	*Cum*
	Section C-C	*2*	*0.50*	*1.71*	*2.320*	*3.972*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*2.16*	*1.16*	*4.344*	*10.918*	*Cum*
	Left Bank Sec a to d	1	2.88	2.49	1.870	*13.446*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.50*	*1.10*	*2.231*	*2.444*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.66*	*1.92*	*2.231*	*22.734*	*Cum*
	Floor						
	U/S key	*1*	*1.215*	*1.8465*	*0.850*	*1.907*	*Cum*
	Floor	*1*	*3.164*	*1.8465*	*0.650*	*3.798*	*Cum*
		1	*0.059*	*0.88*	*0.150*	*0.008*	*Cum*
		1	*3.96*	*0.88*	*0.720*	*2.509*	*Cum*
		1	*0.1133*	*0.88*	*0.000*	*0.100*	*Cum*
		1	*4.82*	*0.88*	*1.200*	*5.090*	*Cum*
		1	*0.9*	*0.88*	*0.200*	*0.158*	*Cum*
		1	*0.454*	*0.88*	*0.200*	*0.080*	*Cum*
		1	*2.486*	*0.88*	*0.650*	*1.422*	*Cum*
		1	*1.05*	*0.88*	*1.950*	*1.802*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*1*	*2.200*	*0.880*	*0.600*	*1.162*	*Cum*
	Toe Wall Base D/S Portion	*1*	*0.880*	*0.850*	*1.200*	*0.898*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*3.000*	*0.900*	*0.300*	*0.810*	*Cum*
						209.06	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor						
		1	*0.629*	*2.169*	*0.150*	*0.20*	*Cum*
		1	*1.414*	*1.202*	*0.150*	*0.25*	*Cum*
		1	*1.272*	*0.880*	*0.150*	*0.17*	*Cum*
		1	*4.340*	*0.880*	*0.150*	*0.57*	*Cum*
		1	*4.812*	*0.880*	*0.150*	*0.64*	*Cum*
		1	*1.739*	*0.880*	*0.150*	*0.23*	*Cum*
		1	*0.155*	*0.880*	*0.150*	*0.02*	*Cum*
		1	*2.012*	*0.880*	*0.150*	*0.27*	*Cum*
		1	*0.692*	*0.880*	*0.150*	*0.09*	*Cum*
	PCC Below Abutment						
	Section A-A	*2*	*7.070*	*1.532*	*0.300*	*6.50*	*Cum*
	Section B-B	*2*	*5.250*	*1.712*	*0.300*	*5.39*	*Cum*
	Section C-C	*2*	*0.500*	*1.712*	*0.300*	*0.51*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*2.163*	*1.162*	*0.300*	*0.75*	*Cum*
	Left Bank Sec a to d	*1*	*2.883*	*2.494*	*0.150*	*1.08*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.498*	*1.100*	*0.300*	*0.33*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.655*	*1.919*	*0.300*	*3.06*	*Cum*
	Toe Wall Base D/S Portion	*1*	*0.880*	*0.850*	*0.300*	*0.22*	*Cum*
	Toe Wall Stem D/S Portion	*1*	*0.880*	*0.450*	*0.900*	*0.36*	*Cum*
	Toe Wall Base (For Brick Pitching)	*1*	*3.000*	*0.450*	*0.300*	*0.41*	*Cum*
	Toe Wall Stem (For Brick Pitching)	*1*	*3.000*	*0.300*	*0.900*	*0.81*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*4*	*0.600*	*0.600*	*0.300*	*0.43*	*Cum*
	TOTAL					**22.29**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section A-A	*2*	*7.07*	*0.82*	*0.50*	*5.80*	*Cum*
		2	*7.07*	*0.98*	*0.52*	*7.18*	*Cum*
		2	*7.07*	*1.13*	*3.02*	*48.40*	*Cum*
	Section B-B	*2*	*5.25*	*1.07*	*0.82*	*9.18*	*Cum*
		2	*5.25*	*1.31*	*1.20*	*16.53*	*Cum*
	Section C-C	*2*	*0.50*	*0.98*	*0.52*	*0.51*	*Cum*
		2	*0.50*	*1.13*	*1.50*	*1.70*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*2.16*	*0.45*	*0.50*	*0.49*	*Cum*
		1	*2.16*	*0.61*	*0.52*	*0.68*	*Cum*
		1	*2.16*	*0.76*	*3.02*	*4.98*	*Cum*
	Left Bank						
	Section a-a	*1*		2.309	*0.50*	*1.15*	*Sqm*
		1		*2.16*	*0.20*	*0.43*	*Sqm*
		1		*1.24*	*1.02*	*1.27*	*Sqm*
						2.86	***Sqm***
	Section b-b	*1*		*2.31*	*0.50*	*1.15*	*Sqm*
		1		*1.92*	*0.20*	*0.38*	*Sqm*
		1		*1.20*	*1.02*	*1.22*	*Sqm*
						2.76	***Sqm***
	Section c-c	*1*		*2.31*	*0.50*	*1.15*	*Sqm*
		1		*1.61*	*0.20*	*0.32*	*Sqm*
		1		*1.05*	*1.02*	*1.07*	*Sqm*
						2.54	***Sqm***
	Section d-d	*1*		*2.31*	*0.50*	*1.15*	*Sqm*
		1		*0.48*	*0.20*	*0.10*	*Sqm*
		1		*0.48*	*1.02*	*0.49*	*Sqm*
						1.74	***Sqm***
	Bottom Key	*1*	*2.88*	*1.21*	*0.70*	*2.45*	*Cum*
	Top Stem Area	*1*	*2.88*	*2.48*		*7.14*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.50*	*0.70*	*0.91*	*0.64*	*Cum*
		2	*0.50*	*0.53*	*0.52*	*0.27*	*Cum*
		2	*0.50*	*0.35*	*0.50*	*0.17*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.66*	*1.52*	*0.91*	*7.35*	*Cum*
		2	*2.66*	*1.18*	*0.52*	*3.25*	*Cum*
		2	*2.66*	*0.69*	*0.50*	*1.83*	*Cum*
	TOTAL					**118.55**	**Cum**
	Floor						
	U/S key	*1*	*1.22*	*1.85*	*0.70*	*1.57*	*Cum*
	Floor	*1*	*3.16*	*1.85*	*0.50*	*2.92*	*Cum*
		1	*0.06*	*0.88*		*0.05*	*Cum*
		1	*3.96*	*0.88*	*0.57*	*1.99*	*Cum*
		1	*0.11*	*0.88*		*0.10*	*Cum*
		1	*4.82*	*0.88*	*0.75*	*3.18*	*Cum*
		1	*0.90*	*0.88*	*0.20*	*0.16*	*Cum*
		1	*0.45*	*0.88*		*0.40*	*Cum*
		1	*0.14*	*0.88*		*0.12*	*Cum*
		1	*2.49*	*0.88*	*0.50*	*1.09*	*Cum*
	D/S key	*1*	*1.05*	*0.88*	*1.80*	*1.66*	*Cum*
	TOTAL					**131.79**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Floor	*1*	*3.28*	*1.85*	*0.20*	*1.21*	*Cum*
		1	*3.96*	*1.85*	*0.41*	*2.99*	*Cum*
		1	*4.82*	*0.88*	*0.20*	*0.85*	*Cum*
		1	*0.95*	*0.88*	*0.20*	*0.17*	*Cum*
		1	*2.49*	*0.88*	*0.20*	*0.44*	*Cum*
	Top Slab	*1*	*5.25*	*1.68*	*0.39*	*3.44*	*Cum*
	75mm Th. Wearing coat on top slab	*1*	*4.25*	*1.68*	*0.08*	*0.54*	*Cum*
	Dirt wall	*2*	*5.75*	0.82	*0.50*	*4.72*	*Cum*
		2	*5.75*	*0.40*	*0.43*	*1.96*	*Cum*
	Parapet	*2*	*2.52*	*0.45*	*0.18*	*0.39*	*Cum*
		2	*2.52*	*0.35*	*0.25*	*0.44*	*Cum*
		2	*2.52*	*0.22*	*0.55*	*0.61*	*Cum*
	TOTAL					**17.75**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	**Length**	**Nos.**		**Weight per m**	**Quantity**	**Unit**
	Slab Per Span						
a1	*16*	*2.140*	*29*		*1.578*	*97.939*	*Kg*
a2	*10*	*5.650*	*9*		*0.616*	*31.347*	*Kg*
a3	*10*	*5.150*	*2*		*0.616*	*6.350*	*Kg*
a4	*10*	*2.000*	*18*		*0.616*	*22.193*	*Kg*
a5	*10*	*5.450*	*6*		*0.616*	*20.158*	*Kg*
	Dirt Wall						
d1	*12*	*4.460*	*26*		*0.888*	*102.938*	*Kg*
d2	*12*	*5.550*	*14*		*0.888*	*68.975*	*Kg*
	Crash Barrier						
x1	*12*	*2.321*	*28*		*0.888*	*57.690*	*Kg*
x2	*16*	*1.274*	*28*		*1.578*	*56.295*	*Kg*
x3	*10*	*1.580*	*24*		*0.616*	*23.376*	*Kg*
	Floor R/F						
	U/S Key						
	12	*6.445*	*4*		*0.888*	*22.885*	*Kg*
	12	*1.620*	*25*		*0.888*	*35.952*	*Kg*
	floor raft						
	12	*6.797*	*4*		*0.888*	*24.135*	*Kg*
	12	*13.849*	*8*		*0.888*	*98.350*	*Kg*
	12	*1.620*	*124*		*0.888*	*178.322*	*Kg*
	0.25 % Skin Reinforcement for Transition walls	*118.55*	*0.25%*	*0.30*	*7850*	*2326.46*	*Kg*
	TOTAL Weight of steel (in kg)					3173.37	Kg
	TOTAL Weight of Steel (in Tonne)					**3.17**	**MT**
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1		1.74		**1.74**	**MT**
	*Separate sheet attached						
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section A-A	*4*	*7.07*		*0.50*	*14.14*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*7.07*		*0.52*	*14.71*	*Sqm*
		4		*0.98*	*0.52*	*2.03*	*Sqm*
		4	*7.07*		*3.02*	*85.52*	*Sqm*
		4		*1.13*	*3.02*	*13.69*	*Sqm*
	Section B-B	*4*	*5.25*		*0.82*	*17.22*	*Sqm*
		4		*1.07*	*0.82*	*3.50*	*Sqm*
		4	*5.25*		*1.20*	*25.20*	*Sqm*
		4		*1.31*	*1.20*	*6.30*	*Sqm*
	Section C-C	*4*	*0.50*		*0.52*	*1.04*	*Sqm*
		4		*0.98*	*0.52*	*2.03*	*Sqm*
		4	*0.50*		*1.50*	*3.00*	*Sqm*
		4		*1.13*	*1.50*	*6.79*	*Sqm*
	U/S Transition wall						
	Right Bank (Section D-D)	*2*	*2.16*		*0.50*	*2.16*	*Sqm*
		2		*0.45*	*0.50*	*0.45*	*Sqm*
		2	*2.16*		*0.52*	*2.25*	*Sqm*
		2		*0.61*	*0.52*	*0.63*	*Sqm*
		2	*2.16*		*3.02*	*13.08*	*Sqm*
		2		*0.76*	*3.02*	*4.61*	*Sqm*
	Left Bank						
	Bottom Key	*2*	*2.88*		*0.70*	*4.04*	*Sqm*
		2		*1.21*	*0.70*	*1.70*	*Sqm*
	Section a-a	*2*	*0.96*		*0.50*	*0.96*	*Sqm*
		2		*2.31*	*0.50*	*2.31*	*Sqm*
		2	*0.96*		*0.20*	*0.38*	*Sqm*
		2		*2.16*	*0.20*	*0.86*	*Sqm*
		2	*0.96*		*1.02*	*1.96*	*Sqm*
		2		*1.24*	*1.02*	*2.54*	*Sqm*
	Section b-b	*2*	*0.96*		*0.50*	*0.96*	*Sqm*
		2		*2.31*	*0.50*	*2.31*	*Sqm*
		2	*0.96*		*0.20*	*0.38*	*Sqm*
		2		*1.92*	*0.20*	*0.77*	*Sqm*
		2	*0.96*		*1.02*	*1.96*	*Sqm*
		2		*1.20*	*1.02*	*2.45*	*Sqm*
	Section c-c	*2*	*0.96*		*0.50*	*0.96*	*Sqm*
		2		*2.31*	*0.50*	*2.31*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	0.96		0.20	0.38	Sqm
		2		1.61	0.20	0.64	Sqm
		2	0.96		1.02	1.96	Sqm
		2		1.05	1.02	2.13	Sqm
	Section d-d	2	0.96		0.50	0.96	Sqm
		2		2.31	0.50	2.31	Sqm
		2	0.96		0.20	0.38	Sqm
		2		0.48	0.20	0.19	Sqm
		2	0.96		1.02	1.96	Sqm
		2		0.48	1.02	0.98	Sqm
	D/S Transition wall						
	Sec 4-4	4	0.50		0.91	1.81	Sqm
		4		0.70	0.91	2.55	Sqm
		4	0.50		0.52	1.04	Sqm
		4		0.53	0.52	1.09	Sqm
		4	0.50		0.50	1.00	Sqm
		4		0.35	0.50	0.70	Sqm
	Avg. of Sec 1-1 & 3-3	4	2.66		0.91	9.67	Sqm
		4		1.52	0.91	5.54	Sqm
		4	2.66		0.52	5.52	Sqm
		4		1.18	0.52	2.45	Sqm
		4	2.66		0.50	5.31	Sqm
		4		0.69	0.50	1.38	Sqm
	Floor						
	U/S key	2	1.22		0.70	1.70	Sqm
		2		1.85	0.70	2.59	Sqm
	Floor	2	3.16		0.50	3.16	Sqm
		2		1.85	0.50	1.85	Sqm
		2	0.06			0.12	Sqm
		2		0.88		1.76	Sqm
		2	3.96		0.57	4.51	Sqm
		2		0.88	0.57	1.00	Sqm
		2	0.11			0.23	Sqm
		2		0.88		1.76	Sqm
		2	4.82		0.75	7.23	Sqm
		2		0.88	0.75	1.32	Sqm
		2	0.90		0.20	0.36	Sqm
		2		0.88	0.20	0.35	Sqm
		2	0.45			0.91	Sqm
		2		0.88		1.76	Sqm
		2	0.14			0.27	Sqm
		2		0.88		1.76	Sqm
		2	2.49		0.50	2.49	Sqm
		2		0.88	0.50	0.88	Sqm
	D/S key	2	1.05		1.80	3.78	Sqm
		2		0.88	1.80	3.17	Sqm
	Toe Wall Base D/S Portion	2	0.88		0.30	0.53	Sqm
		2		0.85	0.30	0.51	Sqm
	Toe Wall Stem D/S Portion	2	0.88		0.90	1.58	Sqm
		2		0.45	0.90	0.81	Sqm
	Top Slab	2	5.25		0.39	4.10	Sqm
		2		1.68	0.39	1.31	Sqm
	Dirt wall	4	5.75		0.50	11.50	Sqm
		4		0.82	0.50	1.64	Sqm
		4	5.75		0.43	9.78	Sqm
		4		0.40	0.43	0.68	Sqm
	Parapet	4	2.52		0.18	1.76	Sqm
		4		0.45	0.18	0.31	Sqm
		4	2.52		0.25	2.52	Sqm
		4		0.35	0.25	0.35	Sqm
		4	2.52		0.55	5.54	Sqm
		4		0.22	0.55	0.48	Sqm
	TOTAL					**383.17**	**Sqm**
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	2	3.00	2.09		12.56	Sqm
	TOTAL					**12.56**	**Sqm**
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.**(WRD M-002)**						
	Boulder Apron in D/S Portion	1	3.00	0.90	0.30	0.81	***Cum***
	TOTAL					**0.81**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)						
	In D/S Portion below C.C. Blocks	*1*	*2.20*	*0.88*	*0.15*	*0.29*	*Cum*
	In D/S Portion below Stone Chips	*1*	*2.20*	*0.88*	*0.15*	*0.29*	*Cum*
	TOTAL					**0.58**	**Cum**
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	U/S transition	*2*	*1.53*	*0.48*		*1.47*	*Sqm*
	On Abutment Top	*2*	*10.47*	*0.45*		*1.38*	*Sqm*
	TOTAL					**2.84**	**Sqm**
12	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2	1			**2.00**	**No.**
13	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications**. (3.18 PWD NH SOR CHHATISGARH 2025)**	2	5.25	0.40		**4.20**	**Sqm**
14	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications. **(RCD 15.22 - (ii))**	2	5.25			**10.50**	**RM**
15	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compa.cted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Abutment						
	Section A-A	2	*7.07*	*1.48*		*20.913*	*Cum*
	Section B-B	2	*5.25*	*1.25*		*13.094*	*Cum*
	Section C-C	2	*0.50*	*1.09*		*1.090*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	1	*2.16*	*1.05*		*2.260*	*Cum*
	D/S Transition wall						
	Sec 4-4	2	*0.50*	*0.65*		*0.642*	*Cum*
	Avg. of Sec 1-1 & 3-3	2	*2.66*	*1.08*		*5.729*	*Cum*
	TOTAL					**43.73**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF HR FOR THUMBHI MR OFFTAKING FROM RD-7+214 KM (LT.) AT MAHUARY SUB DISTRIBUTARY						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section A-A	*2*	*1.76*	*1.68*	*2.760*	*16.283*	*Cum*
	Section B-B	*2*	*5.25*	*1.74*	*2.110*	*38.461*	*Cum*
	Section C-C	*2*	*0.50*	*1.59*	*2.110*	*3.346*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*2.93*	*1.31*	*2.760*	*10.576*	*Cum*
	Left Bank Sec a to d	1	3.45	2.81	2.110	*20.451*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.50*	*1.10*	*2.610*	*2.871*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.72*	*2.00*	*2.610*	*28.291*	*Cum*
	Floor						
	U/S key	*1*	*1.395*	*2.668*	*0.850*	*3.164*	*Cum*
	Floor	*1*	*3.524*	*2.668*	*0.650*	*6.111*	*Cum*
		1	*0.418*	*1.400*	*0.450*	*0.263*	*Cum*
		1	*0.718*	*1.400*	*0.350*	*0.352*	*Cum*
		1	*0.418*	*1.400*	*0.550*	*0.585*	*Cum*
		1	*3.079*	*1.400*	*1.200*	*5.173*	*Cum*
		1	*0.9*	*1.400*	*0.200*	*0.252*	*Cum*
		1	*0.135*	*1.400*	*0.200*	*0.038*	*Cum*
		1	*1.977*	*1.400*	*0.650*	*1.799*	*Cum*
		1	*0.725*	*1.400*	*0.650*	*0.660*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*1*	*2.200*	*1.400*	*0.600*	*1.848*	*Cum*
	Toe Wall Base D/S Portion	*1*	*1.400*	*0.850*	*1.200*	*1.428*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*3.000*	*0.900*	*0.800*	*2.160*	*Cum*
						144.11	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor						
		1	*0.624*	*3.488*	*0.150*	*0.33*	*Cum*
		1	*1.737*	*3.341*	*0.150*	*0.87*	*Cum*
		1	*1.272*	*1.400*	*0.150*	*0.27*	*Cum*
		1	*0.778*	*1.400*	*0.150*	*0.16*	*Cum*
		1	*3.276*	*1.400*	*0.150*	*0.69*	*Cum*
		1	*1.739*	*1.400*	*0.150*	*0.37*	*Cum*
		1	*0.293*	*1.400*	*0.150*	*0.06*	*Cum*
		1	*0.559*	*1.400*	*0.150*	*0.12*	*Cum*
		1	*0.692*	*1.400*	*0.150*	*0.15*	*Cum*
	PCC Below Abutment						
	Section A-A	*2*	*1.760*	*1.676*	*0.300*	*1.77*	*Cum*
	Section B-B	*2*	*5.250*	*1.736*	*0.300*	*5.47*	*Cum*
	Section C-C	*2*	*0.500*	*1.586*	*0.300*	*0.48*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*2.934*	*1.306*	*0.300*	*1.15*	*Cum*
	Left Bank Sec a to d	*1*	*3.448*	*2.811*	*0.150*	*1.45*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.500*	*1.100*	*0.300*	*0.33*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.716*	*1.996*	*0.300*	*3.25*	*Cum*
	Toe Wall Base D/S Portion	*1*	*1.400*	*0.850*	*0.300*	*0.36*	*Cum*
	Toe Wall Stem D/S Portion	*1*	*1.400*	*0.450*	*0.900*	*0.57*	*Cum*
	Toe Wall Base (For Brick Pitching)	*1*	*3.000*	*0.450*	*0.300*	*0.41*	*Cum*
	Toe Wall Stem (For Brick Pitching)	*1*	*3.000*	*0.300*	*0.900*	*0.81*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*6*	*0.600*	*0.600*	*0.300*	*0.65*	*Cum*
	TOTAL					**19.69**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section A-A	*2*	*1.76*	*0.82*	*0.50*	*1.44*	*Cum*
		2	*1.76*	*1.04*	*0.76*	*2.78*	*Cum*
		2	*1.76*	*1.26*	*1.20*	*5.32*	*Cum*
	Section B-B	*2*	*5.25*	*1.09*	*0.91*	*10.44*	*Cum*
		2	*5.25*	*1.37*	*0.90*	*12.91*	*Cum*
	Section C-C	*2*	*0.50*	*1.00*	*0.61*	*0.61*	*Cum*
		2	*0.50*	*1.19*	*1.20*	*1.42*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*2.93*	*0.45*	*0.50*	*0.66*	*Cum*
		1	*2.93*	*0.68*	*0.76*	*1.51*	*Cum*
		1	*2.93*	*0.91*	*1.20*	*3.19*	*Cum*
	Left Bank						
	Section a-a	*1*		*2.67*	*0.50*	*1.34*	*Sqm*
		1		*2.52*	*0.20*	*0.50*	*Sqm*
		1		*1.43*	*1.26*	*1.80*	*Sqm*
						3.63	***Sqm***
	Section b-b	*1*		*2.67*	*0.50*	*1.34*	*Sqm*
		1		*2.24*	*0.20*	*0.45*	*Sqm*
		1		*1.36*	*1.26*	*1.71*	*Sqm*
						3.49	***Sqm***
	Section c-c	*1*		*2.67*	*0.50*	*1.34*	*Sqm*
		1		*1.76*	*0.20*	*0.35*	*Sqm*
		1		*1.12*	*1.26*	*1.41*	*Sqm*
						3.10	***Sqm***
	Section d-d	*1*		*2.67*	*0.50*	*1.34*	*Sqm*
		1		*0.48*	*0.20*	*0.10*	*Sqm*
		1		*0.48*	*1.26*	*0.60*	*Sqm*
						2.04	***Sqm***
	Bottom Key	*1*	*3.45*	*1.40*	*0.70*	*3.37*	*Cum*
	Top Stem Area	*1*	*3.45*	*3.07*		*10.57*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.50*	*0.70*	*1.20*	*0.84*	*Cum*
		2	*0.50*	*0.53*	*0.61*	*0.32*	*Cum*
		2	*0.50*	*0.35*	*0.50*	*0.18*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.72*	*1.60*	*1.20*	*10.40*	*Cum*
		2	*2.72*	*1.20*	*0.61*	*3.98*	*Cum*
		2	*2.72*	*0.68*	*0.50*	*1.85*	*Cum*
	TOTAL					**71.80**	**Cum**
	Floor						
	U/S key	*1*	*1.40*	*2.67*	*0.70*	*2.61*	*Cum*
	Floor	*1*	*3.52*	*2.67*	*0.50*	*4.70*	*Cum*
		1	*0.42*	*1.40*	*0.30*	*0.18*	*Cum*
		1	*0.72*	*1.40*	*0.20*	*0.20*	*Cum*
		1	*0.42*	*1.40*	*0.55*	*0.32*	*Cum*
		1	*3.08*	*1.40*	*0.75*	*3.23*	*Cum*
		1	*0.90*	*1.40*	*0.20*	*0.25*	*Cum*
		1	*0.14*	*1.40*		*0.19*	*Cum*
		1	*0.45*	*1.40*		*0.64*	*Cum*
		1	*1.98*	*1.40*	*0.50*	*1.38*	*Cum*
	D/S key	*1*	*0.73*	*1.40*	*0.50*	*0.51*	*Cum*
	TOTAL					**86.01**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Floor	*1*	*3.64*	*2.67*	*0.20*	*1.94*	*Cum*
		1	*0.67*	*2.67*	*0.41*	*0.73*	*Cum*
		1	*3.08*	*1.40*	*0.20*	*0.86*	*Cum*
		1	*0.95*	*1.40*	*0.20*	*0.27*	*Cum*
		1	*1.98*	*1.40*	*0.20*	*0.55*	*Cum*
	Top Slab	*1*	*5.25*	*2.20*	*0.39*	*4.51*	*Cum*
	75mm Th. Wearing coat on top slab	*1*	*4.25*	*2.20*	*0.08*	*0.70*	*Cum*
	Dirt wall	*2*	*5.75*	*0.82*	*0.50*	*4.72*	*Cum*
		2	*5.75*	*0.40*	*0.43*	*1.96*	*Cum*
	Parapet	*2*	*3.04*	*0.45*	*0.18*	*0.47*	*Cum*
		2	*3.04*	*0.35*	*0.25*	*0.53*	*Cum*
		2	*3.04*	*0.22*	*0.55*	*0.73*	*Cum*
	TOTAL					**17.98**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	**Length**	**Nos.**		**Weight per m**	**Quantity**	**Unit**
	Slab Per Span						
a1	*16*	*2.660*	*29*		*1.578*	*121.738*	*Kg*
a2	*10*	*5.650*	*11*		*0.616*	*38.313*	*Kg*
a3	*10*	*5.150*	*2*		*0.616*	*6.350*	*Kg*
a4	*10*	*2.520*	*18*		*0.616*	*27.963*	*Kg*
a5	*10*	*5.450*	*8*		*0.616*	*26.878*	*Kg*
	Dirt Wall						
d1	*12*	*4.460*	*26*		*0.888*	*102.938*	*Kg*
d2	*12*	*5.550*	*14*		*0.888*	*68.975*	*Kg*
	Crash Barrier						
x1	*12*	*2.321*	*36*		*0.888*	*74.173*	*Kg*
x2	*16*	*1.274*	*36*		*1.578*	*72.380*	*Kg*
x3	*10*	*2.100*	*24*		*0.616*	*31.070*	*Kg*
	Floor R/F						
	U/S Key						
	12	*7.127*	*6*		*0.888*	*37.960*	*Kg*
	12	*1.300*	*27*		*0.888*	*31.158*	*Kg*
	floor raft						
	12	*3.394*	*6*		*0.888*	*18.077*	*Kg*
	12	*8.179*	*12*		*0.888*	*87.126*	*Kg*
	12	*1.300*	*68*		*0.888*	*78.473*	*Kg*
	0.25 % Skin Reinforcement for Transition walls	*71.80*	*0.25%*	*0.18*	*7850*	*1409.10*	*Kg*
	TOTAL Weight of steel (in kg)					2232.67	Kg
	TOTAL Weight of Steel (in Tonne)					**2.23**	**MT**
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1		2.31		**2.31**	**MT**
	*Separate sheet attached						
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section A-A	*4*	*1.76*		*0.50*	*3.52*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*1.76*		*0.76*	*5.35*	*Sqm*
		4		*1.04*	*0.76*	*3.16*	*Sqm*
		4	*1.76*		*1.20*	*8.45*	*Sqm*
		4		*1.26*	*1.20*	*6.05*	*Sqm*
	Section B-B	*4*	*5.25*		*0.91*	*19.11*	*Sqm*
		4		*1.09*	*0.91*	*3.98*	*Sqm*
		4	*5.25*		*0.90*	*18.90*	*Sqm*
		4		*1.37*	*0.90*	*4.92*	*Sqm*
	Section C-C	*4*	*0.50*		*0.61*	*1.22*	*Sqm*
		4		*1.00*	*0.61*	*2.45*	*Sqm*
		4	*0.50*		*1.20*	*2.40*	*Sqm*
		4		*1.19*	*1.20*	*5.69*	*Sqm*
	U/S Transition wall						
	Right Bank (Section D-D)	*2*	*2.93*		*0.50*	*2.93*	*Sqm*
		2		*0.45*	*0.50*	*0.45*	*Sqm*
		2	*2.93*		*0.76*	*4.46*	*Sqm*
		2		*0.68*	*0.76*	*1.03*	*Sqm*
		2	*2.93*		*1.20*	*7.04*	*Sqm*
		2		*0.91*	*1.20*	*2.17*	*Sqm*
	Left Bank						
	Bottom Key	*2*	*3.45*		*0.70*	*4.83*	*Sqm*
		2		*1.40*	*0.70*	*1.95*	*Sqm*
	Section a-a	*2*	*1.15*		*0.50*	*1.15*	*Sqm*
		2		*2.67*	*0.50*	*2.67*	*Sqm*
		2	*1.15*		*0.20*	*0.46*	*Sqm*
		2		*2.52*	*0.20*	*1.01*	*Sqm*
		2	*1.15*		*1.26*	*2.90*	*Sqm*
		2		*1.43*	*1.26*	*3.59*	*Sqm*
	Section b-b	*2*	*1.15*		*0.50*	*1.15*	*Sqm*
		2		*2.67*	*0.50*	*2.67*	*Sqm*
		2	*1.15*		*0.20*	*0.46*	*Sqm*
		2		*2.24*	*0.20*	*0.90*	*Sqm*
		2	*1.15*		*1.26*	*2.90*	*Sqm*
		2		*1.36*	*1.26*	*3.42*	*Sqm*
	Section c-c	*2*	*1.15*		*0.50*	*1.15*	*Sqm*
		2		*2.67*	*0.50*	*2.67*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	1.15		0.20	0.46	Sqm
		2		1.76	0.20	0.70	Sqm
		2	1.15		1.26	2.90	Sqm
		2		1.12	1.26	2.82	Sqm
	Section d-d	2	1.15		0.50	1.15	Sqm
		2		2.67	0.50	2.67	Sqm
		2	1.15		0.20	0.46	Sqm
		2		0.48	0.20	0.19	Sqm
		2	1.15		1.26	2.90	Sqm
		2		0.48	1.26	1.21	Sqm
	D/S Transition wall						
	Sec 4-4	4	0.50		1.20	2.40	Sqm
		4		0.70	1.20	3.36	Sqm
		4	0.50		0.61	1.22	Sqm
		4		0.53	0.61	1.28	Sqm
		4	0.50		0.50	1.00	Sqm
		4		0.35	0.50	0.70	Sqm
	Avg. of Sec 1-1 & 3-3	4	2.72		1.20	13.04	Sqm
		4		1.60	1.20	7.66	Sqm
		4	2.72		0.61	6.63	Sqm
		4		1.20	0.61	2.93	Sqm
		4	2.72		0.50	5.43	Sqm
		4		0.68	0.50	1.36	Sqm
	Floor						
	U/S key	2	1.40		0.70	1.95	Sqm
		2		2.67	0.70	3.74	Sqm
	Floor	2	3.52		0.50	3.52	Sqm
		2		2.67	0.50	2.67	Sqm
		2	0.42		0.30	0.25	Sqm
		2		1.40	0.30	0.84	Sqm
		2	0.72		0.20	0.29	Sqm
		2		1.40	0.20	0.56	Sqm
		2	0.42			0.84	Sqm
		2		1.40		2.80	Sqm
		2	3.08		0.75	4.62	Sqm
		2		1.40	0.75	2.10	Sqm
		2	0.90		0.20	0.36	Sqm
		2		1.40	0.20	0.56	Sqm
		2	0.14			0.27	Sqm
		2		1.40		2.80	Sqm
		2	0.45			0.91	Sqm
		2		1.40		2.80	Sqm
		2	1.98		0.50	1.98	Sqm
		2		1.40	0.50	1.40	Sqm
	D/S key	2	0.73		0.50	0.73	Sqm
		2		1.40	0.50	1.40	Sqm
	Toe Wall Base D/S Portion	2	1.40		0.30	0.84	Sqm
		2		0.85	0.30	0.51	Sqm
	Toe Wall Stem D/S Portion	2	1.40		0.90	2.52	Sqm
		2		0.45	0.90	0.81	Sqm
	Top Slab	2	5.25		0.39	4.10	Sqm
		2		2.20	0.39	1.72	Sqm
	Dirt wall	4	5.75		0.50	11.50	Sqm
		4		0.82	0.50	1.64	Sqm
		4	5.75		0.43	9.78	Sqm
		4		0.40	0.43	0.68	Sqm
	Parapet	4	3.04		0.18	2.13	Sqm
		4		0.45	0.18	0.31	Sqm
		4	3.04		0.25	3.04	Sqm
		4		0.35	0.25	0.35	Sqm
		4	3.04		0.55	6.69	Sqm
		4		0.22	0.55	0.48	Sqm
	TOTAL					**285.73**	**Sqm**
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	2	3.00	1.93		11.59	Sqm
	TOTAL					**11.59**	**Sqm**
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.**(WRD M-002)**						
	Boulder Apron in D/S Portion	1	3.00	0.90	0.80	2.16	***Cum***
	TOTAL					**2.16**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)						
	In D/S Portion below C.C. Blocks	*1*	*2.20*	*1.40*	*0.15*	*0.46*	*Cum*
	In D/S Portion below Stone Chips	*1*	*2.20*	*1.40*	*0.15*	*0.46*	*Cum*
	TOTAL					**0.92**	**Cum**
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	U/S transition	*2*	*1.89*	*0.48*		*1.81*	*Sqm*
	On Abutment Top	*2*	*5.23*	*0.45*		*1.70*	*Sqm*
	TOTAL					**3.52**	**Sqm**
12	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2	1			**2.00**	**No.**
13	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications**. (3.18 PWD NH SOR CHHATISGARH 2025)**	2	5.25	0.40		**4.20**	**Sqm**
14	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications. **(RCD 15.22 - (ii))**	2	5.25			**10.50**	**RM**
15	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compa.cted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Abutment						
	Section A-A	2	*1.76*	*0.96*		*3.391*	*Cum*
	Section B-B	2	*5.25*	*1.30*		*13.650*	*Cum*
	Section C-C	2	*0.50*	*1.07*		*1.068*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	1	*2.93*	*0.89*		*2.621*	*Cum*
	D/S Transition wall						
	Sec 4-4	2	*0.50*	*0.74*		*0.744*	*Cum*
	Avg. of Sec 1-1 & 3-3	2	*2.72*	*1.26*		*6.825*	*Cum*
	TOTAL					**28.30**	**Cum**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR MAHUARY SUB DY								
S. No.	**Item of Works**	**Qty.**	**Unit**	**Rate (As per WRD SOR 2025 & PL 2025)**	**Amount (Rs)**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**
SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 0.075 KM								
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	144.100	Cum	**195.20**	28128.34			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	27.48	Cum	**6381.70**	175361.30	8.90	12.37	24.73
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	136.47	Cum	**6914.20**	943612.02	56.30	58.68	117.37
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.58	Cum	**8151.40**	12875.14	0.90	0.62	1.25
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.21	MT	**73574.90**	236467.86			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	351.14	Sqm	**578.60**	203171.34			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	44.91	Sqm	**680.10**	30544.65			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	5.28	Cum	**694.61**	3667.54			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	5.28	Cum	**1237.00**	6531.36			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	5.28	Cum	**1377.70**	7274.26			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	5.28	Cum	**516.50**	2727.12			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	18.09	Sqm	**63.20**	1143.29			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	25.75	Cum	**149.30**	3844.07			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	71.665	Cum	**1075.00**	77040.40			
	Coarse Aggregates (100 Km lead)	143.347	Cum	**1398.00**	200398.79			
	Cement (30 km lead)	66.094	MT	**742.00**	49042.07			
	Boulder (60 Km lead)	5.28	Cum	**1159.00**	6119.52			
	Brick (15 km lead)	2694.00	No.	**3.18**	8566.92			
	Steel (30 Km lead)	3.21	MT	**742.00**	2384.77			
	TOTAL (In Rs.)				**2010078.15**			
	TOTAL (In Rs.)				**2010078.15**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	71.67	Cum	**584.64**	41898.51	4189.85		
	Coarse Aggregate	143.35	Cum	**944.26**	135356.63	13535.66		
	Boulders	5.28	Cum	**694.61**	3667.54	366.75		
	Total					18092.27		
	For 1 nos. fall, Total Seigniorage charges					**18092.27**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH. 0.955 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	280.418	Cum	**195.20**	54737.51			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	31.94	Cum	**6381.70**	203813.48	10.35	14.37	28.74
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	250.51	Cum	**6914.20**	1732092.49	103.34	107.72	215.44
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.70	Cum	**8151.40**	13831.05	0.96	0.66	1.34
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	5.90	MT	**73574.90**	434059.97			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	520.35	Sqm	**578.60**	301072.14			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	37.32	Sqm	**680.10**	25384.05			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	4.10	Cum	**694.61**	2844.43			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	4.10	Cum	**1237.00**	5065.52			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	4.10	Cum	**1377.70**	5641.68			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	4.10	Cum	**516.50**	2115.07			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	20.44	Sqm	**63.20**	1291.52			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	69.94	Cum	**149.30**	10442.14			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	122.754	Cum	**1075.00**	131960.31			
	Coarse Aggregates (100 Km lead)	245.525	Cum	**1398.00**	343243.29			
	Cement (30 km lead)	114.646	MT	**742.00**	85067.38			
	Boulder (60 Km lead)	4.10	Cum	**1159.00**	4746.11			
	Brick (15 km lead)	2239.00	No.	**3.18**	7120.02			
	Steel (30 Km lead)	5.90	MT	**742.00**	4377.48			
	TOTAL (In Rs.)				**3380083.03**			
	TOTAL (In Rs.)				**3380083.03**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	122.75	Cum	**584.64**	71766.77	7176.68		
	Coarse Aggregate	245.52	Cum	**944.26**	231838.99	23183.90		
	Boulders	4.10	Cum	**694.61**	2844.43	284.44		
	Total					30645.02		
	For 1 nos. fall, Total Seigniorage charges					**30645.02**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 2.200 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	137.721	Cum	**195.20**	26883.13			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	24.25	Cum	**6381.70**	154776.79	7.86	10.91	21.83
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	107.71	Cum	**6914.20**	744743.97	44.43	46.32	92.63
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.34	Cum	**8151.40**	10928.46	0.76	0.52	1.06
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.54	MT	**73574.90**	186631.80			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	300.54	Sqm	**578.60**	173892.62			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	37.33	Sqm	**680.10**	25388.81			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	4.10	Cum	**694.61**	2844.43			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	4.10	Cum	**1237.00**	5065.52			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	4.10	Cum	**1377.70**	5641.68			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	4.10	Cum	**516.50**	2115.07			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	16.69	Sqm	**63.20**	1054.73			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	27.30	Cum	**149.30**	4075.26			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	57.753	Cum	**1075.00**	62084.56			
	Coarse Aggregates (100 Km lead)	115.520	Cum	**1398.00**	161496.36			
	Cement (30 km lead)	53.050	MT	**742.00**	39362.74			
	Boulder (60 Km lead)	4.10	Cum	**1159.00**	4746.11			
	Brick (15 km lead)	2239.00	No.	**3.18**	7120.02			
	Steel (30 Km lead)	2.54	MT	**742.00**	1882.17			
	TOTAL (In Rs.)				**1631911.62**			
	TOTAL (In Rs.)				**1631911.62**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	57.75	Cum	**584.64**	33764.76	3376.48		
	Coarse Aggregate	115.52	Cum	**944.26**	109080.51	10908.05		
	Boulders	4.10	Cum	**694.61**	2844.43	284.44		
	Total					14568.97		
	For 1 nos. fall, Total Seigniorage charges					**14568.97**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.830 METER AT CH. 4.520 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	452.129	Cum	**195.20**	88255.65			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	33.39	Cum	**6381.70**	213072.85	10.82	15.02	30.05
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	295.42	Cum	**6914.20**	2042617.75	121.86	127.03	254.06
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.52	Cum	**8151.40**	12393.57	0.86	0.59	1.20
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	6.96	MT	**73574.90**	511877.16			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	581.22	Sqm	**578.60**	336291.03			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	33.42	Sqm	**680.10**	22730.98			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	17.38	Cum	**694.61**	12069.71			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	17.38	Cum	**1237.00**	21494.40			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	3.59	Cum	**1377.70**	4943.19			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	3.59	Cum	**516.50**	1853.20			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	17.57	Sqm	**63.20**	1110.33			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	113.24	Cum	**149.30**	16906.12			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	142.650	Cum	**1075.00**	153348.48			
	Coarse Aggregates (100 Km lead)	285.315	Cum	**1398.00**	398869.96			
	Cement (30 km lead)	133.542	MT	**742.00**	99088.20			
	Boulder (60 Km lead)	17.38	Cum	**1159.00**	20139.06			
	Brick (15 km lead)	2005.00	No.	**3.18**	6375.90			
	Steel (30 Km lead)	6.96	MT	**742.00**	5162.26			
	TOTAL (In Rs.)				**3979777.22**			
	TOTAL (In Rs.)				**3979777.22**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	142.65	Cum	**584.64**	83398.75	8339.88		
	Coarse Aggregate	285.31	Cum	**944.26**	269411.27	26941.13		
	Boulders	17.38	Cum	**694.61**	12069.71	1206.97		
	Total					36487.97		
	For 1 nos. fall, Total Seigniorage charges					**36487.97**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.372METER AT CH. 7.214 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	366.376	Cum	**195.20**	71516.68			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	29.16	Cum	**6381.70**	186113.97	9.45	13.12	26.25
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	205.74	Cum	**6914.20**	1422523.51	84.87	88.47	176.94
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.38	Cum	**8151.40**	11246.49	0.78	0.54	1.09
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	4.85	MT	**73574.90**	356482.41			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	455.74	Sqm	**578.60**	263689.81			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	29.72	Sqm	**680.10**	20211.21			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	12.73	Cum	**694.61**	8840.98			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	12.73	Cum	**1237.00**	15744.51			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	3.22	Cum	**1377.70**	4432.75			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	3.22	Cum	**516.50**	1661.84			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	17.06	Sqm	**63.20**	1078.44			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	105.31	Cum	**149.30**	15722.91			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	102.130	Cum	**1075.00**	109789.43			
	Coarse Aggregates (100 Km lead)	204.273	Cum	**1398.00**	285573.92			
	Cement (30 km lead)	95.099	MT	**742.00**	70563.34			
	Boulder (60 Km lead)	12.73	Cum	**1159.00**	14751.73			
	Brick (15 km lead)	1783.00	No.	**3.18**	5669.94			
	Steel (30 Km lead)	4.85	MT	**742.00**	3595.11			
	TOTAL (In Rs.)				**2880386.39**			
	TOTAL (In Rs.)				**2880386.39**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	102.13	Cum	**584.64**	59709.11	5970.91		
	Coarse Aggregate	204.27	Cum	**944.26**	192887.01	19288.70		
	Boulders	12.73	Cum	**694.61**	8840.98	884.10		
	Total					26143.71		
	For 1 nos. fall, Total Seigniorage charges					**26143.71**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH. 9.150 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	330.515	Cum	**195.20**	64516.44			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	26.23	Cum	**6381.70**	167422.57	8.50	11.81	23.61
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	187.34	Cum	**6914.20**	1295283.27	77.28	80.55	161.11
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.50	Cum	**8151.40**	12256.32	0.85	0.59	1.19
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	4.41	MT	**73574.90**	324596.19			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	410.99	Sqm	**578.60**	237798.02			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	13.72	Sqm	**680.10**	9330.29			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	2.97	Cum	**694.61**	2062.99			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	2.97	Cum	**1237.00**	3673.89			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	2.97	Cum	**1377.70**	4091.77			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	2.97	Cum	**516.50**	1534.01			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	18.37	Sqm	**63.20**	1161.09			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	86.58	Cum	**149.30**	12926.25			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	92.947	Cum	**1075.00**	99917.84			
	Coarse Aggregates (100 Km lead)	185.909	Cum	**1398.00**	259900.35			
	Cement (30 km lead)	86.629	MT	**742.00**	64278.71			
	Boulder (60 Km lead)	2.97	Cum	**1159.00**	3442.23			
	Brick (15 km lead)	823.00	No.	**3.18**	2617.14			
	Steel (30 Km lead)	4.41	MT	**742.00**	3273.54			
	TOTAL (In Rs.)				**2581260.31**			
	TOTAL (In Rs.)				**2581260.31**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	92.95	Cum	**584.64**	54340.43	5434.04		
	Coarse Aggregate	185.91	Cum	**944.26**	175546.14	17554.61		
	Boulders	2.97	Cum	**694.61**	2062.99	206.30		
	Total					23194.96		
	For 1 nos. fall, Total Seigniorage charges					**23194.96**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 11.90 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	129.089	Cum	**195.20**	25198.19			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	19.78	Cum	**6381.70**	126220.74	6.41	8.90	17.80
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	94.06	Cum	**6914.20**	650381.17	38.80	40.45	80.90
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.14	Cum	**8151.40**	9316.56	0.65	0.45	0.90
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.22	MT	**73574.90**	162984.62			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	267.46	Sqm	**578.60**	154752.25			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	23.48	Sqm	**680.10**	15968.41			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	2.39	Cum	**694.61**	1661.85			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	2.39	Cum	**1237.00**	2959.52			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	2.39	Cum	**1377.70**	3296.15			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	2.39	Cum	**516.50**	1235.73			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	13.93	Sqm	**63.20**	880.62			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	43.91	Cum	**149.30**	6555.32			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	49.794	Cum	**1075.00**	53528.39			
	Coarse Aggregates (100 Km lead)	99.599	Cum	**1398.00**	139239.59			
	Cement (30 km lead)	45.858	MT	**742.00**	34026.58			
	Boulder (60 Km lead)	2.39	Cum	**1159.00**	2772.91			
	Brick (15 km lead)	1408.00	No.	**3.18**	4477.44			
	Steel (30 Km lead)	2.22	MT	**742.00**	1643.69			
	TOTAL (In Rs.)				**1408277.11**			
	TOTAL (In Rs.)				**1408277.11**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	49.79	Cum	**584.64**	29111.48	2911.15		
	Coarse Aggregate	99.60	Cum	**944.26**	94047.48	9404.75		
	Boulders	2.39	Cum	**694.61**	1661.85	166.19		
	Total					12482.08		
	For 1 nos. fall, Total Seigniorage charges					**12482.08**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 15.550 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	96.609	Cum	**195.20**	18858.17			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	18.96	Cum	**6381.70**	120965.42	6.14	8.53	17.06
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	112.15	Cum	**6914.20**	775420.86	46.26	48.22	96.45
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	22.13	Cum	**8151.40**	180377.03	12.55	8.63	17.48
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.59	MT	**73574.90**	264437.70			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	290.80	Sqm	**578.60**	168254.64			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	16.30	Sqm	**680.10**	11084.95			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.65	Cum	**694.61**	1148.71			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.65	Cum	**1237.00**	2045.69			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.65	Cum	**1377.70**	2278.37			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.65	Cum	**516.50**	854.16			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	6.73	Sqm	**63.20**	425.46			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	16.45	Cum	**149.30**	2456.15			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	65.384	Cum	**1075.00**	70287.71			
	Coarse Aggregates (100 Km lead)	130.989	Cum	**1398.00**	183122.77			
	Cement (30 km lead)	64.950	MT	**742.00**	48192.67			
	Boulder (60 Km lead)	1.65	Cum	**1159.00**	1916.70			
	Brick (15 km lead)	977.00	No.	**3.18**	3106.86			
	Steel (30 Km lead)	3.59	MT	**742.00**	2666.84			
	TOTAL (In Rs.)				**1869078.27**			
	TOTAL (In Rs.)				**1869078.27**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	65.38	Cum	**584.64**	38226.05	3822.61		
	Coarse Aggregate	130.99	Cum	**944.26**	123687.78	12368.78		
	Boulders	1.65	Cum	**694.61**	1148.71	114.87		
	Total					16306.25		
	For 1 nos. fall, Total Seigniorage charges					**16306.25**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 17.875 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	58.705	Cum	**195.20**	11459.28			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	12.03	Cum	**6381.70**	76755.44	3.90	5.41	10.82
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	45.51	Cum	**6914.20**	314635.84	18.77	19.57	39.13
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.77	Cum	**8151.40**	6256.61	0.44	0.30	0.61
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.07	MT	**73574.90**	78847.30			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	161.12	Sqm	**578.60**	93225.20			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.58	Sqm	**680.10**	5837.30			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.72	Cum	**694.61**	500.12			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.72	Cum	**1237.00**	890.64			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.72	Cum	**1377.70**	991.94			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.72	Cum	**516.50**	371.88			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	11.06	Sqm	**63.20**	699.06			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	12.09	Cum	**149.30**	1804.64			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	25.279	Cum	**1075.00**	27175.10			
	Coarse Aggregates (100 Km lead)	50.566	Cum	**1398.00**	70691.26			
	Cement (30 km lead)	23.103	MT	**742.00**	17142.58			
	Boulder (60 Km lead)	0.72	Cum	**1159.00**	834.48			
	Brick (15 km lead)	514.00	No.	**3.18**	1634.52			
	Steel (30 Km lead)	1.07	MT	**742.00**	795.17			
	TOTAL (In Rs.)				**721725.76**			
	TOTAL (In Rs.)				**721725.76**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	25.28	Cum	**584.64**	14779.21	1477.92		
	Coarse Aggregate	50.57	Cum	**944.26**	47747.44	4774.74		
	Boulders	0.72	Cum	**694.61**	500.12	50.01		
	Total					6302.68		
	For 1 nos. fall, Total Seigniorage charges					**6302.68**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 18.280 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	71.719	Cum	**195.20**	13999.63			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	11.28	Cum	**6381.70**	71998.09	3.66	5.08	10.15
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	43.06	Cum	**6914.20**	297753.59	17.76	18.52	37.04
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.76	Cum	**8151.40**	6181.17	0.43	0.30	0.60
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.01	MT	**73574.90**	74616.64			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	156.41	Sqm	**578.60**	90499.97			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.47	Sqm	**680.10**	5759.77			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.54	Cum	**694.61**	375.09			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.54	Cum	**1237.00**	667.98			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.54	Cum	**1377.70**	743.96			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.54	Cum	**516.50**	278.91			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	11.12	Sqm	**63.20**	702.52			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	21.62	Cum	**149.30**	3228.05			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	23.890	Cum	**1075.00**	25681.93			
	Coarse Aggregates (100 Km lead)	47.788	Cum	**1398.00**	66807.51			
	Cement (30 km lead)	21.849	MT	**742.00**	16212.13			
	Boulder (60 Km lead)	0.54	Cum	**1159.00**	625.86			
	Brick (15 km lead)	508.00	No.	**3.18**	1615.44			
	Steel (30 Km lead)	1.01	MT	**742.00**	752.51			
	TOTAL (In Rs.)				**689678.15**			
	TOTAL (In Rs.)				**689678.15**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	23.89	Cum	**584.64**	13967.15	1396.71		
	Coarse Aggregate	47.79	Cum	**944.26**	45124.22	4512.42		
	Boulders	0.54	Cum	**694.61**	375.09	37.51		
	Total					5946.65		
	For 1 nos. fall, Total Seigniorage charges					**5946.65**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR BARIAWA MINOR							
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 2.050 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	72.338	Cum	**195.20**	14120.35			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	11.61	Cum	**6381.70**	74112.27	3.76	5.23	10.45
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	45.04	Cum	**6914.20**	311422.82	18.58	19.37	38.74
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.86	Cum	**8151.40**	6992.07	0.49	0.33	0.68
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.06	MT	**73574.90**	78042.12			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	167.99	Sqm	**578.60**	97198.37			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	12.07	Sqm	**680.10**	8205.41			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.26	Cum	**694.61**	877.81			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.26	Cum	**1237.00**	1563.26			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.26	Cum	**1377.70**	1741.07			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.26	Cum	**516.50**	652.73			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	12.36	Sqm	**63.20**	780.96			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	21.52	Cum	**149.30**	3212.37			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	24.928	Cum	**1075.00**	26797.76			
	Coarse Aggregates (100 Km lead)	49.865	Cum	**1398.00**	69711.08			
	Cement (30 km lead)	22.828	MT	**742.00**	16938.73			
	Boulder (60 Km lead)	1.26	Cum	**1159.00**	1464.69			
	Brick (15 km lead)	723.00	No.	**3.18**	2299.14			
	Steel (30 Km lead)	1.06	MT	**742.00**	787.05			
	TOTAL (In Rs.)				**728097.46**			
	TOTAL (In Rs.)				**728097.46**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	24.93	Cum	**584.64**	14573.99	1457.40		
	Coarse Aggregate	49.86	Cum	**944.26**	47085.40	4708.54		
	Boulders	1.26	Cum	**694.61**	877.81	87.78		
	Total					6253.72		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	For 1 nos. fall, Total Seigniorage charges					**6253.72**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 6.100 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	45.495	Cum	**195.20**	8880.57			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	7.54	Cum	**6381.70**	48144.27	2.44	3.39	6.79
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	28.99	Cum	**6914.20**	200454.05	11.96	12.47	24.93
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.53	Cum	**8151.40**	4306.14	0.30	0.21	0.42
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.68	MT	**73574.90**	50233.51			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	120.25	Sqm	**578.60**	69576.06			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.34	Sqm	**680.10**	3633.77			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.13	Cum	**694.61**	87.52			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.13	Cum	**1237.00**	155.86			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.13	Cum	**1377.70**	173.59			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.13	Cum	**516.50**	65.08			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.72	Sqm	**63.20**	550.94			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	12.99	Cum	**149.30**	1939.81			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	16.067	Cum	**1075.00**	17272.33			
	Coarse Aggregates (100 Km lead)	32.140	Cum	**1398.00**	44931.51			
	Cement (30 km lead)	14.703	MT	**742.00**	10909.53			
	Boulder (60 Km lead)	0.13	Cum	**1159.00**	146.03			
	Brick (15 km lead)	320.00	No.	**3.18**	1017.60			
	Steel (30 Km lead)	0.68	MT	**742.00**	506.60			
	TOTAL (In Rs.)				**474162.19**			
	TOTAL (In Rs.)				**474162.19**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	16.07	Cum	**584.64**	9393.58	939.36		
	Coarse Aggregate	32.14	Cum	**944.26**	30348.38	3034.84		
	Boulders	0.13	Cum	**694.61**	87.52	8.75		
	Total					3982.95		
	For 1 nos. fall, Total Seigniorage charges					**3982.95**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR ITMA MINOR								
SHARDA TYPE FALL OF HEIGHT 1.676 METER AT CH. 0.900 KM								
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	146.043	Cum	**195.20**	28507.53			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	12.20	Cum	**6381.70**	77878.79	3.95	5.49	10.98
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	113.29	Cum	**6914.20**	783316.64	46.73	48.72	97.43
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	8.02	Cum	**8151.40**	65400.72	4.55	3.13	6.34
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.03	MT	**73574.90**	222814.58			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	302.92	Sqm	**578.60**	175268.03			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.42	Sqm	**680.10**	5729.16			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.16	Cum	**694.61**	108.36			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.16	Cum	**1237.00**	192.97			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.16	Cum	**1377.70**	214.92			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.16	Cum	**516.50**	80.57			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	5.99	Sqm	**63.20**	378.82			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	44.21	Cum	**149.30**	6600.44			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	57.336	Cum	**1075.00**	61635.93			
	Coarse Aggregates (100 Km lead)	114.752	Cum	**1398.00**	160422.93			
	Cement (30 km lead)	55.236	MT	**742.00**	40984.84			
	Boulder (60 Km lead)	0.16	Cum	**1159.00**	180.80			
	Brick (15 km lead)	505.00	No.	**3.18**	1605.90			
	Steel (30 Km lead)	3.03	MT	**742.00**	2247.08			
	TOTAL (In Rs.)				**1644746.42**			
	TOTAL (In Rs.)				**1644746.42**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	57.34	Cum	**584.64**	33520.77	3352.08		
	Coarse Aggregate	114.75	Cum	**944.26**	108355.48	10835.55		
	Boulders	0.16	Cum	**694.61**	108.36	10.84		
	Total					14198.46		
	For 1 nos. fall, Total Seigniorage charges					**14198.46**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.305 METER AT CH. 3.950 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	28.098	Cum	**195.20**	5484.79			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	6.64	Cum	**6381.70**	42386.84	2.15	2.99	5.98
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	21.86	Cum	**6914.20**	151144.16	9.02	9.40	18.80
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.48	Cum	**8151.40**	3888.22	0.27	0.19	0.38
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.51	MT	**73574.90**	37876.52			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	103.63	Sqm	**578.60**	59959.17			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.34	Sqm	**680.10**	3633.77			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.00	Cum	**694.61**	0.00			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.00	Cum	**1237.00**	0.00			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.00	Cum	**1377.70**	0.00			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.00	Cum	**516.50**	0.00			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.46	Sqm	**63.20**	534.67			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	6.86	Cum	**149.30**	1024.08			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	12.575	Cum	**1075.00**	13517.79			
	Coarse Aggregates (100 Km lead)	25.154	Cum	**1398.00**	35165.49			
	Cement (30 km lead)	11.440	MT	**742.00**	8488.24			
	Boulder (60 Km lead)	0.00	Cum	**1159.00**	0.00			
	Brick (15 km lead)	320.00	No.	**3.18**	1017.60			
	Steel (30 Km lead)	0.51	MT	**742.00**	381.98			
	TOTAL (In Rs.)				**375680.72**			
	TOTAL (In Rs.)				**375680.72**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	12.57	Cum	**584.64**	7351.66	735.17		
	Coarse Aggregate	25.15	Cum	**944.26**	23752.05	2375.20		
	Boulders	0.00	Cum	**694.61**	0.00	0.00		
	Total					3110.37		
	For 1 nos. fall, Total Seigniorage charges					**3110.37**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 4.600 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	22.073	Cum	**195.20**	4308.60			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	4.58	Cum	**6381.70**	29205.28	1.48	2.06	4.12
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	15.24	Cum	**6914.20**	105367.28	6.29	6.55	13.11
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.35	Cum	**8151.40**	2864.81	0.20	0.14	0.28
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.36	MT	**73574.90**	26404.89			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	83.22	Sqm	**578.60**	48153.52			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	3.89	Sqm	**680.10**	2642.19			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.18	Cum	**694.61**	121.90			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.18	Cum	**1237.00**	217.09			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.18	Cum	**1377.70**	241.79			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.18	Cum	**516.50**	90.65			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	5.97	Sqm	**63.20**	377.11			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	7.30	Cum	**149.30**	1089.94			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	8.749	Cum	**1075.00**	9405.53			
	Coarse Aggregates (100 Km lead)	17.502	Cum	**1398.00**	24468.04			
	Cement (30 km lead)	7.968	MT	**742.00**	5912.42			
	Boulder (60 Km lead)	0.18	Cum	**1159.00**	203.40			
	Brick (15 km lead)	233.00	No.	**3.18**	740.94			
	Steel (30 Km lead)	0.36	MT	**742.00**	266.29			
	TOTAL (In Rs.)				**273259.09**			
	TOTAL (In Rs.)				**273259.09**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	8.75	Cum	**584.64**	5115.21	511.52		
	Coarse Aggregate	17.50	Cum	**944.26**	16526.61	1652.66		
	Boulders	0.18	Cum	**694.61**	121.90	12.19		
	Total					2176.37		
	For 1 nos. fall, Total Seigniorage charges					**2176.37**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR MALI MINOR							
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 1.000 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	51.901	Cum	**195.20**	10131.04			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.00	Cum	**6381.70**	51039.29	2.59	3.60	7.20
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	26.35	Cum	**6914.20**	182182.32	10.87	11.33	22.66
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.49	Cum	**8151.40**	4029.07	0.28	0.19	0.39
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.62	MT	**73574.90**	45654.64			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	117.57	Sqm	**578.60**	68027.53			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.78	Sqm	**680.10**	3929.62			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.05	Cum	**694.61**	34.38			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.05	Cum	**1237.00**	61.23			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.05	Cum	**1377.70**	68.20			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.05	Cum	**516.50**	25.57			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.61	Sqm	**63.20**	544.00			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	15.79	Cum	**149.30**	2358.07			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	15.122	Cum	**1075.00**	16255.97			
	Coarse Aggregates (100 Km lead)	30.298	Cum	**1398.00**	42356.76			
	Cement (30 km lead)	13.740	MT	**742.00**	10195.45			
	Boulder (60 Km lead)	0.05	Cum	**1159.00**	57.37			
	Brick (15 km lead)	346.00	No.	**3.18**	1100.28			
	Steel (30 Km lead)	0.62	MT	**742.00**	460.43			
	TOTAL (In Rs.)				**449688.61**			
	TOTAL (In Rs.)				**449688.61**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	15.12	Cum	**584.64**	8840.83	884.08		
	Coarse Aggregate	30.30	Cum	**944.26**	28609.29	2860.93		
	Boulders	0.05	Cum	**694.61**	34.38	3.44		
	Total					3748.45		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	For 1 nos. fall, Total Seigniorage charges					**3748.45**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 3.125 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	40.895	Cum	**195.20**	7982.64			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	4.85	Cum	**6381.70**	30955.03	1.57	2.18	4.37
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	17.59	Cum	**6914.20**	121626.19	7.26	7.56	15.13
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.35	Cum	**8151.40**	2856.74	0.20	0.14	0.28
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.41	MT	**73574.90**	30479.36			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	90.65	Sqm	**578.60**	52451.07			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	0.00	Sqm	**680.10**	0.00			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.17	Cum	**694.61**	118.78			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.17	Cum	**1237.00**	211.53			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.17	Cum	**1377.70**	235.59			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.17	Cum	**516.50**	88.32			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	5.97	Sqm	**63.20**	377.00			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	10.98	Cum	**149.30**	1639.13			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	9.883	Cum	**1075.00**	10624.74			
	Coarse Aggregates (100 Km lead)	19.941	Cum	**1398.00**	27878.18			
	Cement (30 km lead)	9.027	MT	**742.00**	6697.66			
	Boulder (60 Km lead)	0.17	Cum	**1159.00**	198.19			
	Brick (15 km lead)	0.00	No.	**3.18**	0.00			
	Steel (30 Km lead)	0.41	MT	**742.00**	307.38			
	TOTAL (In Rs.)				**305904.93**			
	TOTAL (In Rs.)				**305904.93**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	9.88	Cum	**584.64**	5778.28	577.83		
	Coarse Aggregate	19.94	Cum	**944.26**	18829.93	1882.99		
	Boulders	0.17	Cum	**694.61**	118.78	11.88		
	Total					2472.70		
	For 1 nos. fall, Total Seigniorage charges					**2472.70**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR THUMBHI MINOR								
SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 0.545 KM								
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	78.155	Cum	**195.20**	15255.77			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	11.44	Cum	**6381.70**	73020.36	3.71	5.15	10.30
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	58.27	Cum	**6914.20**	402892.50	24.04	25.06	50.11
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	11.20	Cum	**8151.40**	91294.29	6.35	4.37	8.85
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.83	MT	**73574.90**	134327.64			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	181.90	Sqm	**578.60**	105248.87			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	9.00	Sqm	**680.10**	6120.90			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.48	Cum	**694.61**	333.41			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.48	Cum	**1237.00**	593.76			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.48	Cum	**1377.70**	661.30			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.48	Cum	**516.50**	247.92			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	10.83	Sqm	**63.20**	684.72			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	15.06	Cum	**149.30**	2247.99			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	34.573	Cum	**1075.00**	37166.11			
	Coarse Aggregates (100 Km lead)	69.738	Cum	**1398.00**	97494.08			
	Cement (30 km lead)	34.094	MT	**742.00**	25297.79			
	Boulder (60 Km lead)	0.48	Cum	**1159.00**	556.32			
	Brick (15 km lead)	540.00	No.	**3.18**	1717.20			
	Steel (30 Km lead)	1.83	MT	**742.00**	1354.69			
	TOTAL (In Rs.)				**1007693.02**			
	TOTAL (In Rs.)				**1007693.02**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	34.57	Cum	**584.64**	20212.83	2021.28		
	Coarse Aggregate	69.74	Cum	**944.26**	65851.05	6585.10		
	Boulders	0.48	Cum	**694.61**	333.41	33.34		
	Total					8639.73		
	For 1 nos. fall, Total Seigniorage charges					**8639.73**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 0.965 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	95.998	Cum	**195.20**	18738.90			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	10.21	Cum	**6381.70**	65155.03	3.31	4.59	9.19
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	44.58	Cum	**6914.20**	308225.48	18.39	19.17	38.34
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.48	Cum	**8151.40**	3886.26	0.27	0.19	0.38
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.05	MT	**73574.90**	77240.88			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	162.53	Sqm	**578.60**	94041.71			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	0.00	Sqm	**680.10**	0.00			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.48	Cum	**694.61**	333.41			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.48	Cum	**1237.00**	593.76			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.48	Cum	**1377.70**	661.30			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.48	Cum	**516.50**	247.92			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	5.97	Sqm	**63.20**	377.00			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	30.48	Cum	**149.30**	4550.87			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	23.949	Cum	**1075.00**	25745.27			
	Coarse Aggregates (100 Km lead)	48.383	Cum	**1398.00**	67639.37			
	Cement (30 km lead)	21.967	MT	**742.00**	16299.47			
	Boulder (60 Km lead)	0.48	Cum	**1159.00**	556.32			
	Brick (15 km lead)	0.00	No.	**3.18**	0.00			
	Steel (30 Km lead)	1.05	MT	**742.00**	778.97			
	TOTAL (In Rs.)				**696249.30**			
	TOTAL (In Rs.)				**696249.30**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	23.95	Cum	**584.64**	14001.60	1400.16		
	Coarse Aggregate	48.38	Cum	**944.26**	45686.09	4568.61		
	Boulders	0.48	Cum	**694.61**	333.41	33.34		
	Total					6002.11		
	For 1 nos. fall, Total Seigniorage charges					**6002.11**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH. 3.300 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	74.829	Cum	**195.20**	14606.57			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.42	Cum	**6381.70**	60099.97	3.05	4.24	8.48
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	46.71	Cum	**6914.20**	322996.62	19.27	20.09	40.17
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.65	Cum	**8151.40**	5310.23	0.37	0.25	0.51
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.10	MT	**73574.90**	80942.50			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	168.68	Sqm	**578.60**	97599.82			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	0.00	Sqm	**680.10**	0.00			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.24	Cum	**694.61**	166.71			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.24	Cum	**1237.00**	296.88			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.24	Cum	**1377.70**	330.65			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.24	Cum	**516.50**	123.96			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	10.18	Sqm	**63.20**	643.31			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	18.46	Cum	**149.30**	2756.37			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	24.579	Cum	**1075.00**	26422.85			
	Coarse Aggregates (100 Km lead)	49.405	Cum	**1398.00**	69068.62			
	Cement (30 km lead)	22.691	MT	**742.00**	16836.41			
	Boulder (60 Km lead)	0.24	Cum	**1159.00**	278.16			
	Brick (15 km lead)	0.00	No.	**3.18**	0.00			
	Steel (30 Km lead)	1.10	MT	**742.00**	816.30			
	TOTAL (In Rs.)				**710473.34**			
	TOTAL (In Rs.)				**710473.34**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	24.58	Cum	**584.64**	14370.10	1437.01		
	Coarse Aggregate	49.41	Cum	**944.26**	46651.46	4665.15		
	Boulders	0.24	Cum	**694.61**	166.71	16.67		
	Total					6118.83		
	For 1 nos. fall, Total Seigniorage charges					**6118.83**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR SOTHIDIH MINOR								
S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2024 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH. 2.450 KM								
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	104.290	Cum	**195.20**	20357.40			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	7.76	Cum	**6381.70**	49536.46	2.51	3.49	6.99
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	42.66	Cum	**6914.20**	294986.01	17.60	18.35	36.69
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	9.31	Cum	**8151.40**	75926.87	5.28	3.63	7.36
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.28	MT	**73574.90**	94353.52			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	148.46	Sqm	**578.60**	85899.77			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	9.00	Sqm	**680.10**	6120.90			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.24	Cum	**694.61**	166.71			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.24	Cum	**1237.00**	296.88			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.24	Cum	**1377.70**	330.65			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.24	Cum	**516.50**	123.96			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.28	Sqm	**63.20**	586.32			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	18.07	Cum	**149.30**	2697.30			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	25.471	Cum	**1075.00**	27381.47			
	Coarse Aggregates (100 Km lead)	51.275	Cum	**1398.00**	71683.04			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	Cement (30 km lead)	25.395	MT	**742.00**	18843.21			
	Boulder (60 Km lead)	0.24	Cum	**1159.00**	278.16			
	Brick (15 km lead)	540.00	No.	**3.18**	1717.20			
	Steel (30 Km lead)	1.28	MT	**742.00**	951.55			
	TOTAL (In Rs.)				**763414.77**			
	TOTAL (In Rs.)				**763414.77**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	25.47	Cum	**584.64**	14891.45	1489.14		
	Coarse Aggregate	51.28	Cum	**944.26**	48417.33	4841.73		
	Boulders	0.24	Cum	**694.61**	166.71	16.67		
	Total					6347.55		
	For 1 nos. fall, Total Seigniorage charges					**6347.55**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH. 4.010 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	44.759	Cum	**195.20**	8736.92			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.37	Cum	**6381.70**	53420.80	2.71	3.77	7.53
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	33.51	Cum	**6914.20**	231668.73	13.82	14.41	28.82
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.56	Cum	**8151.40**	4546.16	0.32	0.22	0.44
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.79	MT	**73574.90**	58055.86			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	137.36	Sqm	**578.60**	79476.35			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.35	Sqm	**680.10**	3635.81			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.09	Cum	**694.61**	62.51			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.09	Cum	**1237.00**	111.33			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.09	Cum	**1377.70**	123.99			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.09	Cum	**516.50**	46.49			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.47	Sqm	**63.20**	598.78			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	23.86	Cum	**149.30**	3562.32			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	18.392	Cum	**1075.00**	19771.51			
	Coarse Aggregates (100 Km lead)	36.880	Cum	**1398.00**	51557.95			
	Cement (30 km lead)	16.850	MT	**742.00**	12502.50			
	Boulder (60 Km lead)	0.09	Cum	**1159.00**	104.31			
	Brick (15 km lead)	320.00	No.	**3.18**	1017.60			
	Steel (30 Km lead)	0.79	MT	**742.00**	585.49			
	TOTAL (In Rs.)				**540762.82**			
	TOTAL (In Rs.)				**540762.82**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	18.39	Cum	**584.64**	10752.76	1075.28		
	Coarse Aggregate	36.88	Cum	**944.26**	34824.11	3482.41		
	Boulders	0.09	Cum	**694.61**	62.51	6.25		
	Total					4563.94		
	For 1 nos. fall, Total Seigniorage charges					**4563.94**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH. 5.010 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	65.563	Cum	**195.20**	12797.89			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.14	Cum	**6381.70**	51939.47	2.64	3.66	7.32
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	32.17	Cum	**6914.20**	222416.60	13.27	13.83	27.66
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.55	Cum	**8151.40**	4464.11	0.31	0.21	0.43
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.76	MT	**73574.90**	55737.29			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	133.99	Sqm	**578.60**	77524.42			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.35	Sqm	**680.10**	3635.81			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.09	Cum	**694.61**	62.51			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.09	Cum	**1237.00**	111.33			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.09	Cum	**1377.70**	123.99			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.09	Cum	**516.50**	46.49			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.38	Sqm	**63.20**	592.69			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	22.30	Cum	**149.30**	3329.98			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	17.708	Cum	**1075.00**	19036.45			
	Coarse Aggregates (100 Km lead)	35.512	Cum	**1398.00**	49645.96			
	Cement (30 km lead)	16.217	MT	**742.00**	12032.89			
	Boulder (60 Km lead)	0.09	Cum	**1159.00**	104.31			
	Brick (15 km lead)	320.00	No.	**3.18**	1017.60			
	Steel (30 Km lead)	0.76	MT	**742.00**	562.11			
	TOTAL (In Rs.)				**526359.31**			
	TOTAL (In Rs.)				**526359.31**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	17.71	Cum	**584.64**	10353.00	1035.30		
	Coarse Aggregate	35.51	Cum	**944.26**	33532.69	3353.27		
	Boulders	0.09	Cum	**694.61**	62.51	6.25		
	Total					4394.82		
	For 1 nos. fall, Total Seigniorage charges					**4394.82**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR MAHUARY SUB DY							
	Items	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 0.075 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.32*	*1.96*	*1.202*	*6.214*	*Cum*
	Section 2-2	*2*	*3.50*	*1.59*	*1.202*	*13.378*	*Cum*
	Section 3-3	*2*	*2.70*	*1.47*	*1.002*	*7.954*	*Cum*
	Section 5-5	*2*	*7.24*	*2.11*	*1.202*	*36.632*	*Cum*
	Section 6-6	*2*	*4.03*	*1.47*	*1.002*	*11.872*	*Cum*
	U/S Key Floor	*1*	*0.600*	*5.000*	*0.750*	*2.250*	*Cum*
	U/S Floor	*1*	*2.500*	*5.000*	*1.560*	*19.500*	*Cum*
	D/S Floor	*1*	*3.500*	*5.000*	*0.950*	*16.625*	*Cum*
		1	*3.000*	*5.000*	*0.750*	*11.250*	*Cum*
	D/S Key Floor	*1*	*0.700*	*5.000*	*1.150*	*4.025*	*Cum*
	Toe Wall D/S Portion	*1*	*16.000*	*0.750*	*0.900*	*10.800*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*4.000*	*0.600*	*0.750*	*3.600*	*Cum*
						144.10	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*5.00*	*0.15*	*0.41*	*Cum*
		1	*0.671*	*5.00*	*0.15*	*0.50*	*Cum*
		1	*5.627*	*5.00*	*0.15*	*4.22*	*Cum*
		1	*0.424*	*5.00*	*0.15*	*0.32*	*Cum*
		1	*1.188*	*5.00*	*0.15*	*0.89*	*Cum*
		1	*1.000*	*5.00*	*0.15*	*0.75*	*Cum*
		1	*0.542*	*5.00*	*0.15*	*0.41*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.32*	*1.96*	*0.15*	*0.78*	*Cum*
	Section 2-2	*2*	*3.50*	*1.59*	*0.15*	*1.67*	*Cum*
	Section 3-3	*2*	*2.70*	*1.47*	*0.15*	*1.19*	*Cum*
	Section 5-5	*2*	*7.24*	*2.11*	*0.15*	*4.57*	*Cum*
	Section 6-6	*2*	*4.03*	*1.47*	*0.15*	*1.78*	*Cum*
	Toe Wall D/S Portion	*1*	*16.00*	*0.75*	*0.30*	*3.60*	*Cum*
	Toe Wall D/S Portion	*1*	*15.70*	*0.45*	*0.60*	*4.24*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*4.00*	*0.60*	*0.15*	*0.72*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*4.00*	*0.30*	*0.60*	*1.44*	*Cum*
	TOTAL					**27.48**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.10*	*0.45*	*0.45*	*0.44*	*Cum*
		2	*1.10*	*1.05*	*2.01*	*4.64*	*Cum*
		2	*1.10*	*1.81*	*0.60*	*2.38*	*Cum*
	Section 2-2	*2*	*3.50*	*0.45*	*0.45*	*1.42*	*Cum*
		2	*3.50*	*0.87*	*1.40*	*8.53*	*Cum*
		2	*3.50*	*1.44*	*0.60*	*6.05*	*Cum*
	Section 3-3	*2*	*2.19*	*0.45*	*0.45*	*0.89*	*Cum*
		2	*2.19*	*0.81*	*1.20*	*4.26*	*Cum*
		2	*2.19*	*1.32*	*0.50*	*2.89*	*Cum*
	Section 5-5	*2*	*7.19*	*0.45*	*0.45*	*2.91*	*Cum*
		2	*7.19*	*1.05*	*2.01*	*30.44*	*Cum*
		2	*7.19*	*1.81*	*0.60*	*15.59*	*Cum*
	Section 6-6	*2*	*4.69*	*0.45*	*0.45*	*1.90*	*Cum*
		2	*4.69*	*0.81*	*1.20*	*9.12*	*Cum*
		2	*4.69*	*1.32*	*0.50*	*6.19*	*Cum*
	Floor	*1*	*0.60*	*5.00*	*0.60*	*1.80*	*Cum*
		1	*6.00*	*5.00*	*0.60*	*18.00*	*Cum*
		1	*0.56*	*5.00*	*0.30*	*0.84*	*Cum*
		1	*0.20*	*5.00*	*0.40*	*0.40*	*Cum*
		1	*2.80*	*5.00*	*0.50*	*7.00*	*Cum*
		1	*0.70*	*5.00*	*1.00*	*3.50*	*Cum*

	Items	No.	Length	Width	Height	Quantity	Unit
	Crest	*1*	*1.11*	*5.00*	*1.31*	*7.30*	*Cum*
	TOTAL					**136.47**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.90*	*5.00*	*0.15*	*0.68*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*20.10*	*0.45*	*0.05*	*0.45*	*Cum*
	On Abutment Top (Right Side)	*1*	*20.10*	*0.45*	*0.05*	*0.45*	*Cum*
	TOTAL					**1.58**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**136.47**	**0.30%**	**0.41**	**7850**	**3213.97**	**Kg**
	Total Weight in Metric Tonne					**3.21**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.10*		*0.45*	*1.97*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.10*		*2.01*	*8.82*	*Sqm*
		4		*1.05*	*2.01*	*8.47*	*Sqm*
		4	*1.10*		*0.60*	*2.63*	*Sqm*
		4		*1.81*	*0.60*	*4.33*	*Sqm*
	Section 2-2	*4*	*3.50*		*0.45*	*6.30*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.50*		*1.40*	*19.60*	*Sqm*
		4		*0.87*	*1.40*	*4.87*	*Sqm*
		4	*3.50*		*0.60*	*8.40*	*Sqm*
		4		*1.44*	*0.60*	*3.46*	*Sqm*
	Section 3-3	*4*	*2.19*		*0.45*	*3.94*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.19*		*1.20*	*10.51*	*Sqm*
		4		*0.81*	*1.20*	*3.89*	*Sqm*
		4	*2.19*		*0.50*	*4.38*	*Sqm*
		4		*1.32*	*0.50*	*2.64*	*Sqm*
	Section 5-5	*4*	*7.19*		*0.45*	*12.95*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*7.19*		*2.01*	*57.82*	*Sqm*
		4		*1.05*	*2.01*	*8.47*	*Sqm*
		4	*7.19*		*0.60*	*17.26*	*Sqm*
		4		*1.81*	*0.60*	*4.33*	*Sqm*
	Section 6-6	*4*	*4.69*		*0.45*	*8.44*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*4.69*		*1.20*	*22.51*	*Sqm*
		4		*0.81*	*1.20*	*3.89*	*Sqm*
		4	*4.69*		*0.50*	*9.38*	*Sqm*
		4		*1.32*	*0.50*	*2.64*	*Sqm*
	Floor	*2*	*0.60*		*0.60*	*0.72*	*Sqm*
		2		*5.00*	*0.60*	*6.00*	*Sqm*
		2	*6.00*		*0.60*	*7.20*	*Sqm*
		2		*5.00*	*0.60*	*6.00*	*Sqm*
		2	*0.56*		*0.30*	*0.33*	*Sqm*
		2		*5.00*	*0.30*	*3.00*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*5.00*	*0.40*	*4.00*	*Sqm*
		2	*2.80*		*0.50*	*2.80*	*Sqm*
		2		*5.00*	*0.50*	*5.00*	*Sqm*
		2	*0.70*		*1.00*	*1.40*	*Sqm*
		2		*5.00*	*1.00*	*10.00*	*Sqm*
	Crest	*2*	*1.1105*		*1.314*	*2.92*	*Sqm*
		2		*5*	*1.314*	*13.14*	*Sqm*
	Toe Wall D/S Portion	*2*	*16.00*		*0.30*	*9.60*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*15.70*		*0.60*	*18.84*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*4.00*		*0.15*	*2.40*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*

	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*4.00*		*0.60*	*9.60*	*Sqm*

	Items	No.	Length	Width	Height	Quantity	Unit
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**351.14**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*4.00*	*5.61*		*44.91*	*Sqm*
	TOTAL					**44.91**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*4.00*	*4.40*	*0.30*	**5.28**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*4.00*	*4.40*	*0.15*	**5.28**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*20.10*	*0.45*		*9.05*	*Sqm*
	On Abutment Top (Right Side)	*1*	*20.10*	*0.45*		*9.05*	*Sqm*
	TOTAL					**18.09**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		5.43		5.43	**Cum**
	Abutment						
	Section 1-1	2	*1.32*	*0.29*		*0.759*	*Cum*
	Section 2-2	2	*3.50*	*0.78*		*5.439*	*Cum*
	Section 3-3	2	*2.70*	*0.17*		*0.918*	*Cum*
	Section 5-5	2	*7.24*	*0.29*		*4.153*	*Cum*
	Section 6-6	2	*4.03*	*0.17*		*1.370*	*Cum*
	D/S protection	2					
	Toe wall	2	*16.00*	*0.15*	*0.60*	*2.880*	*Cum*
		2	*4.00*	*0.15*	*0.60*	*4.800*	*Cum*
	TOTAL					**25.75**	**Cum**
	SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH. 0.955 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.26*	*2.53*	*2.235*	*14.238*	*Cum*
	Section 2-2	*2*	*5.35*	*1.56*	*2.235*	*37.286*	*Cum*
	Section 3-3	*2*	*3.40*	*1.41*	*2.035*	*19.512*	*Cum*
	Section 5-5	*2*	*7.47*	*2.68*	*2.235*	*89.609*	*Cum*
	Section 6-6	*2*	*3.74*	*1.41*	*2.035*	*21.463*	*Cum*
	U/S Key Floor	*1*	*0.813*	*4.500*	*1.600*	*5.850*	*Cum*
	U/S Floor	*1*	*4.300*	*4.500*	*2.235*	*43.247*	*Cum*
	D/S Floor	*1*	*5.000*	*4.500*	*0.850*	*19.125*	*Cum*
		1	*3.700*	*4.500*	*0.650*	*10.823*	*Cum*
	D/S Key Floor	*1*	*0.825*	*4.500*	*1.650*	*6.126*	*Cum*
	Toe Wall D/S Portion	*1*	*14.800*	*0.750*	*0.900*	*9.990*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*3.500*	*0.600*	*0.750*	*3.150*	*Cum*
						280.42	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*4.50*	*0.15*	*0.37*	*Cum*
		1	*1.621*	*4.50*	*0.15*	*1.09*	*Cum*
		1	*0.696*	*4.50*	*0.15*	*0.47*	*Cum*
		1	*0.777*	*4.50*	*0.15*	*0.52*	*Cum*
		1	*6.858*	*4.50*	*0.15*	*4.63*	*Cum*
		1	*0.777*	*4.50*	*0.15*	*0.52*	*Cum*

	Items	No.	Length	Width	Height	Quantity	Unit
		1	*1.784*	*4.50*	*0.15*	*1.20*	*Cum*
		1	*1.677*	*4.50*	*0.15*	*1.13*	*Cum*
		1	*0.542*	*4.50*	*0.15*	*0.37*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.26*	*2.53*	*0.15*	*0.96*	*Cum*
	Section 2-2	*2*	*5.35*	*1.56*	*0.15*	*2.50*	*Cum*
	Section 3-3	*2*	*3.40*	*1.41*	*0.15*	*1.44*	*Cum*
	Section 5-5	*2*	*7.47*	*2.68*	*0.15*	*6.01*	*Cum*
	Section 6-6	*2*	*3.74*	*1.41*	*0.15*	*1.58*	*Cum*
	Toe Wall D/S Portion	*1*	*14.80*	*0.75*	*0.30*	*3.33*	*Cum*
	Toe Wall D/S Portion	*1*	*14.50*	*0.45*	*0.60*	*3.92*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.50*	*0.60*	*0.15*	*0.63*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.50*	*0.30*	*0.60*	*1.26*	*Cum*
	TOTAL					**31.94**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.11*	*0.45*	*0.45*	*0.45*	*Cum*
		2	*1.11*	*1.34*	*2.97*	*8.84*	*Cum*
		2	*1.11*	*2.38*	*1.05*	*5.54*	*Cum*
	Section 2-2	*2*	*5.35*	*0.45*	*0.45*	*2.17*	*Cum*
		2	*5.35*	*0.86*	*1.35*	*12.34*	*Cum*
		2	*5.35*	*1.41*	*1.05*	*15.83*	*Cum*
	Section 3-3	*2*	*2.92*	*0.45*	*0.45*	*1.18*	*Cum*
		2	*2.92*	*0.78*	*1.10*	*5.01*	*Cum*
		2	*2.92*	*1.26*	*0.75*	*5.52*	*Cum*
	Section 5-5	*2*	*7.47*	*0.45*	*0.45*	*3.02*	*Cum*
		2	*7.47*	*1.34*	*2.97*	*59.62*	*Cum*
		2	*7.47*	*2.38*	*1.05*	*37.39*	*Cum*
	Section 6-6	*2*	*4.37*	*0.45*	*0.45*	*1.77*	*Cum*
		2	*4.37*	*0.78*	*1.10*	*7.50*	*Cum*
		2	*4.37*	*1.26*	*0.75*	*8.26*	*Cum*
	Floor	*1*	*0.81*	*4.50*	*1.45*	*5.30*	*Cum*
		1	*2.03*	*4.50*	*0.50*	*4.56*	*Cum*
		1	*0.55*	*4.50*	*0.78*	*1.92*	*Cum*
		1	*6.72*	*4.50*	*1.05*	*31.77*	*Cum*
		1	*0.29*	*4.50*	*0.55*	*0.71*	*Cum*
		1	*0.25*	*4.50*	*0.63*	*0.70*	*Cum*
		1	*3.45*	*4.50*	*0.75*	*11.64*	*Cum*
		1	*0.83*	*4.50*	*1.50*	*5.57*	*Cum*
	Crest	*1*	*1.36*	*4.50*	*2.27*	*13.90*	*Cum*
	TOTAL					**250.51**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*1.00*	*4.50*	*0.15*	*0.68*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*22.71*	*0.45*	*0.05*	*0.51*	*Cum*
	On Abutment Top (Right Side)	*1*	*22.71*	*0.45*	*0.05*	*0.51*	*Cum*
	TOTAL					**1.70**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**250.51**	**0.30%**	**0.75**	**7850**	**5899.57**	**Kg**
	Total Weight in Metric Tonne					**5.90**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.11*		*0.45*	*1.99*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.11*		*2.97*	*13.17*	*Sqm*
		4		*1.34*	*2.97*	*15.96*	*Sqm*
		4	*1.11*		*1.05*	*4.65*	*Sqm*
		4		*2.38*	*1.05*	*10.01*	*Sqm*

	Items	No.	Length	Width	Height	Quantity	Unit
	Section 2-2	*4*	*5.35*		*0.45*	*9.62*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*5.35*		*1.35*	*28.87*	*Sqm*
		4		*0.86*	*1.35*	*4.62*	*Sqm*
		4	*5.35*		*1.05*	*22.46*	*Sqm*
		4		*1.41*	*1.05*	*5.92*	*Sqm*
	Section 3-3	*4*	*2.92*		*0.45*	*5.26*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.92*		*1.10*	*12.85*	*Sqm*
		4		*0.78*	*1.10*	*3.43*	*Sqm*
		4	*2.92*		*0.75*	*8.76*	*Sqm*
		4		*1.26*	*0.75*	*3.78*	*Sqm*
	Section 5-5	*4*	*7.47*		*0.45*	*13.44*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*7.47*		*2.97*	*88.85*	*Sqm*
		4		*1.34*	*2.97*	*15.96*	*Sqm*
		4	*7.47*		*1.05*	*31.37*	*Sqm*
		4		*2.38*	*1.05*	*10.01*	*Sqm*
	Section 6-6	*4*	*4.37*		*0.45*	*7.87*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*4.37*		*1.10*	*19.23*	*Sqm*
		4		*0.78*	*1.10*	*3.43*	*Sqm*
		4	*4.37*		*0.75*	*13.11*	*Sqm*
		4		*1.26*	*0.75*	*3.78*	*Sqm*
	Floor	*2*	*0.81*		*1.45*	*2.36*	*Sqm*
		2		*4.50*	*1.45*	*13.05*	*Sqm*
		2	*2.03*		*0.50*	*2.03*	*Sqm*
		2		*4.50*	*0.50*	*4.50*	*Sqm*
		2	*0.55*		*0.78*	*0.85*	*Sqm*
		2		*4.50*	*0.78*	*6.98*	*Sqm*
		2	*6.72*		*1.05*	*14.12*	*Sqm*
		2		*4.50*	*1.05*	*9.45*	*Sqm*
		2	*0.29*		*0.55*	*0.31*	*Sqm*
		2		*4.50*	*0.55*	*4.95*	*Sqm*
		2	*0.25*		*0.63*	*0.31*	*Sqm*
		2		*4.50*	*0.63*	*5.63*	*Sqm*
		2	*3.45*		*0.75*	*5.18*	*Sqm*
		2		*4.50*	*0.75*	*6.75*	*Sqm*
		2	*0.83*		*1.50*	*2.48*	*Sqm*
		2		*4.50*	*1.50*	*13.50*	*Sqm*
	Crest	*2*	*1.36*		*2.269*	*6.18*	*Sqm*
		2		*4.5*	*2.269*	*20.42*	*Sqm*
	Toe Wall D/S Portion	*2*	*14.80*		*0.30*	*8.88*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*14.50*		*0.60*	*17.40*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.50*		*0.15*	*2.10*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.50*		*0.60*	*8.40*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**520.35**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.50*	*5.33*		*37.32*	*Sqm*
	TOTAL					**37.32**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*3.50*	*3.90*	*0.30*	**4.10**	**Cum**
	TOTAL					**4.10**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*3.50*	*3.90*	*0.15*	**4.10**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*22.71*	*0.45*		*10.22*	*Sqm*
	On Abutment Top (Right Side)	*1*	*22.71*	*0.45*		*10.22*	*Sqm*
	TOTAL					**20.44**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						

	Items	No.	Length	Width	Height	Quantity	Unit
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		34.72		34.72	**Cum**
	Abutment						
	Section 1-1	2	*1.26*	*0.74*		*1.865*	*Cum*
	Section 2-2	2	*5.35*	*0.79*		*8.438*	*Cum*
	Section 3-3	2	*3.40*	*0.53*		*3.618*	*Cum*
	Section 5-5	2	*7.47*	*0.71*		*10.557*	*Cum*
	Section 6-6	2	*3.74*	*0.52*		*3.882*	*Cum*
	D/S protection	2					
	Toe wall	2	*14.80*	*0.15*	*0.60*	*2.664*	*Cum*
		2	*3.50*	*0.15*	*0.60*	*4.200*	*Cum*
	TOTAL					**69.94**	**Cum**
		136.767	**137.582**	**0.815**			
SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 2.200 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.14*	*1.80*	*1.482*	*6.098*	*Cum*
	Section 2-2	*2*	*3.50*	*1.53*	*1.482*	*15.872*	*Cum*
	Section 3-3	*2*	*2.20*	*1.41*	*1.282*	*7.954*	*Cum*
	Section 5-5	*2*	*6.77*	*1.95*	*1.482*	*39.224*	*Cum*
	Section 6-6	*2*	*3.74*	*1.41*	*1.282*	*13.521*	*Cum*
	U/S Key Floor	*1*	*0.613*	*4.500*	*0.800*	*2.205*	*Cum*
	U/S Floor	*1*	*2.500*	*4.500*	*1.357*	*15.266*	*Cum*
	D/S Floor	*1*	*3.500*	*4.500*	*0.900*	*14.175*	*Cum*
		1	*2.500*	*4.500*	*0.700*	*7.875*	*Cum*
	D/S Key Floor	*1*	*0.625*	*4.500*	*0.850*	*2.391*	*Cum*
	Toe Wall D/S Portion	*1*	*14.800*	*0.750*	*0.900*	*9.990*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*3.500*	*0.600*	*0.750*	*3.150*	*Cum*
						137.72	**Cum**

	Items	No.	Length	Width	Height	Quantity	Unit
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*4.50*	*0.15*	*0.37*	*Cum*
		1	*0.727*	*4.50*	*0.15*	*0.49*	*Cum*
		1	*5.602*	*4.50*	*0.15*	*3.78*	*Cum*
		1	*0.353*	*4.50*	*0.15*	*0.24*	*Cum*
		1	*0.838*	*4.50*	*0.15*	*0.57*	*Cum*
		1	*0.895*	*4.50*	*0.15*	*0.60*	*Cum*
		1	*0.542*	*4.50*	*0.15*	*0.37*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.14*	*1.80*	*0.15*	*0.62*	*Cum*
	Section 2-2	*2*	*3.50*	*1.53*	*0.15*	*1.61*	*Cum*
	Section 3-3	*2*	*2.20*	*1.41*	*0.15*	*0.93*	*Cum*
	Section 5-5	*2*	*6.77*	*1.95*	*0.15*	*3.97*	*Cum*
	Section 6-6	*2*	*3.74*	*1.41*	*0.15*	*1.58*	*Cum*
	Toe Wall D/S Portion	*1*	*14.80*	*0.75*	*0.30*	*3.33*	*Cum*
	Toe Wall D/S Portion	*1*	*14.50*	*0.45*	*0.60*	*3.92*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.50*	*0.60*	*0.15*	*0.63*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.50*	*0.30*	*0.60*	*1.26*	*Cum*
	TOTAL					**24.25**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.91*	*0.45*	*0.45*	*0.37*	*Cum*
		2	*0.91*	*0.98*	*1.76*	*3.12*	*Cum*
		2	*0.91*	*1.65*	*0.55*	*1.65*	*Cum*
	Section 2-2	*2*	*3.50*	*0.45*	*0.45*	*1.42*	*Cum*
		2	*3.50*	*0.84*	*1.30*	*7.64*	*Cum*
		2	*3.50*	*1.38*	*0.55*	*5.31*	*Cum*
	Section 3-3	*2*	*1.72*	*0.45*	*0.45*	*0.70*	*Cum*
		2	*1.72*	*0.78*	*1.11*	*2.98*	*Cum*
		2	*1.72*	*1.26*	*0.50*	*2.17*	*Cum*
	Section 5-5	*2*	*6.73*	*0.45*	*0.45*	*2.73*	*Cum*
		2	*6.73*	*0.98*	*1.76*	*23.10*	*Cum*
		2	*6.73*	*1.65*	*0.55*	*12.24*	*Cum*
	Section 6-6	*2*	*4.37*	*0.45*	*0.45*	*1.77*	*Cum*
		2	*4.37*	*0.78*	*1.11*	*7.57*	*Cum*
		2	*4.37*	*1.26*	*0.50*	*5.51*	*Cum*
	Floor	*1*	*0.61*	*4.50*	*0.65*	*1.79*	*Cum*
		1	*6.00*	*4.50*	*0.55*	*14.85*	*Cum*
		1	*0.53*	*4.50*	*0.25*	*0.60*	*Cum*
		1	*0.20*	*4.50*	*0.40*	*0.36*	*Cum*
		1	*2.30*	*4.50*	*0.50*	*5.18*	*Cum*
		1	*0.63*	*4.50*	*0.70*	*1.97*	*Cum*
	Crest	*1*	*0.93*	*4.50*	*1.12*	*4.70*	*Cum*
	TOTAL					**107.71**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*4.50*	*0.15*	*0.51*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*18.54*	*0.45*	*0.05*	*0.42*	*Cum*
	On Abutment Top (Right Side)	*1*	*18.54*	*0.45*	*0.05*	*0.42*	*Cum*
	TOTAL					**1.34**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**107.71**	**0.30%**	**0.32**	**7850**	**2536.62**	**Kg**
	Total Weight in Metric Tonne					**2.54**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						

	Items	No.	Length	Width	Height	Quantity	Unit
	Abutment						
	Section 1-1	*4*	*0.91*		*0.45*	*1.64*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.91*		*1.76*	*6.39*	*Sqm*
		4		*0.98*	*1.76*	*6.87*	*Sqm*
		4	*0.91*		*0.55*	*2.00*	*Sqm*
		4		*1.65*	*0.55*	*3.64*	*Sqm*
	Section 2-2	*4*	*3.50*		*0.45*	*6.30*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.50*		*1.30*	*18.20*	*Sqm*
		4		*0.84*	*1.30*	*4.37*	*Sqm*
		4	*3.50*		*0.55*	*7.70*	*Sqm*
		4		*1.38*	*0.55*	*3.04*	*Sqm*
	Section 3-3	*4*	*1.72*		*0.45*	*3.10*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.72*		*1.11*	*7.64*	*Sqm*
		4		*0.78*	*1.11*	*3.46*	*Sqm*
		4	*1.72*		*0.50*	*3.44*	*Sqm*
		4		*1.26*	*0.50*	*2.52*	*Sqm*
	Section 5-5	*4*	*6.73*		*0.45*	*12.11*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*6.73*		*1.76*	*47.29*	*Sqm*
		4		*0.98*	*1.76*	*6.87*	*Sqm*
		4	*6.73*		*0.55*	*14.80*	*Sqm*
		4		*1.65*	*0.55*	*3.64*	*Sqm*
	Section 6-6	*4*	*4.37*		*0.45*	*7.87*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*4.37*		*1.11*	*19.40*	*Sqm*
		4		*0.78*	*1.11*	*3.46*	*Sqm*
		4	*4.37*		*0.50*	*8.74*	*Sqm*
		4		*1.26*	*0.50*	*2.52*	*Sqm*
	Floor	*2*	*0.61*		*0.65*	*0.80*	*Sqm*
		2		*4.50*	*0.65*	*5.85*	*Sqm*
		2	*6.00*		*0.55*	*6.60*	*Sqm*
		2		*4.50*	*0.55*	*4.95*	*Sqm*
		2	*0.53*		*0.25*	*0.27*	*Sqm*
		2		*4.50*	*0.25*	*2.25*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*4.50*	*0.40*	*3.60*	*Sqm*
		2	*2.30*		*0.50*	*2.30*	*Sqm*
		2		*4.50*	*0.50*	*4.50*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*4.50*	*0.70*	*6.30*	*Sqm*
	Crest	*2*	*0.929*		*1.124*	*2.09*	*Sqm*
		2		*4.5*	*1.124*	*10.12*	*Sqm*
	Toe Wall D/S Portion	*2*	*14.80*		*0.30*	*8.88*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*14.50*		*0.60*	*17.40*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.50*		*0.15*	*2.10*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.50*		*0.60*	*8.40*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**300.54**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.50*	*5.33*		*37.33*	*Sqm*
	TOTAL					**37.33**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*3.50*	*3.90*	*0.30*	**4.10**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*3.50*	*3.90*	*0.15*	**4.10**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*18.54*	*0.45*		*8.34*	*Sqm*
	On Abutment Top (Right Side)	*1*	*18.54*	*0.45*		*8.34*	*Sqm*
	TOTAL					**16.69**	**Sqm**

	Items	No.	Length	Width	Height	Quantity	Unit
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		4.81		4.81	**Cum**
	Abutment						
	Section 1-1	2	*1.14*	*0.50*		*1.143*	*Cum*
	Section 2-2	2	*3.50*	*0.50*		*3.507*	*Cum*
	Section 3-3	2	*2.20*	*0.35*		*1.549*	*Cum*
	Section 5-5	2	*6.77*	*0.50*		*6.786*	*Cum*
	Section 6-6	2	*3.74*	*0.35*		*2.633*	*Cum*
	D/S protection	2					
	Toe wall	2	*14.80*	*0.15*	*0.60*	*2.664*	*Cum*
		2	*3.50*	*0.15*	*0.60*	*4.200*	*Cum*
	TOTAL					**27.30**	**Cum**
	SHARDA TYPE FALL OF HEIGHT 1.830 METER AT CH. 4.520 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*4.93*	*2.60*	*3.509*	*89.951*	*Cum*
	Section 2-2	*2*	*5.50*	*1.50*	*3.509*	*57.899*	*Cum*
	Section 3-3	*2*	*2.95*	*1.38*	*3.309*	*26.942*	*Cum*
	Section 5-5	*2*	*6.73*	*2.75*	*3.509*	*129.791*	*Cum*
	Section 6-6	*2*	*3.60*	*1.38*	*3.309*	*32.833*	*Cum*
	U/S Key Floor	*1*	*0.775*	*4.280*	*1.450*	*4.810*	*Cum*
	U/S Floor	*1*	*2.703*	*4.280*	*2.680*	*31.004*	*Cum*
	D/S Floor	*1*	*7.296*	*4.280*	*1.400*	*43.718*	*Cum*
		1	*3.250*	*4.280*	*1.000*	*13.910*	*Cum*
	D/S Key Floor	*1*	*0.950*	*4.280*	*2.150*	*8.742*	*Cum*
	Toe Wall D/S Portion	*1*	*14.230*	*0.750*	*0.900*	*9.605*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*3.250*	*0.600*	*0.750*	*2.925*	*Cum*
						452.13	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*4.28*	*0.15*	*0.35*	*Cum*
		1	*1.453*	*4.28*	*0.15*	*0.93*	*Cum*
		1	*0.898*	*4.28*	*0.15*	*0.58*	*Cum*
		1	*0.777*	*4.28*	*0.15*	*0.50*	*Cum*
		1	*7.421*	*4.28*	*0.15*	*4.76*	*Cum*
		1	*0.636*	*4.28*	*0.15*	*0.41*	*Cum*
		1	*0.550*	*4.28*	*0.15*	*0.35*	*Cum*
		1	*0.070*	*4.28*	*0.15*	*0.04*	*Cum*
		1	*0.595*	*4.28*	*0.15*	*0.38*	*Cum*
		1	*2.236*	*4.28*	*0.15*	*1.44*	*Cum*
		1	*0.542*	*4.28*	*0.15*	*0.35*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*4.93*	*2.60*	*0.15*	*3.85*	*Cum*
	Section 2-2	*2*	*5.50*	*1.50*	*0.15*	*2.48*	*Cum*
	Section 3-3	*2*	*2.95*	*1.38*	*0.15*	*1.22*	*Cum*
	Section 5-5	*2*	*6.73*	*2.75*	*0.15*	*5.55*	*Cum*
	Section 6-6	*2*	*3.60*	*1.38*	*0.15*	*1.49*	*Cum*
	Toe Wall D/S Portion	*1*	*14.23*	*0.75*	*0.30*	*3.20*	*Cum*
	Toe Wall D/S Portion	*1*	*13.93*	*0.45*	*0.60*	*3.76*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.25*	*0.60*	*0.15*	*0.59*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.25*	*0.30*	*0.60*	*1.17*	*Cum*
	TOTAL					**33.39**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						

	Items	No.	Length	Width	Height	Quantity	Unit
	Abutment						
	Section 1-1	*2*	*4.86*	*0.45*	*0.45*	*1.97*	*Cum*
		2	*4.86*	*1.37*	*3.08*	*41.12*	*Cum*
		2	*4.86*	*2.45*	*1.05*	*24.98*	*Cum*
	Section 2-2	*2*	*5.50*	*0.45*	*0.45*	*2.23*	*Cum*
		2	*5.50*	*0.83*	*1.25*	*11.34*	*Cum*
		2	*5.50*	*1.35*	*1.05*	*15.59*	*Cum*
	Section 3-3	*2*	*2.49*	*0.45*	*0.45*	*1.01*	*Cum*
		2	*2.49*	*0.77*	*1.05*	*3.99*	*Cum*
		2	*2.49*	*1.23*	*0.80*	*4.89*	*Cum*
	Section 5-5	*2*	*6.73*	*0.45*	*0.45*	*2.73*	*Cum*
		2	*6.73*	*1.37*	*3.08*	*56.96*	*Cum*
		2	*6.73*	*2.45*	*1.05*	*34.60*	*Cum*
	Section 6-6	*2*	*4.21*	*0.45*	*0.45*	*1.71*	*Cum*
		2	*4.21*	*0.77*	*1.05*	*6.76*	*Cum*
		2	*4.21*	*1.23*	*0.80*	*8.29*	*Cum*
	Floor	*1*	*0.78*	*4.28*	*1.30*	*4.31*	*Cum*
		1	*2.15*	*4.28*	*0.50*	*4.61*	*Cum*
		1	*0.78*	*4.28*	*0.55*	*1.82*	*Cum*
		1	*7.30*	*4.28*	*1.05*	*32.79*	*Cum*
		1	*0.10*	*4.28*		*0.43*	*Cum*
		1	*0.70*	*4.28*	*0.20*	*0.60*	*Cum*
		1	*0.80*	*4.28*	*0.80*	*2.74*	*Cum*
		1	*0.78*	*4.28*	*0.05*	*0.17*	*Cum*
		1	*2.20*	*4.28*	*0.75*	*7.06*	*Cum*
		1	*0.95*	*4.28*	*2.00*	*8.13*	*Cum*
	Crest	*1*	*1.40*	*4.28*	*2.44*	*14.60*	*Cum*
	TOTAL					**295.42**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*1.00*	*4.28*	*0.15*	*0.64*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*19.52*	*0.45*	*0.05*	*0.44*	*Cum*
	On Abutment Top (Right Side)	*1*	*19.52*	*0.45*	*0.05*	*0.44*	*Cum*
	TOTAL					**1.52**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**295.42**	**0.30%**	**0.89**	**7850**	**6957.23**	**Kg**
	Total Weight in Metric Tonne					**6.96**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*4.86*		*0.45*	*8.75*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*4.86*		*3.08*	*59.86*	*Sqm*
		4		*1.37*	*3.08*	*16.93*	*Sqm*
		4	*4.86*		*1.05*	*20.41*	*Sqm*
		4		*2.45*	*1.05*	*10.28*	*Sqm*
	Section 2-2	*4*	*5.50*		*0.45*	*9.90*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*5.50*		*1.25*	*27.50*	*Sqm*
		4		*0.83*	*1.25*	*4.13*	*Sqm*
		4	*5.50*		*1.05*	*23.10*	*Sqm*
		4		*1.35*	*1.05*	*5.67*	*Sqm*
	Section 3-3	*4*	*2.49*		*0.45*	*4.47*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.49*		*1.05*	*10.44*	*Sqm*
		4		*0.77*	*1.05*	*3.21*	*Sqm*
		4	*2.49*		*0.80*	*7.95*	*Sqm*
		4		*1.23*	*0.80*	*3.94*	*Sqm*
	Section 5-5	*4*	*6.73*		*0.45*	*12.11*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*6.73*		*3.08*	*82.91*	*Sqm*
		4		*1.37*	*3.08*	*16.93*	*Sqm*
		4	*6.73*		*1.05*	*28.27*	*Sqm*
		4		*2.45*	*1.05*	*10.28*	*Sqm*
	Section 6-6	*4*	*4.21*		*0.45*	*7.58*	*Sqm*

	Items	No.	Length	Width	Height	Quantity	Unit
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*4.21*		*1.05*	*17.68*	*Sqm*
		4		*0.77*	*1.05*	*3.21*	*Sqm*
		4	*4.21*		*0.80*	*13.47*	*Sqm*
		4		*1.23*	*0.80*	*3.94*	*Sqm*
	Floor	*2*	*0.78*		*1.30*	*2.02*	*Sqm*
		2		*4.28*	*1.30*	*11.13*	*Sqm*
		2	*2.15*		*0.50*	*2.15*	*Sqm*
		2		*4.28*	*0.50*	*4.28*	*Sqm*
		2	*0.78*		*0.55*	*0.85*	*Sqm*
		2		*4.28*	*0.55*	*4.71*	*Sqm*
		2	*7.30*		*1.05*	*15.32*	*Sqm*
		2		*4.28*	*1.05*	*8.99*	*Sqm*
		2	*0.10*			*0.20*	*Sqm*
		2		*4.28*		*8.56*	*Sqm*
		2	*0.7*		*0.2*	*0.28*	*Sqm*
		2		*4.28*	*0.20*	*1.71*	*Sqm*
		2	*0.8*		*0.8*	*1.28*	*Sqm*
		2		*4.28*	*0.80*	*6.85*	*Sqm*
		2	*0.78*		*0.05*	*0.08*	*Sqm*
		2		*4.28*	*0.05*	*0.43*	*Sqm*
		2	*2.2*		*0.75*	*3.30*	*Sqm*
		2		*4.28*	*0.75*	*6.42*	*Sqm*
		2	*0.95*		*2.00*	*3.80*	*Sqm*
		2		*4.28*	*2.00*	*17.12*	*Sqm*
	Crest	*2*	*1.3985*		*2.44*	*6.82*	*Sqm*
		2		*4.28*	*2.44*	*20.89*	*Sqm*
	Toe Wall D/S Portion	*2*	*14.23*		*0.30*	*8.54*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*13.93*		*0.60*	*16.72*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.25*		*0.15*	*1.95*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.25*		*0.60*	*7.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**581.22**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.25*	*5.14*		*33.42*	*Sqm*
	TOTAL					**33.42**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In U/S Portion	*1*	*3.25*	*3.68*	*0.30*	**3.59**	**Cum**
	In D/S Portion	*1*	*7.16*	*4.28*	*0.45*	**13.79**	**Cum**
	TOTAL					**17.38**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*3.25*	*3.68*	*0.15*	**3.59**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*19.52*	*0.45*		*8.78*	*Sqm*
	On Abutment Top (Right Side)	*1*	*19.52*	*0.45*		*8.78*	*Sqm*
	TOTAL					**17.57**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		26.32		26.32	**Cum**
	Abutment						
	Section 1-1	2	*4.93*	*1.61*		*15.915*	*Cum*
	Section 2-2	2	*5.50*	*1.54*		*16.885*	*Cum*
	Section 3-3	2	*2.95*	*1.23*		*7.233*	*Cum*
	Section 5-5	2	*6.73*	*2.35*		*31.604*	*Cum*
	Section 6-6	2	*3.60*	*1.23*		*8.815*	*Cum*

	Items	No.	Length	Width	Height	Quantity	Unit
	D/S protection	2					
	Toe wall	2	*14.23*	*0.15*	*0.60*	*2.561*	*Cum*
		2	*3.25*	*0.15*	*0.60*	*3.900*	*Cum*
	TOTAL					**113.24**	**Cum**
	SHARDA TYPE FALL OF HEIGHT 1.372METER AT CH. 7.214 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	2	*4.15*	*2.29*	*3.379*	*64.270*	*Cum*
	Section 2-2	2	*4.75*	*1.41*	*3.379*	*45.262*	*Cum*
	Section 3-3	2	*3.70*	*1.29*	*3.179*	*30.347*	*Cum*
	Section 5-5	2	*6.61*	*2.44*	*3.379*	*109.121*	*Cum*
	Section 6-6	2	*3.51*	*1.29*	*3.179*	*28.788*	*Cum*
	U/S Key Floor	1	*0.675*	*3.900*	*1.050*	*2.764*	*Cum*
	U/S Floor	1	*2.214*	*3.900*	*3.129*	*27.018*	*Cum*
	D/S Floor	1	*6.286*	*3.900*	*1.200*	*29.418*	*Cum*
		1	*4.011*	*3.900*	*0.800*	*12.514*	*Cum*
	D/S Key Floor	1	*0.800*	*3.900*	*1.550*	*4.836*	*Cum*
	Toe Wall D/S Portion	1	*13.500*	*0.750*	*0.900*	*9.113*	*Cum*
	Boulder Pitching (D/S Portion)	2	*3.250*	*0.600*	*0.750*	*2.925*	*Cum*
						366.38	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	1	*0.542*	*3.90*	*0.15*	*0.32*	*Cum*
		1	*1.006*	*3.90*	*0.15*	*0.59*	*Cum*
		1	*0.909*	*3.90*	*0.15*	*0.53*	*Cum*
		1	*0.353*	*3.90*	*0.15*	*0.21*	*Cum*
		1	*6.479*	*3.90*	*0.15*	*3.79*	*Cum*
		1	*0.565*	*3.90*	*0.15*	*0.33*	*Cum*
		1	*0.530*	*3.90*	*0.15*	*0.31*	*Cum*
		1	*0.070*	*3.90*	*0.15*	*0.04*	*Cum*
		1	*1.645*	*3.90*	*0.15*	*0.96*	*Cum*
		1	*1.565*	*3.90*	*0.15*	*0.92*	*Cum*
		1	*0.542*	*3.90*	*0.15*	*0.32*	*Cum*
	PCC Below Abutment						
	Section 1-1	2	*4.15*	*2.29*	*0.15*	*2.85*	*Cum*
	Section 2-2	2	*4.75*	*1.41*	*0.15*	*2.01*	*Cum*
	Section 3-3	2	*3.70*	*1.29*	*0.15*	*1.43*	*Cum*
	Section 5-5	2	*6.61*	*2.44*	*0.15*	*4.84*	*Cum*
	Section 6-6	2	*3.51*	*1.29*	*0.15*	*1.36*	*Cum*
	Toe Wall D/S Portion	1	*13.50*	*0.75*	*0.30*	*3.04*	*Cum*
	Toe Wall D/S Portion	1	*13.20*	*0.45*	*0.60*	*3.56*	*Cum*
	Toe Wall for resting Brick Edging	2	*3.25*	*0.60*	*0.15*	*0.59*	*Cum*
	Toe Wall for resting Brick Edging	2	*3.25*	*0.30*	*0.60*	*1.17*	*Cum*
	TOTAL					**29.16**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	2	*4.07*	*0.45*	*0.45*	*1.65*	*Cum*
		2	*4.07*	*1.22*	*2.57*	*25.59*	*Cum*
		2	*4.07*	*2.14*	*0.85*	*14.84*	*Cum*
	Section 2-2	2	*4.75*	*0.45*	*0.45*	*1.92*	*Cum*
		2	*4.75*	*0.78*	*1.10*	*8.15*	*Cum*
		2	*4.75*	*1.26*	*0.85*	*10.17*	*Cum*
	Section 3-3	2	*3.28*	*0.45*	*0.45*	*1.33*	*Cum*
		2	*3.28*	*0.72*	*0.90*	*4.25*	*Cum*
		2	*3.28*	*1.14*	*0.60*	*4.49*	*Cum*
	Section 5-5	2	*6.61*	*0.45*	*0.45*	*2.68*	*Cum*
		2	*6.61*	*1.22*	*2.57*	*41.53*	*Cum*
		2	*6.61*	*2.14*	*0.85*	*24.08*	*Cum*
	Section 6-6	2	*4.08*	*0.45*	*0.45*	*1.65*	*Cum*
		2	*4.08*	*0.72*	*0.90*	*5.29*	*Cum*
		2	*4.08*	*1.14*	*0.60*	*5.58*	*Cum*

	Items	No.	Length	Width	Height	Quantity	Unit
	Floor	*1*	*0.68*	*3.90*	*0.90*	*2.37*	*Cum*
		1	*1.96*	*3.90*	*0.60*	*4.59*	*Cum*
		1	*0.73*	*3.90*	*0.25*	*0.71*	*Cum*
		1	*6.29*	*3.90*	*0.85*	*20.84*	*Cum*
		1	*0.27*	*3.90*	*0.40*	*0.42*	*Cum*
		1	*0.55*	*3.90*	*0.20*	*0.43*	*Cum*
		1	*0.80*	*3.90*	*0.80*	*2.50*	*Cum*
		1	*0.63*	*3.90*	*0.05*	*0.12*	*Cum*
		1	*2.95*	*3.90*	*0.60*	*6.90*	*Cum*
		1	*0.80*	*3.90*	*1.40*	*4.37*	*Cum*
	Crest	*1*	*1.22*	*3.90*	*1.96*	*9.30*	*Cum*
	TOTAL					**205.74**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.90*	*3.90*	*0.15*	*0.53*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*18.96*	*0.45*	*0.05*	*0.43*	*Cum*
	On Abutment Top (Right Side)	*1*	*18.96*	*0.45*	*0.05*	*0.43*	*Cum*
	TOTAL					**1.38**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**205.74**	**0.30%**	**0.62**	**7850**	**4845.16**	**Kg**
	Total Weight in Metric Tonne					**4.85**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*4.07*		*0.45*	*7.33*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*4.07*		*2.57*	*41.90*	*Sqm*
		4		*1.22*	*2.57*	*12.57*	*Sqm*
		4	*4.07*		*0.85*	*13.85*	*Sqm*
		4		*2.14*	*0.85*	*7.29*	*Sqm*
	Section 2-2	*4*	*4.75*		*0.45*	*8.55*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*4.75*		*1.10*	*20.90*	*Sqm*
		4		*0.78*	*1.10*	*3.43*	*Sqm*
		4	*4.75*		*0.85*	*16.15*	*Sqm*
		4		*1.26*	*0.85*	*4.28*	*Sqm*
	Section 3-3	*4*	*3.28*		*0.45*	*5.90*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.28*		*0.90*	*11.81*	*Sqm*
		4		*0.72*	*0.90*	*2.59*	*Sqm*
		4	*3.28*		*0.60*	*7.87*	*Sqm*
		4		*1.14*	*0.60*	*2.74*	*Sqm*
	Section 5-5	*4*	*6.61*		*0.45*	*11.90*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*6.61*		*2.57*	*68.00*	*Sqm*
		4		*1.22*	*2.57*	*12.57*	*Sqm*
		4	*6.61*		*0.85*	*22.47*	*Sqm*
		4		*2.14*	*0.85*	*7.29*	*Sqm*
	Section 6-6	*4*	*4.08*		*0.45*	*7.34*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*4.08*		*0.90*	*14.69*	*Sqm*
		4		*0.72*	*0.90*	*2.59*	*Sqm*
		4	*4.08*		*0.60*	*9.79*	*Sqm*
		4		*1.14*	*0.60*	*2.74*	*Sqm*
	Floor	*2*	*0.68*		*0.90*	*1.22*	*Sqm*
		2		*3.90*	*0.90*	*7.02*	*Sqm*
		2	*1.96*		*0.60*	*2.36*	*Sqm*
		2		*3.90*	*0.60*	*4.68*	*Sqm*
		2	*0.73*		*0.25*	*0.36*	*Sqm*
		2		*3.90*	*0.25*	*1.95*	*Sqm*
		2	*6.29*		*0.85*	*10.69*	*Sqm*
		2		*3.90*	*0.85*	*6.63*	*Sqm*
		2	*0.27*		*0.40*	*0.22*	*Sqm*
		2		*3.90*	*0.40*	*3.12*	*Sqm*
		2	*0.55*		*0.2*	*0.22*	*Sqm*

	Items	No.	Length	Width	Height	Quantity	Unit
		2		*3.9*	*0.20*	*1.56*	*Sqm*
		2	*0.8*		*0.8*	*1.28*	*Sqm*
		2		*3.9*	*0.80*	*6.24*	*Sqm*
		2	*0.63*		*0.05*	*0.06*	*Sqm*
		2		*3.90*	*0.05*	*0.39*	*Sqm*
		2	*2.95*		*0.6*	*3.54*	*Sqm*
		2		*3.9*	*0.60*	*4.68*	*Sqm*
		2	*0.80*		*1.40*	*2.24*	*Sqm*
		2		*3.90*	*1.40*	*10.92*	*Sqm*
	Crest	*2*	*1.218*		*1.957*	*4.77*	*Sqm*
		2		*3.9*	*1.957*	*15.26*	*Sqm*
	Toe Wall D/S Portion	*2*	*13.50*		*0.30*	*8.10*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*13.20*		*0.60*	*15.84*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.25*		*0.15*	*1.95*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.25*		*0.60*	*7.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**455.74**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.25*	*4.57*		*29.72*	*Sqm*
	TOTAL					**29.72**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In U/S Portion	*1*	*3.25*	*3.30*	*0.30*	**3.22**	**Cum**
	In D/S Portion	*1*	*5.18*	*4.08*	*0.45*	**9.51**	**Cum**
	TOTAL					**12.73**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*3.25*	*3.30*	*0.15*	**3.22**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*18.96*	*0.45*		*8.53*	*Sqm*
	On Abutment Top (Right Side)	*1*	*18.96*	*0.45*		*8.53*	*Sqm*
	TOTAL					**17.06**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I		2.379				
	Under U/S floor	1		18.60		18.60	**Cum**
	Abutment						
	Section 1-1	2	*4.15*	*2.54*		*21.053*	*Cum*
	Section 2-2	2	*4.75*	*1.30*		*12.350*	*Cum*
	Section 3-3	2	*3.70*	*1.02*		*7.570*	*Cum*
	Section 5-5	2	*6.61*	*2.44*		*32.228*	*Cum*
	Section 6-6	2	*3.51*	*1.02*		*7.181*	*Cum*
	D/S protection	2					
	Toe wall	2	*13.50*	*0.15*	*0.60*	*2.430*	*Cum*
		2	*3.25*	*0.15*	*0.60*	*3.900*	*Cum*
	TOTAL					**105.31**	**Cum**

	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH. 9.150 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.59*	*2.32*	*3.425*	*25.352*	*Cum*
	Section 2-2	*2*	*5.00*	*1.41*	*3.425*	*48.293*	*Cum*
	Section 3-3	*2*	*3.70*	*1.29*	*3.225*	*30.786*	*Cum*
	Section 5-5	*2*	*6.04*	*2.47*	*3.425*	*102.342*	*Cum*
	Section 6-6	*2*	*3.16*	*1.29*	*3.225*	*26.293*	*Cum*
	U/S Key Floor	*1*	*0.575*	*3.900*	*0.650*	*1.458*	*Cum*
	U/S Floor	*1*	*3.250*	*3.900*	*2.874*	*36.428*	*Cum*
	D/S Floor	*1*	*5.000*	*3.900*	*1.350*	*26.325*	*Cum*
		1	*4.000*	*3.900*	*1.150*	*17.940*	*Cum*
	D/S Key Floor	*1*	*0.825*	*3.900*	*1.650*	*5.309*	*Cum*
	Toe Wall D/S Portion	*1*	*12.800*	*0.750*	*0.900*	*8.640*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*3.000*	*0.600*	*0.750*	*1.350*	*Cum*
						330.51	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*3.90*	*0.15*	*0.32*	*Cum*
		1	*0.559*	*3.90*	*0.15*	*0.33*	*Cum*
		1	*7.918*	*3.90*	*0.15*	*4.63*	*Cum*
		1	*0.636*	*3.90*	*0.15*	*0.37*	*Cum*
		1	*1.797*	*3.90*	*0.15*	*1.05*	*Cum*
		1	*1.677*	*3.90*	*0.15*	*0.98*	*Cum*
		1	*0.542*	*3.90*	*0.15*	*0.32*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.59*	*2.32*	*0.15*	*1.11*	*Cum*
	Section 2-2	*2*	*5.00*	*1.41*	*0.15*	*2.12*	*Cum*
	Section 3-3	*2*	*3.70*	*1.29*	*0.15*	*1.43*	*Cum*
	Section 5-5	*2*	*6.04*	*2.47*	*0.15*	*4.48*	*Cum*
	Section 6-6	*2*	*3.16*	*1.29*	*0.15*	*1.22*	*Cum*
	Toe Wall D/S Portion	*1*	*12.80*	*0.75*	*0.30*	*2.88*	*Cum*
	Toe Wall D/S Portion	*1*	*12.50*	*0.45*	*0.60*	*3.38*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.00*	*0.60*	*0.15*	*0.54*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.00*	*0.30*	*0.60*	*1.08*	*Cum*
	TOTAL					**26.23**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.37*	*0.45*	*0.45*	*0.55*	*Cum*
		2	*1.37*	*1.24*	*2.62*	*8.88*	*Cum*
		2	*1.37*	*2.17*	*1.00*	*5.95*	*Cum*
	Section 2-2	*2*	*5.00*	*0.45*	*0.45*	*2.03*	*Cum*
		2	*5.00*	*0.78*	*1.10*	*8.58*	*Cum*
		2	*5.00*	*1.26*	*1.00*	*12.60*	*Cum*
	Section 3-3	*2*	*3.28*	*0.45*	*0.45*	*1.33*	*Cum*
		2	*3.28*	*0.72*	*0.90*	*4.25*	*Cum*
		2	*3.28*	*1.14*	*0.75*	*5.61*	*Cum*
	Section 5-5	*2*	*5.63*	*0.45*	*0.45*	*2.28*	*Cum*
		2	*5.63*	*1.24*	*2.62*	*36.55*	*Cum*
		2	*5.63*	*2.17*	*1.00*	*24.48*	*Cum*
	Section 6-6	*2*	*3.73*	*0.45*	*0.45*	*1.51*	*Cum*
		2	*3.73*	*0.72*	*0.90*	*4.83*	*Cum*
		2	*3.73*	*1.14*	*0.75*	*6.38*	*Cum*
	Floor	*1*	*0.58*	*3.90*	*0.50*	*1.12*	*Cum*
		1	*8.25*	*3.90*	*1.00*	*32.18*	*Cum*
		1	*0.62*	*3.90*	*0.45*	*1.09*	*Cum*
		1	*0.20*	*3.90*	*0.65*	*0.51*	*Cum*
		1	*3.80*	*3.90*	*0.75*	*11.12*	*Cum*
		1	*0.83*	*3.90*	*1.50*	*4.83*	*Cum*
	Crest	*1*	*1.33*	*3.90*	*2.05*	*10.69*	*Cum*
	TOTAL					**187.34**	**Cum**

	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*1.00*	*3.90*	*0.15*	*0.59*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*20.41*	*0.45*	*0.05*	*0.46*	*Cum*
	On Abutment Top (Right Side)	*1*	*20.41*	*0.45*	*0.05*	*0.46*	*Cum*
	TOTAL					**1.50**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**187.34**	**0.30%**	**0.56**	**7850**	**4411.78**	**Kg**
	Total Weight in Metric Tonne					**4.41**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.37*		*0.45*	*2.46*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.37*		*2.62*	*14.36*	*Sqm*
		4		*1.24*	*2.62*	*12.98*	*Sqm*
		4	*1.37*		*1.00*	*5.47*	*Sqm*
		4		*2.17*	*1.00*	*8.70*	*Sqm*
	Section 2-2	*4*	*5.00*		*0.45*	*9.00*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*5.00*		*1.10*	*22.00*	*Sqm*
		4		*0.78*	*1.10*	*3.43*	*Sqm*
		4	*5.00*		*1.00*	*20.00*	*Sqm*
		4		*1.26*	*1.00*	*5.04*	*Sqm*
	Section 3-3	*4*	*3.28*		*0.45*	*5.90*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.28*		*0.90*	*11.81*	*Sqm*
		4		*0.72*	*0.90*	*2.59*	*Sqm*
		4	*3.28*		*0.75*	*9.84*	*Sqm*
		4		*1.14*	*0.75*	*3.42*	*Sqm*
	Section 5-5	*4*	*5.63*		*0.45*	*10.13*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*5.63*		*2.62*	*59.10*	*Sqm*
		4		*1.24*	*2.62*	*12.98*	*Sqm*
		4	*5.63*		*1.00*	*22.52*	*Sqm*
		4		*2.17*	*1.00*	*8.70*	*Sqm*
	Section 6-6	*4*	*3.73*		*0.45*	*6.71*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.73*		*0.90*	*13.43*	*Sqm*
		4		*0.72*	*0.90*	*2.59*	*Sqm*
		4	*3.73*		*0.75*	*11.19*	*Sqm*
		4		*1.14*	*0.75*	*3.42*	*Sqm*
	Floor	*2*	*0.58*		*0.50*	*0.58*	*Sqm*
		2		*3.90*	*0.50*	*3.90*	*Sqm*
		2	*8.25*		*1.00*	*16.50*	*Sqm*
		2		*3.90*	*1.00*	*7.80*	*Sqm*
		2	*0.62*		*0.45*	*0.56*	*Sqm*
		2		*3.90*	*0.45*	*3.51*	*Sqm*
		2	*0.20*		*0.65*	*0.26*	*Sqm*
		2		*3.90*	*0.65*	*5.07*	*Sqm*
		2	*3.80*		*0.75*	*5.70*	*Sqm*
		2		*3.90*	*0.75*	*5.85*	*Sqm*
		2	*0.83*		*1.50*	*2.48*	*Sqm*
		2		*3.90*	*1.50*	*11.70*	*Sqm*
	Crest	*2*	*1.334*		*2.054*	*5.48*	*Sqm*
		2		*3.9*	*2.054*	*16.02*	*Sqm*
	Toe Wall D/S Portion	*2*	*12.80*		*0.30*	*7.68*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*12.50*		*0.60*	*15.00*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.00*		*0.15*	*1.80*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.00*		*0.60*	*7.20*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**410.99**	**Sqm**

	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*1*	*3.00*	*4.57*		*13.72*	*Sqm*
	TOTAL					**13.72**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*3.00*	*3.30*	*0.30*	**2.97**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*3.00*	*3.30*	*0.15*	**2.97**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*20.41*	*0.45*		*9.19*	*Sqm*
	On Abutment Top (Right Side)	*1*	*20.41*	*0.45*		*9.19*	*Sqm*
	TOTAL					**18.37**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		16.69		16.69	**Cum**
	Abutment						
	Section 1-1	2	*1.59*	*2.39*		*7.596*	*Cum*
	Section 2-2	2	*5.00*	*1.32*		*13.200*	*Cum*
	Section 3-3	2	*3.70*	*1.05*		*7.755*	*Cum*
	Section 5-5	2	*6.04*	*2.39*		*28.806*	*Cum*
	Section 6-6	2	*3.16*	*1.05*		*6.623*	*Cum*
	D/S protection	2					
	Toe wall	2	*12.80*	*0.15*	*0.60*	*2.304*	*Cum*
		2	3.00	0.15	0.60	*3.600*	*Cum*
	TOTAL					**86.58**	**Cum**

	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 11.90 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*2.01*	*1.91*	*1.665*	*12.794*	*Cum*
	Section 2-2	*2*	*1.50*	*1.36*	*1.665*	*6.803*	*Cum*
	Section 3-3	*2*	*3.25*	*1.24*	*1.465*	*11.827*	*Cum*
	Section 5-5	*2*	*5.36*	*2.06*	*1.665*	*36.779*	*Cum*
	Section 6-6	*2*	*2.93*	*1.24*	*1.465*	*10.655*	*Cum*
	U/S Key Floor	*1*	*0.625*	*3.500*	*0.850*	*1.859*	*Cum*
	U/S Floor	*1*	*2.750*	*3.500*	*1.764*	*16.979*	*Cum*
	D/S Floor	*1*	*4.000*	*3.500*	*0.850*	*11.900*	*Cum*
		1	*5.352*	*3.500*	*0.100*	*1.873*	*Cum*
		1	*1.750*	*3.500*	*0.650*	*3.981*	*Cum*
	D/S Key Floor	*1*	*0.725*	*3.500*	*1.250*	*3.172*	*Cum*
	Toe Wall D/S Portion	*1*	*11.840*	*0.750*	*0.900*	*7.992*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.750*	*0.600*	*0.750*	*2.475*	*Cum*
						129.09	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*3.50*	*0.15*	*0.28*	*Cum*
		1	*1.318*	*3.50*	*0.15*	*0.69*	*Cum*
		1	*5.533*	*3.50*	*0.15*	*2.90*	*Cum*
		1	*0.424*	*3.50*	*0.15*	*0.22*	*Cum*
		1	*0.188*	*3.50*	*0.15*	*0.10*	*Cum*
		1	*1.230*	*3.50*	*0.15*	*0.65*	*Cum*
		1	*0.542*	*3.50*	*0.15*	*0.28*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*2.01*	*1.91*	*0.15*	*1.15*	*Cum*
	Section 2-2	*2*	*1.50*	*1.36*	*0.15*	*0.61*	*Cum*
	Section 3-3	*2*	*3.25*	*1.24*	*0.15*	*1.21*	*Cum*
	Section 5-5	*2*	*5.36*	*2.06*	*0.15*	*3.31*	*Cum*
	Section 6-6	*2*	*2.93*	*1.24*	*0.15*	*1.09*	*Cum*
	Toe Wall D/S Portion	*1*	*11.84*	*0.75*	*0.30*	*2.66*	*Cum*
	Toe Wall D/S Portion	*1*	*11.54*	*0.45*	*0.60*	*3.12*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.75*	*0.60*	*0.15*	*0.50*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.75*	*0.30*	*0.60*	*0.99*	*Cum*
	TOTAL					**19.78**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.79*	*0.45*	*0.45*	*0.72*	*Cum*
		2	*1.79*	*1.03*	*1.93*	*7.12*	*Cum*
		2	*1.79*	*1.76*	*0.60*	*3.77*	*Cum*
	Section 2-2	*2*	*1.50*	*0.45*	*0.45*	*0.61*	*Cum*
		2	*1.50*	*0.76*	*1.02*	*2.31*	*Cum*
		2	*1.50*	*1.21*	*0.60*	*2.18*	*Cum*
	Section 3-3	*2*	*2.85*	*0.45*	*0.45*	*1.16*	*Cum*
		2	*2.85*	*0.70*	*0.82*	*3.26*	*Cum*
		2	*2.85*	*1.09*	*0.60*	*3.74*	*Cum*
	Section 5-5	*2*	*5.32*	*0.45*	*0.45*	*2.15*	*Cum*
		2	*5.32*	*1.03*	*1.93*	*21.19*	*Cum*
		2	*5.32*	*1.76*	*0.50*	*9.36*	*Cum*
	Section 6-6	*2*	*3.47*	*0.45*	*0.45*	*1.41*	*Cum*
		2	*3.47*	*0.70*	*0.82*	*3.97*	*Cum*
		2	*3.47*	*1.09*	*0.60*	*4.55*	*Cum*
	Floor	*1*	*0.63*	*3.50*	*0.70*	*1.53*	*Cum*
		1	*6.75*	*3.50*	*0.50*	*11.81*	*Cum*
		1	*5.35*	*3.50*	*0.10*	*1.87*	*Cum*
		1	*0.26*	*3.50*	*0.30*	*0.27*	*Cum*
		1	*0.20*	*3.50*	*0.40*	*0.28*	*Cum*
		1	*1.55*	*3.50*	*0.50*	*2.71*	*Cum*
		1	*0.73*	*3.50*	*1.10*	*2.79*	*Cum*
	Crest	*1*	*1.08*	*3.50*	*1.41*	*5.30*	*Cum*

	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**94.06**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.85*	*3.50*	*0.15*	*0.45*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*15.48*	*0.45*	*0.05*	*0.35*	*Cum*
	On Abutment Top (Right Side)	*1*	*15.48*	*0.45*	*0.05*	*0.35*	*Cum*
	TOTAL					**1.14**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**94.06**	**0.30%**	**0.28**	**7850**	**2215.22**	**Kg**
	Total Weight in Metric Tonne					**2.22**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.79*		*0.45*	*3.22*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.79*		*1.93*	*13.82*	*Sqm*
		4		*1.03*	*1.93*	*7.97*	*Sqm*
		4	*1.79*		*0.60*	*4.29*	*Sqm*
		4		*1.76*	*0.60*	*4.22*	*Sqm*
	Section 2-2	*4*	*1.50*		*0.45*	*2.70*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.50*		*1.02*	*6.12*	*Sqm*
		4		*0.76*	*1.02*	*3.08*	*Sqm*
		4	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*1.21*	*0.60*	*2.91*	*Sqm*
	Section 3-3	*4*	*2.85*		*0.45*	*5.14*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.85*		*0.82*	*9.36*	*Sqm*
		4		*0.70*	*0.82*	*2.28*	*Sqm*
		4	*2.85*		*0.60*	*6.85*	*Sqm*
		4		*1.09*	*0.60*	*2.62*	*Sqm*
	Section 5-5	*4*	*5.32*		*0.45*	*9.57*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*5.32*		*1.93*	*41.14*	*Sqm*
		4		*1.03*	*1.93*	*7.97*	*Sqm*
		4	*5.32*		*0.50*	*10.64*	*Sqm*
		4		*1.76*	*0.50*	*3.52*	*Sqm*
	Section 6-6	*4*	*3.47*		*0.45*	*6.25*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.47*		*0.82*	*11.39*	*Sqm*
		4		*0.70*	*0.82*	*2.28*	*Sqm*
		4	*3.47*		*0.60*	*8.34*	*Sqm*
		4		*1.09*	*0.60*	*2.62*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*3.50*	*0.70*	*4.90*	*Sqm*
		2	*6.75*		*0.50*	*6.75*	*Sqm*
		2		*3.50*	*0.50*	*3.50*	*Sqm*
		2	*5.35*		*0.10*	*1.07*	*Sqm*
		2		*3.50*	*0.10*	*0.70*	*Sqm*
		2	*0.26*		*0.30*	*0.15*	*Sqm*
		2		*3.50*	*0.30*	*2.10*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*3.50*	*0.40*	*2.80*	*Sqm*
		2	*1.55*		*0.50*	*1.55*	*Sqm*
		2		*3.50*	*0.50*	*3.50*	*Sqm*
		2	*0.73*		*1.10*	*1.60*	*Sqm*
		2		*3.50*	*1.10*	*7.70*	*Sqm*
	Crest	*2*	*1.076*		*1.407*	*3.03*	*Sqm*
		2		*3.5*	*1.407*	*9.85*	*Sqm*
	Toe Wall D/S Portion	*2*	*11.84*		*0.30*	*7.10*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*11.54*		*0.60*	*13.85*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.75*		*0.15*	*1.65*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*

	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*2.75*		*0.60*	*6.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**267.46**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.75*	*4.27*		*23.48*	*Sqm*
	TOTAL					**23.48**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.75*	*2.90*	*0.30*	**2.39**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.75*	*2.90*	*0.15*	**2.39**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*15.48*	*0.45*		*6.97*	*Sqm*
	On Abutment Top (Right Side)	*1*	*15.48*	*0.45*		*6.97*	*Sqm*
	TOTAL					**13.93**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		8.17		8.17	**Cum**
	Abutment						
	Section 1-1	2	*2.01*	*0.62*		*2.478*	*Cum*
	Section 2-2	2	*1.50*	*5.34*		*16.020*	*Cum*
	Section 3-3	2	*3.25*	*0.44*		*2.880*	*Cum*
	Section 5-5	2	*5.36*	*0.59*		*6.337*	*Cum*
	Section 6-6	2	*2.93*	*0.44*		*2.594*	*Cum*
	D/S protection	2					
	Toe wall	2	*11.84*	*0.15*	*0.60*	*2.13*	*Cum*
		2	*2.75*	*0.15*	*0.60*	*3.30*	*Cum*
	TOTAL					**43.91**	**Cum**
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 15.550 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.34*	*1.81*	*0.938*	*4.557*	*Cum*
	Section 2-2	*2*	*3.46*	*1.78*	*0.938*	*11.554*	*Cum*
	Section 3-3	*2*	*4.95*	*1.66*	*0.738*	*12.128*	*Cum*
	Section 5-5	*2*	*4.54*	*1.96*	*0.938*	*16.691*	*Cum*
	Section 6-6	*2*	*2.07*	*1.14*	*0.738*	*3.475*	*Cum*
	U/S Key Floor	*1*	*0.613*	*3.050*	*0.800*	*1.495*	*Cum*
	U/S Floor	*1*	*2.750*	*3.050*	*1.814*	*15.215*	*Cum*
	D/S Floor	*1*	*3.250*	*3.050*	*0.900*	*8.921*	*Cum*
		1	*5.250*	*3.050*	*0.700*	*11.209*	*Cum*
	D/S Key Floor	*1*	*0.700*	*3.050*	*1.150*	*2.455*	*Cum*
	Toe Wall D/S Portion	*1*	*10.200*	*0.750*	*0.900*	*6.885*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.250*	*0.600*	*0.750*	*2.025*	*Cum*
						96.61	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*3.05*	*0.15*	*0.25*	*Cum*
		1	*0.727*	*3.05*	*0.15*	*0.33*	*Cum*
		1	*5.893*	*3.05*	*0.15*	*2.70*	*Cum*
		1	*0.353*	*3.05*	*0.15*	*0.16*	*Cum*
		1	*0.345*	*3.05*	*0.15*	*0.16*	*Cum*

	Items	No.	Length	Width	Height	Quantity	Unit
		1	1.118	3.05	0.15	0.51	Cum
		1	0.542	3.05	0.15	0.25	Cum
	PCC Below Abutment						
	Section 1-1	2	1.34	1.81	0.15	0.73	Cum
	Section 2-2	2	3.46	1.78	0.15	1.85	Cum
	Section 3-3	2	4.95	1.66	0.15	2.47	Cum
	Section 5-5	2	4.54	1.96	0.15	2.67	Cum
	Section 6-6	2	2.07	1.14	0.15	0.71	Cum
	Toe Wall D/S Portion	1	10.20	0.75	0.30	2.30	Cum
	Toe Wall D/S Portion	1	9.90	0.45	0.60	2.67	Cum
	Toe Wall for resting Brick Edging	2	2.25	0.60	0.15	0.41	Cum
	Toe Wall for resting Brick Edging	2	2.25	0.30	0.60	0.81	Cum
	TOTAL					**18.96**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	2	1.12	0.45	0.45	0.45	Cum
		2	1.12	0.98	1.76	3.86	Cum
		2	1.12	1.66	0.55	2.04	Cum
	Section 2-2	2	3.46	0.82	0.50	2.84	Cum
		2	3.46	1.08	0.85	6.32	Cum
		2	3.46	1.48	1.30	13.31	Cum
	Section 3-3	2	4.61	0.82	0.50	3.78	Cum
		2	4.61	1.02	0.65	6.08	Cum
		2	4.61	1.36	1.50	18.79	Cum
	Section 5-5	2	4.50	0.45	0.45	1.82	Cum
		2	4.50	0.98	1.76	15.54	Cum
		2	4.50	1.66	0.55	8.21	Cum
	Section 6-6	2	2.75	0.45	0.50	1.24	Cum
		2	2.75	0.65	0.65	2.30	Cum
		2	2.75	0.99	0.50	2.72	Cum
	Deduction for M 25 grade of concrete	2	0.82	6.50	0.30	-3.20	Cum
	Floor	1	0.61	3.05	0.65	1.21	Cum
		1	6.00	3.05	0.55	10.07	Cum
		1	0.57	3.05	0.25	0.44	Cum
		1	0.20	3.05	0.40	0.24	Cum
		1	5.05	3.05	0.50	7.70	Cum
		1	0.70	3.05	1.00	2.14	Cum
	Crest	1	1.06	3.05	1.32	4.26	Cum
	TOTAL					**112.15**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	1	0.75	3.05	0.15	0.34	Cum
	Coping over Abutment Top	2	7.48	0.45	0.05	0.34	Cum
	Slab Bridge						
	Slab	1	3.85	6.5	0.54	13.39	Cum
	Wearing coat	1	3.85	5.50	0.07	1.48	Cum
	Dirt wall	2	0.40	6.5	0.65	3.38	Cum
	300 mm thick pedastial	2	0.82	6.5	0.30	3.20	Cum
	TOTAL					**22.13**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	16	45	4.41		1.578	313.2	Kg
a2	10	19	7.00		0.616	82.0	Kg
a3	10	2	6.40		0.616	7.9	Kg
a4	10	26	4.33		0.616	69.4	Kg
a5	10	16	6.90		0.616	68.1	Kg
x1	12	64	2.55		0.888	144.9	Kg
x2	16	64	1.99		1.578	201.0	Kg
x3	12	20	3.75		0.888	66.6	Kg
	Taking Skin reinforcement @0.3% of M-20	**112.15**	**0.30%**	**0.34**	**7850**	**2641.11**	**Kg**

	Items	No.	Length	Width	Height	Quantity	Unit
	Total Reinforcement Steel (in kg)					*3594.1*	*Kg*
	TOTAL REINFORCEMENT STEEL (in MT)					**3.59**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.12*		*0.45*	*2.01*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.12*		*1.76*	*7.89*	*Sqm*
		4		*0.98*	*1.76*	*6.91*	*Sqm*
		4	*1.12*		*0.55*	*2.46*	*Sqm*
		4		*1.66*	*0.55*	*3.65*	*Sqm*
	Section 2-2	*4*	*3.46*		*0.50*	*6.92*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*3.46*		*0.85*	*11.76*	*Sqm*
		4		*1.08*	*0.85*	*3.66*	*Sqm*
		4	*3.46*		*1.30*	*17.99*	*Sqm*
		4		*1.48*	*1.30*	*7.70*	*Sqm*
	Section 3-3	*4*	*4.61*		*0.50*	*9.21*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*4.61*		*0.65*	*11.97*	*Sqm*
		4		*1.02*	*0.65*	*2.64*	*Sqm*
		4	*4.61*		*1.50*	*27.63*	*Sqm*
		4		*1.36*	*1.50*	*8.16*	*Sqm*
	Section 5-5	*4*	*4.50*		*0.45*	*8.10*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*4.50*		*1.76*	*31.75*	*Sqm*
		4		*0.98*	*1.76*	*6.91*	*Sqm*
		4	*4.50*		*0.55*	*9.90*	*Sqm*
		4		*1.66*	*0.55*	*3.65*	*Sqm*
	Section 6-6	*4*	*2.75*		*0.50*	*5.49*	*Sqm*
		4		*0.45*	*0.50*	*0.90*	*Sqm*
		4	*2.75*		*0.65*	*7.14*	*Sqm*
		4		*0.65*	*0.65*	*1.68*	*Sqm*
		4	*2.75*		*0.50*	*5.49*	*Sqm*
		4		*0.99*	*0.50*	*1.98*	*Sqm*
	Floor	*2*	*0.61*		*0.65*	*0.80*	*Sqm*
		2		*3.05*	*0.65*	*3.97*	*Sqm*
		2	*6.00*		*0.55*	*6.60*	*Sqm*
		2		*3.05*	*0.55*	*3.36*	*Sqm*
		2	*0.57*		*0.25*	*0.29*	*Sqm*
		2		*3.05*	*0.25*	*1.53*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*3.05*	*0.40*	*2.44*	*Sqm*
		2	*5.05*		*0.50*	*5.05*	*Sqm*
		2		*3.05*	*0.50*	*3.05*	*Sqm*
		2	*0.70*		*1.00*	*1.40*	*Sqm*
		2		*3.05*	*1.00*	*6.10*	*Sqm*
	Crest	*2*	*1.061*		*1.315*	*2.79*	*Sqm*
		2		*3.05*	*1.315*	*8.02*	*Sqm*
	Toe Wall D/S Portion	*2*	*10.20*		*0.30*	*6.12*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*9.90*		*0.60*	*11.88*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.25*		*0.15*	*1.35*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.25*		*0.60*	*5.40*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**290.80**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.25*	*3.62*		*16.30*	*Sqm*
	TOTAL					**16.30**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.25*	*2.45*	*0.30*	**1.65**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.25*	*2.45*	*0.15*	**1.65**	**Cum**

	Items	No.	Length	Width	Height	Quantity	Unit
10	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.						
	On Abutment Top (Left Side)	*1*	*7.48*	*0.45*		*3.37*	*Sqm*
	On Abutment Top (Right Side)	*1*	*7.48*	*0.45*		*3.37*	*Sqm*
	TOTAL					**6.73**	**Sqm**
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		7.61		7.61	**Cum**
	Abutment						
	Section 1-1	2	*1.34*	*0.17*		*0.459*	*Cum*
	Section 2-2	2	*3.46*	*0.12*		*0.817*	*Cum*
	Section 3-3	2	*4.95*	*0.12*		*1.168*	*Cum*
	Section 5-5	2	*4.54*	*0.17*		*1.554*	*Cum*
	Section 6-6	2	*2.07*	*0.08*		*0.310*	*Cum*
	D/S protection	2					
	Toe wall	2	*10.20*	*0.15*	*0.60*	*1.836*	*Cum*
		2	2.25	0.15	0.60	*2.700*	*Cum*
	TOTAL					**16.45**	**Cum**

	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 17.875 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*2.23*	*1.53*	*1.269*	*8.648*	*Cum*
	Section 2-2	*2*	*1.50*	*1.14*	*1.269*	*4.340*	*Cum*
	Section 3-3	*2*	*2.00*	*1.02*	*1.069*	*4.362*	*Cum*
	Section 5-5	*2*	*4.02*	*1.68*	*1.269*	*17.147*	*Cum*
	Section 6-6	*2*	*1.86*	*1.02*	*1.069*	*4.045*	*Cum*
	U/S Key Floor	*1*	*0.625*	*2.200*	*0.850*	*1.169*	*Cum*
	U/S Floor	*1*	*2.000*	*2.200*	*0.650*	*2.860*	*Cum*
	D/S Floor	*1*	*2.500*	*2.200*	*0.850*	*4.675*	*Cum*
		1	*2.500*	*2.200*	*0.650*	*3.575*	*Cum*
	D/S Key Floor	*1*	*0.625*	*2.200*	*0.850*	*1.169*	*Cum*
	Toe Wall D/S Portion	*1*	*7.950*	*0.750*	*0.900*	*5.366*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*0.600*	*0.750*	*1.350*	*Cum*
						58.71	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*2.20*	*0.15*	*0.18*	*Cum*
		1	*0.782*	*2.20*	*0.15*	*0.26*	*Cum*
		1	*3.876*	*2.20*	*0.15*	*1.28*	*Cum*
		1	*0.282*	*2.20*	*0.15*	*0.09*	*Cum*
		1	*1.138*	*2.20*	*0.15*	*0.38*	*Cum*
		1	*0.782*	*2.20*	*0.15*	*0.26*	*Cum*
		1	*0.542*	*2.20*	*0.15*	*0.18*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*2.23*	*1.53*	*0.15*	*1.02*	*Cum*
	Section 2-2	*2*	*1.50*	*1.14*	*0.15*	*0.51*	*Cum*
	Section 3-3	*2*	*2.00*	*1.02*	*0.15*	*0.61*	*Cum*
	Section 5-5	*2*	*4.02*	*1.68*	*0.15*	*2.03*	*Cum*
	Section 6-6	*2*	*1.86*	*1.02*	*0.15*	*0.57*	*Cum*
	Toe Wall D/S Portion	*1*	*7.95*	*0.75*	*0.30*	*1.79*	*Cum*
	Toe Wall D/S Portion	*1*	*7.65*	*0.45*	*0.60*	*2.07*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.60*	*0.15*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**12.03**	**Cum**

	Items	No.	Length	Width	Height	Quantity	Unit
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*2.04*	*0.45*	*0.45*	*0.82*	*Cum*
		2	*2.04*	*0.84*	*1.30*	*4.45*	*Cum*
		2	*2.04*	*1.38*	*0.50*	*2.81*	*Cum*
	Section 2-2	*2*	*1.50*	*0.45*	*0.45*	*0.61*	*Cum*
		2	*1.50*	*0.65*	*0.65*	*1.26*	*Cum*
		2	*1.50*	*0.99*	*0.50*	*1.49*	*Cum*
	Section 3-3	*2*	*2.15*	*0.45*	*0.45*	*0.87*	*Cum*
		2	*2.15*	*0.59*	*0.45*	*1.13*	*Cum*
		2	*2.15*	*0.87*	*0.50*	*1.87*	*Cum*
	Section 5-5	*2*	*3.98*	*0.45*	*0.45*	*1.61*	*Cum*
		2	*3.98*	*0.84*	*1.30*	*8.69*	*Cum*
		2	*3.98*	*1.38*	*0.50*	*5.49*	*Cum*
	Section 6-6	*2*	*1.70*	*0.45*	*0.45*	*0.69*	*Cum*
		2	*1.70*	*0.59*	*0.45*	*0.90*	*Cum*
		2	*1.70*	*0.87*	*0.50*	*1.48*	*Cum*
	Floor	*1*	*0.63*	*2.20*	*0.70*	*0.96*	*Cum*
		1	*4.50*	*2.20*	*0.50*	*4.95*	*Cum*
		1	*0.31*	*2.20*	*0.25*	*0.17*	*Cum*
		1	*0.20*	*2.20*	*0.40*	*0.18*	*Cum*
		1	*2.30*	*2.20*	*0.50*	*2.53*	*Cum*
		1	*0.63*	*2.20*	*0.70*	*0.96*	*Cum*
	Crest	*1*	*0.79*	*2.20*	*0.92*	*1.60*	*Cum*
	TOTAL					**45.51**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.65*	*2.20*	*0.15*	*0.21*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*12.29*	*0.45*	*0.05*	*0.28*	*Cum*
	On Abutment Top (Right Side)	*1*	*12.29*	*0.45*	*0.05*	*0.28*	*Cum*
	TOTAL					**0.77**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**45.51**	**0.30%**	**0.14**	**7850**	**1071.66**	**Kg**
	Total Weight in Metric Tonne					**1.07**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*2.04*		*0.45*	*3.67*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.04*		*1.30*	*10.59*	*Sqm*
		4		*0.84*	*1.30*	*4.37*	*Sqm*
		4	*2.04*		*0.50*	*4.07*	*Sqm*
		4		*1.38*	*0.50*	*2.76*	*Sqm*
	Section 2-2	*4*	*1.50*		*0.45*	*2.70*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.50*		*0.65*	*3.90*	*Sqm*
		4		*0.65*	*0.65*	*1.68*	*Sqm*
		4	*1.50*		*0.50*	*3.00*	*Sqm*
		4		*0.99*	*0.50*	*1.98*	*Sqm*
	Section 3-3	*4*	*2.15*		*0.45*	*3.87*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.15*		*0.45*	*3.87*	*Sqm*
		4		*0.59*	*0.45*	*1.05*	*Sqm*
		4	*2.15*		*0.50*	*4.30*	*Sqm*
		4		*0.87*	*0.50*	*1.74*	*Sqm*
	Section 5-5	*4*	*3.98*		*0.45*	*7.16*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.98*		*1.30*	*20.68*	*Sqm*
		4		*0.84*	*1.30*	*4.37*	*Sqm*
		4	*3.98*		*0.50*	*7.96*	*Sqm*

	Items	No.	Length	Width	Height	Quantity	Unit
		4		*1.38*	*0.50*	*2.76*	*Sqm*
	Section 6-6	*4*	*1.70*		*0.45*	*3.06*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.70*		*0.45*	*3.06*	*Sqm*
		4		*0.59*	*0.45*	*1.05*	*Sqm*
		4	*1.70*		*0.50*	*3.40*	*Sqm*
		4		*0.87*	*0.50*	*1.74*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*2.20*	*0.70*	*3.08*	*Sqm*
		2	*4.50*		*0.50*	*4.50*	*Sqm*
		2		*2.20*	*0.50*	*2.20*	*Sqm*
		2	*0.31*		*0.25*	*0.15*	*Sqm*
		2		*2.20*	*0.25*	*1.10*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*2.20*	*0.40*	*1.76*	*Sqm*
		2	*2.30*		*0.50*	*2.30*	*Sqm*
		2		*2.20*	*0.50*	*2.20*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*2.20*	*0.70*	*3.08*	*Sqm*
	Crest	*2*	*0.794*		*0.915*	*1.45*	*Sqm*
		2		*2.2*	*0.915*	*4.03*	*Sqm*
	Toe Wall D/S Portion	*2*	*7.95*		*0.30*	*4.77*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*7.65*		*0.60*	*9.18*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**161.12**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*2.86*		*8.58*	*Sqm*
	TOTAL					**8.58**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*1.60*	*0.30*	**0.72**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*1.60*	*0.15*	**0.72**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*12.29*	*0.45*		*5.53*	*Sqm*
	On Abutment Top (Right Side)	*1*	*12.29*	*0.45*		*5.53*	*Sqm*
	TOTAL					**11.06**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		2.60		2.60	**Cum**
	Abutment						
	Section 1-1	2	*2.23*	*0.38*		*1.675*	*Cum*
	Section 2-2	2	*1.50*	*0.38*		*1.128*	*Cum*
	Section 3-3	2	*2.00*	*0.25*		*1.016*	*Cum*
	Section 5-5	2	*4.02*	*0.38*		*3.024*	*Cum*
	Section 6-6	2	*1.86*	*0.25*		*0.942*	*Cum*
	D/S protection	2					
	Toe wall	2	*7.95*	*0.09*		*1.431*	*Cum*
		2	0.60	1.50	0.15	*0.270*	*Cum*
	TOTAL					**12.09**	**Cum**

SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 18.280 KM

	Items	No.	Length	Width	Height	Quantity	Unit
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*2.31*	*1.50*	*1.781*	*12.321*	*Cum*
	Section 2-2	*2*	*1.50*	*1.13*	*1.781*	*6.059*	*Cum*
	Section 3-3	*2*	*2.00*	*1.01*	*1.581*	*6.413*	*Cum*
	Section 5-5	*2*	*4.03*	*1.65*	*1.781*	*23.671*	*Cum*
	Section 6-6	*2*	*1.83*	*1.01*	*1.581*	*5.855*	*Cum*
	U/S Key Floor	*1*	*0.625*	*1.800*	*0.850*	*0.956*	*Cum*
	U/S Floor	*1*	*2.000*	*1.800*	*0.650*	*2.340*	*Cum*
	D/S Floor	*1*	*2.500*	*1.800*	*0.850*	*3.825*	*Cum*
		1	*2.500*	*1.800*	*0.650*	*2.925*	*Cum*
	D/S Key Floor	*1*	*0.625*	*1.800*	*0.850*	*0.956*	*Cum*
	Toe Wall D/S Portion	*1*	*7.480*	*0.750*	*0.900*	*5.049*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*0.600*	*0.750*	*1.350*	*Cum*
						71.72	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.80*	*0.15*	*0.15*	*Cum*
		1	*0.782*	*1.80*	*0.15*	*0.21*	*Cum*
		1	*3.876*	*1.80*	*0.15*	*1.05*	*Cum*
		1	*0.282*	*1.80*	*0.15*	*0.08*	*Cum*
		1	*1.138*	*1.80*	*0.15*	*0.31*	*Cum*
		1	*0.782*	*1.80*	*0.15*	*0.21*	*Cum*
		1	*0.542*	*1.80*	*0.15*	*0.15*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*2.31*	*1.50*	*0.15*	*1.04*	*Cum*
	Section 2-2	*2*	*1.50*	*1.13*	*0.15*	*0.51*	*Cum*
	Section 3-3	*2*	*2.00*	*1.01*	*0.15*	*0.61*	*Cum*
	Section 5-5	*2*	*4.03*	*1.65*	*0.15*	*1.99*	*Cum*
	Section 6-6	*2*	*1.83*	*1.01*	*0.15*	*0.56*	*Cum*
	Toe Wall D/S Portion	*1*	*7.48*	*0.75*	*0.30*	*1.68*	*Cum*
	Toe Wall D/S Portion	*1*	*7.18*	*0.45*	*0.60*	*1.94*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.60*	*0.15*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**11.28**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*2.10*	*0.45*	*0.45*	*0.85*	*Cum*
		2	*2.10*	*0.83*	*1.25*	*4.34*	*Cum*
		2	*2.10*	*1.35*	*0.50*	*2.84*	*Cum*
	Section 2-2	*2*	*1.50*	*0.45*	*0.45*	*0.61*	*Cum*
		2	*1.50*	*0.64*	*0.64*	*1.23*	*Cum*
		2	*1.50*	*0.98*	*0.50*	*1.48*	*Cum*
	Section 3-3	*2*	*2.30*	*0.45*	*0.45*	*0.93*	*Cum*
		2	*2.30*	*0.58*	*0.44*	*1.18*	*Cum*
		2	*2.30*	*0.86*	*0.50*	*1.99*	*Cum*
	Section 5-5	*2*	*3.98*	*0.45*	*0.45*	*1.61*	*Cum*
		2	*3.98*	*0.83*	*1.25*	*8.22*	*Cum*
		2	*3.98*	*1.35*	*0.50*	*5.38*	*Cum*
	Section 6-6	*2*	*1.68*	*0.45*	*0.45*	*0.68*	*Cum*
		2	*1.68*	*0.58*	*0.44*	*0.86*	*Cum*
		2	*1.68*	*0.86*	*0.50*	*1.45*	*Cum*
	Floor	*1*	*0.63*	*1.80*	*0.70*	*0.79*	*Cum*
		1	*4.50*	*1.80*	*0.50*	*4.05*	*Cum*
		1	*0.31*	*1.80*	*0.25*	*0.14*	*Cum*
		1	*0.20*	*1.80*	*0.40*	*0.14*	*Cum*
		1	*2.30*	*1.80*	*0.50*	*2.07*	*Cum*
		1	*0.63*	*1.80*	*0.70*	*0.79*	*Cum*
	Crest	*1*	*0.89*	*1.80*	*0.90*	*1.45*	*Cum*
	TOTAL					**43.06**	**Cum**

	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*1.80*	*0.15*	*0.20*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*12.35*	*0.45*	*0.05*	*0.28*	*Cum*
	On Abutment Top (Right Side)	*1*	*12.35*	*0.45*	*0.05*	*0.28*	*Cum*
	TOTAL					**0.76**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**43.06**	**0.30%**	**0.13**	**7850**	**1014.16**	**Kg**
	Total Weight in Metric Tonne					**1.01**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*2.10*		*0.45*	*3.79*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.10*		*1.25*	*10.52*	*Sqm*
		4		*0.83*	*1.25*	*4.13*	*Sqm*
		4	*2.10*		*0.50*	*4.21*	*Sqm*
		4		*1.35*	*0.50*	*2.70*	*Sqm*
	Section 2-2	*4*	*1.50*		*0.45*	*2.70*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.50*		*0.64*	*3.84*	*Sqm*
		4		*0.64*	*0.64*	*1.64*	*Sqm*
		4	*1.50*		*0.50*	*3.00*	*Sqm*
		4		*0.98*	*0.50*	*1.97*	*Sqm*
	Section 3-3	*4*	*2.30*		*0.45*	*4.14*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.30*		*0.44*	*4.05*	*Sqm*
		4		*0.58*	*0.44*	*1.02*	*Sqm*
		4	*2.30*		*0.50*	*4.60*	*Sqm*
		4		*0.86*	*0.50*	*1.73*	*Sqm*
	Section 5-5	*4*	*3.98*		*0.45*	*7.17*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.98*		*1.25*	*19.92*	*Sqm*
		4		*0.83*	*1.25*	*4.13*	*Sqm*
		4	*3.98*		*0.50*	*7.97*	*Sqm*
		4		*1.35*	*0.50*	*2.70*	*Sqm*
	Section 6-6	*4*	*1.68*		*0.45*	*3.02*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.68*		*0.44*	*2.95*	*Sqm*
		4		*0.58*	*0.44*	*1.02*	*Sqm*
		4	*1.68*		*0.50*	*3.35*	*Sqm*
		4		*0.86*	*0.50*	*1.73*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.80*	*0.70*	*2.52*	*Sqm*
		2	*4.50*		*0.50*	*4.50*	*Sqm*
		2		*1.80*	*0.50*	*1.80*	*Sqm*
		2	*0.31*		*0.25*	*0.15*	*Sqm*
		2		*1.80*	*0.25*	*0.90*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*1.80*	*0.40*	*1.44*	*Sqm*
		2	*2.30*		*0.50*	*2.30*	*Sqm*
		2		*1.80*	*0.50*	*1.80*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.80*	*0.70*	*2.52*	*Sqm*
	Crest	*2*	*0.892*		*0.903*	*1.61*	*Sqm*
		2		*1.8*	*0.903*	*3.25*	*Sqm*
	Toe Wall D/S Portion	*2*	*7.48*		*0.30*	*4.49*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*7.18*		*0.60*	*8.62*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**156.41**	**Sqm**

	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*2.82*		*8.47*	*Sqm*
	TOTAL					**8.47**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*1.20*	*0.30*	**0.54**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*1.20*	*0.15*	**0.54**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*12.35*	*0.45*		*5.56*	*Sqm*
	On Abutment Top (Right Side)	*1*	*12.35*	*0.45*		*5.56*	*Sqm*
	TOTAL					**11.12**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.99		1.99	**Cum**
	Abutment						
	Section 1-1	2	*2.31*	*0.85*		*3.911*	*Cum*
	Section 2-2	2	*1.50*	*0.73*		*2.190*	*Cum*
	Section 3-3	2	*2.00*	*0.55*		*2.188*	*Cum*
	Section 5-5	2	*4.03*	*0.85*		*6.831*	*Cum*
	Section 6-6	2	*1.83*	*0.55*		*1.998*	*Cum*
	D/S protection	2					
	Toe wall	2	*7.48*	*0.15*	*0.60*	*2.244*	*Cum*
		2	*1.50*	0.15	*0.60*	*0.270*	*Cum*
	TOTAL					**21.62**	**Cum**

	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR BARIAWA MINOR						
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 2.050 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.25*	*1.56*	*1.781*	*6.980*	*Cum*
	Section 2-2	*2*	*3.00*	*1.29*	*1.781*	*13.785*	*Cum*
	Section 3-3	*2*	*1.51*	*1.17*	*1.581*	*5.572*	*Cum*
	Section 5-5	*2*	*2.86*	*1.71*	*1.781*	*17.473*	*Cum*
	Section 6-6	*2*	*1.18*	*1.17*	*1.581*	*4.365*	*Cum*
	U/S Key Floor	*1*	*0.625*	*2.285*	*0.850*	*1.214*	*Cum*
	U/S Floor	*1*	*2.000*	*2.285*	*1.307*	*5.973*	*Cum*
	D/S Floor	*1*	*3.000*	*2.285*	*0.850*	*5.827*	*Cum*
		1	*2.000*	*2.285*	*0.650*	*2.971*	*Cum*
	D/S Key Floor	*1*	*0.625*	*2.285*	*0.850*	*1.214*	*Cum*
	Toe Wall D/S Portion	*1*	*6.984*	*0.750*	*0.900*	*4.714*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.500*	*0.600*	*0.750*	*2.250*	*Cum*
						72.34	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*2.29*	*0.15*	*0.19*	*Cum*
		1	*0.783*	*2.29*	*0.15*	*0.27*	*Cum*
		1	*4.568*	*2.29*	*0.15*	*1.57*	*Cum*
		1	*0.283*	*2.29*	*0.15*	*0.10*	*Cum*
		1	*0.446*	*2.29*	*0.15*	*0.15*	*Cum*
		1	*0.783*	*2.29*	*0.15*	*0.27*	*Cum*
		1	*0.542*	*2.29*	*0.15*	*0.19*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.25*	*1.56*	*0.15*	*0.59*	*Cum*
	Section 2-2	*2*	*3.00*	*1.29*	*0.15*	*1.16*	*Cum*
	Section 3-3	*2*	*1.51*	*1.17*	*0.15*	*0.53*	*Cum*
	Section 5-5	*2*	*2.86*	*1.71*	*0.15*	*1.47*	*Cum*
	Section 6-6	*2*	*1.18*	*1.17*	*0.15*	*0.41*	*Cum*
	Toe Wall D/S Portion	*1*	*6.98*	*0.75*	*0.30*	*1.57*	*Cum*
	Toe Wall D/S Portion	*1*	*6.68*	*0.45*	*0.60*	*1.80*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.60*	*0.15*	*0.45*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.30*	*0.60*	*0.90*	*Cum*
	TOTAL					**11.61**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.03*	*0.45*	*0.45*	*0.42*	*Cum*
		2	*1.03*	*0.86*	*1.36*	*2.39*	*Cum*
		2	*1.03*	*1.41*	*0.50*	*1.45*	*Cum*
	Section 2-2	*2*	*3.00*	*0.45*	*0.45*	*1.22*	*Cum*
		2	*3.00*	*0.72*	*0.90*	*3.89*	*Cum*
		2	*3.00*	*1.14*	*0.50*	*3.42*	*Cum*
	Section 3-3	*2*	*1.15*	*0.45*	*0.45*	*0.46*	*Cum*
		2	*1.15*	*0.66*	*0.70*	*1.06*	*Cum*
		2	*1.15*	*1.02*	*0.50*	*1.17*	*Cum*
	Section 5-5	*2*	*2.82*	*0.45*	*0.45*	*1.14*	*Cum*
		2	*2.82*	*0.86*	*1.36*	*6.56*	*Cum*
		2	*2.82*	*1.41*	*0.50*	*3.99*	*Cum*
	Section 6-6	*2*	*1.69*	*0.45*	*0.45*	*0.68*	*Cum*
		2	*1.69*	*0.66*	*0.70*	*1.56*	*Cum*
		2	*1.69*	*1.02*	*0.50*	*1.72*	*Cum*
	Floor	*1*	*0.63*	*2.29*	*0.70*	*1.00*	*Cum*
		1	*5.00*	*2.29*	*0.50*	*5.71*	*Cum*
		1	*0.50*	*2.29*	*2.00*	*2.28*	*Cum*
		1	*0.20*	*2.29*	*0.40*	*0.18*	*Cum*
		1	*1.80*	*2.29*	*0.50*	*2.06*	*Cum*
		1	*0.63*	*2.29*	*0.70*	*1.00*	*Cum*
	Crest	*1*	*0.84*	*2.29*	*0.88*	*1.69*	*Cum*
	TOTAL					**45.04**	**Cum**

	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*2.29*	*0.15*	*0.24*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*13.73*	*0.45*	*0.05*	*0.31*	*Cum*
	On Abutment Top (Right Side)	*1*	*13.73*	*0.45*	*0.05*	*0.31*	*Cum*
	TOTAL					**0.86**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**45.04**	**0.30%**	**0.14**	**7850**	**1060.72**	**Kg**
	Total Weight in Metric Tonne					**1.06**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.03*		*0.45*	*1.85*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.03*		*1.36*	*5.58*	*Sqm*
		4		*0.86*	*1.36*	*4.65*	*Sqm*
		4	*1.03*		*0.50*	*2.06*	*Sqm*
		4		*1.41*	*0.50*	*2.83*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.45*	*5.40*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.00*		*0.90*	*10.80*	*Sqm*
		4		*0.72*	*0.90*	*2.59*	*Sqm*
		4	*3.00*		*0.50*	*6.00*	*Sqm*
		4		*1.14*	*0.50*	*2.28*	*Sqm*
	Section 3-3	*4*	*1.15*		*0.45*	*2.06*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.15*		*0.70*	*3.21*	*Sqm*
		4		*0.66*	*0.70*	*1.85*	*Sqm*
		4	*1.15*		*0.50*	*2.29*	*Sqm*
		4		*1.02*	*0.50*	*2.04*	*Sqm*
	Section 5-5	*4*	*2.82*		*0.45*	*5.07*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.82*		*1.36*	*15.30*	*Sqm*
		4		*0.86*	*1.36*	*4.65*	*Sqm*
		4	*2.82*		*0.50*	*5.64*	*Sqm*
		4		*1.41*	*0.50*	*2.83*	*Sqm*
	Section 6-6	*4*	*1.69*		*0.45*	*3.04*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.69*		*0.70*	*4.73*	*Sqm*
		4		*0.66*	*0.70*	*1.85*	*Sqm*
		4	*1.69*		*0.50*	*3.38*	*Sqm*
		4		*1.02*	*0.50*	*2.04*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*2.29*	*0.70*	*3.20*	*Sqm*
		2	*5.00*		*0.50*	*5.00*	*Sqm*
		2		*2.29*	*0.50*	*2.29*	*Sqm*
		2	*0.50*		*2.00*	*1.99*	*Sqm*
		2		*2.29*	*2.00*	*9.14*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*2.29*	*0.40*	*1.83*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*2.29*	*0.50*	*2.29*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*2.29*	*0.70*	*3.20*	*Sqm*
	Crest	*2*	*0.8385*		*0.881*	*1.48*	*Sqm*
		2		*2.285*	*0.881*	*4.03*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.98*		*0.30*	*4.19*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.68*		*0.60*	*8.02*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.15*	*1.50*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.60*	*6.00*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**167.99**	**Sqm**

	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.50*	*2.41*		*12.07*	*Sqm*
	TOTAL					**12.07**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.50*	*1.69*	*0.30*	**1.26**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.50*	*1.69*	*0.15*	**1.26**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*13.73*	*0.45*		*6.18*	*Sqm*
	On Abutment Top (Right Side)	*1*	*13.73*	*0.45*		*6.18*	*Sqm*
	TOTAL					**12.36**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.90		1.90	**Cum**
	Abutment						
	Section 1-1	2	*1.25*	*0.85*		*2.130*	*Cum*
	Section 2-2	2	*3.00*	*0.83*		*4.950*	*Cum*
	Section 3-3	2	*1.51*	*0.64*		*1.913*	*Cum*
	Section 5-5	2	*2.86*	*0.85*		*4.865*	*Cum*
	Section 6-6	2	*1.18*	*0.64*		*1.499*	*Cum*
	D/S protection	2					
	Toe wall	2	*6.98*	*0.15*	*0.60*	*1.257*	*Cum*
		2	*2.50*	*0.15*	*0.60*	*3.000*	*Cum*
	TOTAL					**21.52**	**Cum**

	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 6.100 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*2.27*	*1.49*	*1.506*	*10.178*	*Cum*
	Section 2-2	*2*	*1.50*	*1.08*	*1.506*	*4.879*	*Cum*
	Section 3-3	*2*	*2.00*	*0.96*	*1.306*	*5.015*	*Cum*
	Section 5-5	*2*	*2.44*	*1.64*	*1.506*	*12.041*	*Cum*
	Section 6-6	*2*	*0.87*	*0.96*	*1.306*	*2.169*	*Cum*
	U/S Key Floor	*1*	*0.625*	*0.880*	*0.850*	*0.468*	*Cum*
	U/S Floor	*1*	*2.000*	*0.880*	*1.460*	*2.570*	*Cum*
	D/S Floor	*1*	*2.500*	*0.880*	*0.850*	*1.870*	*Cum*
		1	*2.500*	*0.880*	*0.650*	*1.430*	*Cum*
	D/S Key Floor	*1*	*0.625*	*0.880*	*0.850*	*0.468*	*Cum*
	Toe Wall D/S Portion	*1*	*4.530*	*0.750*	*0.900*	*3.058*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*0.600*	*0.750*	*1.350*	*Cum*
						45.49	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*0.88*	*0.15*	*0.07*	*Cum*
		1	*0.782*	*0.88*	*0.15*	*0.10*	*Cum*
		1	*3.876*	*0.88*	*0.15*	*0.51*	*Cum*
		1	*0.282*	*0.88*	*0.15*	*0.04*	*Cum*
		1	*1.138*	*0.88*	*0.15*	*0.15*	*Cum*
		1	*0.782*	*0.88*	*0.15*	*0.10*	*Cum*
		1	*0.542*	*0.88*	*0.15*	*0.07*	*Cum*

	Items	No.	Length	Width	Height	Quantity	Unit
	PCC Below Abutment						
	Section 1-1	*2*	*2.27*	*1.49*	*0.15*	*1.01*	*Cum*
	Section 2-2	*2*	*1.50*	*1.08*	*0.15*	*0.49*	*Cum*
	Section 3-3	*2*	*2.00*	*0.96*	*0.15*	*0.58*	*Cum*
	Section 5-5	*2*	*2.44*	*1.64*	*0.15*	*1.20*	*Cum*
	Section 6-6	*2*	*0.87*	*0.96*	*0.15*	*0.25*	*Cum*
	Toe Wall D/S Portion	*1*	*4.53*	*0.75*	*0.30*	*1.02*	*Cum*
	Toe Wall D/S Portion	*1*	*4.23*	*0.45*	*0.60*	*1.14*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.60*	*0.15*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**7.54**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*2.05*	*0.45*	*0.45*	*0.83*	*Cum*
		2	*2.05*	*0.82*	*1.23*	*4.12*	*Cum*
		2	*2.05*	*1.34*	*0.50*	*2.74*	*Cum*
	Section 2-2	*2*	*1.50*	*0.45*	*0.45*	*0.61*	*Cum*
		2	*1.50*	*0.62*	*0.55*	*1.01*	*Cum*
		2	*1.50*	*0.93*	*0.50*	*1.40*	*Cum*
	Section 3-3	*2*	*1.75*	*0.45*	*0.45*	*0.71*	*Cum*
		2	*1.75*	*0.56*	*0.35*	*0.68*	*Cum*
		2	*1.75*	*0.81*	*0.50*	*1.41*	*Cum*
	Section 5-5	*2*	*2.40*	*0.45*	*0.45*	*0.97*	*Cum*
		2	*2.40*	*0.82*	*1.23*	*4.83*	*Cum*
		2	*2.40*	*1.34*	*0.50*	*3.21*	*Cum*
	Section 6-6	*2*	*1.27*	*0.45*	*0.45*	*0.51*	*Cum*
		2	*1.27*	*0.56*	*0.35*	*0.49*	*Cum*
		2	*1.27*	*0.81*	*0.50*	*1.03*	*Cum*
	Floor	*1*	*0.63*	*0.88*	*0.70*	*0.39*	*Cum*
		1	*4.50*	*0.88*	*0.50*	*1.98*	*Cum*
		1	*0.31*	*0.88*	*0.25*	*0.07*	*Cum*
		1	*0.20*	*0.88*	*0.40*	*0.07*	*Cum*
		1	*2.30*	*0.88*	*0.50*	*1.01*	*Cum*
		1	*0.63*	*0.88*	*0.70*	*0.39*	*Cum*
	Crest	*1*	*0.72*	*0.88*	*0.87*	*0.55*	*Cum*
	TOTAL					**28.99**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*0.88*	*0.15*	*0.09*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.69*	*0.45*	*0.05*	*0.22*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.69*	*0.45*	*0.05*	*0.22*	*Cum*
	TOTAL					**0.53**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**28.99**	**0.30%**	**0.09**	**7850**	**682.75**	**Kg**
	Total Weight in Metric Tonne					**0.68**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*2.05*		*0.45*	*3.68*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.05*		*1.23*	*10.07*	*Sqm*
		4		*0.82*	*1.23*	*4.03*	*Sqm*
		4	*2.05*		*0.50*	*4.09*	*Sqm*
		4		*1.34*	*0.50*	*2.68*	*Sqm*
	Section 2-2	*4*	*1.50*		*0.45*	*2.70*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.50*		*0.55*	*3.30*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*1.50*		*0.50*	*3.00*	*Sqm*

	Items	No.	Length	Width	Height	Quantity	Unit
		4		*0.93*	*0.50*	*1.86*	*Sqm*
	Section 3-3	*4*	*1.75*		*0.45*	*3.14*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.75*		*0.35*	*2.44*	*Sqm*
		4		*0.56*	*0.35*	*0.78*	*Sqm*
		4	*1.75*		*0.50*	*3.49*	*Sqm*
		4		*0.81*	*0.50*	*1.62*	*Sqm*
	Section 5-5	*4*	*2.40*		*0.45*	*4.31*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.40*		*1.23*	*11.79*	*Sqm*
		4		*0.82*	*1.23*	*4.03*	*Sqm*
		4	*2.40*		*0.50*	*4.79*	*Sqm*
		4		*1.34*	*0.50*	*2.68*	*Sqm*
	Section 6-6	*4*	*1.27*		*0.45*	*2.29*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.27*		*0.35*	*1.78*	*Sqm*
		4		*0.56*	*0.35*	*0.78*	*Sqm*
		4	*1.27*		*0.50*	*2.54*	*Sqm*
		4		*0.81*	*0.50*	*1.62*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.88*	*0.70*	*1.23*	*Sqm*
		2	*4.50*		*0.50*	*4.50*	*Sqm*
		2		*0.88*	*0.50*	*0.88*	*Sqm*
		2	*0.31*		*0.25*	*0.15*	*Sqm*
		2		*0.88*	*0.25*	*0.44*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*0.88*	*0.40*	*0.70*	*Sqm*
		2	*2.30*		*0.50*	*2.30*	*Sqm*
		2		*0.88*	*0.50*	*0.88*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.88*	*0.70*	*1.23*	*Sqm*
	Crest	*2*	*0.715*		*0.868*	*1.24*	*Sqm*
		2		*0.88*	*0.868*	*1.53*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.53*		*0.30*	*2.72*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.23*		*0.60*	*5.08*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**120.25**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.78*		*5.34*	*Sqm*
	TOTAL					**5.34**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.28*	*0.30*	**0.13**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.28*	*0.15*	**0.13**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.69*	*0.45*		*4.36*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.69*	*0.45*		*4.36*	*Sqm*
	TOTAL					**8.72**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.47		1.47	**Cum**
	Abutment						
	Section 1-1	2	*2.27*	*0.55*		*2.507*	*Cum*

	Items	No.	Length	Width	Height	Quantity	Unit
	Section 2-2	2	*1.50*	*0.52*		*1.572*	*Cum*
	Section 3-3	2	*2.00*	*0.37*		*1.492*	*Cum*
	Section 5-5	2	*2.44*	*0.55*		*2.694*	*Cum*
	Section 6-6	2	*0.87*	*0.37*		*0.645*	*Cum*
	D/S protection	2					
	Toe wall	2	*4.53*	*0.15*	*0.60*	*0.815*	*Cum*
		2	*1.50*	*0.15*	*0.60*	*1.800*	*Cum*
	TOTAL					**12.99**	**Cum**

	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR ITMA MINOR						
	Items	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
	SHARDA TYPE FALL OF HEIGHT 1.676 METER AT CH. 0.900 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.76*	*1.26*	*1.016*	*4.512*	*Cum*
	Section 2-2	*2*	*1.35*	*1.08*	*1.016*	*2.963*	*Cum*
	Section 3-3	*2*	*2.50*	*0.96*	*0.816*	*3.917*	*Cum*
	Section 5-5	*2*	*2.41*	*1.41*	*1.016*	*6.920*	*Cum*
	Section 6-6	*2*	*0.87*	*0.96*	*0.816*	*1.355*	*Cum*
	U/S Key Floor	*1*	*0.625*	*0.600*	*0.850*	*0.319*	*Cum*
	U/S Floor	*1*	*2.000*	*0.600*	*1.155*	*1.386*	*Cum*
	D/S Floor	*1*	*2.000*	*0.600*	*0.850*	*1.020*	*Cum*
		1	*3.000*	*0.600*	*0.650*	*1.170*	*Cum*
	D/S Key Floor	*1*	*0.625*	*0.600*	*0.850*	*0.319*	*Cum*
	Toe Wall D/S Portion	*1*	*4.250*	*0.750*	*0.900*	*2.869*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*0.600*	*0.750*	*1.350*	*Cum*
						28.10	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*0.60*	*0.15*	*0.05*	*Cum*
		1	*0.782*	*0.60*	*0.15*	*0.07*	*Cum*
		1	*3.376*	*0.60*	*0.15*	*0.30*	*Cum*
		1	*0.282*	*0.60*	*0.15*	*0.03*	*Cum*
		1	*1.638*	*0.60*	*0.15*	*0.15*	*Cum*
		1	*0.782*	*0.60*	*0.15*	*0.07*	*Cum*
		1	*0.542*	*0.60*	*0.15*	*0.05*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.76*	*1.26*	*0.15*	*0.67*	*Cum*
	Section 2-2	*2*	*1.35*	*1.08*	*0.15*	*0.44*	*Cum*
	Section 3-3	*2*	*2.50*	*0.96*	*0.15*	*0.72*	*Cum*
	Section 5-5	*2*	*2.41*	*1.41*	*0.15*	*1.02*	*Cum*
	Section 6-6	*2*	*0.87*	*0.96*	*0.15*	*0.25*	*Cum*
	Toe Wall D/S Portion	*1*	*4.25*	*0.75*	*0.30*	*0.96*	*Cum*
	Toe Wall D/S Portion	*1*	*3.95*	*0.45*	*0.60*	*1.07*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.60*	*0.15*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**6.64**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.53*	*0.45*	*0.45*	*0.62*	*Cum*
		2	*1.53*	*0.71*	*0.86*	*1.85*	*Cum*
		2	*1.53*	*1.11*	*0.50*	*1.70*	*Cum*
	Section 2-2	*2*	*1.35*	*0.45*	*0.45*	*0.55*	*Cum*
		2	*1.35*	*0.62*	*0.55*	*0.91*	*Cum*
		2	*1.35*	*0.93*	*0.50*	*1.26*	*Cum*
	Section 3-3	*2*	*2.25*	*0.45*	*0.45*	*0.91*	*Cum*
		2	*2.25*	*0.56*	*0.35*	*0.87*	*Cum*
		2	*2.25*	*0.81*	*0.50*	*1.82*	*Cum*
	Section 5-5	*2*	*2.37*	*0.45*	*0.45*	*0.96*	*Cum*
		2	*2.37*	*0.71*	*0.86*	*2.86*	*Cum*
		2	*2.37*	*1.11*	*0.50*	*2.64*	*Cum*
	Section 6-6	*2*	*1.27*	*0.45*	*0.45*	*0.51*	*Cum*
		2	*1.27*	*0.56*	*0.35*	*0.49*	*Cum*
		2	*1.27*	*0.81*	*0.50*	*1.03*	*Cum*
	Floor	*1*	*0.63*	*0.60*	*0.70*	*0.26*	*Cum*
		1	*4.00*	*0.60*	*0.50*	*1.20*	*Cum*
		1	*0.31*	*0.60*	*0.25*	*0.05*	*Cum*
		1	*0.20*	*0.60*	*0.40*	*0.05*	*Cum*
		1	*2.80*	*0.60*	*0.50*	*0.84*	*Cum*
		1	*0.63*	*0.60*	*0.70*	*0.26*	*Cum*
	Crest	*1*	*0.68*	*0.60*	*0.54*	*0.22*	*Cum*

	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**21.86**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*0.60*	*0.15*	*0.05*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.40*	*0.45*	*0.05*	*0.21*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.40*	*0.45*	*0.05*	*0.21*	*Cum*
	TOTAL					**0.48**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**21.86**	**0.30%**	**0.07**	**7850**	**514.80**	**Kg**
	Total Weight in Metric Tonne					**0.51**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.53*		*0.45*	*2.76*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.53*		*0.86*	*5.24*	*Sqm*
		4		*0.71*	*0.86*	*2.42*	*Sqm*
		4	*1.53*		*0.50*	*3.06*	*Sqm*
		4		*1.11*	*0.50*	*2.23*	*Sqm*
	Section 2-2	*4*	*1.35*		*0.45*	*2.43*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.35*		*0.55*	*2.97*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*1.35*		*0.50*	*2.70*	*Sqm*
		4		*0.93*	*0.50*	*1.86*	*Sqm*
	Section 3-3	*4*	*2.25*		*0.45*	*4.04*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.25*		*0.35*	*3.14*	*Sqm*
		4		*0.56*	*0.35*	*0.78*	*Sqm*
		4	*2.25*		*0.50*	*4.49*	*Sqm*
		4		*0.81*	*0.50*	*1.62*	*Sqm*
	Section 5-5	*4*	*2.37*		*0.45*	*4.26*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.37*		*0.86*	*8.10*	*Sqm*
		4		*0.71*	*0.86*	*2.42*	*Sqm*
		4	*2.37*		*0.50*	*4.74*	*Sqm*
		4		*1.11*	*0.50*	*2.23*	*Sqm*
	Section 6-6	*4*	*1.27*		*0.45*	*2.29*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.27*		*0.35*	*1.78*	*Sqm*
		4		*0.56*	*0.35*	*0.78*	*Sqm*
		4	*1.27*		*0.50*	*2.54*	*Sqm*
		4		*0.81*	*0.50*	*1.62*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.60*	*0.70*	*0.84*	*Sqm*
		2	*4.00*		*0.50*	*4.00*	*Sqm*
		2		*0.60*	*0.50*	*0.60*	*Sqm*
		2	*0.31*		*0.25*	*0.15*	*Sqm*
		2		*0.60*	*0.25*	*0.30*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*0.60*	*0.40*	*0.48*	*Sqm*
		2	*2.80*		*0.50*	*2.80*	*Sqm*
		2		*0.60*	*0.50*	*0.60*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.60*	*0.70*	*0.84*	*Sqm*
	Crest	*2*	*0.681*		*0.535*	*0.73*	*Sqm*
		2		*0.6*	*0.535*	*0.64*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.25*		*0.30*	*2.55*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*3.95*		*0.60*	*4.74*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*

	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**103.63**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.78*		*5.34*	*Sqm*
	TOTAL					**5.34**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.00*	*0.30*	**0.00**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.00*	*0.15*	**0.00**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.40*	*0.45*		*4.23*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.40*	*0.45*		*4.23*	*Sqm*
	TOTAL					**8.46**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		0.92		0.92	**Cum**
	Abutment						
	Section 1-1	2	*1.76*	*0.23*		*0.791*	*Cum*
	Section 2-2	2	*1.35*	*0.23*		*0.608*	*Cum*
	Section 3-3	2	*2.50*	*0.13*		*0.666*	*Cum*
	Section 5-5	2	*2.41*	*0.23*		*1.085*	*Cum*
	Section 6-6	2	*0.87*	*0.13*		*0.230*	*Cum*
	D/S protection	2					
	Toe wall	2	*4.25*	*0.15*	*0.60*	*0.765*	*Cum*
		2	*1.50*	*0.15*	*0.60*	*1.800*	*Cum*
	TOTAL					**6.86**	**Cum**
	SHARDA TYPE FALL OF HEIGHT 1.676 METER AT CH. 0.900 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.54*	*1.98*	*2.729*	*16.644*	*Cum*
	Section 2-2	*2*	*4.00*	*1.71*	*2.729*	*37.289*	*Cum*
	Section 3-3	*2*	*4.70*	*1.59*	*2.529*	*37.751*	*Cum*
	Section 5-5	*2*	*2.42*	*2.13*	*2.729*	*28.016*	*Cum*
	Section 6-6	*2*	*0.67*	*1.07*	*2.529*	*3.630*	*Cum*
	U/S Key Floor	*1*	*0.575*	*0.860*	*0.650*	*0.321*	*Cum*
	U/S Floor	*1*	*3.000*	*0.860*	*2.926*	*7.549*	*Cum*
	D/S Floor	*1*	*4.000*	*0.860*	*1.250*	*4.300*	*Cum*
		1	*3.000*	*0.860*	*1.050*	*2.709*	*Cum*
		1	*2.000*	*0.860*	*0.750*	*1.290*	*Cum*
	D/S Key Floor	*1*	*0.863*	*0.860*	*1.800*	*1.335*	*Cum*
	Toe Wall D/S Portion	*1*	*5.050*	*0.750*	*0.900*	*3.409*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.000*	*0.600*	*0.750*	*1.800*	*Cum*
						146.04	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*0.86*	*0.15*	*0.07*	*Cum*
		1	*0.559*	*0.86*	*0.15*	*0.07*	*Cum*
		1	*6.668*	*0.86*	*0.15*	*0.86*	*Cum*
		1	*0.495*	*0.86*	*0.15*	*0.06*	*Cum*
		1	*2.252*	*0.86*	*0.15*	*0.29*	*Cum*

	Items	No.	Length	Width	Height	Quantity	Unit
		1	0.212	0.86	0.15	0.03	Cum
		1	0.420	0.86	0.15	0.05	Cum
		1	1.845	0.86	0.15	0.24	Cum
		1	0.542	0.86	0.15	0.07	Cum
	PCC Below Abutment						
	Section 1-1	2	1.54	1.98	0.15	0.91	Cum
	Section 2-2	2	4.00	1.71	0.15	2.05	Cum
	Section 3-3	2	4.70	1.59	0.15	2.24	Cum
	Section 5-5	2	2.42	2.13	0.15	1.54	Cum
	Section 6-6	2	0.67	1.07	0.15	0.22	Cum
	Toe Wall D/S Portion	1	5.05	0.75	0.30	1.14	Cum
	Toe Wall D/S Portion	1	4.75	0.45	0.60	1.28	Cum
	Toe Wall for resting Brick Edging	2	2.00	0.60	0.15	0.36	Cum
	Toe Wall for resting Brick Edging	2	2.00	0.30	0.60	0.72	Cum
	TOTAL					**12.20**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	2	1.32	0.45	0.45	0.53	Cum
		2	1.32	1.06	2.41	6.74	Cum
		2	1.32	1.83	0.90	4.33	Cum
	Section 2-2	2	4.00	0.82	0.50	3.28	Cum
		2	4.00	1.04	0.73	6.07	Cum
		2	4.00	1.41	2.05	23.09	Cum
	Section 3-3	2	4.39	0.82	0.45	3.24	Cum
		2	4.39	0.98	0.53	4.56	Cum
		2	4.39	1.29	2.25	25.45	Cum
	Section 5-5	2	2.37	0.45	0.45	0.96	Cum
		2	2.37	1.06	2.41	12.13	Cum
		2	2.37	1.83	0.90	7.79	Cum
	Section 6-6	2	1.30	0.45	0.45	0.53	Cum
		2	1.30	0.68	0.53	0.94	Cum
		2	1.30	0.98	0.60	1.53	Cum
	Floor	1	0.58	0.86	0.50	0.25	Cum
		1	7.00	0.86	0.90	5.42	Cum
		1	0.57	0.86	0.35	0.17	Cum
		1	0.20	0.86	0.65	0.11	Cum
		1	2.80	0.86	0.75	1.81	Cum
		1	0.15	0.86	0.68	0.09	Cum
		1	1.85	0.86	0.60	0.95	Cum
		1	0.86	0.86	1.65	1.22	Cum
	Crest	1	1.22	0.86	1.99	2.09	Cum
	TOTAL					**113.29**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	1	0.90	0.86	0.15	0.12	Cum
	Coping over Abutment Top	2	6.66	0.45	0.05	0.30	Cum
	Slab Bridge						
	Slab	1	1.66	5.5	0.34	3.06	Cum
	Wearing coat	1	1.66	4.50	0.07	0.52	Cum
	Dirt wall	2	0.40	5.5	0.30	1.32	Cum
	300 mm thick pedastial	2	0.82	5.5	0.30	2.71	Cum
	TOTAL					**8.02**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	16	31	2.12		1.578	103.7	Kg
a2	10	8	5.90		0.616	29.1	Kg
a3	10	2	5.40		0.616	6.7	Kg
a4	10	19	2.04		0.616	23.9	Kg
a5	10	6	5.80		0.616	21.5	Kg
x1	12	28	2.50		0.888	62.2	Kg

	Items	No.	Length	Width	Height	Quantity	Unit
x2	*16*	*28*	*1.94*		*1.578*	*85.7*	*Kg*
x3	*12*	*20*	*1.56*		*0.888*	*27.7*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**113.29**	**0.30%**	**0.34**	**7850**	**2668.00**	**Kg**
	TOTAL REINFORCEMENT STEEL (in kg)					**3028.40**	**Kg'**
	TOTAL REINFORCEMENT STEEL (in MT)					**3.03**	**MT**

6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.32*		*0.45*	*2.37*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.32*		*2.41*	*12.69*	*Sqm*
		4		*1.06*	*2.41*	*10.23*	*Sqm*
		4	*1.32*		*0.90*	*4.75*	*Sqm*
		4		*1.83*	*0.90*	*6.57*	*Sqm*
	Section 2-2	*4*	*4.00*		*0.50*	*8.00*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*4.00*		*0.73*	*11.68*	*Sqm*
		4		*1.04*	*0.73*	*3.03*	*Sqm*
		4	*4.00*		*2.05*	*32.80*	*Sqm*
		4		*1.41*	*2.05*	*11.55*	*Sqm*
	Section 3-3	*4*	*4.39*		*0.45*	*7.90*	*Sqm*
		4		*0.82*	*0.45*	*1.48*	*Sqm*
		4	*4.39*		*0.53*	*9.31*	*Sqm*
		4		*0.98*	*0.53*	*2.08*	*Sqm*
		4	*4.39*		*2.25*	*39.52*	*Sqm*
		4		*1.29*	*2.25*	*11.59*	*Sqm*
	Section 5-5	*4*	*2.37*		*0.45*	*4.27*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.37*		*2.41*	*22.83*	*Sqm*
		4		*1.06*	*2.41*	*10.23*	*Sqm*
		4	*2.37*		*0.90*	*8.54*	*Sqm*
		4		*1.83*	*0.90*	*6.57*	*Sqm*
	Section 6-6	*4*	*1.30*		*0.45*	*2.34*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.30*		*0.53*	*2.76*	*Sqm*
		4		*0.68*	*0.53*	*1.45*	*Sqm*
		4	*1.30*		*0.60*	*3.12*	*Sqm*
		4		*0.98*	*0.60*	*2.35*	*Sqm*
	Floor	*2*	*0.58*		*0.50*	*0.58*	*Sqm*
		2		*0.86*	*0.50*	*0.86*	*Sqm*
		2	*7.00*		*0.90*	*12.60*	*Sqm*
		2		*0.86*	*0.90*	*1.55*	*Sqm*
		2	*0.57*		*0.35*	*0.40*	*Sqm*
		2		*0.86*	*0.35*	*0.60*	*Sqm*
		2	*0.20*		*0.65*	*0.26*	*Sqm*
		2		*0.86*	*0.65*	*1.12*	*Sqm*
		2	*2.80*		*0.75*	*4.20*	*Sqm*
		2		*0.86*	*0.75*	*1.29*	*Sqm*
		2	*0.15*		*0.68*	*0.20*	*Sqm*
		2		*0.86*	*0.68*	*1.16*	*Sqm*
		2	*1.85*		*0.60*	*2.22*	*Sqm*
		2		*0.86*	*0.60*	*1.03*	*Sqm*
		2	*0.86*		*1.65*	*2.85*	*Sqm*
		2		*0.86*	*1.65*	*2.84*	*Sqm*
	Crest	*2*	*1.2235*		*1.99*	*4.87*	*Sqm*
		2		*0.86*	*1.99*	*3.42*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.05*		*0.30*	*3.03*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.75*		*0.60*	*5.70*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**302.92**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.11*		*8.42*	*Sqm*
	TOTAL					**8.42**	**Sqm**

	Items	No.	Length	Width	Height	Quantity	Unit
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*0.26*	*0.30*	**0.16**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*0.26*	*0.15*	**0.16**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*6.66*	*0.45*		*3.00*	*Sqm*
	On Abutment Top (Right Side)	*1*	*6.66*	*0.45*		*3.00*	*Sqm*
	TOTAL					**5.99**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		7.25		7.25	**Cum**
	Abutment						
	Section 1-1	2	*1.54*	*1.36*		*4.200*	*Cum*
	Section 2-2	2	*4.00*	*1.38*		*11.072*	*Cum*
	Section 3-3	2	*4.70*	*1.17*		*10.951*	*Cum*
	Section 5-5	2	*2.42*	*1.36*		*6.570*	*Cum*
	Section 6-6	2	*0.67*	*0.64*		*0.862*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.05*	*0.15*	*0.60*	*0.909*	*Cum*
		2	*2.00*	*0.15*	*0.60*	*2.400*	*Cum*
	TOTAL					**44.21**	**Cum**

1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.76*	*1.26*	*1.016*	*4.512*	*Cum*
	Section 2-2	*2*	*1.35*	*1.08*	*1.016*	*2.963*	*Cum*
	Section 3-3	*2*	*2.50*	*0.96*	*0.816*	*3.917*	*Cum*
	Section 5-5	*2*	*2.41*	*1.41*	*1.016*	*6.920*	*Cum*
	Section 6-6	*2*	*0.87*	*0.96*	*0.816*	*1.355*	*Cum*
	U/S Key Floor	*1*	*0.625*	*0.600*	*0.850*	*0.319*	*Cum*
	U/S Floor	*1*	*2.000*	*0.600*	*1.155*	*1.386*	*Cum*
	D/S Floor	*1*	*2.000*	*0.600*	*0.850*	*1.020*	*Cum*
		1	*3.000*	*0.600*	*0.650*	*1.170*	*Cum*
	D/S Key Floor	*1*	*0.625*	*0.600*	*0.850*	*0.319*	*Cum*
	Toe Wall D/S Portion	*1*	*4.250*	*0.750*	*0.900*	*2.869*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*0.600*	*0.750*	*1.350*	*Cum*
						28.10	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*0.60*	*0.15*	*0.05*	*Cum*
		1	*0.782*	*0.60*	*0.15*	*0.07*	*Cum*
		1	*3.376*	*0.60*	*0.15*	*0.30*	*Cum*
		1	*0.282*	*0.60*	*0.15*	*0.03*	*Cum*
		1	*1.638*	*0.60*	*0.15*	*0.15*	*Cum*
		1	*0.782*	*0.60*	*0.15*	*0.07*	*Cum*
		1	*0.542*	*0.60*	*0.15*	*0.05*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.76*	*1.26*	*0.15*	*0.67*	*Cum*
	Section 2-2	*2*	*1.35*	*1.08*	*0.15*	*0.44*	*Cum*
	Section 3-3	*2*	*2.50*	*0.96*	*0.15*	*0.72*	*Cum*
	Section 5-5	*2*	*2.41*	*1.41*	*0.15*	*1.02*	*Cum*
	Section 6-6	*2*	*0.87*	*0.96*	*0.15*	*0.25*	*Cum*
	Toe Wall D/S Portion	*1*	*4.25*	*0.75*	*0.30*	*0.96*	*Cum*
	Toe Wall D/S Portion	*1*	*3.95*	*0.45*	*0.60*	*1.07*	*Cum*

	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.60*	*0.15*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**6.64**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.53*	*0.45*	*0.45*	*0.62*	*Cum*
		2	*1.53*	*0.71*	*0.86*	*1.85*	*Cum*
		2	*1.53*	*1.11*	*0.50*	*1.70*	*Cum*
	Section 2-2	*2*	*1.35*	*0.45*	*0.45*	*0.55*	*Cum*
		2	*1.35*	*0.62*	*0.55*	*0.91*	*Cum*
		2	*1.35*	*0.93*	*0.50*	*1.26*	*Cum*
	Section 3-3	*2*	*2.25*	*0.45*	*0.45*	*0.91*	*Cum*
		2	*2.25*	*0.56*	*0.35*	*0.87*	*Cum*
		2	*2.25*	*0.81*	*0.50*	*1.82*	*Cum*
	Section 5-5	*2*	*2.37*	*0.45*	*0.45*	*0.96*	*Cum*
		2	*2.37*	*0.71*	*0.86*	*2.86*	*Cum*
		2	*2.37*	*1.11*	*0.50*	*2.64*	*Cum*
	Section 6-6	*2*	*1.27*	*0.45*	*0.45*	*0.51*	*Cum*
		2	*1.27*	*0.56*	*0.35*	*0.49*	*Cum*
		2	*1.27*	*0.81*	*0.50*	*1.03*	*Cum*
	Floor	*1*	*0.63*	*0.60*	*0.70*	*0.26*	*Cum*
		1	*4.00*	*0.60*	*0.50*	*1.20*	*Cum*
		1	*0.31*	*0.60*	*0.25*	*0.05*	*Cum*
		1	*0.20*	*0.60*	*0.40*	*0.05*	*Cum*
		1	*2.80*	*0.60*	*0.50*	*0.84*	*Cum*
		1	*0.63*	*0.60*	*0.70*	*0.26*	*Cum*
	Crest	*1*	*0.68*	*0.60*	*0.54*	*0.22*	*Cum*
	TOTAL					**21.86**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*0.60*	*0.15*	*0.05*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.40*	*0.45*	*0.05*	*0.21*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.40*	*0.45*	*0.05*	*0.21*	*Cum*
	TOTAL					**0.48**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**21.86**	**0.30%**	**0.07**	**7850**	**514.80**	**Kg**
	Total Weight in Metric Tonne					**0.51**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.53*		*0.45*	*2.76*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.53*		*0.86*	*5.24*	*Sqm*
		4		*0.71*	*0.86*	*2.42*	*Sqm*
		4	*1.53*		*0.50*	*3.06*	*Sqm*
		4		*1.11*	*0.50*	*2.23*	*Sqm*
	Section 2-2	*4*	*1.35*		*0.45*	*2.43*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.35*		*0.55*	*2.97*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*1.35*		*0.50*	*2.70*	*Sqm*
		4		*0.93*	*0.50*	*1.86*	*Sqm*
	Section 3-3	*4*	*2.25*		*0.45*	*4.04*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.25*		*0.35*	*3.14*	*Sqm*
		4		*0.56*	*0.35*	*0.78*	*Sqm*
		4	*2.25*		*0.50*	*4.49*	*Sqm*
		4		*0.81*	*0.50*	*1.62*	*Sqm*
	Section 5-5	*4*	*2.37*		*0.45*	*4.26*	*Sqm*

	Items	No.	Length	Width	Height	Quantity	Unit
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.37*		*0.86*	*8.10*	*Sqm*
		4		*0.71*	*0.86*	*2.42*	*Sqm*
		4	*2.37*		*0.50*	*4.74*	*Sqm*
		4		*1.11*	*0.50*	*2.23*	*Sqm*
	Section 6-6	*4*	*1.27*		*0.45*	*2.29*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.27*		*0.35*	*1.78*	*Sqm*
		4		*0.56*	*0.35*	*0.78*	*Sqm*
		4	*1.27*		*0.50*	*2.54*	*Sqm*
		4		*0.81*	*0.50*	*1.62*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.60*	*0.70*	*0.84*	*Sqm*
		2	*4.00*		*0.50*	*4.00*	*Sqm*
		2		*0.60*	*0.50*	*0.60*	*Sqm*
		2	*0.31*		*0.25*	*0.15*	*Sqm*
		2		*0.60*	*0.25*	*0.30*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*0.60*	*0.40*	*0.48*	*Sqm*
		2	*2.80*		*0.50*	*2.80*	*Sqm*
		2		*0.60*	*0.50*	*0.60*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.60*	*0.70*	*0.84*	*Sqm*
	Crest	*2*	*0.681*		*0.535*	*0.73*	*Sqm*
		2		*0.6*	*0.535*	*0.64*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.25*		*0.30*	*2.55*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*3.95*		*0.60*	*4.74*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**103.63**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.78*		*5.34*	*Sqm*
	TOTAL					**5.34**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.00*	*0.30*	**0.00**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.00*	*0.15*	**0.00**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.40*	*0.45*		*4.23*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.40*	*0.45*		*4.23*	*Sqm*
	TOTAL					**8.46**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		0.92		0.92	**Cum**
	Abutment						
	Section 1-1	2	*1.76*	*0.23*		*0.791*	*Cum*
	Section 2-2	2	*1.35*	*0.23*		*0.608*	*Cum*
	Section 3-3	2	*2.50*	*0.13*		*0.666*	*Cum*
	Section 5-5	2	*2.41*	*0.23*		*1.085*	*Cum*
	Section 6-6	2	*0.87*	*0.13*		*0.230*	*Cum*
	D/S protection	2					
	Toe wall	2	*4.25*	*0.15*	*0.60*	*0.765*	*Cum*
		2	*1.50*	*0.15*	*0.60*	*1.800*	*Cum*
	TOTAL					**6.86**	**Cum**

	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 4.600 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.95*	*1.32*	*1.145*	*2.877*	*Cum*
	Section 2-2	*2*	*2.00*	*1.05*	*1.145*	*4.809*	*Cum*
	Section 3-3	*2*	*1.77*	*0.93*	*0.945*	*3.111*	*Cum*
	Section 5-5	*2*	*0.65*	*1.47*	*1.145*	*2.192*	*Cum*
	Section 6-6	*2*	*1.08*	*0.93*	*0.945*	*1.898*	*Cum*
	U/S Key Floor	*1*	*0.625*	*0.590*	*0.850*	*0.313*	*Cum*
	U/S Floor	*1*	*2.000*	*0.590*	*1.307*	*1.542*	*Cum*
	D/S Floor	*1*	*2.000*	*0.590*	*0.850*	*1.003*	*Cum*
		1	*3.000*	*0.590*	*0.650*	*1.151*	*Cum*
	D/S Key Floor	*1*	*0.625*	*0.590*	*0.850*	*0.313*	*Cum*
	Toe Wall D/S Portion	*1*	*2.090*	*0.750*	*0.900*	*1.411*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*1.500*	*1.290*	*0.750*	*1.451*	*Cum*
						22.07	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*0.59*	*0.15*	*0.05*	*Cum*
		1	*0.783*	*0.59*	*0.15*	*0.07*	*Cum*
		1	*3.618*	*0.59*	*0.15*	*0.32*	*Cum*
		1	*0.283*	*0.59*	*0.15*	*0.03*	*Cum*
		1	*1.396*	*0.59*	*0.15*	*0.12*	*Cum*
		1	*0.783*	*0.59*	*0.15*	*0.07*	*Cum*
		1	*0.542*	*0.59*	*0.15*	*0.05*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.95*	*1.32*	*0.15*	*0.38*	*Cum*
	Section 2-2	*2*	*2.00*	*1.05*	*0.15*	*0.63*	*Cum*
	Section 3-3	*2*	*1.77*	*0.93*	*0.15*	*0.49*	*Cum*
	Section 5-5	*2*	*0.65*	*1.47*	*0.15*	*0.29*	*Cum*
	Section 6-6	*2*	*1.08*	*0.93*	*0.15*	*0.30*	*Cum*
	Toe Wall D/S Portion	*1*	*2.09*	*0.75*	*0.30*	*0.47*	*Cum*
	Toe Wall D/S Portion	*1*	*1.79*	*0.45*	*0.60*	*0.48*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.50*	*1.29*	*0.15*	*0.29*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**4.58**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.72*	*0.45*	*0.45*	*0.29*	*Cum*
		2	*0.72*	*0.74*	*0.96*	*1.02*	*Cum*
		2	*0.72*	*1.17*	*0.50*	*0.85*	*Cum*
	Section 2-2	*2*	*2.00*	*0.45*	*0.45*	*0.81*	*Cum*
		2	*2.00*	*0.60*	*0.50*	*1.20*	*Cum*
		2	*2.00*	*0.90*	*0.50*	*1.80*	*Cum*
	Section 3-3	*2*	*2.46*	*0.45*	*0.45*	*1.00*	*Cum*
		2	*2.46*	*0.54*	*0.30*	*0.80*	*Cum*
		2	*2.46*	*0.78*	*0.50*	*1.92*	*Cum*
	Section 5-5	*2*	*0.61*	*0.45*	*0.45*	*0.25*	*Cum*
		2	*0.61*	*0.74*	*0.96*	*0.85*	*Cum*
		2	*0.61*	*1.17*	*0.50*	*0.71*	*Cum*
	Section 6-6	*2*	*0.54*	*0.45*	*0.45*	*0.22*	*Cum*
		2	*0.54*	*0.54*	*0.30*	*0.17*	*Cum*
		2	*0.54*	*0.78*	*0.50*	*0.42*	*Cum*
	Floor	*1*	*0.63*	*0.59*	*0.70*	*0.26*	*Cum*
		1	*4.00*	*0.59*	*0.50*	*1.18*	*Cum*
		1	*0.55*	*0.59*	*0.20*	*0.06*	*Cum*
		1	*0.20*	*0.59*	*0.40*	*0.05*	*Cum*
		1	*2.80*	*0.59*	*0.50*	*0.83*	*Cum*
		1	*0.63*	*0.59*	*0.70*	*0.26*	*Cum*
	Crest	*1*	*0.71*	*0.59*	*0.70*	*0.29*	*Cum*
	TOTAL					**15.24**	**Cum**

	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*0.59*	*0.15*	*0.05*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*6.63*	*0.45*	*0.05*	*0.15*	*Cum*
	On Abutment Top (Right Side)	*1*	*6.63*	*0.45*	*0.05*	*0.15*	*Cum*
	TOTAL					**0.35**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**15.24**	**0.30%**	**0.05**	**7850**	**358.88**	**Kg**
	Total Weight in Metric Tonne					**0.36**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.72*		*0.45*	*1.30*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.72*		*0.96*	*2.77*	*Sqm*
		4		*0.74*	*0.96*	*2.82*	*Sqm*
		4	*0.72*		*0.50*	*1.45*	*Sqm*
		4		*1.17*	*0.50*	*2.35*	*Sqm*
	Section 2-2	*4*	*2.00*		*0.45*	*3.60*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.00*		*0.50*	*4.00*	*Sqm*
		4		*0.60*	*0.50*	*1.20*	*Sqm*
		4	*2.00*		*0.50*	*4.00*	*Sqm*
		4		*0.90*	*0.50*	*1.80*	*Sqm*
	Section 3-3	*4*	*2.46*		*0.45*	*4.43*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.46*		*0.30*	*2.95*	*Sqm*
		4		*0.54*	*0.30*	*0.65*	*Sqm*
		4	*2.46*		*0.50*	*4.92*	*Sqm*
		4		*0.78*	*0.50*	*1.56*	*Sqm*
	Section 5-5	*4*	*0.61*		*0.45*	*1.09*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.61*		*0.96*	*2.32*	*Sqm*
		4		*0.74*	*0.96*	*2.82*	*Sqm*
		4	*0.61*		*0.50*	*1.21*	*Sqm*
		4		*1.17*	*0.50*	*2.35*	*Sqm*
	Section 6-6	*4*	*0.54*		*0.45*	*0.97*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.54*		*0.30*	*0.65*	*Sqm*
		4		*0.54*	*0.30*	*0.65*	*Sqm*
		4	*0.54*		*0.50*	*1.08*	*Sqm*
		4		*0.78*	*0.50*	*1.56*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.59*	*0.70*	*0.83*	*Sqm*
		2	*4.00*		*0.50*	*4.00*	*Sqm*
		2		*0.59*	*0.50*	*0.59*	*Sqm*
		2	*0.55*		*0.20*	*0.22*	*Sqm*
		2		*0.59*	*0.20*	*0.24*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*0.59*	*0.40*	*0.47*	*Sqm*
		2	*2.80*		*0.50*	*2.80*	*Sqm*
		2		*0.59*	*0.50*	*0.59*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.59*	*0.70*	*0.83*	*Sqm*
	Crest	*2*	*0.7085*		*0.702*	*0.99*	*Sqm*
		2		*0.59*	*0.702*	*0.83*	*Sqm*
	Toe Wall D/S Portion	*2*	*2.09*		*0.30*	*1.25*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*1.79*		*0.60*	*2.15*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*1.29*	*0.15*	*0.77*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**83.22**	**Sqm**

	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*1*	*1.50*	*2.59*		*3.89*	*Sqm*
	TOTAL					**3.89**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.39*	*0.30*	**0.18**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.39*	*0.15*	**0.18**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*6.63*	*0.45*		*2.98*	*Sqm*
	On Abutment Top (Right Side)	*1*	*6.63*	*0.45*		*2.98*	*Sqm*
	TOTAL					**5.97**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		0.54		0.54	**Cum**
	Abutment						
	Section 1-1	2	*0.95*	*0.30*		*0.564*	*Cum*
	Section 2-2	2	*2.00*	*0.30*		*1.188*	*Cum*
	Section 3-3	2	*1.77*	*0.43*		*1.522*	*Cum*
	Section 5-5	2	*0.65*	*0.30*		*0.386*	*Cum*
	Section 6-6	2	*1.08*	*0.43*		*0.929*	*Cum*
	D/S protection	2					
	Toe wall	2	*2.09*	*0.15*	*0.60*	*0.376*	*Cum*
		2	1.50	0.15	0.60	*1.800*	*Cum*
	TOTAL					**7.30**	**Cum**

	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR MALI MINOR						
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 1.000 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.96*	*1.49*	*1.549*	*4.457*	*Cum*
	Section 2-2	*2*	*2.50*	*1.13*	*1.549*	*8.736*	*Cum*
	Section 3-3	*2*	*2.20*	*1.01*	*1.349*	*5.983*	*Cum*
	Section 5-5	*2*	*2.26*	*1.64*	*1.549*	*11.508*	*Cum*
	Section 6-6	*2*	*3.74*	*1.01*	*1.349*	*10.171*	*Cum*
	U/S Key Floor	*1*	*0.625*	*0.710*	*0.850*	*0.377*	*Cum*
	U/S Floor	*1*	*2.000*	*0.710*	*1.460*	*2.073*	*Cum*
	D/S Floor	*1*	*2.500*	*0.710*	*0.900*	*1.598*	*Cum*
		1	*2.500*	*0.710*	*0.700*	*1.243*	*Cum*
	D/S Key Floor	*1*	*0.625*	*0.710*	*0.850*	*0.377*	*Cum*
	Toe Wall D/S Portion	*1*	*4.600*	*0.750*	*0.900*	*3.105*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*1.010*	*0.750*	*2.273*	*Cum*
						51.90	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*0.71*	*0.15*	*0.06*	*Cum*
		1	*0.782*	*0.71*	*0.15*	*0.08*	*Cum*
		1	*3.876*	*0.71*	*0.15*	*0.41*	*Cum*
		1	*0.283*	*0.71*	*0.15*	*0.03*	*Cum*
		1	*1.138*	*0.71*	*0.15*	*0.12*	*Cum*
		1	*0.783*	*0.71*	*0.15*	*0.08*	*Cum*
		1	*0.542*	*0.71*	*0.15*	*0.06*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.96*	*1.49*	*0.15*	*0.43*	*Cum*
	Section 2-2	*2*	*2.50*	*1.13*	*0.15*	*0.85*	*Cum*
	Section 3-3	*2*	*2.20*	*1.01*	*0.15*	*0.67*	*Cum*
	Section 5-5	*2*	*2.26*	*1.64*	*0.15*	*1.11*	*Cum*
	Section 6-6	*2*	*3.74*	*1.01*	*0.15*	*1.13*	*Cum*
	Toe Wall D/S Portion	*1*	*4.60*	*0.75*	*0.30*	*1.04*	*Cum*
	Toe Wall D/S Portion	*1*	*4.30*	*0.45*	*0.60*	*1.16*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.50*	*1.01*	*0.15*	*0.23*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**8.00**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.74*	*0.45*	*0.45*	*0.30*	*Cum*
		2	*0.74*	*0.82*	*1.24*	*1.50*	*Cum*
		2	*0.74*	*1.34*	*0.50*	*0.99*	*Cum*
	Section 2-2	*2*	*2.50*	*0.45*	*0.45*	*1.01*	*Cum*
		2	*2.50*	*0.64*	*0.63*	*2.01*	*Cum*
		2	*2.50*	*0.98*	*0.50*	*2.45*	*Cum*
	Section 3-3	*2*	*1.92*	*0.45*	*0.45*	*0.78*	*Cum*
		2	*1.92*	*0.58*	*0.43*	*0.96*	*Cum*
		2	*1.92*	*0.86*	*0.50*	*1.65*	*Cum*
	Section 5-5	*2*	*2.26*	*0.45*	*0.45*	*0.92*	*Cum*
		2	*2.26*	*0.82*	*1.24*	*4.61*	*Cum*
		2	*2.26*	*1.34*	*0.50*	*3.04*	*Cum*
	Section 6-6	*2*	*1.37*	*0.45*	*0.45*	*0.55*	*Cum*
		2	*1.37*	*0.58*	*0.43*	*0.68*	*Cum*
		2	*1.37*	*0.86*	*0.50*	*1.17*	*Cum*
	Floor	*1*	*0.63*	*0.71*	*0.70*	*0.31*	*Cum*
		1	*4.50*	*0.71*	*0.55*	*1.76*	*Cum*
		1	*0.31*	*0.71*	*0.20*	*0.04*	*Cum*
		1	*0.20*	*0.71*	*0.40*	*0.06*	*Cum*
		1	*2.30*	*0.71*	*0.50*	*0.82*	*Cum*
		1	*0.63*	*0.71*	*0.70*	*0.31*	*Cum*
	Crest	*1*	*0.73*	*0.71*	*0.85*	*0.44*	*Cum*
	TOTAL					**26.35**	**Cum**

	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*0.71*	*0.15*	*0.06*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.56*	*0.45*	*0.05*	*0.22*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.56*	*0.45*	*0.05*	*0.22*	*Cum*
	TOTAL					**0.49**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**26.35**	**0.30%**	**0.08**	**7850**	**620.52**	**Kg**
	Total Weight in Metric Tonne					**0.62**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.74*		*0.45*	*1.33*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.74*		*1.24*	*3.66*	*Sqm*
		4		*0.82*	*1.24*	*4.08*	*Sqm*
		4	*0.74*		*0.50*	*1.48*	*Sqm*
		4		*1.34*	*0.50*	*2.69*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.45*	*4.50*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.50*		*0.63*	*6.30*	*Sqm*
		4		*0.64*	*0.63*	*1.61*	*Sqm*
		4	*2.50*		*0.50*	*5.00*	*Sqm*
		4		*0.98*	*0.50*	*1.96*	*Sqm*
	Section 3-3	*4*	*1.92*		*0.45*	*3.46*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.92*		*0.43*	*3.30*	*Sqm*
		4		*0.58*	*0.43*	*1.00*	*Sqm*
		4	*1.92*		*0.50*	*3.84*	*Sqm*
		4		*0.86*	*0.50*	*1.72*	*Sqm*
	Section 5-5	*4*	*2.26*		*0.45*	*4.07*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.26*		*1.24*	*11.21*	*Sqm*
		4		*0.82*	*1.24*	*4.08*	*Sqm*
		4	*2.26*		*0.50*	*4.52*	*Sqm*
		4		*1.34*	*0.50*	*2.69*	*Sqm*
	Section 6-6	*4*	*1.37*		*0.45*	*2.46*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.37*		*0.43*	*2.35*	*Sqm*
		4		*0.58*	*0.43*	*1.00*	*Sqm*
		4	*1.37*		*0.50*	*2.73*	*Sqm*
		4		*0.86*	*0.50*	*1.72*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.71*	*0.70*	*0.99*	*Sqm*
		2	*4.50*		*0.55*	*4.95*	*Sqm*
		2		*0.71*	*0.55*	*0.78*	*Sqm*
		2	*0.31*		*0.20*	*0.12*	*Sqm*
		2		*0.71*	*0.20*	*0.28*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*0.71*	*0.40*	*0.57*	*Sqm*
		2	*2.30*		*0.50*	*2.30*	*Sqm*
		2		*0.71*	*0.50*	*0.71*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.71*	*0.70*	*0.99*	*Sqm*
	Crest	*2*	*0.733*		*0.849*	*1.24*	*Sqm*
		2		*0.71*	*0.849*	*1.21*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.60*		*0.30*	*2.76*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.30*		*0.60*	*5.16*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*1.01*	*0.15*	*0.61*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**117.57**	**Sqm**

	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.93*		*5.78*	*Sqm*
	TOTAL					**5.78**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.11*	*0.30*	**0.05**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.11*	*0.15*	**0.05**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.56*	*0.45*		*4.30*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.56*	*0.45*		*4.30*	*Sqm*
	TOTAL					**8.61**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.58		1.58	**Cum**
	Abutment						
	Section 1-1	2	*0.96*	*0.59*		*1.131*	*Cum*
	Section 2-2	2	*2.50*	*0.59*		*2.935*	*Cum*
	Section 3-3	2	*2.20*	*0.41*		*1.804*	*Cum*
	Section 5-5	2	*2.26*	*0.59*		*2.653*	*Cum*
	Section 6-6	2	*3.74*	*0.41*		*3.067*	*Cum*
	D/S protection	2					
	Toe wall	2	*4.60*	*0.15*	*0.60*	*0.828*	*Cum*
		2	*1.50*	*0.15*	*0.60*	*1.800*	*Cum*
	TOTAL					**15.79**	**Cum**

	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 3.125 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.95*	*1.32*	*2.107*	*5.286*	*Cum*
	Section 2-2	*2*	*2.50*	*1.13*	*2.107*	*11.883*	*Cum*
	Section 3-3	*2*	*2.20*	*0.93*	*1.907*	*7.803*	*Cum*
	Section 5-5	*2*	*0.65*	*1.47*	*2.107*	*4.031*	*Cum*
	Section 6-6	*2*	*0.93*	*0.93*	*1.907*	*3.299*	*Cum*
	U/S Key Floor	*1*	*0.625*	*0.580*	*0.850*	*0.308*	*Cum*
	U/S Floor	*1*	*2.000*	*0.580*	*1.307*	*1.516*	*Cum*
	D/S Floor	*1*	*2.500*	*0.580*	*0.850*	*1.233*	*Cum*
		1	*2.500*	*0.580*	*0.650*	*0.943*	*Cum*
	D/S Key Floor	*1*	*0.625*	*0.580*	*0.850*	*0.308*	*Cum*
	Toe Wall D/S Portion	*1*	*2.080*	*0.750*	*0.900*	*1.404*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*1.280*	*0.750*	*2.880*	*Cum*
						40.89	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*0.58*	*0.15*	*0.05*	*Cum*
		1	*0.782*	*0.58*	*0.15*	*0.07*	*Cum*
		1	*4.118*	*0.58*	*0.15*	*0.36*	*Cum*
		1	*0.283*	*0.58*	*0.15*	*0.02*	*Cum*
		1	*0.897*	*0.58*	*0.15*	*0.08*	*Cum*
		1	*0.783*	*0.58*	*0.15*	*0.07*	*Cum*
		1	*0.542*	*0.58*	*0.15*	*0.05*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.95*	*1.32*	*0.15*	*0.38*	*Cum*
	Section 2-2	*2*	*2.50*	*1.13*	*0.15*	*0.85*	*Cum*
	Section 3-3	*2*	*2.20*	*0.93*	*0.15*	*0.61*	*Cum*
	Section 5-5	*2*	*0.65*	*1.47*	*0.15*	*0.29*	*Cum*
	Section 6-6	*2*	*0.93*	*0.93*	*0.15*	*0.26*	*Cum*
	Toe Wall D/S Portion	*1*	*2.08*	*0.75*	*0.30*	*0.47*	*Cum*
	Toe Wall D/S Portion	*1*	*1.78*	*0.45*	*0.60*	*0.48*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.50*	*1.28*	*0.15*	*0.29*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**4.85**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.80*	*0.45*	*0.45*	*0.32*	*Cum*
		2	*0.80*	*0.74*	*0.96*	*1.12*	*Cum*
		2	*0.80*	*1.17*	*0.70*	*1.31*	*Cum*
	Section 2-2	*2*	*2.50*	*0.45*	*0.45*	*1.01*	*Cum*
		2	*2.50*	*0.60*	*0.50*	*1.50*	*Cum*
		2	*2.50*	*0.98*	*0.70*	*3.42*	*Cum*
	Section 3-3	*2*	*1.96*	*0.45*	*0.45*	*0.79*	*Cum*
		2	*1.96*	*0.54*	*0.30*	*0.64*	*Cum*
		2	*1.96*	*0.78*	*0.55*	*1.68*	*Cum*
	Section 5-5	*2*	*0.61*	*0.45*	*0.45*	*0.25*	*Cum*
		2	*0.61*	*0.74*	*0.96*	*0.85*	*Cum*
		2	*0.61*	*1.17*	*0.70*	*0.99*	*Cum*
	Section 6-6	*2*	*0.54*	*0.45*	*0.45*	*0.22*	*Cum*
		2	*0.54*	*0.54*	*0.30*	*0.17*	*Cum*
		2	*0.54*	*0.78*	*0.55*	*0.46*	*Cum*
	Floor	*1*	*0.63*	*0.58*	*0.70*	*0.25*	*Cum*
		1	*4.50*	*0.58*	*0.50*	*1.31*	*Cum*
		1	*0.31*	*0.58*	*0.20*	*0.04*	*Cum*
		1	*0.20*	*0.58*	*0.40*	*0.05*	*Cum*
		1	*2.30*	*0.58*	*0.50*	*0.67*	*Cum*
		1	*0.63*	*0.58*	*0.70*	*0.25*	*Cum*
	Crest	*1*	*0.71*	*0.58*	*0.67*	*0.27*	*Cum*
	TOTAL					**17.59**	**Cum**

	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*0.58*	*0.15*	*0.05*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*6.63*	*0.45*	*0.05*	*0.15*	*Cum*
	On Abutment Top (Right Side)	*1*	*6.63*	*0.45*	*0.05*	*0.15*	*Cum*
	TOTAL					**0.35**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**17.59**	**0.30%**	**0.05**	**7850**	**414.26**	**Kg**
	Total Weight in Metric Tonne					**0.41**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.80*		*0.45*	*1.44*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.80*		*0.96*	*3.05*	*Sqm*
		4		*0.74*	*0.96*	*2.82*	*Sqm*
		4	*0.80*		*0.70*	*2.23*	*Sqm*
		4		*1.17*	*0.70*	*3.29*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.45*	*4.50*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.50*		*0.50*	*5.00*	*Sqm*
		4		*0.60*	*0.50*	*1.20*	*Sqm*
		4	*2.50*		*0.70*	*7.00*	*Sqm*
		4		*0.98*	*0.70*	*2.74*	*Sqm*
	Section 3-3	*4*	*1.96*		*0.45*	*3.53*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.96*		*0.30*	*2.35*	*Sqm*
		4		*0.54*	*0.30*	*0.65*	*Sqm*
		4	*1.96*		*0.55*	*4.31*	*Sqm*
		4		*0.78*	*0.55*	*1.72*	*Sqm*
	Section 5-5	*4*	*0.61*		*0.45*	*1.09*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.61*		*0.96*	*2.32*	*Sqm*
		4		*0.74*	*0.96*	*2.82*	*Sqm*
		4	*0.61*		*0.70*	*1.69*	*Sqm*
		4		*1.17*	*0.70*	*3.29*	*Sqm*
	Section 6-6	*4*	*0.54*		*0.45*	*0.97*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.54*		*0.30*	*0.65*	*Sqm*
		4		*0.54*	*0.30*	*0.65*	*Sqm*
		4	*0.54*		*0.55*	*1.19*	*Sqm*
		4		*0.78*	*0.55*	*1.72*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.58*	*0.70*	*0.81*	*Sqm*
		2	*4.50*		*0.50*	*4.50*	*Sqm*
		2		*0.58*	*0.50*	*0.58*	*Sqm*
		2	*0.31*		*0.20*	*0.12*	*Sqm*
		2		*0.58*	*0.20*	*0.23*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*0.58*	*0.40*	*0.46*	*Sqm*
		2	*2.30*		*0.50*	*2.30*	*Sqm*
		2		*0.58*	*0.50*	*0.58*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.58*	*0.70*	*0.81*	*Sqm*
	Crest	*2*	*0.708*		*0.669*	*0.95*	*Sqm*
		2		*0.58*	*0.669*	*0.78*	*Sqm*
	Toe Wall D/S Portion	*2*	*2.08*		*0.30*	*1.25*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*1.78*		*0.60*	*2.14*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*1.28*	*0.15*	*0.77*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**90.65**	**Sqm**

	Items	No.	Length	Width	Height	Quantity	Unit
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.38*	*0.30*	**0.17**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.38*	*0.15*	**0.17**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*6.63*	*0.45*		*2.98*	*Sqm*
	On Abutment Top (Right Side)	*1*	*6.63*	*0.45*		*2.98*	*Sqm*
	TOTAL					**5.97**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		0.53		0.53	**Cum**
	Abutment						
	Section 1-1	2	*0.95*	*0.76*		*1.431*	*Cum*
	Section 2-2	2	*2.50*	*0.63*		*3.160*	*Cum*
	Section 3-3	2	*2.20*	*0.43*		*1.901*	*Cum*
	Section 5-5	2	*0.65*	*0.76*		*0.980*	*Cum*
	Section 6-6	2	*0.93*	*0.43*		*0.804*	*Cum*
	D/S protection	2					
	Toe wall	2	*2.08*	*0.15*	*0.60*	*0.374*	*Cum*
		2	*1.50*	*0.15*	*0.60*	*1.800*	*Cum*
	TOTAL					**10.98**	**Cum**

	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR THUMBHI MINOR						
	Items	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 0.545 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.26*	*1.51*	*1.707*	*6.475*	*Cum*
	Section 2-2	*2*	*2.30*	*1.76*	*1.707*	*13.788*	*Cum*
	Section 3-3	*2*	*4.20*	*1.64*	*1.507*	*20.710*	*Cum*
	Section 5-5	*2*	*2.61*	*1.66*	*1.707*	*14.817*	*Cum*
	Section 6-6	*2*	*0.73*	*1.12*	*1.507*	*2.452*	*Cum*
	U/S Key Floor	*1*	*0.625*	*1.400*	*0.850*	*0.744*	*Cum*
	U/S Floor	*1*	*2.000*	*1.400*	*2.007*	*5.620*	*Cum*
	D/S Floor	*1*	*2.500*	*1.400*	*0.850*	*2.975*	*Cum*
		1	*4.500*	*1.400*	*0.650*	*4.095*	*Cum*
	D/S Key Floor	*1*	*0.625*	*1.400*	*0.850*	*0.744*	*Cum*
	Toe Wall D/S Portion	*1*	*5.830*	*0.750*	*0.900*	*3.935*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.000*	*0.600*	*0.750*	*1.800*	*Cum*
						78.15	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.40*	*0.15*	*0.11*	*Cum*
		1	*0.782*	*1.40*	*0.15*	*0.16*	*Cum*
		1	*3.826*	*1.40*	*0.15*	*0.80*	*Cum*
		1	*0.282*	*1.40*	*0.15*	*0.06*	*Cum*
		1	*3.188*	*1.40*	*0.15*	*0.67*	*Cum*
		1	*0.782*	*1.40*	*0.15*	*0.16*	*Cum*
		1	*0.542*	*1.40*	*0.15*	*0.11*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.26*	*1.51*	*0.15*	*0.57*	*Cum*
	Section 2-2	*2*	*2.30*	*1.76*	*0.15*	*1.21*	*Cum*
	Section 3-3	*2*	*4.20*	*1.64*	*0.15*	*2.06*	*Cum*
	Section 5-5	*2*	*2.61*	*1.66*	*0.15*	*1.30*	*Cum*
	Section 6-6	*2*	*0.73*	*1.12*	*0.15*	*0.24*	*Cum*
	Toe Wall D/S Portion	*1*	*5.83*	*0.75*	*0.30*	*1.31*	*Cum*
	Toe Wall D/S Portion	*1*	*5.83*	*0.45*	*0.60*	*1.57*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**11.44**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.18*	*0.45*	*0.45*	*0.48*	*Cum*
		2	*1.18*	*0.83*	*1.27*	*2.48*	*Cum*
		2	*1.18*	*1.36*	*0.50*	*1.60*	*Cum*
	Section 2-2	*2*	*2.30*	*0.82*	*0.50*	*1.89*	*Cum*
		2	*2.30*	*1.06*	*0.81*	*3.96*	*Cum*
		2	*2.30*	*1.46*	*1.00*	*6.70*	*Cum*
	Section 3-3	*2*	*3.87*	*0.82*	*0.50*	*3.17*	*Cum*
		2	*3.87*	*0.97*	*0.61*	*4.57*	*Cum*
		2	*3.87*	*1.27*	*1.20*	*11.77*	*Cum*
	Section 5-5	*2*	*2.57*	*0.45*	*0.45*	*1.04*	*Cum*
		2	*2.57*	*0.83*	*1.27*	*5.41*	*Cum*
		2	*2.57*	*1.36*	*0.50*	*3.50*	*Cum*
	Section 6-6	*2*	*1.40*	*0.45*	*0.45*	*0.57*	*Cum*
		2	*1.40*	*0.63*	*0.61*	*1.08*	*Cum*
		2	*1.40*	*0.97*	*0.60*	*1.62*	*Cum*
	Floor	*1*	*0.63*	*1.40*	*0.70*	*0.61*	*Cum*
		1	*4.50*	*1.40*	*0.50*	*3.15*	*Cum*
		1	*0.25*	*1.40*	*0.20*	*0.07*	*Cum*
		1	*0.20*	*1.40*	*0.40*	*0.11*	*Cum*
		1	*4.30*	*1.40*	*0.50*	*3.01*	*Cum*
		1	*0.63*	*1.40*	*0.70*	*0.61*	*Cum*
	Crest	*1*	*0.78*	*1.40*	*0.80*	*0.87*	*Cum*

	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**58.27**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.65*	*1.40*	*0.20*	*0.18*	*Cum*
	Coping over Abutment Top	*2*	*12.04*	*0.45*	*0.05*	*0.54*	*Cum*
	Slab Bridge						
	Slab	*1*	*3.04*	*5.5*	*0.33*	*5.49*	*Cum*
	Wearing coat	*1*	*3.04*	*4.50*	*0.07*	*0.96*	*Cum*
	Dirt wall	*2*	*0.40*	*5.5*	*0.30*	*1.32*	*Cum*
	300 mm thick pedastial	*2*	*0.82*	*5.5*	*0.30*	*2.71*	*Cum*
	TOTAL					**11.20**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*31*	*2.66*		*1.578*	*130.1*	*Kg*
a2	*10*	*11*	*5.90*		*0.616*	*40.0*	*Kg*
a3	*10*	*2*	*5.40*		*0.616*	*6.7*	*Kg*
a4	*10*	*19*	*2.58*		*0.616*	*30.2*	*Kg*
a5	*10*	*8*	*5.80*		*0.616*	*28.6*	*Kg*
x1	*12*	*36*	*2.50*		*0.888*	*79.9*	*Kg*
x2	*16*	*36*	*1.94*		*1.578*	*110.2*	*Kg*
x3	*12*	*20*	*1.56*		*0.888*	*27.7*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**58.27**	**0.30%**	**0.17**	**7850**	**1372.27**	**Kg**
	TOTAL REINFORCEMENT STEEL (in kg)					**1825.73**	**Kg'**
	TOTAL REINFORCEMENT STEEL (in MT)					**1.83**	**MT**

6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.18*		*0.45*	*2.12*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.18*		*1.27*	*5.97*	*Sqm*
		4		*0.83*	*1.27*	*4.21*	*Sqm*
		4	*1.18*		*0.50*	*2.36*	*Sqm*
		4		*1.36*	*0.50*	*2.72*	*Sqm*
	Section 2-2	*4*	*2.30*		*0.50*	*4.60*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*2.30*		*0.81*	*7.45*	*Sqm*
		4		*1.06*	*0.81*	*3.44*	*Sqm*
		4	*2.30*		*1.00*	*9.20*	*Sqm*
		4		*1.46*	*1.00*	*5.82*	*Sqm*
	Section 3-3	*4*	*3.87*		*0.50*	*7.73*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*3.87*		*0.61*	*9.44*	*Sqm*
		4		*0.97*	*0.61*	*2.37*	*Sqm*
		4	*3.87*		*1.20*	*18.56*	*Sqm*
		4		*1.27*	*1.20*	*6.09*	*Sqm*
	Section 5-5	*4*	*2.57*		*0.45*	*4.63*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.57*		*1.27*	*13.03*	*Sqm*
		4		*0.83*	*1.27*	*4.21*	*Sqm*
		4	*2.57*		*0.50*	*5.14*	*Sqm*
		4		*1.36*	*0.50*	*2.72*	*Sqm*
	Section 6-6	*4*	*1.40*		*0.45*	*2.51*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.40*		*0.61*	*3.41*	*Sqm*
		4		*0.63*	*0.61*	*1.54*	*Sqm*
		4	*1.40*		*0.60*	*3.35*	*Sqm*
		4		*0.97*	*0.60*	*2.33*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.40*	*0.70*	*1.96*	*Sqm*
		2	*4.50*		*0.50*	*4.50*	*Sqm*
		2		*1.40*	*0.50*	*1.40*	*Sqm*
		2	*0.25*		*0.20*	*0.10*	*Sqm*
		2		*1.40*	*0.20*	*0.56*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*

	Items	No.	Length	Width	Height	Quantity	Unit
		2		*1.40*	*0.40*	*1.12*	*Sqm*
		2	*4.30*		*0.50*	*4.30*	*Sqm*
		2		*1.40*	*0.50*	*1.40*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.40*	*0.70*	*1.96*	*Sqm*
	Crest	*2*	*0.7825*		*0.795*	*1.24*	*Sqm*
		2		*1.4*	*0.795*	*2.23*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.83*		*0.30*	*3.50*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.83*		*0.60*	*7.00*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**181.90**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.25*		*9.00*	*Sqm*
	TOTAL					**9.00**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*0.80*	*0.30*	**0.48**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*0.80*	*0.15*	**0.48**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*12.04*	*0.45*		*5.42*	*Sqm*
	On Abutment Top (Right Side)	*1*	*12.04*	*0.45*		*5.42*	*Sqm*
	TOTAL					**10.83**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.54		1.54	**Cum**
	Abutment						
	Section 1-1	2	*1.26*	*0.72*		*1.809*	*Cum*
	Section 2-2	2	*2.30*	*0.31*		*1.426*	*Cum*
	Section 3-3	2	*4.20*	*0.25*		*2.100*	*Cum*
	Section 5-5	2	*2.61*	*0.72*		*3.765*	*Cum*
	Section 6-6	2	*0.73*	*0.66*		*0.967*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.83*	*0.15*	*0.60*	*1.049*	*Cum*
		2	*2.00*	*0.15*	*0.60*	*2.400*	*Cum*
	TOTAL					**15.06**	**Cum**

	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 0.965 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.30*	*1.78*	*2.699*	*12.509*	*Cum*
	Section 2-2	*2*	*3.25*	*1.24*	*2.699*	*21.684*	*Cum*
	Section 3-3	*2*	*1.45*	*1.12*	*2.499*	*8.088*	*Cum*
	Section 5-5	*2*	*2.63*	*1.93*	*2.699*	*27.410*	*Cum*
	Section 6-6	*2*	*1.12*	*1.12*	*2.499*	*6.225*	*Cum*
	U/S Key Floor	*1*	*0.625*	*1.400*	*0.850*	*0.744*	*Cum*
	U/S Floor	*1*	*2.500*	*1.400*	*2.464*	*8.624*	*Cum*
	D/S Floor	*1*	*1.963*	*1.400*	*0.850*	*2.336*	*Cum*
		1	*1.800*	*1.400*	*0.650*	*1.638*	*Cum*
	D/S Key Floor	*1*	*0.625*	*1.400*	*1.150*	*1.006*	*Cum*
	Toe Wall D/S Portion	*1*	*5.830*	*0.750*	*0.900*	*3.935*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.000*	*0.600*	*0.750*	*1.800*	*Cum*
						96.00	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.40*	*0.15*	*0.11*	*Cum*
		1	*0.782*	*1.40*	*0.15*	*0.16*	*Cum*
		1	*0.282*	*1.40*	*1.15*	*0.45*	*Cum*
		1	*0.007*	*1.40*	*2.15*	*0.02*	*Cum*
		1	*4.744*	*1.40*	*0.15*	*1.00*	*Cum*
		1	*0.353*	*1.40*	*0.15*	*0.07*	*Cum*
		1	*0.238*	*1.40*	*0.15*	*0.05*	*Cum*
		1	*1.118*	*1.40*	*0.15*	*0.23*	*Cum*
		1	*0.542*	*1.40*	*0.15*	*0.11*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.30*	*1.78*	*0.15*	*0.70*	*Cum*
	Section 2-2	*2*	*3.25*	*1.24*	*0.15*	*1.21*	*Cum*
	Section 3-3	*2*	*1.45*	*1.12*	*0.15*	*0.49*	*Cum*
	Section 5-5	*2*	*2.63*	*1.93*	*0.15*	*1.52*	*Cum*
	Section 6-6	*2*	*1.12*	*1.12*	*0.15*	*0.37*	*Cum*
	Toe Wall D/S Portion	*1*	*5.83*	*0.75*	*0.30*	*1.31*	*Cum*
	Toe Wall D/S Portion	*1*	*5.53*	*0.45*	*0.60*	*1.49*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*2.00*	*0.60*	*0.15*	*0.18*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**10.21**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.15*	*0.45*	*0.45*	*0.47*	*Cum*
		2	*1.15*	*0.97*	*1.72*	*3.83*	*Cum*
		2	*1.15*	*1.63*	*0.60*	*2.25*	*Cum*
	Section 2-2	*2*	*3.25*	*0.45*	*0.45*	*1.32*	*Cum*
		2	*3.25*	*0.69*	*0.61*	*2.75*	*Cum*
		2	*3.25*	*1.09*	*0.60*	*4.24*	*Cum*
	Section 3-3	*2*	*1.12*	*0.45*	*0.45*	*0.45*	*Cum*
		2	*1.12*	*0.63*	*0.61*	*0.86*	*Cum*
		2	*1.12*	*0.97*	*0.50*	*1.08*	*Cum*
	Section 5-5	*2*	*2.58*	*0.45*	*0.45*	*1.04*	*Cum*
		2	*2.58*	*0.97*	*1.72*	*8.59*	*Cum*
		2	*2.58*	*1.63*	*0.60*	*5.05*	*Cum*
	Section 6-6	*2*	*1.73*	*0.45*	*0.45*	*0.70*	*Cum*
		2	*1.73*	*0.63*	*0.61*	*1.34*	*Cum*
		2	*1.73*	*0.97*	*0.50*	*1.67*	*Cum*
	Floor	*1*	*0.63*	*1.40*	*0.70*	*0.61*	*Cum*
		1	*1.24*	*1.40*	*0.50*	*0.87*	*Cum*
		1	*4.46*	*1.40*	*0.55*	*3.44*	*Cum*
		1	*0.28*	*1.40*	*0.25*	*0.10*	*Cum*
		1	*0.25*	*1.40*	*0.40*	*0.14*	*Cum*
		1	*1.55*	*1.40*	*0.50*	*1.09*	*Cum*
		1	*0.63*	*1.40*	*1.00*	*0.88*	*Cum*

	Items	No.	Length	Width	Height	Quantity	Unit
	Crest	*1*	*1.06*	*1.40*	*1.24*	*1.83*	*Cum*
	TOTAL					**44.58**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.85*	*1.40*	*0.15*	*0.18*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*6.63*	*0.45*	*0.05*	*0.15*	*Cum*
	On Abutment Top (Right Side)	*1*	*6.63*	*0.45*	*0.05*	*0.15*	*Cum*
	TOTAL					**0.48**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**44.58**	**0.30%**	**0.13**	**7850**	**1049.83**	**Kg**
	Total Weight in Metric Tonne					**1.05**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.15*		*0.45*	*2.07*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.15*		*1.72*	*7.92*	*Sqm*
		4		*0.97*	*1.72*	*6.67*	*Sqm*
		4	*1.15*		*0.60*	*2.76*	*Sqm*
		4		*1.63*	*0.60*	*3.92*	*Sqm*
	Section 2-2	*4*	*3.25*		*0.45*	*5.85*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.25*		*0.61*	*7.93*	*Sqm*
		4		*0.69*	*0.61*	*1.69*	*Sqm*
		4	*3.25*		*0.60*	*7.80*	*Sqm*
		4		*1.09*	*0.60*	*2.61*	*Sqm*
	Section 3-3	*4*	*1.12*		*0.45*	*2.01*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.12*		*0.61*	*2.73*	*Sqm*
		4		*0.63*	*0.61*	*1.54*	*Sqm*
		4	*1.12*		*0.50*	*2.23*	*Sqm*
		4		*0.97*	*0.50*	*1.93*	*Sqm*
	Section 5-5	*4*	*2.58*		*0.45*	*4.64*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.58*		*1.72*	*17.76*	*Sqm*
		4		*0.97*	*1.72*	*6.67*	*Sqm*
		4	*2.58*		*0.60*	*6.18*	*Sqm*
		4		*1.63*	*0.60*	*3.92*	*Sqm*
	Section 6-6	*4*	*1.73*		*0.45*	*3.12*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.73*		*0.61*	*4.23*	*Sqm*
		4		*0.63*	*0.61*	*1.54*	*Sqm*
		4	*1.73*		*0.50*	*3.46*	*Sqm*
		4		*0.97*	*0.50*	*1.93*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.40*	*0.70*	*1.96*	*Sqm*
		2	*1.24*		*0.50*	*1.24*	*Sqm*
		2		*1.40*	*0.50*	*1.40*	*Sqm*
		2	*4.46*		*0.55*	*4.91*	*Sqm*
		2		*1.40*	*0.55*	*1.54*	*Sqm*
		2	*0.28*		*0.25*	*0.14*	*Sqm*
		2		*1.40*	*0.25*	*0.70*	*Sqm*
		2	*0.25*		*0.40*	*0.20*	*Sqm*
		2		*1.40*	*0.40*	*1.12*	*Sqm*
		2	*1.55*		*0.50*	*1.55*	*Sqm*
		2		*1.40*	*0.50*	*1.40*	*Sqm*
		2	*0.63*		*1.00*	*1.25*	*Sqm*
		2		*1.40*	*1.00*	*2.80*	*Sqm*
	Crest	*2*	*1.0565*		*1.239*	*2.62*	*Sqm*
		2		*1.4*	*1.239*	*3.47*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.83*		*0.30*	*3.50*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.53*		*0.60*	*6.64*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*

	Items	No.	Length	Width	Height	Quantity	Unit
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**162.53**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*0.80*	*0.30*	**0.48**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*0.80*	*0.15*	**0.48**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*6.63*	*0.45*		*2.98*	*Sqm*
	On Abutment Top (Right Side)	*1*	*6.63*	*0.45*		*2.98*	*Sqm*
	TOTAL					**5.97**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		3.72		3.72	**Cum**
	Abutment						
	Section 1-1	2	*1.30*	*1.81*		*4.702*	*Cum*
	Section 2-2	2	*3.25*	*0.88*		*5.720*	*Cum*
	Section 3-3	2	*1.45*	*0.66*		*1.914*	*Cum*
	Section 5-5	2	*2.63*	*1.81*		*9.504*	*Cum*
	Section 6-6	2	*1.12*	*0.66*		*1.473*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.83*	*0.15*	*0.60*	*1.049*	*Cum*
		2	*2.00*	*0.15*	*0.60*	*2.400*	*Cum*
	TOTAL					**30.48**	**Cum**

	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH. 3.300 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.45*	*1.89*	*2.017*	*11.025*	*Cum*
	Section 2-2	*2*	*3.50*	*1.12*	*2.017*	*15.757*	*Cum*
	Section 3-3	*2*	*2.20*	*1.00*	*1.817*	*7.963*	*Cum*
	Section 5-5	*2*	*2.43*	*2.04*	*2.017*	*20.026*	*Cum*
	Section 6-6	*2*	*1.00*	*1.00*	*1.817*	*3.605*	*Cum*
	U/S Key Floor	*1*	*0.625*	*1.000*	*0.850*	*0.531*	*Cum*
	U/S Floor	*1*	*2.500*	*1.000*	*2.770*	*6.925*	*Cum*
	D/S Floor	*1*	*1.963*	*1.000*	*0.850*	*1.669*	*Cum*
		1	*2.550*	*1.000*	*0.650*	*1.658*	*Cum*
	D/S Key Floor	*1*	*0.763*	*1.000*	*1.400*	*1.068*	*Cum*
	Toe Wall D/S Portion	*1*	*4.820*	*0.750*	*0.900*	*3.254*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*0.600*	*0.750*	*1.350*	*Cum*
						74.83	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.00*	*0.15*	*0.08*	*Cum*
		1	*0.782*	*1.00*	*0.15*	*0.12*	*Cum*
		1	*0.113*	*1.00*	*1.15*	*0.13*	*Cum*
		1	*0.202*	*1.00*	*2.15*	*0.43*	*Cum*
		1	*4.963*	*1.00*	*0.15*	*0.74*	*Cum*
		1	*0.494*	*1.00*	*0.15*	*0.07*	*Cum*
		1	*0.863*	*1.00*	*0.15*	*0.13*	*Cum*
		1	*1.397*	*1.00*	*0.15*	*0.21*	*Cum*
		1	*0.542*	*1.00*	*0.15*	*0.08*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.45*	*1.89*	*0.15*	*0.82*	*Cum*
	Section 2-2	*2*	*3.50*	*1.12*	*0.15*	*1.17*	*Cum*
	Section 3-3	*2*	*2.20*	*1.00*	*0.15*	*0.66*	*Cum*
	Section 5-5	*2*	*2.43*	*2.04*	*0.15*	*1.49*	*Cum*
	Section 6-6	*2*	*1.00*	*1.00*	*0.15*	*0.30*	*Cum*
	Toe Wall D/S Portion	*1*	*4.82*	*0.75*	*0.30*	*1.08*	*Cum*
	Toe Wall D/S Portion	*1*	*4.52*	*0.45*	*0.60*	*1.22*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.50*	*0.60*	*0.15*	*0.14*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**9.42**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.30*	*0.45*	*0.45*	*0.53*	*Cum*
		2	*1.30*	*1.02*	*1.90*	*5.03*	*Cum*
		2	*1.30*	*1.74*	*0.65*	*2.93*	*Cum*
	Section 2-2	*2*	*3.50*	*0.45*	*0.45*	*1.42*	*Cum*
		2	*3.50*	*0.63*	*0.61*	*2.70*	*Cum*
		2	*3.50*	*0.97*	*0.65*	*4.40*	*Cum*
	Section 3-3	*2*	*1.93*	*0.45*	*0.45*	*0.78*	*Cum*
		2	*1.93*	*0.57*	*0.41*	*0.91*	*Cum*
		2	*1.93*	*0.85*	*0.65*	*2.12*	*Cum*
	Section 5-5	*2*	*2.39*	*0.45*	*0.45*	*0.97*	*Cum*
		2	*2.39*	*1.02*	*1.90*	*9.26*	*Cum*
		2	*2.39*	*1.74*	*0.65*	*5.41*	*Cum*
	Section 6-6	*2*	*1.34*	*0.45*	*0.45*	*0.54*	*Cum*
		2	*1.34*	*0.57*	*0.41*	*0.63*	*Cum*
		2	*1.34*	*0.85*	*0.65*	*1.48*	*Cum*
	Floor	*1*	*0.63*	*1.00*	*0.70*	*0.44*	*Cum*
		1	*0.27*	*1.00*	*0.50*	*0.13*	*Cum*
		1	*4.46*	*1.00*	*0.65*	*2.90*	*Cum*
		1	*0.49*	*1.00*	*0.35*	*0.17*	*Cum*
		1	*0.25*	*1.00*	*0.40*	*0.10*	*Cum*
		1	*2.30*	*1.00*	*0.50*	*1.15*	*Cum*
		1	*0.76*	*1.00*	*1.25*	*0.95*	*Cum*

	Items	No.	Length	Width	Height	Quantity	Unit
	Crest	*1*	*1.19*	*1.00*	*1.50*	*1.78*	*Cum*
	TOTAL					**46.71**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.95*	*1.00*	*0.15*	*0.14*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*11.31*	*0.45*	*0.05*	*0.25*	*Cum*
	On Abutment Top (Right Side)	*1*	*11.31*	*0.45*	*0.05*	*0.25*	*Cum*
	TOTAL					**0.65**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**46.71**	**0.30%**	**0.14**	**7850**	**1100.14**	**Kg**
	Total Weight in Metric Tonne					**1.10**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.30*		*0.45*	*2.33*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.30*		*1.90*	*9.85*	*Sqm*
		4		*1.02*	*1.90*	*7.75*	*Sqm*
		4	*1.30*		*0.65*	*3.37*	*Sqm*
		4		*1.74*	*0.65*	*4.52*	*Sqm*
	Section 2-2	*4*	*3.50*		*0.45*	*6.30*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.50*		*0.61*	*8.54*	*Sqm*
		4		*0.63*	*0.61*	*1.54*	*Sqm*
		4	*3.50*		*0.65*	*9.10*	*Sqm*
		4		*0.97*	*0.65*	*2.51*	*Sqm*
	Section 3-3	*4*	*1.93*		*0.45*	*3.47*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.93*		*0.41*	*3.16*	*Sqm*
		4		*0.57*	*0.41*	*0.94*	*Sqm*
		4	*1.93*		*0.65*	*5.01*	*Sqm*
		4		*0.85*	*0.65*	*2.20*	*Sqm*
	Section 5-5	*4*	*2.39*		*0.45*	*4.30*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.39*		*1.90*	*18.16*	*Sqm*
		4		*1.02*	*1.90*	*7.75*	*Sqm*
		4	*2.39*		*0.65*	*6.21*	*Sqm*
		4		*1.74*	*0.65*	*4.52*	*Sqm*
	Section 6-6	*4*	*1.34*		*0.45*	*2.42*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.34*		*0.41*	*2.20*	*Sqm*
		4		*0.57*	*0.41*	*0.94*	*Sqm*
		4	*1.34*		*0.65*	*3.49*	*Sqm*
		4		*0.85*	*0.65*	*2.20*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.00*	*0.70*	*1.40*	*Sqm*
		2	*0.27*		*0.50*	*0.27*	*Sqm*
		2		*1.00*	*0.50*	*1.00*	*Sqm*
		2	*4.46*		*0.65*	*5.80*	*Sqm*
		2		*1.00*	*0.65*	*1.30*	*Sqm*
		2	*0.49*		*0.35*	*0.34*	*Sqm*
		2		*1.00*	*0.35*	*0.70*	*Sqm*
		2	*0.25*		*0.40*	*0.20*	*Sqm*
		2		*1.00*	*0.40*	*0.80*	*Sqm*
		2	*2.30*		*0.50*	*2.30*	*Sqm*
		2		*1.00*	*0.50*	*1.00*	*Sqm*
		2	*0.76*		*1.25*	*1.91*	*Sqm*
		2		*1.00*	*1.25*	*2.50*	*Sqm*
	Crest	*2*	*1.191*		*1.495*	*3.56*	*Sqm*
		2		*1*	*1.495*	*2.99*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.82*		*0.30*	*2.89*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.52*		*0.60*	*5.42*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*

	Items	No.	Length	Width	Height	Quantity	Unit
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**168.68**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*0.40*	*0.30*	**0.24**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*0.40*	*0.15*	**0.24**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*11.31*	*0.45*		*5.09*	*Sqm*
	On Abutment Top (Right Side)	*1*	*11.31*	*0.45*		*5.09*	*Sqm*
	TOTAL					**10.18**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		3.45		3.45	**Cum**
	Abutment						
	Section 1-1	2	*1.45*	*0.91*		*2.620*	*Cum*
	Section 2-2	2	*3.50*	*0.43*		*3.010*	*Cum*
	Section 3-3	2	*2.20*	*0.36*		*1.584*	*Cum*
	Section 5-5	2	*2.43*	*0.91*		*4.410*	*Cum*
	Section 6-6	2	*1.00*	*0.36*		*0.717*	*Cum*
	D/S protection	2					
	Toe wall	2	*4.82*	*0.15*	*0.60*	*0.868*	*Cum*
		2	*1.50*	*0.15*	*0.60*	*1.800*	*Cum*
	TOTAL					**18.46**	**Cum**

	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH. 4.010 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.17*	*1.72*	*1.288*	*5.177*	*Cum*
	Section 2-2	*2*	*2.95*	*1.08*	*1.288*	*8.207*	*Cum*
	Section 3-3	*2*	*2.75*	*0.96*	*1.088*	*5.745*	*Cum*
	Section 5-5	*2*	*2.09*	*1.87*	*1.288*	*10.058*	*Cum*
	Section 6-6	*2*	*0.83*	*0.96*	*1.088*	*1.732*	*Cum*
	U/S Key Floor	*1*	*0.625*	*0.800*	*0.850*	*0.425*	*Cum*
	U/S Floor	*1*	*2.800*	*0.800*	*2.238*	*5.013*	*Cum*
	D/S Floor	*1*	*2.750*	*0.800*	*0.850*	*1.870*	*Cum*
		1	*2.950*	*0.800*	*0.650*	*1.534*	*Cum*
	D/S Key Floor	*1*	*0.700*	*0.800*	*1.150*	*0.644*	*Cum*
	Toe Wall D/S Portion	*1*	*4.450*	*0.750*	*0.900*	*3.004*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*0.600*	*0.750*	*1.350*	*Cum*
						44.76	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*0.80*	*0.15*	*0.07*	*Cum*
		1	*0.782*	*0.80*	*0.15*	*0.09*	*Cum*
		1	*0.676*	*0.80*	*1.15*	*0.62*	*Cum*
		1	*0.070*	*0.80*	*2.15*	*0.12*	*Cum*
		1	*4.150*	*0.80*	*0.15*	*0.50*	*Cum*
		1	*0.353*	*0.80*	*0.15*	*0.04*	*Cum*
		1	*1.438*	*0.80*	*0.15*	*0.17*	*Cum*
		1	*1.118*	*0.80*	*0.15*	*0.13*	*Cum*
		1	*0.542*	*0.80*	*0.15*	*0.07*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.17*	*1.72*	*0.15*	*0.60*	*Cum*
	Section 2-2	*2*	*2.95*	*1.08*	*0.15*	*0.96*	*Cum*
	Section 3-3	*2*	*2.75*	*0.96*	*0.15*	*0.79*	*Cum*
	Section 5-5	*2*	*2.09*	*1.87*	*0.15*	*1.17*	*Cum*
	Section 6-6	*2*	*0.83*	*0.96*	*0.15*	*0.24*	*Cum*
	Toe Wall D/S Portion	*1*	*4.45*	*0.75*	*0.30*	*1.00*	*Cum*
	Toe Wall D/S Portion	*1*	*4.15*	*0.45*	*0.60*	*1.12*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.50*	*0.60*	*0.15*	*0.14*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**8.37**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.02*	*0.45*	*0.45*	*0.41*	*Cum*
		2	*1.02*	*0.94*	*1.62*	*3.08*	*Cum*
		2	*1.02*	*1.57*	*0.55*	*1.76*	*Cum*
	Section 2-2	*2*	*2.95*	*0.45*	*0.45*	*1.19*	*Cum*
		2	*2.95*	*0.62*	*0.55*	*2.00*	*Cum*
		2	*2.95*	*0.93*	*0.55*	*3.02*	*Cum*
	Section 3-3	*2*	*2.48*	*0.45*	*0.45*	*1.00*	*Cum*
		2	*2.48*	*0.56*	*0.35*	*0.96*	*Cum*
		2	*2.48*	*0.81*	*0.50*	*2.01*	*Cum*
	Section 5-5	*2*	*2.04*	*0.45*	*0.45*	*0.83*	*Cum*
		2	*2.04*	*0.94*	*1.62*	*6.18*	*Cum*
		2	*2.04*	*1.57*	*0.55*	*3.53*	*Cum*
	Section 6-6	*2*	*1.30*	*0.45*	*0.45*	*0.53*	*Cum*
		2	*1.30*	*0.56*	*0.35*	*0.50*	*Cum*
		2	*1.30*	*0.81*	*0.50*	*1.05*	*Cum*
	Floor	*1*	*0.63*	*0.80*	*0.70*	*0.35*	*Cum*
		1	*1.63*	*0.80*	*0.50*	*0.65*	*Cum*
		1	*0.05*	*0.80*	*0.53*	*0.02*	*Cum*
		1	*3.87*	*0.80*	*0.55*	*1.70*	*Cum*
		1	*0.28*	*0.80*	*0.25*	*0.06*	*Cum*
		1	*0.20*	*0.80*	*0.40*	*0.06*	*Cum*
		1	*2.75*	*0.80*	*0.50*	*1.10*	*Cum*

	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.70*	*0.80*	*1.00*	*0.56*	*Cum*
	Crest	*1*	*0.91*	*0.80*	*1.31*	*0.95*	*Cum*
	TOTAL					**33.51**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*0.80*	*0.15*	*0.08*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.53*	*0.45*	*0.05*	*0.24*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.53*	*0.45*	*0.05*	*0.24*	*Cum*
	TOTAL					**0.56**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**33.51**	**0.30%**	**0.10**	**7850**	**789.07**	**Kg**
	Total Weight in Metric Tonne					**0.79**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.02*		*0.45*	*1.83*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.02*		*1.62*	*6.59*	*Sqm*
		4		*0.94*	*1.62*	*6.05*	*Sqm*
		4	*1.02*		*0.55*	*2.24*	*Sqm*
		4		*1.57*	*0.55*	*3.45*	*Sqm*
	Section 2-2	*4*	*2.95*		*0.45*	*5.31*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.95*		*0.55*	*6.49*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*2.95*		*0.55*	*6.49*	*Sqm*
		4		*0.93*	*0.55*	*2.05*	*Sqm*
	Section 3-3	*4*	*2.48*		*0.45*	*4.46*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.48*		*0.35*	*3.47*	*Sqm*
		4		*0.56*	*0.35*	*0.78*	*Sqm*
		4	*2.48*		*0.50*	*4.95*	*Sqm*
		4		*0.81*	*0.50*	*1.62*	*Sqm*
	Section 5-5	*4*	*2.04*		*0.45*	*3.68*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.04*		*1.62*	*13.22*	*Sqm*
		4		*0.94*	*1.62*	*6.05*	*Sqm*
		4	*2.04*		*0.55*	*4.50*	*Sqm*
		4		*1.57*	*0.55*	*3.45*	*Sqm*
	Section 6-6	*4*	*1.30*		*0.45*	*2.33*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.30*		*0.35*	*1.82*	*Sqm*
		4		*0.56*	*0.35*	*0.78*	*Sqm*
		4	*1.30*		*0.50*	*2.59*	*Sqm*
		4		*0.81*	*0.50*	*1.62*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.80*	*0.70*	*1.12*	*Sqm*
		2	*1.63*		*0.50*	*1.63*	*Sqm*
		2		*0.80*	*0.50*	*0.80*	*Sqm*
		2	*3.87*		*0.55*	*4.26*	*Sqm*
		2		*0.80*	*0.55*	*0.88*	*Sqm*
		2	*0.28*		*0.25*	*0.14*	*Sqm*
		2		*0.80*	*0.25*	*0.40*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*0.80*	*0.40*	*0.64*	*Sqm*
		2	*2.75*		*0.50*	*2.75*	*Sqm*
		2		*0.80*	*0.50*	*0.80*	*Sqm*
		2	*0.70*		*1.00*	*1.40*	*Sqm*
		2		*0.80*	*1.00*	*1.60*	*Sqm*
	Crest	*2*	*0.9095*		*1.307*	*2.38*	*Sqm*
		2		*0.8*	*1.307*	*2.09*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.45*		*0.30*	*2.67*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.15*		*0.60*	*4.98*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*

	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**137.36**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.78*		*5.35*	*Sqm*
	TOTAL					**5.35**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.20*	*0.30*	**0.09**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.20*	*0.15*	**0.09**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.53*	*0.45*		*4.74*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.53*	*0.45*		*4.74*	*Sqm*
	TOTAL					**9.47**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		5.49		5.49	**Cum**
	Abutment						
	Section 1-1	2	*1.17*	*1.32*		*3.083*	*Cum*
	Section 2-2	2	*2.95*	*0.65*		*3.853*	*Cum*
	Section 3-3	2	*2.75*	*0.47*		*2.591*	*Cum*
	Section 5-5	2	*2.09*	*1.31*		*5.458*	*Cum*
	Section 6-6	2	*0.83*	*0.47*		*0.781*	*Cum*
	D/S protection	2					
	Toe wall	2	*4.45*	*0.15*	*0.60*	*0.801*	*Cum*
		2	*1.50*	*0.15*	*0.60*	*1.800*	*Cum*
	TOTAL					**23.86**	**Cum**

	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH. 5.010 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.17*	*1.72*	*2.172*	*8.775*	*Cum*
	Section 2-2	*2*	*2.95*	*1.06*	*2.172*	*13.609*	*Cum*
	Section 3-3	*2*	*2.75*	*0.94*	*1.972*	*10.217*	*Cum*
	Section 5-5	*2*	*2.06*	*1.87*	*2.172*	*16.695*	*Cum*
	Section 6-6	*2*	*0.84*	*0.94*	*1.972*	*3.113*	*Cum*
	U/S Key Floor	*1*	*0.625*	*0.750*	*0.850*	*0.398*	*Cum*
	U/S Floor	*1*	*2.800*	*0.750*	*2.238*	*4.700*	*Cum*
	D/S Floor	*1*	*2.750*	*0.750*	*0.850*	*1.753*	*Cum*
		1	*2.950*	*0.750*	*0.650*	*1.438*	*Cum*
	D/S Key Floor	*1*	*0.700*	*0.750*	*1.150*	*0.604*	*Cum*
	Toe Wall D/S Portion	*1*	*4.310*	*0.750*	*0.900*	*2.909*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*0.600*	*0.750*	*1.350*	*Cum*
						65.56	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*0.75*	*0.15*	*0.06*	*Cum*
		1	*0.782*	*0.75*	*0.15*	*0.09*	*Cum*
		1	*0.674*	*0.75*	*1.15*	*0.58*	*Cum*
		1	*0.070*	*0.75*	*2.15*	*0.11*	*Cum*
		1	*4.152*	*0.75*	*0.15*	*0.47*	*Cum*
		1	*0.353*	*0.75*	*0.15*	*0.04*	*Cum*
		1	*1.438*	*0.75*	*0.15*	*0.16*	*Cum*
		1	*1.118*	*0.75*	*0.15*	*0.13*	*Cum*
		1	*0.542*	*0.75*	*0.15*	*0.06*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.17*	*1.72*	*0.15*	*0.61*	*Cum*
	Section 2-2	*2*	*2.95*	*1.06*	*0.15*	*0.94*	*Cum*
	Section 3-3	*2*	*2.75*	*0.94*	*0.15*	*0.78*	*Cum*
	Section 5-5	*2*	*2.06*	*1.87*	*0.15*	*1.15*	*Cum*
	Section 6-6	*2*	*0.84*	*0.94*	*0.15*	*0.24*	*Cum*
	Toe Wall D/S Portion	*1*	*4.31*	*0.75*	*0.30*	*0.97*	*Cum*
	Toe Wall D/S Portion	*1*	*4.01*	*0.45*	*0.60*	*1.08*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.50*	*0.60*	*0.15*	*0.14*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**8.14**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.02*	*0.45*	*0.45*	*0.41*	*Cum*
		2	*1.02*	*0.93*	*1.59*	*3.01*	*Cum*
		2	*1.02*	*1.57*	*0.55*	*1.77*	*Cum*
	Section 2-2	*2*	*2.95*	*0.45*	*0.45*	*1.19*	*Cum*
		2	*2.95*	*0.61*	*0.52*	*1.86*	*Cum*
		2	*2.95*	*0.91*	*0.55*	*2.96*	*Cum*
	Section 3-3	*2*	*2.50*	*0.45*	*0.45*	*1.01*	*Cum*
		2	*2.50*	*0.55*	*0.32*	*0.87*	*Cum*
		2	*2.50*	*0.79*	*0.50*	*1.98*	*Cum*
	Section 5-5	*2*	*1.98*	*0.45*	*0.45*	*0.80*	*Cum*
		2	*1.98*	*0.93*	*1.59*	*5.83*	*Cum*
		2	*1.98*	*1.57*	*0.55*	*3.43*	*Cum*
	Section 6-6	*2*	*1.23*	*0.45*	*0.45*	*0.50*	*Cum*
		2	*1.23*	*0.55*	*0.32*	*0.43*	*Cum*
		2	*1.23*	*0.79*	*0.50*	*0.98*	*Cum*
	Floor	*1*	*0.63*	*0.75*	*0.70*	*0.33*	*Cum*
		1	*1.63*	*0.75*	*0.50*	*0.61*	*Cum*
		1	*0.05*	*0.75*	*0.53*	*0.02*	*Cum*
		1	*3.87*	*0.75*	*0.55*	*1.60*	*Cum*
		1	*0.28*	*0.75*	*0.25*	*0.05*	*Cum*
		1	*0.20*	*0.75*	*0.40*	*0.06*	*Cum*
		1	*2.75*	*0.75*	*0.50*	*1.03*	*Cum*

	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.70*	*0.75*	*1.00*	*0.53*	*Cum*
	Crest	*1*	*0.91*	*0.75*	*1.31*	*0.90*	*Cum*
	TOTAL					**32.17**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*0.75*	*0.15*	*0.08*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.42*	*0.45*	*0.05*	*0.23*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.42*	*0.45*	*0.05*	*0.23*	*Cum*
	TOTAL					**0.55**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**32.17**	**0.30%**	**0.10**	**7850**	**757.56**	**Kg**
	Total Weight in Metric Tonne					**0.76**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.02*		*0.45*	*1.84*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.02*		*1.59*	*6.50*	*Sqm*
		4		*0.93*	*1.59*	*5.88*	*Sqm*
		4	*1.02*		*0.55*	*2.25*	*Sqm*
		4		*1.57*	*0.55*	*3.45*	*Sqm*
	Section 2-2	*4*	*2.95*		*0.45*	*5.31*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.95*		*0.52*	*6.14*	*Sqm*
		4		*0.61*	*0.52*	*1.26*	*Sqm*
		4	*2.95*		*0.55*	*6.49*	*Sqm*
		4		*0.91*	*0.55*	*2.01*	*Sqm*
	Section 3-3	*4*	*2.50*		*0.45*	*4.51*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.50*		*0.32*	*3.21*	*Sqm*
		4		*0.55*	*0.32*	*0.70*	*Sqm*
		4	*2.50*		*0.50*	*5.01*	*Sqm*
		4		*0.79*	*0.50*	*1.58*	*Sqm*
	Section 5-5	*4*	*1.98*		*0.45*	*3.57*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.98*		*1.59*	*12.59*	*Sqm*
		4		*0.93*	*1.59*	*5.88*	*Sqm*
		4	*1.98*		*0.55*	*4.36*	*Sqm*
		4		*1.57*	*0.55*	*3.45*	*Sqm*
	Section 6-6	*4*	*1.23*		*0.45*	*2.22*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.23*		*0.32*	*1.58*	*Sqm*
		4		*0.55*	*0.32*	*0.70*	*Sqm*
		4	*1.23*		*0.50*	*2.47*	*Sqm*
		4		*0.79*	*0.50*	*1.58*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.75*	*0.70*	*1.05*	*Sqm*
		2	*1.63*		*0.50*	*1.63*	*Sqm*
		2		*0.75*	*0.50*	*0.75*	*Sqm*
		2	*3.87*		*0.55*	*4.26*	*Sqm*
		2		*0.75*	*0.55*	*0.83*	*Sqm*
		2	*0.28*		*0.25*	*0.14*	*Sqm*
		2		*0.75*	*0.25*	*0.38*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*0.75*	*0.40*	*0.60*	*Sqm*
		2	*2.75*		*0.50*	*2.75*	*Sqm*
		2		*0.75*	*0.50*	*0.75*	*Sqm*
		2	*0.70*		*1.00*	*1.40*	*Sqm*
		2		*0.75*	*1.00*	*1.50*	*Sqm*
	Crest	*2*	*0.9105*		*1.312*	*2.39*	*Sqm*
		2		*0.75*	*1.312*	*1.97*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.31*		*0.30*	*2.59*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.01*		*0.60*	*4.81*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*

	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**133.99**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.78*		*5.35*	*Sqm*
	TOTAL					**5.35**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.20*	*0.30*	**0.09**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.20*	*0.15*	**0.09**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.42*	*0.45*		*4.69*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.42*	*0.45*		*4.69*	*Sqm*
	TOTAL					**9.38**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		5.28		5.28	**Cum**
	Abutment						
	Section 1-1	2	*1.17*	*1.17*		*2.755*	*Cum*
	Section 2-2	2	*2.95*	*0.63*		*3.691*	*Cum*
	Section 3-3	2	*2.75*	*0.45*		*2.459*	*Cum*
	Section 5-5	2	*2.06*	*1.17*		*4.793*	*Cum*
	Section 6-6	2	*0.84*	*0.45*		*0.749*	*Cum*
	D/S protection	2					
	Toe wall	2	*4.31*	*0.15*	*0.60*	*0.776*	*Cum*
		2	*1.50*	*0.15*	*0.60*	*1.800*	*Cum*
	TOTAL					**22.30**	**Cum**

	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR SOTHIDIH MINOR						
	Items	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
	SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH. 2.450 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.27*	*1.69*	*3.127*	*13.471*	*Cum*
	Section 2-2	*2*	*3.00*	*1.57*	*3.127*	*29.456*	*Cum*
	Section 3-3	*2*	*4.75*	*1.45*	*2.927*	*40.319*	*Cum*
	Section 5-5	*2*	*0.57*	*1.84*	*3.127*	*6.594*	*Cum*
	Section 6-6	*2*	*0.60*	*0.93*	*2.927*	*3.267*	*Cum*
	U/S Key Floor	*1*	*0.600*	*0.600*	*0.750*	*0.270*	*Cum*
	U/S Floor	*1*	*2.000*	*0.600*	*2.617*	*3.140*	*Cum*
	D/S Floor	*1*	*3.000*	*0.600*	*0.950*	*1.710*	*Cum*
		1	*5.500*	*0.600*	*0.750*	*2.475*	*Cum*
	D/S Key Floor	*1*	*0.650*	*0.600*	*0.950*	*0.371*	*Cum*
	Toe Wall D/S Portion	*1*	*2.100*	*0.750*	*0.900*	*1.418*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.000*	*0.600*	*0.750*	*1.800*	*Cum*
						104.29	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*0.60*	*0.15*	*0.05*	*Cum*
		1	*0.670*	*0.60*	*0.15*	*0.06*	*Cum*
		1	*4.567*	*0.60*	*0.15*	*0.41*	*Cum*
		1	*0.424*	*0.60*	*0.15*	*0.04*	*Cum*
		1	*3.846*	*0.60*	*0.15*	*0.35*	*Cum*
		1	*0.894*	*0.60*	*0.15*	*0.08*	*Cum*
		1	*0.542*	*0.60*	*0.15*	*0.05*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.27*	*1.69*	*0.15*	*0.65*	*Cum*
	Section 2-2	*2*	*3.00*	*1.57*	*0.15*	*1.41*	*Cum*
	Section 3-3	*2*	*4.75*	*1.45*	*0.15*	*2.07*	*Cum*
	Section 5-5	*2*	*0.57*	*1.84*	*0.15*	*0.32*	*Cum*
	Section 6-6	*2*	*0.60*	*0.93*	*0.15*	*0.17*	*Cum*
	Toe Wall D/S Portion	*1*	*2.10*	*0.75*	*0.30*	*0.47*	*Cum*
	Toe Wall D/S Portion	*1*	*2.10*	*0.45*	*0.60*	*0.57*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**7.76**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.12*	*0.45*	*0.45*	*0.46*	*Cum*
		2	*1.12*	*0.92*	*1.57*	*3.24*	*Cum*
		2	*1.12*	*1.54*	*0.60*	*2.08*	*Cum*
	Section 2-2	*2*	*3.00*	*0.82*	*0.50*	*2.46*	*Cum*
		2	*3.00*	*0.97*	*0.50*	*2.91*	*Cum*
		2	*3.00*	*1.27*	*1.00*	*7.62*	*Cum*
	Section 3-3	*2*	*3.70*	*0.82*	*0.50*	*3.03*	*Cum*
		2	*3.70*	*0.91*	*0.30*	*2.02*	*Cum*
		2	*3.70*	*1.15*	*1.20*	*10.21*	*Cum*
	Section 5-5	*2*	*0.53*	*0.45*	*0.45*	*0.21*	*Cum*
		2	*0.53*	*0.92*	*1.57*	*1.53*	*Cum*
		2	*0.53*	*1.54*	*0.60*	*0.98*	*Cum*
	Section 6-6	*2*	*0.60*	*0.45*	*0.45*	*0.24*	*Cum*
		2	*0.60*	*0.63*	*0.30*	*0.23*	*Cum*
		2	*0.60*	*0.91*	*0.60*	*0.66*	*Cum*
	Floor	*1*	*0.60*	*0.60*	*0.60*	*0.22*	*Cum*
		1	*5.00*	*0.60*	*0.60*	*1.80*	*Cum*
		1	*0.25*	*0.60*	*0.20*	*0.03*	*Cum*
		1	*0.20*	*0.60*	*0.40*	*0.05*	*Cum*
		1	*5.30*	*0.60*	*0.50*	*1.59*	*Cum*
		1	*0.65*	*0.60*	*0.80*	*0.31*	*Cum*
	Crest	*1*	*1.01*	*0.60*	*1.31*	*0.79*	*Cum*

	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**42.66**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.80*	*0.60*	*0.15*	*0.07*	*Cum*
	Coping over Abutment Top	*2*	*10.31*	*0.45*	*0.05*	*0.46*	*Cum*
	Slab Bridge						
	Slab	*1*	*2.24*	*5.5*	*0.33*	*4.05*	*Cum*
	Wearing coat	*1*	*2.24*	*4.50*	*0.07*	*0.71*	*Cum*
	Dirt wall	*2*	*0.40*	*5.5*	*0.30*	*1.32*	*Cum*
	300 mm thick pedastial	*2*	*0.82*	*5.5*	*0.30*	*2.71*	*Cum*
	TOTAL					**9.31**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*31*	*1.86*		*1.578*	*91.0*	*Kg*
a2	*10*	*7*	*5.90*		*0.616*	*25.5*	*Kg*
a3	*10*	*2*	*5.40*		*0.616*	*6.7*	*Kg*
a4	*10*	*19*	*1.78*		*0.616*	*20.8*	*Kg*
a5	*10*	*5*	*5.80*		*0.616*	*17.9*	*Kg*
x1	*12*	*22*	*2.50*		*0.888*	*48.8*	*Kg*
x2	*16*	*22*	*1.27*		*1.578*	*43.9*	*Kg*
x3	*12*	*20*	*1.30*		*0.888*	*23.1*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**42.66**	**0.30%**	**0.13**	**7850**	**1004.73**	**Kg**
	TOTAL REINFORCEMENT STEEL (in kg)					**1282.41**	**Kg'**
	TOTAL REINFORCEMENT STEEL (in MT)					**1.28**	**MT**

6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.12*		*0.45*	*2.02*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.12*		*1.57*	*7.05*	*Sqm*
		4		*0.92*	*1.57*	*5.77*	*Sqm*
		4	*1.12*		*0.60*	*2.70*	*Sqm*
		4		*1.54*	*0.60*	*3.70*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.50*	*6.00*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*3.00*		*0.50*	*6.00*	*Sqm*
		4		*0.97*	*0.50*	*1.94*	*Sqm*
		4	*3.00*		*1.00*	*12.00*	*Sqm*
		4		*1.27*	*1.00*	*5.08*	*Sqm*
	Section 3-3	*4*	*3.70*		*0.50*	*7.40*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*3.70*		*0.30*	*4.44*	*Sqm*
		4		*0.91*	*0.30*	*1.09*	*Sqm*
		4	*3.70*		*1.20*	*17.76*	*Sqm*
		4		*1.15*	*1.20*	*5.52*	*Sqm*
	Section 5-5	*4*	*0.53*		*0.45*	*0.95*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.53*		*1.57*	*3.32*	*Sqm*
		4		*0.92*	*1.57*	*5.77*	*Sqm*
		4	*0.53*		*0.60*	*1.27*	*Sqm*
		4		*1.54*	*0.60*	*3.70*	*Sqm*
	Section 6-6	*4*	*0.60*		*0.45*	*1.08*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.60*		*0.30*	*0.72*	*Sqm*
		4		*0.63*	*0.30*	*0.76*	*Sqm*
		4	*0.60*		*0.60*	*1.44*	*Sqm*
		4		*0.91*	*0.60*	*2.18*	*Sqm*
	Floor	*2*	*0.60*		*0.60*	*0.72*	*Sqm*
		2		*0.60*	*0.60*	*0.72*	*Sqm*
		2	*5.00*		*0.60*	*6.00*	*Sqm*
		2		*0.60*	*0.60*	*0.72*	*Sqm*
		2	*0.25*		*0.20*	*0.10*	*Sqm*
		2		*0.60*	*0.20*	*0.24*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*

	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.60*	*0.40*	*0.48*	*Sqm*
		2	*5.30*		*0.50*	*5.30*	*Sqm*
		2		*0.60*	*0.50*	*0.60*	*Sqm*
		2	*0.65*		*0.80*	*1.04*	*Sqm*
		2		*0.60*	*0.80*	*0.96*	*Sqm*
	Crest	*2*	*1.0095*		*1.308*	*2.64*	*Sqm*
		2		*0.6*	*1.308*	*1.57*	*Sqm*
	Toe Wall D/S Portion	*2*	*2.10*		*0.30*	*1.26*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*2.10*		*0.60*	*2.52*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**148.46**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.25*		*9.00*	*Sqm*
	TOTAL					**9.00**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*0.40*	*0.30*	**0.24**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*0.40*	*0.15*	**0.24**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.31*	*0.45*		*4.64*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.31*	*0.45*		*4.64*	*Sqm*
	TOTAL					**9.28**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		0.86		0.86	**Cum**
	Abutment						
	Section 1-1	2	*1.27*	*1.86*		*4.741*	*Cum*
	Section 2-2	2	*3.00*	*0.58*		*3.451*	*Cum*
	Section 3-3	2	*4.75*	*0.38*		*3.610*	*Cum*
	Section 5-5	2	*0.57*	*1.86*		*2.132*	*Cum*
	Section 6-6	2	*0.60*	*0.41*		*0.490*	*Cum*
	D/S protection	2					
	Toe wall	2	*2.10*	*0.15*	*0.60*	*0.378*	*Cum*
		2	*2.00*	*0.15*	*0.60*	*2.400*	*Cum*
	TOTAL					**18.07**	**Cum**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND									
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS AT KM 14.480 OF MAHUARY SUB DY									
S. No.	**Ref**	**Item of Works**	**Qty.**	**Unit**	**Rate (As per WRD SOR 2025 & PL MARCH 2025)**	**Amount (Rs)**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**
1	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	206.14	Cum	**149.30**	30776.36			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	50.28	Cum	**6381.70**	320848.22	16.29	22.62	45.25
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	60.52	Cum	**6914.20**	418425.90	24.96	26.02	52.04
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	316.75	Sqm	**578.60**	183273.33			
5	**RCD M-151**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 600 mm dia with spigot	20.00	RM	**2532.61**	50652.20			
6	**WRD 5.6.2.2**	Labour for laying fitting and fixing 600 mm dia NP3 pipe with collars in linc lcvcl and grade as well as providing approved jointing materials and joint properly fillied to make proof all complete as per specification and direction of E/I.	20.00	RM	**711.27**	14225.31			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.19	MT	**73574.90**	87380.79			
8	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	80.97	Cum	**195.20**	15804.95			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	48.65	Cum	**1075.00**	52295.09			
		Coarse Aggregates (100 Km lead)	97.29	Cum	**1398.00**	136015.88			
		Cement (30 km lead)	41.25	MT	**742.00**	30609.53			
		Steel (30 Km lead)	1.19	MT	**742.00**	881.23			
		Hume Pipe (60 Km)	20.00	RM	**919.00**	18380.00			
TOTAL (In Rs.)						**₹ 13,59,568.79**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	48.65	Cum	**584.64**	28440.75	2844.07		
		Coarse Aggregate	97.29	Cum	**944.26**	91870.07	9187.01		
		Total					**12031.08**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS AT KM 15.400 OF MAHUARY SUB DY									
1	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	156.48	Cum	**149.30**	23362.58			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	45.72	Cum	**6381.70**	291798.34	14.81	20.58	41.15
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	48.13	Cum	**6914.20**	332769.22	19.85	20.70	41.39
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	280.14	Sqm	**578.60**	162088.40			
5	**RCD M-151**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 600 mm dia with spigot	17.50	RM	**2532.61**	44320.68			
6	**WRD 5.6.2.2**	Labour for laying fitting and fixing 600 mm dia NP3 pipe with collars in linc lcvcl and grade as well as providing approved jointing materials and joint properly fillied to make proof all complete as per specification and direction of E/I.	17.50	RM	**711.27**	12447.15			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.94	MT	**73574.90**	69492.92			
8	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	52.69	Cum	**195.20**	10284.65			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	41.27	Cum	**1075.00**	44366.44			
		Coarse Aggregates (100 Km lead)	82.54	Cum	**1398.00**	115394.01			
		Cement (30 km lead)	34.67	MT	**742.00**	25723.36			
		Steel (30 Km lead)	0.94	MT	**742.00**	700.83			
		Hume Pipe (60 Km)	17.50	RM	**919.00**	16082.50			
TOTAL (In Rs.)						**₹ 11,48,831.08**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	41.27	Cum	**584.64**	24128.74	2412.87		
		Coarse Aggregate	82.54	Cum	**944.26**	77941.31	7794.13		
		Total					**10207.01**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS AT KM 16.100 OF MAHUARY SUB DY									
1	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	169.60	Cum	**149.30**	25321.63			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	46.48	Cum	**6381.70**	296593.02	15.06	20.91	41.83
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	60.98	Cum	**6914.20**	421621.75	25.15	26.22	52.44
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	317.44	Sqm	**578.60**	183671.94			
5	**RCD M-151**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 600 mm dia with spigot	17.50	RM	**2532.61**	44320.68			
6	**WRD 5.6.2.2**	Labour for laying fitting and fixing 600 mm dia NP3 pipe with collars in linc lcvcl and grade as well as providing approved jointing materials and joint properly fillied to make proof all complete as per specification and direction of E/I.	17.50	RM	**711.27**	12447.15			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.20	MT	**73574.90**	88048.19			
8	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	68.44	Cum	**195.20**	13360.42			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	47.14	Cum	**1075.00**	50670.14			
		Coarse Aggregates (100 Km lead)	94.27	Cum	**1398.00**	131789.50			
		Cement (30 km lead)	40.21	MT	**742.00**	29837.27			
		Steel (30 Km lead)	1.20	MT	**742.00**	887.96			
		Hume Pipe (60 Km)	17.50	RM	**919.00**	16082.50			
TOTAL (In Rs.)						**₹ 13,14,652.15**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	47.14	Cum	**584.64**	27557.01	2755.70		
		Coarse Aggregate	94.27	Cum	**944.26**	89015.42	8901.54		
		Total					**11657.24**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILED ESTIMATE FOR CROSS DRAINAGE WORKS AT KM 14.480 OF MAHUARY SUB DY							
S. No.	**Item of Works**	**No.**		**Width**	**Height**	**Qty.**	**Unit**
1	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Left Portion	*1*	*8.90*	*1.64*		*14.60*	*Cum*
		1	*5.40*	*9.81*		*53.00*	*Cum*
	Middle Portion	*1*	*1.37*	*45.91*		*62.90*	*Cum*
	Right Portion	*1*	*8.91*	*1.71*		*15.20*	*Cum*
		1	*5.40*	*11.19*		*60.44*	*Cum*
	TOTAL					**206.14**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*8.90*	*0.92*	*0.30*	*2.46*	*Cum*
		1	*5.16*	*3.74*	*0.30*	*5.78*	*Cum*
	300 mm Thick Right Abutment	*1*	*8.91*	*0.77*	*0.30*	*2.06*	*Cum*
		1	*5.06*	*3.74*	*0.30*	*5.68*	*Cum*
	Below Pipe Section	*1*	*20.00*	*1.37*	*0.30*	*8.22*	*Cum*
		2	*20.00*	*0.51*	*0.24*	*20.30*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*3.72*	*2.50*	*0.20*	*3.72*	*Cum*
	Pipe Section	*7*	*0.30*	*1.27*	*1.14*	*3.04*	*Cum*
	Deduct Area of Pipe	*7*	*0.30*	*0.47*		*-0.98*	*Cum*
	TOTAL					**50.28**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*2*	*8.60*	*0.30*	*0.30*	*1.55*	*Cum*
		2	*8.60*	*0.46*	*1.07*	*8.48*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*2*	*1.82*	*0.30*	*0.50*	*0.55*	*Cum*
		2	*1.82*	*0.77*	*3.12*	*8.75*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.05*	*0.30*	*0.40*	*0.97*	*Cum*
		2	*4.05*	*0.61*	*2.10*	*10.43*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*2*	*8.61*	*0.30*	*0.30*	*1.55*	*Cum*
		2	*8.61*	*0.46*	*1.07*	*8.48*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*2*	*1.82*	*0.30*	*0.50*	*0.55*	*Cum*
		2	*1.82*	*0.77*	*3.12*	*8.75*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.05*	*0.61*	*2.10*	*10.44*	*Cum*
		2	*4.05*	*0.30*	*0.40*	*0.97*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*1.03*	*0.465*		*-0.96*	*Cum*
	TOTAL					**60.52**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	*2*	*8.90*		*0.30*	*5.34*	*Sqm*
		2		*0.92*	*0.30*	*0.55*	*Sqm*
		2	*5.16*		*0.30*	*3.09*	*Sqm*
		2		*3.74*	*0.30*	*2.24*	*Sqm*
	300 mm Thick Right Abutment	*2*	*8.91*		*0.30*	*5.34*	*Sqm*
		2		*0.77*	*0.30*	*0.46*	*Sqm*
		2	*5.06*		*0.30*	*3.04*	*Sqm*
		2		*3.74*	*0.30*	*2.24*	*Sqm*
	200 mm Thick Left and Right Portion Well	*4*	*3.72*		*0.20*	*2.97*	*Sqm*
		4		*2.50*	*0.20*	*2.00*	*Sqm*
	Pipe Section	*14*	*0.30*		*1.14*	*4.79*	*Sqm*
		14		*1.27*	*1.14*	*20.27*	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	*4*	*8.60*		*0.30*	*10.32*	*Sqm*
		4		*0.30*	*0.30*	*0.36*	*Sqm*
		4	*8.60*		*1.07*	*36.83*	*Sqm*
		4		*0.46*	*1.07*	*1.97*	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	*4*	*1.82*		*0.50*	*3.65*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
		4	*1.82*		*3.12*	*22.78*	*Sqm*
		4		*0.77*	*3.12*	*9.60*	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	*4*	*4.05*		*0.40*	*6.48*	*Sqm*
		4		*0.30*	*0.40*	*0.48*	*Sqm*
		4	*4.05*		*2.10*	*33.96*	*Sqm*
		4		*0.61*	*2.10*	*5.15*	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	*4*	*1.82*		*3.12*	*22.78*	*Sqm*
		4		*0.77*	*3.12*	*9.60*	*Sqm*
		4	*1.82*		*0.50*	*3.65*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	*4*	*8.61*		*1.07*	*36.84*	*Sqm*
		4		*0.46*	*1.07*	*1.97*	*Sqm*
		4	*8.61*		*0.30*	*10.33*	*Sqm*
		4		*0.30*	*0.30*	*0.36*	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	*4*	*4.05*		*2.10*	*33.98*	*Sqm*
		4		*0.61*	*2.10*	*5.15*	*Sqm*
		4	*4.05*		*0.40*	*6.48*	*Sqm*
		4		*0.30*	*0.40*	*0.48*	*Sqm*
	TOTAL					**316.75**	***Sqm***
5	RCC Pipe NP4 heavy duty non pressure pipe 600 mm dia with spigot						
	0.6 m dia pipe	*8*	*2.50*			*20.00*	*RM*
	TOTAL					**20.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*60.52*	*0.0025*	*0.151*	*7850.00*	*1187.644*	*Kg*
	TOTAL					*1187.644*	*Kg*
	TOTAL					**1.19**	**M.T.**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
7	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*8.90*	*0.49*		*4.38*	*Cum*
		1	*5.16*	*2.48*		*12.77*	*Cum*
	Middle Portion	*1*	*1.37*	*31.44*		*43.07*	*Cum*
	Right Portion	*1*	*8.91*	*0.92*		*8.21*	*Cum*
		1	*5.06*	*2.48*		*12.53*	*Cum*
	TOTAL					**80.97**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	DETAILED ESTIMATE FOR CROSS DRAINAGE WORKS AT KM 15.400 OF MAHUARY SUB DY						
1	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Left Portion	*1*	*8.90*	*0.64*		*5.67*	*Cum*
		1	*5.40*	*5.51*		*29.77*	*Cum*
	Middle Portion	*1*	*1.37*	*33.58*		*46.00*	*Cum*
	Right Portion	*1*	*8.91*	*2.00*		*17.82*	*Cum*
		1	*5.40*	*10.59*		*57.22*	*Cum*
	TOTAL					**156.48**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*8.90*	*0.77*	*0.30*	*2.06*	*Cum*
		1	*5.16*	*3.50*	*0.30*	*5.41*	*Cum*
	300 mm Thick Right Abutment	*1*	*8.91*	*0.77*	*0.30*	*2.06*	*Cum*
		1	*5.06*	*3.50*	*0.30*	*5.31*	*Cum*
	Below Pipe Section	*1*	*17.50*	*1.37*	*0.30*	*7.19*	*Cum*
		2	*17.50*	*0.51*	*0.24*	*17.76*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*3.87*	*2.50*	*0.20*	*3.87*	*Cum*
	Pipe Section	*7*	*0.30*	*1.27*	*1.14*	*3.04*	*Cum*
	Deduct Area of Pipe	*7*	*0.30*	*0.47*		*-0.98*	*Cum*
	TOTAL					**45.72**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*2*	*8.60*	*0.30*	*0.30*	*1.55*	*Cum*
		2	*8.60*	*0.46*	*1.07*	*8.48*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*2*	*1.82*	*0.30*	*0.50*	*0.55*	*Cum*
		2	*1.82*	*0.65*	*2.32*	*5.48*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*3.95*	*0.30*	*0.40*	*0.95*	*Cum*
		2	*3.95*	*0.55*	*1.70*	*7.42*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*2*	*8.61*	*0.30*	*0.30*	*1.55*	*Cum*
		2	*8.61*	*0.46*	*1.07*	*8.48*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*2*	*1.82*	*0.30*	*0.50*	*0.55*	*Cum*
		2	*1.82*	*0.65*	*2.32*	*5.48*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*3.95*	*0.55*	*1.70*	*7.43*	*Cum*
		2	*3.95*	*0.30*	*0.40*	*0.95*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.79*	*0.465*		*-0.74*	*Cum*
	TOTAL					**48.13**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	*2*	*8.90*		*0.30*	*5.34*	*Sqm*
		2		*0.77*	*0.30*	*0.46*	*Sqm*
		2	*5.16*		*0.30*	*3.09*	*Sqm*
		2		*3.50*	*0.30*	*2.10*	*Sqm*
	300 mm Thick Right Abutment	*2*	*8.91*		*0.30*	*5.34*	*Sqm*
		2		*0.77*	*0.30*	*0.46*	*Sqm*
		2	*5.06*		*0.30*	*3.04*	*Sqm*
		2		*3.50*	*0.30*	*2.10*	*Sqm*
	200 mm Thick Left and Right Portion Well	*4*	*3.87*		*0.20*	*3.09*	*Sqm*
		4		*2.50*	*0.20*	*2.00*	*Sqm*
	Pipe Section	*14*	*0.30*		*1.14*	*4.79*	*Sqm*
		14		*1.27*	*1.14*	*20.27*	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	*4*	*8.60*		*0.30*	*10.32*	*Sqm*
		4		*0.30*	*0.30*	*0.36*	*Sqm*
		4	*8.60*		*1.07*	*36.83*	*Sqm*
		4		*0.46*	*1.07*	*1.97*	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	*4*	*1.82*		*0.50*	*3.65*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
		4	*1.82*		*2.32*	*16.92*	*Sqm*
		4		*0.65*	*2.32*	*6.01*	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	*4*	*3.95*		*0.40*	*6.32*	*Sqm*
		4		*0.30*	*0.40*	*0.48*	*Sqm*
		4	*3.95*		*1.70*	*26.79*	*Sqm*
		4		*0.55*	*1.70*	*3.76*	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	*4*	*1.82*		*2.32*	*16.92*	*Sqm*
		4		*0.65*	*2.32*	*6.01*	*Sqm*
		4	*1.82*		*0.50*	*3.65*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	*4*	*8.61*		*1.07*	*36.84*	*Sqm*
		4		*0.46*	*1.07*	*1.97*	*Sqm*
		4	*8.61*		*0.30*	*10.33*	*Sqm*
		4		*0.30*	*0.30*	*0.36*	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	*4*	*3.95*		*1.70*	*26.80*	*Sqm*
		4		*0.55*	*1.70*	*3.76*	*Sqm*
		4	*3.95*		*0.40*	*6.32*	*Sqm*
		4		*0.30*	*0.40*	*0.48*	*Sqm*
	TOTAL					**280.14**	***Sqm***
5	RCC Pipe NP3 heavy duty non pressure pipe 600 mm dia with spigot						
	0.6 m dia pipe	*7*	*2.50*			*17.50*	*RM*
	TOTAL					**17.50**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*48.13*	*0.0025*	*0.120*	*7850.00*	*944.519*	*Kg*
	TOTAL					*944.519*	*Kg*
	TOTAL					**0.94**	**M.T.**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
7	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*8.90*	*0.43*		*3.79*	*Cum*
		1	*5.16*	*1.59*		*8.19*	*Cum*
	Middle Portion	*1*	*1.37*	*21.11*		*28.92*	*Cum*
	Right Portion	*1*	*8.91*	*0.43*		*3.79*	*Cum*
		1	*5.06*	*1.58*		*7.99*	*Cum*
	TOTAL					**52.69**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	DETAILED ESTIMATE FOR CROSS DRAINAGE WORKS AT KM 16.100 OF MAHUARY SUB DY						
1	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Left Portion	*1*	*8.90*	*1.16*		*10.36*	*Cum*
		1	*5.40*	*7.59*		*41.01*	*Cum*
	Middle Portion	*1*	*1.37*	*39.16*		*53.65*	*Cum*
	Right Portion	*1*	*8.91*	*1.10*		*9.78*	*Cum*
		1	*5.40*	*10.14*		*54.81*	*Cum*
	TOTAL					**169.60**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*8.90*	*0.77*	*0.30*	*2.06*	*Cum*
		1	*5.16*	*3.74*	*0.30*	*5.79*	*Cum*
	300 mm Thick Right Abutment	*1*	*8.91*	*0.77*	*0.30*	*2.06*	*Cum*
		1	*5.06*	*3.74*	*0.30*	*5.68*	*Cum*
	Below Pipe Section	*1*	*17.50*	*1.37*	*0.30*	*7.19*	*Cum*
		2	*17.50*	*0.51*	*0.24*	*17.76*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*3.87*	*2.50*	*0.20*	*3.87*	*Cum*
	Pipe Section	*7*	*0.30*	*1.27*	*1.14*	*3.04*	*Cum*
	Deduct Area of Pipe	*7*	*0.30*	*0.47*		*-0.98*	*Cum*
	TOTAL					**46.48**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*2*	*8.60*	*0.30*	*0.30*	*1.55*	*Cum*
		2	*8.60*	*0.46*	*1.07*	*8.48*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*2*	*1.82*	*0.30*	*0.50*	*0.55*	*Cum*
		2	*1.82*	*0.77*	*3.14*	*8.82*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.05*	*0.30*	*0.40*	*0.97*	*Cum*
		2	*4.05*	*0.62*	*2.10*	*10.49*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*2*	*8.61*	*0.30*	*0.30*	*1.55*	*Cum*
		2	*8.61*	*0.46*	*1.07*	*8.48*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*2*	*1.82*	*0.30*	*0.50*	*0.55*	*Cum*
		2	*1.82*	*0.77*	*3.14*	*8.82*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.05*	*0.62*	*2.10*	*10.49*	*Cum*
		2	*4.05*	*0.30*	*0.40*	*0.97*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.79*	*0.465*		*-0.74*	*Cum*
	TOTAL					**60.98**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	*2*	*8.90*		*0.30*	*5.34*	*Sqm*
		2		*0.77*	*0.30*	*0.46*	*Sqm*
		2	*5.16*		*0.30*	*3.09*	*Sqm*
		2		*3.74*	*0.30*	*2.24*	*Sqm*
	300 mm Thick Right Abutment	*2*	*8.91*		*0.30*	*5.34*	*Sqm*
		2		*0.77*	*0.30*	*0.46*	*Sqm*
		2	*5.06*		*0.30*	*3.04*	*Sqm*
		2		*3.74*	*0.30*	*2.24*	*Sqm*
	200 mm Thick Left and Right Portion Well	*4*	*3.87*		*0.20*	*3.09*	*Sqm*
		4		*2.50*	*0.20*	*2.00*	*Sqm*
	Pipe Section	*14*	*0.30*		*1.14*	*4.79*	*Sqm*
		14		*1.27*	*1.14*	*20.27*	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	*4*	*8.60*		*0.30*	*10.32*	*Sqm*
		4		*0.30*	*0.30*	*0.36*	*Sqm*
		4	*8.60*		*1.07*	*36.83*	*Sqm*
		4		*0.46*	*1.07*	*1.97*	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	*4*	*1.82*		*0.50*	*3.65*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
		4	*1.82*		*3.14*	*22.88*	*Sqm*
		4		*0.77*	*3.14*	*9.67*	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	*4*	*4.05*		*0.40*	*6.48*	*Sqm*
		4		*0.30*	*0.40*	*0.48*	*Sqm*
		4	*4.05*		*2.10*	*34.09*	*Sqm*
		4		*0.62*	*2.10*	*5.18*	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	*4*	*1.82*		*3.14*	*22.88*	*Sqm*
		4		*0.77*	*3.14*	*9.67*	*Sqm*
		4	*1.82*		*0.50*	*3.65*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	*4*	*8.61*		*1.07*	*36.84*	*Sqm*
		4		*0.46*	*1.07*	*1.97*	*Sqm*
		4	*8.61*		*0.30*	*10.33*	*Sqm*
		4		*0.30*	*0.30*	*0.36*	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	*4*	*4.05*		*2.10*	*34.10*	*Sqm*
		4		*0.62*	*2.10*	*5.18*	*Sqm*
		4	*4.05*		*0.40*	*6.48*	*Sqm*
		4		*0.30*	*0.40*	*0.48*	*Sqm*
	TOTAL					**317.44**	***Sqm***
5	RCC Pipe NP3 heavy duty non pressure pipe 600 mm dia with spigot						
	0.6 m dia pipe	*7*	*2.50*			*17.50*	*RM*
	TOTAL					**17.50**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*60.98*	*0.0025*	*0.152*	*7850.00*	*1196.715*	*Kg*
	TOTAL					*1196.715*	*Kg*
	TOTAL					**1.20**	**M.T.**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
7	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*8.90*	*0.43*		*3.79*	*Cum*
		1	*5.16*	*2.49*		*12.86*	*Cum*
	Middle Portion	*1*	*1.37*	*25.82*		*35.37*	*Cum*
	Right Portion	*1*	*8.91*	*0.43*		*3.79*	*Cum*
		1	*5.06*	*2.49*		*12.62*	*Cum*
	TOTAL					**68.44**	**Cum**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND									
ABSTRACT OF COST OF PIPE CULVERT OF BARIAWA MR.									
S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
AOC FOR PIPE CULVERT AT KM 6.83									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	150.000	Sqm	**11.80**	1770.66			
2	5.1.27	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	56.953	Cum	**195.20**	11117.30			
3	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	16.01	Cum	**6381.70**	102167.83	5.19	7.20	14.41
4	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	12.277	Cum	**6914.20**	84885.98	5.06	5.28	10.56
5	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	109.796	Sqm	**578.60**	63527.83			
6	5.3.22	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.24	MT	**73574.90**	17726.92			
7	WRD M-002	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.91	Cum	**694.61**	1325.32			
8	WRD 5.7.18.1	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.91	Cum	**1237.00**	2360.20			
9	M-151	Providing 600 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP3 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	Rm	**2532.61**	18994.58			
10	5.6.2.2	Labour for laying 600 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP3 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	Rm	**711.27**	5334.49			
11	13.08 RCD	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1220.80			
12	5.1.31	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	8.96	Cum	**149.30**	1337.99			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
13	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.68	Cum	**5021.30**	8435.78	0.19	0.54	
14	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	9.520	Sqm	**340.20**	3238.70	0.494	0.139	
15	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	3.920	Sqm	**63.20**	247.74	0.006		
16		**Carriage of materials**							
		Coarse Sand (60 Km lead)	13.160	Cum	**1075.00**	14147.00			
		Coarse Aggregates (100 Km lead)	24.967	Cum	**1398.00**	34903.60			
		Cement (30 km lead)	10.944	MT	**742.00**	8120.67			
		Steel (30 km lead)	0.241	MT	**742.00**	178.78			
		Boulder (60 km lead)	1.908	Cum	**1159.00**	2211.37			
		Hume Pipe (30 Km Lead)	7.500	Rm	**919.00**	6892.50			
		TOTAL (In Rs.)				**390146.03**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	13.16	Cum	**584.64**	7693.86	769.39		
		Coarse Aggregate	24.97	Cum	**944.26**	23575.16	2357.52		
		Boulder (60 km lead)	1.91	Cum	**694.61**	1325.32	132.53		
		Total					**3259.43**		
ABSTRACT OF COST OF PIPE CULVERT OF THUMBHI MR.									
AOC FOR PIPE CULVERT AT KM 5.545									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.1.27	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	56.953	Cum	**195.20**	11117.30			
3	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	16.01	Cum	**6381.70**	102167.83	5.19	7.20	14.41
4	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	12.277	Cum	**6914.20**	84885.98	5.06	5.28	10.56
5	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	109.796	Sqm	**578.60**	63527.83			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
6	5.3.22	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.24	MT	**73574.90**	17726.92			
7	WRD M-002	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.91	Cum	**694.61**	1325.32			
8	WRD 5.7.18.1	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.91	Cum	**1237.00**	2360.20			
9	M-151	Providing 600 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP3 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	Rm	**2532.61**	18994.58			
10	5.6.2.2	Labour for laying 600 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP3 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	Rm	**711.27**	5334.49			
11	13.08 RCD	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	Rm	**152.60**	1220.80			
12	5.1.31	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	8.96	Cum	**149.30**	1337.99			
13	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.68	Cum	**5021.30**	8435.78	0.19	0.54	
14	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	9.520	Sqm	**340.20**	3238.70	0.494	0.139	
15	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	3.920	Sqm	**63.20**	247.74	0.006		
16		**Carriage of materials**							
		Coarse Sand (60 Km lead)	13.160	Cum	**1075.00**	14147.00			
		Coarse Aggregates (100 Km lead)	24.967	Cum	**1398.00**	34903.60			
		Cement (30 km lead)	10.944	MT	**742.00**	8120.67			
		Steel (30 km lead)	0.241	MT	**742.00**	178.78			
		Boulder (60 km lead)	1.908	Cum	**1159.00**	2211.37			
		Hume Pipe (30 Km Lead)	7.500	Rm	**919.00**	6892.50			
TOTAL (In Rs.)						**389791.90**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	13.16	Cum	**584.64**	7693.86	769.39		
		Coarse Aggregate	24.97	Cum	**944.26**	23575.16	2357.52		
		Boulder (60 km lead)	1.91	Cum	**694.61**	1325.32	132.53		
		Total					**3259.43**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
DETAILS OF QUANTITIES OF PIPE CULVERT AT KM 6.830 OF BARIAWAN MR.							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*150.00*			**150.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	U/S Toe Wall	*1*	*0.54*	*0.85*	*1.20*	*0.55*	*Cum*
	D/S Toe Wall	*1*	*0.54*	*0.85*	*1.20*	*0.55*	*Cum*
	U/S Transitions Floor (Left & Right)	*2*	*3.35*	*1.00*	*1.20*	*8.03*	*Cum*
	Extra for Slope (.5:1)	*2*	*3.35*	*1.05*	*2.10*	*14.76*	*Cum*
	D/S Transitions Floor (Left & Right)	*2*	*4.35*	*1.00*	*1.20*	*10.43*	*Cum*
	Extra for Slope (.5:1)	*2*	*4.35*	*1.05*	*2.10*	*19.17*	*Cum*
	C.C Floor Apron in (U/S Portion)	*1*	*2.55*	*0.57*	*0.45*	*0.65*	*Cum*
	C.C Floor Apron in (D/S Portion)	*1*	*3.55*	*0.57*	*0.45*	*0.91*	*Cum*
	Launching Apron in U/S Portion	*1*	*2.50*	*0.53*	*0.60*	*0.80*	*Cum*
	Launching Apron in D/S Portion	*1*	*3.50*	*0.53*	*0.60*	*1.11*	*Cum*
	TOTAL					**56.95**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below U/S Curtain Wall	*1*	*0.54*	*0.85*	*0.30*	*0.14*	*Cum*
	U/S Curtain Wall Stem	*1*	*0.54*	*0.45*	*0.90*	*0.22*	*Cum*
	PCC Below D/S Curtain Wall	*1*	*0.54*	*0.85*	*0.30*	*0.14*	*Cum*
	D/S Curtain Wall Stem	*1*	*0.54*	*0.45*	*0.90*	*0.22*	*Cum*
	U/S Toe Wall Base (For Resting Brick Pitching)	*2*	*3.00*	*0.45*	*0.30*	*0.81*	*Cum*
	U/S Toe Wall Stem (For Resting Brick Pitching)	*2*	*3.00*	*0.30*	*0.60*	*1.08*	*Cum*
	D/S Toe Wall Base (For Resting Brick Pitching)	*2*	*3.00*	*0.45*	*0.30*	*0.81*	*Cum*
	D/S Toe Wall Stem (For Resting Brick Pitching)	*2*	*3.00*	*0.30*	*0.60*	*1.08*	*Cum*
	Floor Apron (U/S Portion)	*1*	*2.55*	*0.57*	*0.45*	*0.65*	*Cum*
	Floor Apron (D/S Portion)	*1*	*3.55*	*0.57*	*0.45*	*0.91*	*Cum*
	U/S Transitions Floor (Left & Right)	*2*	*3.35*	*1.00*	*0.30*	*2.01*	*Cum*
	D/S Transitions Floor (Left & Right)	*2*	*4.35*	*1.00*	*0.30*	*2.61*	*Cum*
	PCC Below Hume Pipe	*1*	*7.50*	*1.29*	*0.41*	*3.92*	*Cum*
	PCC Below Hume Pipe in (Curve Portion)	*2*	*7.50*	*0.49*	*0.20*	*1.42*	*Cum*
	TOTAL					**16.01**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Transition Walls (Left & Right)						
	Section A-A	*2*	*3.35*	*0.60*	*0.90*	*3.61*	*Cum*
		2	*3.35*	*0.45*	*0.30*	*0.90*	*Cum*
		2	*3.35*	*0.30*	*0.50*	*1.00*	*Cum*
	D/S Transition Walls (Left & Right)						

	Section B-B	*2*	*4.35*	*0.60*	*0.90*	*4.69*	*Cum*
		2	*4.35*	*0.45*	*0.30*	*1.17*	*Cum*
		2	*4.35*	*0.30*	*0.50*	*1.30*	*Cum*
	Collar Joint	*2*	*1.19*	*0.30*	*1.00*	*0.71*	*Cum*
	Deduct Hume Pipe Area	*1*		*1.13*		*-1.13*	*Cum*
	TOTAL					**12.28**	**Cum**
5	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	U/S Curtain Wall Stem	*2*	*0.54*		*0.90*	*0.96*	*Sqm*
		2		*0.45*	*0.90*	*0.81*	*Sqm*
	D/S Curtain Wall Stem	*2*	*0.54*		*0.90*	*0.96*	*Sqm*
		2		*0.45*	*0.90*	*0.81*	*Sqm*
	U/S Toe Wall Stem (For Resting Brick Pitching)	*4*	*3.00*		*0.60*	*7.20*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	D/S Toe Wall Stem (For Resting Brick Pitching)	*4*	*3.00*		*0.60*	*7.20*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	Floor Apron (U/S Portion)	*2*	*2.55*		*0.45*	*2.30*	*Sqm*
		2		*0.57*	*0.45*	*0.51*	*Sqm*
	Floor Apron (D/S Portion)	*2*	*3.55*		*0.45*	*3.20*	*Sqm*
		2		*0.57*	*0.45*	*0.51*	*Sqm*
	U/S Transitions Floor (Left & Right)	*4*	*3.35*		*0.30*	*4.02*	*Sqm*
		4		*1.00*	*0.30*	*1.20*	*Sqm*
	D/S Transitions Floor (Left & Right)	*4*	*4.35*		*0.30*	*5.22*	*Sqm*
		4		*1.00*	*0.30*	*1.20*	*Sqm*
	U/S Transition Walls (Left & Right)						
	Section A-A	*4*	*3.35*		*0.90*	*12.05*	*Sqm*
		4		*0.60*	*0.90*	*2.16*	*Sqm*
		4	*3.35*		*0.30*	*4.02*	*Sqm*
		4		*0.45*	*0.30*	*0.54*	*Sqm*
		4	*3.35*		*0.50*	*6.69*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
	D/S Transition Walls (Left & Right)						
	Section B-B	*4*	*4.35*		*0.90*	*15.65*	*Sqm*
		4		*0.60*	*0.90*	*2.16*	*Sqm*
		4	*4.35*		*0.30*	*5.22*	*Sqm*
		4		*0.45*	*0.30*	*0.54*	*Sqm*
		4	*4.35*		*0.50*	*8.69*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
	PCC Below Hume Pipe	*2*	*7.50*		*0.41*	*6.08*	*Sqm*
		2		*1.29*	*0.41*	*1.04*	*Sqm*
	Deduct Hume Pipe Area	*4*	*7.50*		*0.20*	*5.85*	*Sqm*
		4		*0.49*	*0.20*	*0.38*	*Sqm*
	TOTAL					**109.80**	**Sqm**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
		Quantity	Percent		Density		
	0.25 % Skin Reinforcement for Transition walls	*12.28*	*0.25%*	*0.03*	*7850*	*240.94*	*Kg*
	TOTAL Weight of steel (in kg)					240.94	Kg
	TOTAL Weight of Steel (in Tonne)					**0.24**	**MT**
7	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	Launching Apron in U/S Portion	*1*	*2.50*	*0.53*	*0.60*	*0.80*	*Cum*

	Launching Apron in D/S Portion	*1*	*3.50*	*0.53*	*0.60*	*1.11*	*Cum*
	TOTAL					**1.91**	**Cum**
8	Providing 600 mm RCC NP2 pipe	3		2.50		7.5	Rm
	TOTAL					**7.50**	**Rm**
9	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
10	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*2*	*3.35*	*0.16*		*1.07*	*Cum*
	D/S Transitions Walls	*2*	*4.35*	*0.16*		*1.39*	*Cum*
	Above Hume Pipe	*1*		*6.50*		*6.50*	*Cum*
	TOTAL					**8.96**	**Cum**
11	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.						
	Parapet	2	2.8	0.5	0.6	*1.68*	*Cum*
	TOTAL					**1.68**	**Cum**
12	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.						
	Parapet	**2**	**2.8**		**1.7**	**9.52**	*Sqm*
	TOTAL					**9.52**	***Sqm***
13	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.						
	Parapet top	**2**	**2.8**		**0.7**	**3.92**	*Sqm*
	TOTAL					**3.92**	***Sqm***

DETAILS OF QUANTITIES OF PIPE CULVERT AT KM 5.545 OF THUMBHI MR.							
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*		*120.00*		**120.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	U/S Toe Wall	*1*	*0.54*	*0.85*	*1.20*	*0.55*	*Cum*
	D/S Toe Wall	*1*	*0.54*	*0.85*	*1.20*	*0.55*	*Cum*
	U/S Transitions Floor (Left & Right)	*2*	*3.35*	*1.00*	*1.20*	*8.03*	*Cum*
	Extra for Slope (.5:1)	*2*	*3.35*	*1.05*	*2.10*	*14.76*	*Cum*
	D/S Transitions Floor (Left & Right)	*2*	*4.35*	*1.00*	*1.20*	*10.43*	*Cum*
	Extra for Slope (.5:1)	*2*	*4.35*	*1.05*	*2.10*	*19.17*	*Cum*
	C.C Floor Apron in (U/S Portion)	*1*	*2.55*	*0.57*	*0.45*	*0.65*	*Cum*
	C.C Floor Apron in (D/S Portion)	*1*	*3.55*	*0.57*	*0.45*	*0.91*	*Cum*
	Launching Apron in U/S Portion	*1*	*2.50*	*0.53*	*0.60*	*0.80*	*Cum*
	Launching Apron in D/S Portion	*1*	*3.50*	*0.53*	*0.60*	*1.11*	*Cum*
	TOTAL					**56.95**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below U/S Curtain Wall	*1*	*0.54*	*0.85*	*0.30*	*0.14*	*Cum*
	U/S Curtain Wall Stem	*1*	*0.54*	*0.45*	*0.90*	*0.22*	*Cum*
	PCC Below D/S Curtain Wall	*1*	*0.54*	*0.85*	*0.30*	*0.14*	*Cum*
	D/S Curtain Wall Stem	*1*	*0.54*	*0.45*	*0.90*	*0.22*	*Cum*
	U/S Toe Wall Base (For Resting Brick Pitching)	*2*	*3.00*	*0.45*	*0.30*	*0.81*	*Cum*
	U/S Toe Wall Stem (For Resting Brick Pitching)	*2*	*3.00*	*0.30*	*0.60*	*1.08*	*Cum*
	D/S Toe Wall Base (For Resting Brick Pitching)	*2*	*3.00*	*0.45*	*0.30*	*0.81*	*Cum*
	D/S Toe Wall Stem (For Resting Brick Pitching)	*2*	*3.00*	*0.30*	*0.60*	*1.08*	*Cum*
	Floor Apron (U/S Portion)	*1*	*2.55*	*0.57*	*0.45*	*0.65*	*Cum*
	Floor Apron (D/S Portion)	*1*	*3.55*	*0.57*	*0.45*	*0.91*	*Cum*
	U/S Transitions Floor (Left & Right)	*2*	*3.35*	*1.00*	*0.30*	*2.01*	*Cum*
	D/S Transitions Floor (Left & Right)	*2*	*4.35*	*1.00*	*0.30*	*2.61*	*Cum*
	PCC Below Hume Pipe	*1*	*7.50*	*1.29*	*0.41*	*3.92*	*Cum*
	PCC Below Hume Pipe in (Curve Portion)	*2*	*7.50*	*0.49*	*0.20*	*1.42*	*Cum*
	TOTAL					**16.01**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	U/S Transition Walls (Left & Right)						
	Section A-A	*2*	*3.35*	*0.60*	*0.90*	*3.61*	*Cum*
		2	*3.35*	*0.45*	*0.30*	*0.90*	*Cum*
		2	*3.35*	*0.30*	*0.50*	*1.00*	*Cum*
	D/S Transition Walls (Left & Right)						
	Section B-B	*2*	*4.35*	*0.60*	*0.90*	*4.69*	*Cum*
		2	*4.35*	*0.45*	*0.30*	*1.17*	*Cum*
		2	*4.35*	*0.30*	*0.50*	*1.30*	*Cum*
	Collar Joint	*2*	*1.19*	*0.30*	*1.00*	*0.71*	*Cum*
	Deduct Hume Pipe Area	*1*		*1.13*		*-1.13*	*Cum*
	TOTAL					**12.28**	**Cum**
5	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	U/S Curtain Wall Stem	*2*	*0.54*		*0.90*	*0.96*	*Sqm*
		2		*0.45*	*0.90*	*0.81*	*Sqm*
	D/S Curtain Wall Stem	*2*	*0.54*		*0.90*	*0.96*	*Sqm*
		2		*0.45*	*0.90*	*0.81*	*Sqm*
	U/S Toe Wall Stem (For Resting Brick Pitching)	*4*	*3.00*		*0.60*	*7.20*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	D/S Toe Wall Stem (For Resting Brick Pitching)	*4*	*3.00*		*0.60*	*7.20*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	Floor Apron (U/S Portion)	*2*	*2.55*		*0.45*	*2.30*	*Sqm*
		2		*0.57*	*0.45*	*0.51*	*Sqm*
	Floor Apron (D/S Portion)	*2*	*3.55*		*0.45*	*3.20*	*Sqm*
		2		*0.57*	*0.45*	*0.51*	*Sqm*
	U/S Transitions Floor (Left & Right)	*4*	*3.35*		*0.30*	*4.02*	*Sqm*
		4		*1.00*	*0.30*	*1.20*	*Sqm*
	D/S Transitions Floor (Left & Right)	*4*	*4.35*		*0.30*	*5.22*	*Sqm*
		4		*1.00*	*0.30*	*1.20*	*Sqm*
	U/S Transition Walls (Left & Right)						
	Section A-A	*4*	*3.35*		*0.90*	*12.05*	*Sqm*
		4		*0.60*	*0.90*	*2.16*	*Sqm*
		4	*3.35*		*0.30*	*4.02*	*Sqm*
		4		*0.45*	*0.30*	*0.54*	*Sqm*
		4	*3.35*		*0.50*	*6.69*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
	D/S Transition Walls (Left & Right)						
	Section B-B	*4*	*4.35*		*0.90*	*15.65*	*Sqm*
		4		*0.60*	*0.90*	*2.16*	*Sqm*
		4	*4.35*		*0.30*	*5.22*	*Sqm*
		4		*0.45*	*0.30*	*0.54*	*Sqm*
		4	*4.35*		*0.50*	*8.69*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
	PCC Below Hume Pipe	*2*	*7.50*		*0.41*	*6.08*	*Sqm*
		2		*1.29*	*0.41*	*1.04*	*Sqm*
	Deduct Hume Pipe Area	*4*	*7.50*		*0.20*	*5.85*	*Sqm*
		4		*0.49*	*0.20*	*0.38*	*Sqm*
	TOTAL					**109.80**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
		Quantity	Percent		Density		
	0.25 % Skin Reinforcement for Transition walls	*12.28*	*0.25%*	*0.03*	*7850*	*240.94*	*Kg*
	TOTAL Weight of steel (in kg)					240.94	Kg
	TOTAL Weight of Steel (in Tonne)					**0.24**	**MT**
7	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	Launching Apron in U/S Portion	*1*	*2.50*	*0.53*	*0.60*	*0.80*	*Cum*
	Launching Apron in D/S Portion	*1*	*3.50*	*0.53*	*0.60*	*1.11*	*Cum*
	TOTAL					**1.91**	**Cum**
8	Providing 600 mm RCC NP2 pipe	3		2.50		7.5	Rm
	TOTAL					**7.50**	**Rm**
9	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
10	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*2*	*3.35*	*0.16*		*1.07*	*Cum*
	D/S Transitions Walls	*2*	*4.35*	*0.16*		*1.39*	*Cum*
	Above Hume Pipe	*1*	*6.50*			*6.50*	*Cum*
	TOTAL					**8.96**	**Cum**
11	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.						
	Parapet	2	2.8	0.5	0.6	*1.68*	*Cum*
	TOTAL					**1.68**	**Cum**
12	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.						
	Parapet	**2**	**2.8**		**1.7**	**9.52**	*Sqm*
	TOTAL					**9.52**	***Sqm***
13	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.						
	Parapet top	**2**	**2.8**		**0.7**	**3.92**	*Sqm*
	TOTAL					**3.92**	***Sqm***

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND									
ABSTRACT OF COST MAHUARY SUB-DY INLET AT RD 1.700 KM.									
S. No.	**Ref**	**Item of Works**	**Qty.**	**Unit**	**Rate (As per WRD SOR 2025 & PL MARCH 2025)**	**Amount (Rs)**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**
1	5.1.27	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	23.418	Cum	**195.20**	4571.27			
2	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	6.69	Cum	**6381.70**	42684.44	2.17	3.01	6.02
3	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	4.609	Cum	**6914.20**	31865.21	1.90	1.98	3.96
4	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	48.530	Sqm	**578.60**	28079.69			
5	5.3.22	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.09	MT	**73574.90**	6654.48			
6	M-151	Providing 600 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP3 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	Rm	**2532.61**	18994.58			
7	5.6.2.2	Labour for laying 600 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP3 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	Rm	**711.27**	5334.49			
8	5.2.1	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .	0.68	Cum	**339.90**	230.50			
9	WRD M-002	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.45	Cum	**694.61**	312.57			
10	WRD 5.7.18.1	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.45	Cum	**1237.00**	556.65			
11	WRD 5.5.10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	1.35	Sqm	**340.20**	459.27			
12	5.1.31	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	28.82	Cum	**149.30**	4302.96			
13		**Carriage of materials**							
		Coarse Sand (60 Km lead)	4.992	Cum	**1075.00**	5365.95			
		Coarse Aggregates (100 Km lead)	9.983	Cum	**1398.00**	13956.46			
		Cement (30 km lead)	4.068	MT	**742.00**	3018.58			
		Steel (30 km lead)	0.090	MT	**742.00**	67.11			
		Hume Pipe (30 Km Lead)	7.500	Rm	**919.00**	6892.50			
TOTAL (In Rs.)						**173346.72**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	4.99	Cum	**584.64**	2918.28	291.83		
		Coarse Aggregate	9.98	Cum	**944.26**	9426.70	942.67		
		Total					**1234.50**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST MAHUARY SUB-DY INLET AT RD 12.200 KM.									
1	5.1.27	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	23.418	Cum	**195.20**	4571.27			
2	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	6.69	Cum	**6381.70**	42684.44	2.17	3.01	6.02
3	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	4.609	Cum	**6914.20**	31865.21	1.90	1.98	3.96
4	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	48.530	Sqm	**578.60**	28079.69			
5	5.3.22	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.09	MT	**73574.90**	6654.48			
6	M-151	Providing 600 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP3 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	Rm	**2532.61**	18994.58			
7	5.6.2.2	Labour for laying 600 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP3 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	Rm	**711.27**	5334.49			
8	5.2.1	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .	0.68	Cum	**339.90**	230.50			
9	WRD M-002	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.45	Cum	**694.61**	312.57			
10	WRD 5.7.18.1	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.45	Cum	**1237.00**	556.65			
11	WRD 5.5.10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	1.35	Sqm	**340.20**	459.27			
12	5.1.31	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	28.82	Cum	**149.30**	4302.96			
13		**Carriage of materials**							
		Coarse Sand (60 Km lead)	4.992	Cum	**1075.00**	5365.95			
		Coarse Aggregates (100 Km lead)	9.983	Cum	**1398.00**	13956.46			
		Cement (30 km lead)	4.068	MT	**742.00**	3018.58			
		Steel (30 km lead)	0.090	MT	**742.00**	67.11			
		Hume Pipe (30 Km Lead)	7.500	Rm	**919.00**	6892.50			
TOTAL (In Rs.)						**173346.72**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	4.99	Cum	**584.64**	2918.28	291.83		
		Coarse Aggregate	9.98	Cum	**944.26**	9426.70	942.67		
		Total					**1234.50**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST INLET AT RD 1.750 KM OF THUMBHI MR.									
1	5.1.27	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	23.418	Cum	**195.20**	4571.27			
2	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	6.69	Cum	**6381.70**	42684.44	2.17	3.01	6.02
3	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	4.609	Cum	**6914.20**	31865.21	1.90	1.98	3.96
4	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	48.530	Sqm	**578.60**	28079.69			
5	5.3.22	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.09	MT	**73574.90**	6654.48			
6	M-151	Providing 600 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP3 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	Rm	**2532.61**	18994.58			
7	5.6.2.2	Labour for laying 600 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP3 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	Rm	**711.27**	5334.49			
8	5.2.1	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .	0.68	Cum	**339.90**	230.50			
9	WRD M-002	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.45	Cum	**694.61**	312.57			
10	WRD 5.7.18.1	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.45	Cum	**1237.00**	556.65			
11	WRD 5.5.10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	1.35	Sqm	**340.20**	459.27			
12	5.1.31	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	28.82	Cum	**149.30**	4302.96			
13		**Carriage of materials**							
		Coarse Sand (60 Km lead)	4.992	Cum	**1075.00**	5365.95			
		Coarse Aggregates (100 Km lead)	9.983	Cum	**1398.00**	13956.46			
		Cement (30 km lead)	4.068	MT	**742.00**	3018.58			
		Steel (30 km lead)	0.090	MT	**742.00**	67.11			
		Hume Pipe (30 Km Lead)	7.500	Rm	**919.00**	6892.50			
TOTAL (In Rs.)						**173346.72**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	4.99	Cum	**584.64**	2918.28	291.83		
		Coarse Aggregate	9.98	Cum	**944.26**	9426.70	942.67		
		Total					**1234.50**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILS QUANTITIES OF MAHUARY SUB-DY INLET AT RD 1.700 KM.							
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	U/S Toe Wall Base	*1*	*1.50*	*0.75*	*1.82*	*2.05*	*Cum*
	D/S Toe Wall Base	*1*	*1.50*	*0.75*	*1.82*	*2.05*	*Cum*
	U/S Transitions Floor (Left & Right)						
	Section D-D	*2*	*0.35*	*0.7*	*0.60*	*0.29*	*Cum*
	Average of Section A-A & Section C-C	*2*	*1.98*	*1.18*	*0.60*	*2.80*	*Cum*
	PCC Below Hume Pipe	*1*	*6.60*	*1.37*	*1.75*	*15.78*	*Cum*
	Launching Apron	*1*	*2.00*	*0.75*	*0.30*	*0.45*	*Cum*
	TOTAL					**23.42**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	U/S Toe Wall Base	*1*	*1.50*	*0.75*	*0.15*	*0.17*	*Cum*
	U/S Toe Wall Stem	*1*	*1.50*	*0.45*	*1.67*	*1.13*	*Cum*
	D/S Toe Wall Base	*1*	*1.50*	*0.75*	*0.15*	*0.17*	*Cum*
	D/S Toe Wall Stem	*1*	*1.50*	*0.45*	*1.67*	*1.13*	*Cum*
	U/S Transitions Floor (Left & Right)						
	Section D-D	*2*	*0.35*	*0.70*	*0.15*	*0.07*	*Cum*
	Average of Section A-A & Section C-C	*2*	*1.98*	*1.18*	*0.15*	*0.70*	*Cum*
	PCC Below Hume Pipe	*1*	*6.60*	*1.37*	*0.30*	*2.71*	*Cum*
	Collar Joint	*2*	*1.14*	*0.30*	*1.14*	*0.78*	*Cum*
	Deduct Pipe Area	*2*	*0.28*		*0.30*	*-0.17*	*Cum*
	TOTAL					**6.69**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Transitions Floor (Left & Right)						
	Section D-D	*2*	*0.35*	*0.25*	*0.30*	*0.05*	*Cum*
		2	*0.35*	*0.38*	*0.60*	*0.16*	*Cum*
		2	*0.35*	*0.50*	*0.45*	*0.16*	*Cum*
	Average of Section A-A & Section C-C	*2*	*1.98*	*0.98*	*0.30*	*1.16*	*Cum*
		2	*1.98*	*0.76*	*0.60*	*1.81*	*Cum*
		2	*1.98*	*0.72*	*0.45*	*1.27*	*Cum*
	TOTAL					**4.61**	**Cum**
4	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	U/S Toe Wall Base	*2*	*1.50*		*0.15*	*0.45*	*Sqm*
		2		*0.75*	*0.15*	*0.23*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	U/S Toe Wall Stem	*2*	*1.50*		*1.67*	*5.01*	*Sqm*
		2		*0.45*	*1.67*	*1.50*	*Sqm*
	D/S Toe Wall Base	*2*	*1.50*		*0.15*	*0.45*	*Sqm*
		2		*0.75*	*0.15*	*0.23*	*Sqm*
	D/S Toe Wall Stem	*2*	*1.50*		*1.67*	*5.01*	*Sqm*
		2		*0.45*	*1.67*	*1.50*	*Sqm*
	U/S Transitions Floor (Left & Right)						
	Section D-D	*4*	*0.35*		*0.45*	*0.63*	*Sqm*
		4		*0.25*	*0.45*	*0.45*	*Sqm*
		4	*0.35*		*0.60*	*0.84*	*Sqm*
		4		*0.38*	*0.60*	*0.90*	*Sqm*
		4	*0.35*		*0.45*	*0.63*	*Sqm*
		4		*0.50*	*0.45*	*0.90*	*Sqm*
	Average of Section A-A & Section C-C	*4*	*1.98*		*0.45*	*3.56*	*Sqm*
		4		*0.98*	*0.45*	*1.77*	*Sqm*
		4	*1.98*		*0.60*	*4.74*	*Sqm*
		4		*0.76*	*0.60*	*1.83*	*Sqm*
		4	*1.98*		*0.45*	*3.56*	*Sqm*
		4		*0.72*	*0.45*	*1.29*	*Sqm*
	PCC Below Hume Pipe	*2*	*6.60*		*0.30*	*3.96*	*Sqm*
		2		*1.37*	*0.30*	*0.82*	*Sqm*
	Collar Joint	*4*	*1.14*		*1.44*	*6.57*	*Sqm*
		4		*0.30*	*1.44*	*1.73*	*Sqm*
	TOTAL					**48.53**	**Sqm**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
		Quantity	Percent		Density		
	0.25 % Skin Reinforcement for Transition walls	*4.61*	*0.25%*	*0.01*	*7850*	*90.44*	*Kg*
	TOTAL Weight of steel (in kg)					90.44	Kg
	TOTAL Weight of Steel (in Tonne)					**0.09**	**MT**
7	Providing 600 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP3 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	3		2.50		7.5	Rm
	TOTAL					**7.50**	**Rm**
8	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .						
		1	6.6	1.37	0.075	*0.68*	**Cum**
	TOTAL					**0.68**	**Cum**
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	Launching Apron	1	2	0.75	0.3	*0.45*	**Cum**
	TOTAL					**0.45**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	U/S Toe Wall Top	*1*	*1.50*	*0.45*		*0.68*	*Sqm*
	D/S Toe Wall Top	*1*	*1.50*	*0.45*		*0.68*	*Sqm*
	TOTAL					**1.35**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Floor (Left & Right)						
	Section D-D	*2*	*0.35*	0.28		0.198	
	Average of Section A-A & Section C-C	*2*	*1.98*	0.44		1.739	*Cum*
	Above Hume Pipe	*1*	*6.60*	4.07		26.884	*Cum*
	TOTAL					**28.82**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS QUANTITIES OF MAHUARY SUB-DY INLET AT RD 12.200 KM.						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	U/S Toe Wall Base	*1*	*1.50*	*0.75*	*1.82*	*2.05*	*Cum*
	D/S Toe Wall Base	*1*	*1.50*	*0.75*	*1.82*	*2.05*	*Cum*
	U/S Transitions Floor (Left & Right)						
	Section D-D	*2*	*0.35*	*0.7*	*0.60*	*0.29*	*Cum*
	Average of Section A-A & Section C-C	*2*	*1.98*	*1.18*	*0.60*	*2.80*	*Cum*
	PCC Below Hume Pipe	*1*	*6.60*	*1.37*	*1.75*	*15.78*	*Cum*
	Launching Apron	*1*	*2.00*	*0.75*	*0.30*	*0.45*	*Cum*
	TOTAL					**23.42**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	U/S Toe Wall Base	*1*	*1.50*	*0.75*	*0.15*	*0.17*	*Cum*
	U/S Toe Wall Stem	*1*	*1.50*	*0.45*	*1.67*	*1.13*	*Cum*
	D/S Toe Wall Base	*1*	*1.50*	*0.75*	*0.15*	*0.17*	*Cum*
	D/S Toe Wall Stem	*1*	*1.50*	*0.45*	*1.67*	*1.13*	*Cum*
	U/S Transitions Floor (Left & Right)						
	Section D-D	*2*	*0.35*	*0.70*	*0.15*	*0.07*	*Cum*
	Average of Section A-A & Section C-C	*2*	*1.98*	*1.18*	*0.15*	*0.70*	*Cum*
	PCC Below Hume Pipe	*1*	*6.60*	*1.37*	*0.30*	*2.71*	*Cum*
	Collar Joint	*2*	*1.14*	*0.30*	*1.14*	*0.78*	*Cum*
	Deduct Pipe Area	*2*	*0.28*		*0.30*	*-0.17*	*Cum*
	TOTAL					**6.69**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Transitions Floor (Left & Right)						
	Section D-D	*2*	*0.35*	*0.25*	*0.30*	*0.05*	*Cum*
		2	*0.35*	*0.38*	*0.60*	*0.16*	*Cum*
		2	*0.35*	*0.50*	*0.45*	*0.16*	*Cum*
	Average of Section A-A & Section C-C	*2*	*1.98*	*0.98*	*0.30*	*1.16*	*Cum*
		2	*1.98*	*0.76*	*0.60*	*1.81*	*Cum*
		2	*1.98*	*0.72*	*0.45*	*1.27*	*Cum*
	TOTAL					**4.61**	**Cum**
4	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	U/S Toe Wall Base	*2*	*1.50*		*0.15*	*0.45*	*Sqm*
		2		*0.75*	*0.15*	*0.23*	*Sqm*
	U/S Toe Wall Stem	*2*	*1.50*		*1.67*	*5.01*	*Sqm*
		2		*0.45*	*1.67*	*1.50*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	D/S Toe Wall Base	*2*	*1.50*		*0.15*	*0.45*	*Sqm*
		2		*0.75*	*0.15*	*0.23*	*Sqm*
	D/S Toe Wall Stem	*2*	*1.50*		*1.67*	*5.01*	*Sqm*
		2		*0.45*	*1.67*	*1.50*	*Sqm*
	U/S Transitions Floor (Left & Right)						
	Section D-D	*4*	*0.35*		*0.45*	*0.63*	*Sqm*
		4		*0.25*	*0.45*	*0.45*	*Sqm*
		4	*0.35*		*0.60*	*0.84*	*Sqm*
		4		*0.38*	*0.60*	*0.90*	*Sqm*
		4	*0.35*		*0.45*	*0.63*	*Sqm*
		4		*0.50*	*0.45*	*0.90*	*Sqm*
	Average of Section A-A & Section C-C	*4*	*1.98*		*0.45*	*3.56*	*Sqm*
		4		*0.98*	*0.45*	*1.77*	*Sqm*
		4	*1.98*		*0.60*	*4.74*	*Sqm*
		4		*0.76*	*0.60*	*1.83*	*Sqm*
		4	*1.98*		*0.45*	*3.56*	*Sqm*
		4		*0.72*	*0.45*	*1.29*	*Sqm*
	PCC Below Hume Pipe	*2*	*6.60*		*0.30*	*3.96*	*Sqm*
		2		*1.37*	*0.30*	*0.82*	*Sqm*
	Collar Joint	*4*	*1.14*		*1.44*	*6.57*	*Sqm*
		4		*0.30*	*1.44*	*1.73*	*Sqm*
	TOTAL					**48.53**	**Sqm**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
		Quantity	Percent		Density		
	0.25 % Skin Reinforcement for Transition walls	*4.61*	*0.25%*	*0.01*	*7850*	*90.44*	*Kg*
	TOTAL Weight of steel (in kg)					90.44	Kg
	TOTAL Weight of Steel (in Tonne)					**0.09**	**MT**
7	Providing 600 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP3 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	3		2.50		7.5	Rm
	TOTAL					**7.50**	**Rm**
8	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .						
		1	6.6	1.37	0.075	*0.68*	**Cum**
	TOTAL					**0.68**	**Cum**
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	Launching Apron	1	2	0.75	0.3	*0.45*	**Cum**
	TOTAL					**0.45**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	U/S Toe Wall Top	*1*	*1.50*	*0.45*		*0.68*	*Sqm*
	D/S Toe Wall Top	*1*	*1.50*	*0.45*		*0.68*	*Sqm*
	TOTAL					**1.35**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Floor (Left & Right)						
	Section D-D	*2*	*0.35*	0.28		0.198	
	Average of Section A-A & Section C-C	*2*	*1.98*	0.44		1.739	*Cum*
	Above Hume Pipe	*1*	*6.60*	4.07		26.884	*Cum*
	TOTAL					**28.82**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS QUANTITIES OF INLET AT RD 1.750 KM OF THUMBHI MR.						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	U/S Toe Wall Base	*1*	*1.50*	*0.75*	*1.82*	*2.05*	*Cum*
	D/S Toe Wall Base	*1*	*1.50*	*0.75*	*1.82*	*2.05*	*Cum*
	U/S Transitions Floor (Left & Right)						
	Section D-D	*2*	*0.35*	*0.7*	*0.60*	*0.29*	*Cum*
	Average of Section A-A & Section C-C	*2*	*1.98*	*1.18*	*0.60*	*2.80*	*Cum*
	PCC Below Hume Pipe	*1*	*6.60*	*1.37*	*1.75*	*15.78*	*Cum*
	Launching Apron	*1*	*2.00*	*0.75*	*0.30*	*0.45*	*Cum*
	TOTAL					**23.42**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	U/S Toe Wall Base	*1*	*1.50*	*0.75*	*0.15*	*0.17*	*Cum*
	U/S Toe Wall Stem	*1*	*1.50*	*0.45*	*1.67*	*1.13*	*Cum*
	D/S Toe Wall Base	*1*	*1.50*	*0.75*	*0.15*	*0.17*	*Cum*
	D/S Toe Wall Stem	*1*	*1.50*	*0.45*	*1.67*	*1.13*	*Cum*
	U/S Transitions Floor (Left & Right)						
	Section D-D	*2*	*0.35*	*0.70*	*0.15*	*0.07*	*Cum*
	Average of Section A-A & Section C-C	*2*	*1.98*	*1.18*	*0.15*	*0.70*	*Cum*
	PCC Below Hume Pipe	*1*	*6.60*	*1.37*	*0.30*	*2.71*	*Cum*
	Collar Joint	*2*	*1.14*	*0.30*	*1.14*	*0.78*	*Cum*
	Deduct Pipe Area	*2*	*0.28*		*0.30*	*-0.17*	*Cum*
	TOTAL					**6.69**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Transitions Floor (Left & Right)						
	Section D-D	*2*	*0.35*	*0.25*	*0.30*	*0.05*	*Cum*
		2	*0.35*	*0.38*	*0.60*	*0.16*	*Cum*
		2	*0.35*	*0.50*	*0.45*	*0.16*	*Cum*
	Average of Section A-A & Section C-C	*2*	*1.98*	*0.98*	*0.30*	*1.16*	*Cum*
		2	*1.98*	*0.76*	*0.60*	*1.81*	*Cum*
		2	*1.98*	*0.72*	*0.45*	*1.27*	*Cum*
	TOTAL					**4.61**	**Cum**
4	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	U/S Toe Wall Base	*2*	*1.50*		*0.15*	*0.45*	*Sqm*
		2		*0.75*	*0.15*	*0.23*	*Sqm*
	U/S Toe Wall Stem	*2*	*1.50*		*1.67*	*5.01*	*Sqm*
		2		*0.45*	*1.67*	*1.50*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	D/S Toe Wall Base	*2*	*1.50*		*0.15*	*0.45*	*Sqm*
		2		*0.75*	*0.15*	*0.23*	*Sqm*
	D/S Toe Wall Stem	*2*	*1.50*		*1.67*	*5.01*	*Sqm*
		2		*0.45*	*1.67*	*1.50*	*Sqm*
	U/S Transitions Floor (Left & Right)						
	Section D-D	*4*	*0.35*		*0.45*	*0.63*	*Sqm*
		4		*0.25*	*0.45*	*0.45*	*Sqm*
		4	*0.35*		*0.60*	*0.84*	*Sqm*
		4		*0.38*	*0.60*	*0.90*	*Sqm*
		4	*0.35*		*0.45*	*0.63*	*Sqm*
		4		*0.50*	*0.45*	*0.90*	*Sqm*
	Average of Section A-A & Section C-C	*4*	*1.98*		*0.45*	*3.56*	*Sqm*
		4		*0.98*	*0.45*	*1.77*	*Sqm*
		4	*1.98*		*0.60*	*4.74*	*Sqm*
		4		*0.76*	*0.60*	*1.83*	*Sqm*
		4	*1.98*		*0.45*	*3.56*	*Sqm*
		4		*0.72*	*0.45*	*1.29*	*Sqm*
	PCC Below Hume Pipe	*2*	*6.60*		*0.30*	*3.96*	*Sqm*
		2		*1.37*	*0.30*	*0.82*	*Sqm*
	Collar Joint	*4*	*1.14*		*1.44*	*6.57*	*Sqm*
		4		*0.30*	*1.44*	*1.73*	*Sqm*
	TOTAL					**48.53**	**Sqm**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
		Quantity	Percent		Density		
	0.25 % Skin Reinforcement for Transition walls	*4.61*	*0.25%*	*0.01*	*7850*	*90.44*	*Kg*
	TOTAL Weight of steel (in kg)					90.44	Kg
	TOTAL Weight of Steel (in Tonne)					**0.09**	**MT**
7	Providing 600 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP3 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	3		2.50		7.5	Rm
	TOTAL					**7.50**	**Rm**
8	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .						
		1	6.6	1.37	0.075	*0.68*	**Cum**
	TOTAL					**0.68**	**Cum**
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	Launching Apron	1	2	0.75	0.3	*0.45*	**Cum**
	TOTAL					**0.45**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	U/S Toe Wall Top	*1*	*1.50*	*0.45*		*0.68*	*Sqm*
	D/S Toe Wall Top	*1*	*1.50*	*0.45*		*0.68*	*Sqm*
	TOTAL					**1.35**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Floor (Left & Right)						
	Section D-D	*2*	*0.35*	0.28		0.198	
	Average of Section A-A & Section C-C	*2*	*1.98*	0.44		1.739	*Cum*
	Above Hume Pipe	*1*	*6.60*	4.07		26.884	*Cum*
	TOTAL					**28.82**	**Cum**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND

DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF MAHUARY SUB DISTRIBUTARY

Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
1	NEW FALL (0.610 M)	0.075	₹ 0.00
2	FALL (1.524 M) (RECONSTRUCT)	0.955	₹ 8,072.65
3	BRIDGE / HR FOR BARIAWA MR.	0.975	₹ 27,498.49
4	FALL (1.372 M)	1.575	₹ 1,99,171.37
5	NEW INLET	1.700	₹ 0.00
6	NEW FALL (0.457 M)	2.200	₹ 0.00
7	FALL (1.524 M)	2.600	₹ 16,627.37
8	BRIDGE /FALL	2.630	₹ 53,112.11
9	CROSS DRAINAGE	2.645	₹ 65,001.96
10	HR FOR ITMA MR.	3.985	₹ 19,712.52
11	BRIDGE	4.000	₹ 24,019.89
12	FALL (1.830 M) / BRIDGE / HR FOR MALI MR.	4.520	₹ 21,872.39
13	CULVERT / FALL (1.829 M)	5.030	₹ 15,062.68
14	BRIDGE	5.380	₹ 44,435.43
15	FALL (1.372 M) / BRIDGE	5.710	₹ 1,43,135.13
16	FALL (1.067 M)	6.560	₹ 31,229.61
17	BRIDGE / HR FOR THUMBHI MR./FALL	7.214	₹ 43,476.99
18	BRIDGE / FALL (1.067 M)	8.200	₹ 10,136.13
19	FALL /BRIDGE (1.067 M)	8.900	₹ 1,07,918.41
20	BRIDGE	9.000	₹ 25,653.61
21	NEW FALL (1.524 M)	9.150	₹ 0.00
22	BRIDGE	9.245	₹ 16,710.31
23	FALL (0.610 M) / BRIDGE	10.600	₹ 1,24,530.63
24	FALL (1.067 M)	11.300	₹ 30,159.40
25	BRIDGE	11.480	₹ 16,710.31
26	NEW FALL (0.914 M)	11.900	₹ 0.00
27	FALL (1.220 M) BRIDGE / HR FOR SOTHIDIH MR.	12.000	₹ 1,03,473.69
28	NEW INLET	12.200	₹ 0.00
29	FALL (0.914 M)/BRIDGE	13.200	₹ 12,582.54
30	FALL (0.914 M)	13.500	₹ 24,217.95
31	NEW CD	14.480	₹ 0.00
32	BRIDGE	14.535	₹ 8,342.51
33	FALL (0.610M)	14.780	₹ 28,764.66
34	NEW CD	15.400	₹ 0.00
35	BRIDGE / FALL (0.914 M)	15.550	₹ 25,931.78
36	NEW CD	16.100	₹ 0.00
37	FALL (0.914 M)	16.970	₹ 30,159.40
38	BRIDGE	17.220	₹ 25,662.34
39	CROSS DRAINAGE	17.780	₹ 11,765.47

Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
40	NEW FALL (0.610 M)	17.875	₹ 0.00
41	FALL (0.610 M)	18.280	₹ 27,734.77
42	CROSS DRAINAGE	18.290	₹ 12,251.49
43	BRIDGE	18.600	₹ 30,542.23
44	BRIDGE / FALL (0.610 M)	19.025	₹ 11,713.01
Total In Rs.			**₹ 13,97,389.21**
Total In Lakhs.			**₹ 13.97**

Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF BARIAWA MR.			
Sl. No.	**Structure Type**	**Chainage In Km**	**Amount (In Rs.)**
1	NEW FALL (1.829 M) COMBINED WITH HR	0.000	₹ 0.00
2	CULVERT	0.040	₹ 17,264.46
3	FALL (0.762 M)	0.305	₹ 65,834.59
4	FALL (0.914 M)	0.760	₹ 44,085.52
5	AQUEDUCT	0.940	₹ 46,289.49
6	CULVERT	1.375	₹ 19,406.47
7	FALL (1.220 M) / CULVERT	1.650	₹ 12,778.82
8	NEW FALL (0.457 M)	2.050	₹ 0.00
9	FALL (1.372 M) / BRIDGE	2.570	₹ 20,197.72
10	FALL (1.220 M) / BRIDGE	3.500	₹ 38,745.90
11	FALL (0.914 M) / BRIDGE	4.400	₹ 15,764.15
12	FALL (0.610 M)/ BRIDGE	4.990	₹ 38,373.24
13	CULVERT / FALL (1.067 M)	5.510	₹ 14,916.15
14	CULVERT	5.800	₹ 11,953.21
15	NEW FALL (0.610 M)	6.100	₹ 0.00
16	FALL (0.914 M) / CULVERT	6.560	₹ 18,150.17
17	PIPE CULVERT	6.830	₹ 0.00
Total In Rs.			**₹ 3,63,759.87**
Total In Lakhs.			**₹ 3.64**

Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF ITMA MR.			
Sl. No.	**Structure Type**	**Chainage In Km**	**Amount (In Rs.)**
1	FALL (0.610 M)	0.300	₹ 5,962.75
2	NEW FALL (1.676 M) / BRIDGE	0.900	₹ 26,738.07
3	BRIDGE	1.650	₹ 11,539.30
4	FALL (1.220 M)	1.895	₹ 42,546.34
5	BRIDGE	2.265	₹ 9,251.44
6	FALL (1.220 M)	2.580	₹ 24,780.09
7	FALL (1.067 M)	3.000	₹ 35,132.81
8	BRIDGE	3.445	₹ 33,423.02
9	NEW FALL (0.305 M)	3.950	₹ 0.00
10	FALL (0.457M) / BRIDGE	4.225	₹ 48,427.89
11	NEW FALL (0.457 M)	4.600	₹ 0.00
Total In Rs.			**₹ 2,37,801.71**
Total In Lakhs.			**₹ 2.38**

DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF MALI MR			
Sl. No.	**Structure Type**	**Chainage In Km**	**Amount (In Rs.)**
1	NEW FALL (1.524 M) COMBINED WITH HR	0.000	₹ 0.00
2	SYPHON / FALL (0.915 M)	0.060	₹ 31,401.25
3	FALL (0.914 M) / BRIDGE	0.610	₹ 37,198.81
4	NEW FALL (0.610 M)	1.000	₹ 0.00
5	FALL (0.610 M)	1.370	₹ 2,444.74
6	PIPE CULVERT	1.580	₹ 6,423.61
7	FALL (0.762 M) / BRIDGE	2.000	₹ 12,294.43
8	FALL (1.067 M) / BRIDGE	2.800	₹ 24,775.86
9	NEW FALL (0.457 M)	3.125	₹ 0.00
10	FALL (0.305 M)	3.755	₹ 7,681.01
Total In Rs.			**₹ 1,22,219.72**
Total In Lakhs.			**₹ 1.22**

Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF THUMBHI MR.			
Sl. No.	**Structure Type**	**Chainage In Km**	**Amount (In Rs.)**
1	FALL (0.457 M)	0.055	₹ 34,218.25
2	BRIDGE /NEW FALL(0.457 m)	0.545	₹ 0.00
3	FALL (0.914 M)	0.965	₹ 42,521.79
4	NEW INLET	1.750	₹ 0.00
5	BRIDGE	1.950	₹ 18,836.74
6	BRIDGE / FALL (0.457 M)	2.215	₹ 43,160.03
7	BRIDGE / FALL (0.762 M)	2.715	₹ 26,823.30
8	FALL (1.22 M)	3.300	₹ 33,895.79
9	FALL (1.067 M)	4.010	₹ 3,692.33
10	BRIDGE	4.450	₹ 31,502.96
11	FALL (1.067 M)	5.010	₹ 44,767.41
12	BRIDGE	5.240	₹ 11,648.86
13	PIPE CULVERT	5.545	₹ 35,112.45
14	FALL (0.610 M)	5.755	₹ 63,186.24
Total In Rs.			**₹ 1,65,560.12**
Total In Lakhs.			**₹ 1.66**

DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF SOTHIDIH MR.			
Sl. No.	**Structure Type**	**Chainage In Km**	**Amount (In Rs.)**
1	CROSS DRAINAGE	0.180	₹ 6,782.37
2	CROSS DRAINAGE	0.310	₹ 7,018.46
3	PIPE CULVERT	0.330	₹ 8,481.45
4	PIPE LINE	0.535	₹ 24,680.05
5	CROSS DRAINAGE	0.585	₹ 10,703.36
6	PIPE CULVERT	0.640	₹ 12,431.44
7	CROSS DRAINAGE	0.810	₹ 12,195.35
8	BRIDGE	0.830	₹ 11,237.50
9	FALL (0.762 M) / BRIDGE	1.015	₹ 9,423.80
10	PIPE CULVERT	1.560	₹ 15,597.49
11	FALL (0.457 M) / BRIDGE	1.805	₹ 31,088.24
12	FALL (1.067 M) / BRIDGE	2.450	₹ 20,381.84
Total In Rs.			**₹ 1,70,021.34**
Total In Lakhs.			**₹ 1.70**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND			
DETAILED ESTIMATE FOR C/O OF APPROACH ROAD			
Sl. No.	**APPROACH ROAD**	**NOS.**	**Amount (In Rs.)**
1		25.000	₹ 1,30,25,463.75
Total In Rs.			**₹ 1,30,25,463.75**
Total In Lakhs.			**₹ 130.25**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND									
ABSTRACT OF COST OF REPAIRED STRUCTURES OF MAHUARY SUB DISTRIBUTARY									
S. No.	**Ref**	**Item of Works**	**Qty.**	**Unit**	**Rate (As per WRD SOR 2025 & PL 2025)**	**Amount (Rs)**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**
		AOC FOR FALL (Ch.-0.955 Km)							
1	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	17.600	Sqm	**340.20**	5987.52	0.912	0.257	
2	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	17.600	Sqm	**63.20**	1112.32	0.03		
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.257	Cum	**1075.00**	276.23			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.939	MT	**742.00**	696.58			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**8072.65**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.26	Cum	**584.64**	150.23	15.02		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**15.02**		
		QUANTITIES OF REPAIRING WORK FOR BRIDGE/HR FOR BARIAWA MR (Ch.-0.975 Km)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	11.032	Cum	**2492.58**	27498.49			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**27498.49**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		New HR Cum Bridge is proposed here							
		AOC FOR FALL (Ch.1.575 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.74	Cum	**5021.30**	8744.59	0.20	0.56	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	75.103	Sqm	**340.20**	25549.95	3.893	1.096	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	13.411	Sqm	**63.20**	847.59	0.02		
4	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	17.607	Cum	**6914.20**	121736.32	7.26	7.57	15.14
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	9.225	Cum	**1075.00**	9916.52			
		Coarse Aggregates (100 Km lead)	15.142	Cum	**1398.00**	21168.20			
		Cement (30 km lead)	11.377	MT	**742.00**	8441.61			
		Brick (15 km lead)	870.00	No.	**3.18**	2766.60			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**199171.37**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	9.22	Cum	**584.64**	5393.11	539.31		
		Coarse Aggregate	15.14	Cum	**944.26**	14297.77	1429.78		
		Total					**1969.09**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		AOC FOR BRIDGE/FALL (Ch.2.600 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.16	Cum	**5021.30**	5808.22	0.13	0.37	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	21.022	Sqm	**340.20**	7151.70	1.090	0.307	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	3.018	Sqm	**63.20**	190.71	0.005		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.677	Cum	**1075.00**	727.85			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.228	MT	**742.00**	910.85			
		Brick (15 km lead)	578.00	No.	**3.18**	1838.04			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**16627.37**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.68	Cum	**584.64**	395.84	39.58		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**39.58**		
		AOC FOR BRIDGE/FALL (Ch.2.630 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.74	Cum	**5021.30**	3719.10	0.09	0.24	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	120.975	Sqm	**340.20**	41155.74	6.271	1.766	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	2.963	Sqm	**63.20**	187.24	0.004		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	2.003	Cum	**1075.00**	2153.49			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	6.361	MT	**742.00**	4719.95			
		Brick (15 km lead)	370.00	No.	**3.18**	1176.60			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**53112.11**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	2.00	Cum	**584.64**	1171.18	117.12		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**117.12**		
		AOC FOR CROSS DRAINAGE (Ch.-2.645 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	2.16	Cum	**6381.70**	13784.47	0.70	0.97	1.94
3	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	10.680	Sqm	**578.60**	6179.45			
4	WRD 5.3.22	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.04	Mt	**73574.90**	3118.84			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
5	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	78.900	Sqm	**340.20**	26841.78	4.090	1.152	
6	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	78.900	Sqm	**63.20**	4986.48	0.12		
7		**Carriage of materials**							
		Coarse Sand (60 Km lead)	2.124	Cum	**1075.00**	2283.24			
		Coarse Aggregates (100 Km lead)	1.944	Cum	**1398.00**	2717.71			
		Cement (30 km lead)	4.908	MT	**742.00**	3642.01			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.04	MT	**742.00**	31.45			
		TOTAL (In Rs.)				**65001.96**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	2.12	Cum	**584.64**	1241.74	124.17		
		Coarse Aggregate	1.94	Cum	**944.26**	1835.64	183.56		
		Total					**307.74**		
		AOC FOR HR FOR ITMA MR.(Ch.-3.985 Km)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	7.908	Cum	**2492.58**	19712.52			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**19712.52**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		New HR Cum Bridge is proposed here							
		AOC FOR BRIDGE (Ch.4.000 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	2.24	Cum	**5021.30**	11264.42	0.26	0.72	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	20.385	Sqm	**340.20**	6934.99	1.057	0.298	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	2.926	Sqm	**63.20**	184.93	0.004		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.015	Cum	**1075.00**	1091.65			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.320	MT	**742.00**	979.13			
		Brick (15 km lead)	1121.00	No.	**3.18**	3564.78			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**24019.89**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.02	Cum	**584.64**	593.69	59.37		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**59.37**		
		AOC FOR FALL/ BRIDGE / HR FOR MALI MR. (Ch.4.520 Km)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	8.775	Cum	**2492.58**	21872.39			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		TOTAL (In Rs.)				**21872.39**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR FALL/ CULVERT (Ch.5.030 Km)							
1	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	0.49	Cum	**6381.70**	3111.08	0.16	0.22	0.44
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.94	Cum	**5021.30**	4744.53	0.11	0.30	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	9.449	Sqm	**340.20**	3214.48	0.490	0.138	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	9.449	Sqm	**63.20**	597.16	0.01		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.660	Cum	**1075.00**	709.17			
		Coarse Aggregates (100 Km lead)	0.439	Cum	**1398.00**	613.37			
		Cement (30 km lead)	0.771	MT	**742.00**	571.93			
		Brick (15 km lead)	472.00	No.	**3.18**	1500.96			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**15062.68**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.66	Cum	**584.64**	385.68	38.57		
		Coarse Aggregate	0.44	Cum	**944.26**	414.29	41.43		
		Total					**80.00**		
		AOC FOR BRIDGE (Ch.5.380 Km)							
1	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	5.31	Cum	**6381.70**	33903.83	1.72	2.39	4.78
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	2.391	Cum	**1075.00**	2570.00			
		Coarse Aggregates (100 Km lead)	4.781	Cum	**1398.00**	6684.39			
		Cement (30 km lead)	1.721	MT	**742.00**	1277.21			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**44435.43**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	2.39	Cum	**584.64**	1397.70	139.77		
		Coarse Aggregate	4.78	Cum	**944.26**	4514.88	451.49		
		Total					**591.26**		
		AOC FOR FALL/BRIDGE (Ch.5.710 Km)							
1	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	3.52	Cum	**6381.70**	22466.39	1.14	1.58	3.17

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
2	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	12.796	Cum	**6914.20**	88474.10	5.28	5.50	11.00
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	7.086	Cum	**1075.00**	7617.96			
		Coarse Aggregates (100 Km lead)	14.173	Cum	**1398.00**	19813.79			
		Cement (30 km lead)	6.419	MT	**742.00**	4762.88			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**143135.13**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	7.09	Cum	**584.64**	4143.04	414.30		
		Coarse Aggregate	14.17	Cum	**944.26**	13382.96	1338.30		
		Total					**1752.60**		
		AOC FOR FALL (Ch.6.560 Km)							
1	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	3.515	Cum	**6914.20**	24303.04	1.45	1.51	3.02
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.511	Cum	**1075.00**	1624.78			
		Coarse Aggregates (100 Km lead)	3.023	Cum	**1398.00**	4225.95			
		Cement (30 km lead)	1.450	MT	**742.00**	1075.84			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**31229.61**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.51	Cum	**584.64**	883.64	88.36		
		Coarse Aggregate	3.02	Cum	**944.26**	2854.36	285.44		
		Total					**373.80**		
		AOC FOR BRIDGE / HR FOR THUMBHI MR./FALL (Ch.7.260 Km)							
1	RCD 8.09	Providing and applying two Coates of ready mix paint of approved brand on steel surface after through cleaning of surface to give an even shade.	17.319	Sqm	**91.7**	1588.19			
2	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	3.978	Cum	**6914.20**	27506.26	1.64	1.71	3.42
3	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	2.625	Cum	**2492.58**	6543.02			
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.711	Cum	**1075.00**	1838.94			
		Coarse Aggregates (100 Km lead)	3.421	Cum	**1398.00**	4782.94			
		Cement (30 km lead)	1.641	MT	**742.00**	1217.64			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**43476.99**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.71	Cum	**584.64**	1000.11	100.01		
		Coarse Aggregate	3.42	Cum	**944.26**	3230.57	323.06		
		Total					**423.07**		
		AOC FOR FALL /BRIDGE (Ch.8.200Km)							

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	4.067	Cum	**2492.58**	10136.13			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**10136.13**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR FALL/BRIDGE (Ch.8.900Km)							
1	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	12.146	Cum	**6914.20**	83982.65	5.01	5.22	10.45
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	5.223	Cum	**1075.00**	5614.67			
		Coarse Aggregates (100 Km lead)	10.446	Cum	**1398.00**	14603.38			
		Cement (30 km lead)	5.010	MT	**742.00**	3717.71			
		TOTAL (In Rs.)				**107918.41**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	5.22	Cum	**584.64**	3053.55	305.35		
		Coarse Aggregate	10.45	Cum	**944.26**	9863.65	986.37		
		Total					**1291.72**		
		AOC FOR BRIDGE (Ch.9.000Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	2.94	Cum	**5021.30**	14784.56	0.34	0.94	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	20.940	Sqm	**340.20**	7123.71	1.086	0.306	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	20.940	Sqm	**63.20**	1323.39	0.031		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.248	Cum	**1075.00**	1341.51			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.456	MT	**742.00**	1080.44			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**25653.61**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.25	Cum	**584.64**	729.58	72.96		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**72.96**		
		AOC FOR BRIDGE (Ch.9.245Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.85	Cum	**5021.30**	9297.74	0.21	0.59	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	9.053	Sqm	**340.20**	3079.68	0.469	0.132	

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	1.646	Sqm	**63.20**	104.02	0.002		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.725	Cum	**1075.00**	779.05			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.685	MT	**742.00**	508.32			
		Brick (15 km lead)	925.00	No.	**3.18**	2941.50			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**16710.31**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.72	Cum	**584.64**	423.69	42.37		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**42.37**		
		AOC FOR BRIDGE/FALL (Ch.10.600Km)							
1	5.3.11	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.014	Cum	**8151.40**	8267.25	0.58	0.40	0.80
2	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	12.864	Cum	**6914.20**	88942.11	5.31	5.53	11.06
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	5.927	Cum	**1075.00**	6371.45			
		Coarse Aggregates (100 Km lead)	11.864	Cum	**1398.00**	16585.87			
		Cement (30 km lead)	5.881	MT	**742.00**	4363.95			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**124530.63**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	5.93	Cum	**584.64**	3465.12	346.51		
		Coarse Aggregate	11.86	Cum	**944.26**	11202.70	1120.27		
		Total					**1466.78**		
		AOC FOR FALL (Ch.11.300Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.21	Cum	**5021.30**	1033.08	0.02	0.07	
2	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	3.232	Cum	**6914.20**	22345.06	1.33	1.39	2.78
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.455	Cum	**1075.00**	1564.66			
		Coarse Aggregates (100 Km lead)	2.779	Cum	**1398.00**	3885.49			
		Cement (30 km lead)	1.357	MT	**742.00**	1006.75			
		Brick (15 km lead)	102.00	No.	**3.18**	324.36			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**30159.40**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.46	Cum	**584.64**	850.94	85.09		
		Coarse Aggregate	2.78	Cum	**944.26**	2624.40	262.44		
		Total					**347.53**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
AOC FOR BRIDGE (Ch.11.480 Km)									
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.85	Cum	**5021.30**	9297.74	0.21	0.59	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	9.053	Sqm	**340.20**	3079.68	0.469	0.132	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	1.646	Sqm	**63.20**	104.02	0.002		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.725	Cum	**1075.00**	779.05			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.685	MT	**742.00**	508.32			
		Brick (15 km lead)	925.00	No.	**3.18**	2941.50			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
TOTAL (In Rs.)						**16710.31**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.72	Cum	**584.64**	423.69	42.37		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**42.37**		
AOC FOR BRIDGE/FALL/HR FOR SOTHIDIH MR. (Ch.12.000 Km)									
1	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	7.00	Cum	**6381.70**	44671.90	2.27	3.15	6.30
2	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	60.000	Sqm	**578.60**	34716.00			
3	WRD 5.3.22	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.14	Mt	**73574.90**	10107.35			
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	3.150	Cum	**1075.00**	3386.25			
		Coarse Aggregates (100 Km lead)	6.300	Cum	**1398.00**	8807.40			
		Cement (30 km lead)	2.268	MT	**742.00**	1682.86			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.14	MT	**742.00**	101.93			
TOTAL (In Rs.)						**103473.69**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	3.15	Cum	**584.64**	1841.62	184.16		
		Coarse Aggregate	6.30	Cum	**944.26**	5948.84	594.88		
		Total					**779.05**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		AOC FOR FALL/BRIDGE (Ch.13.200 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	180.000	Sqm	**11.80**	2124.79			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	22.800	Sqm	**340.20**	7756.56	1.182	0.333	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	22.800	Sqm	**63.20**	1440.96	0.03		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.333	Cum	**1075.00**	357.85			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.216	MT	**742.00**	902.38			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**12582.54**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.33	Cum	**584.64**	194.61	19.46		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**19.46**		
		AOC FOR FALL(Ch.13.500 Km)							
1	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	52.800	Sqm	**340.20**	17962.56	2.737	0.771	
2	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	52.800	Sqm	**63.20**	3336.96	0.08		
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.771	Cum	**1075.00**	828.70			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	2.816	MT	**742.00**	2089.73			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**24217.95**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.77	Cum	**584.64**	450.69	45.07		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**45.07**		
		AOC FOR BRIDGE. (Ch.14.535) Km							
1	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	1.00	Cum	**6381.70**	6365.26	0.32	0.45	0.90
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.449	Cum	**1075.00**	482.50			
		Coarse Aggregates (100 Km lead)	0.898	Cum	**1398.00**	1254.96			
		Cement (30 km lead)	0.323	MT	**742.00**	239.79			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**8342.51**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.45	Cum	**584.64**	262.41	26.24		
		Coarse Aggregate	0.90	Cum	**944.26**	847.64	84.76		
		Total					**111.01**		
		AOC FOR FALL (Ch.14.780 Km)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	11.540	Cum	**2492.58**	28764.66			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**28764.66**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR BRIDGE/FALL (Ch.15.550 Km)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	10.404	Cum	**2492.58**	25931.78			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**25931.78**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR FALL(Ch.16.970 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.21	Cum	**5021.30**	1033.08	0.02	0.07	
2	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	3.232	Cum	**6914.20**	22345.06	1.33	1.39	2.78
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.455	Cum	**1075.00**	1564.66			
		Coarse Aggregates (100 Km lead)	2.779	Cum	**1398.00**	3885.49			
		Cement (30 km lead)	1.357	MT	**742.00**	1006.75			
		Brick (15 km lead)	102.00	No.	**3.18**	324.36			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**30159.40**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.46	Cum	**584.64**	850.94	85.09		
		Coarse Aggregate	2.78	Cum	**944.26**	2624.40	262.44		
		Total					**347.53**		
		AOC FOR PIPE CULVERT(Ch.17.220 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	2.16	Cum	**6381.70**	13784.47	0.70	0.97	1.94
3	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	10.680	Sqm	**578.60**	6179.45			
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.972	Cum	**1075.00**	1044.90			
		Coarse Aggregates (100 Km lead)	1.944	Cum	**1398.00**	2717.71			
		Cement (30 km lead)	0.700	MT	**742.00**	519.28			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**25662.34**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Coarse Sand	0.97	Cum	**584.64**	568.27	56.83		
		Coarse Aggregate	1.94	Cum	**944.26**	1835.64	183.56		
		Total					**240.39**		
		AOC FOR CD WORK (Ch.17.780 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	150.000	Sqm	**11.80**	1770.66			
2	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	0.76	Cum	**6381.70**	4824.57	0.24	0.34	0.68
3	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	4.440	Sqm	**578.60**	2568.98			
4	WRD 5.3.22	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.01	Mt	**73574.90**	1091.59			
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.340	Cum	**1075.00**	365.72			
		Coarse Aggregates (100 Km lead)	0.680	Cum	**1398.00**	951.20			
		Cement (30 km lead)	0.245	MT	**742.00**	181.75			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.01	MT	**742.00**	11.01			
		TOTAL (In Rs.)				**11765.47**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.34	Cum	**584.64**	198.89	19.89		
		Coarse Aggregate	0.68	Cum	**944.26**	642.47	64.25		
		Total					**84.14**		
		AOC FOR FALL (Ch.18.280 Km)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	11.127	Cum	**2492.58**	27734.77			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**27734.77**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR CD WORK (Ch.18.290 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	160.000	Sqm	**11.80**	1888.70			
2	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	0.90	Cum	**6381.70**	5743.53	0.29	0.41	0.81
3	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	4.900	Sqm	**578.60**	2835.14			
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.405	Cum	**1075.00**	435.38			
		Coarse Aggregates (100 Km lead)	0.810	Cum	**1398.00**	1132.38			
		Cement (30 km lead)	0.292	MT	**742.00**	216.37			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**12251.49**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.41	Cum	**584.64**	236.78	23.68		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Coarse Aggregate	0.81	Cum	**944.26**	764.85	76.49		
		Total					**100.16**		
		AOC FOR CULVERT (Ch.18.600 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	2.25	Cum	**5021.30**	11297.93	0.26	0.72	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	32.050	Sqm	**340.20**	10903.41	1.661	0.468	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	32.050	Sqm	**63.20**	2025.56	0.048		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.188	Cum	**1075.00**	1277.02			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.969	MT	**742.00**	1460.81			
		Brick (15 km lead)	1125.00	No.	**3.18**	3577.50			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**30542.23**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.19	Cum	**584.64**	694.51	69.45		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**69.45**		
		AOC FOR BRIDGE/FALL (Ch.19.025 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.36	Cum	**5021.30**	6819.07	0.16	0.43	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	5.225	Sqm	**340.20**	1777.54	0.271	0.076	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	1.414	Sqm	**63.20**	89.38	0.00		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.511	Cum	**1075.00**	549.17			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.429	MT	**742.00**	318.64			
		Brick (15 km lead)	679.00	No.	**3.18**	2159.22			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**11713.01**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.51	Cum	**584.64**	298.67	29.87		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**29.87**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST OF REPAIRED STRUCTURES OF BARIAWA MR.									
AOC FOR CULVERT (Ch.-0.040 Km)									
1	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	37.640	Sqm	**340.20**	12805.13	1.951	0.550	
2	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	37.640	Sqm	**63.20**	2378.85	0.06		
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.550	Cum	**1075.00**	590.76			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	2.008	MT	**742.00**	1489.73			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
TOTAL (In Rs.)						**17264.46**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.55	Cum	**584.64**	321.29	32.13		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**32.13**		
AOC FOR FALL (Ch.-0.305 Km)									
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.58	Cum	**5021.30**	2928.75	0.07	0.19	
2	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	6.948	Cum	**6914.20**	48038.56	2.87	2.99	5.98
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	3.174	Cum	**1075.00**	3412.27			
		Coarse Aggregates (100 Km lead)	5.975	Cum	**1398.00**	8353.22			
		Cement (30 km lead)	2.933	MT	**742.00**	2176.41			
		Brick (15 km lead)	291.00	No.	**3.18**	925.38			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
TOTAL (In Rs.)						**65834.59**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	3.17	Cum	**584.64**	1855.77	185.58		
		Coarse Aggregate	5.98	Cum	**944.26**	5642.07	564.21		
		Total					**749.78**		
AOC FOR FALL (Ch.-0.760 Km)									
1	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	4.962	Cum	**6914.20**	34307.57	2.05	2.13	4.27
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	2.134	Cum	**1075.00**	2293.64			
		Coarse Aggregates (100 Km lead)	4.267	Cum	**1398.00**	5965.59			
		Cement (30 km lead)	2.047	MT	**742.00**	1518.71			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
TOTAL (In Rs.)						**44085.52**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	2.13	Cum	**584.64**	1247.40	124.74		
		Coarse Aggregate	4.27	Cum	**944.26**	4029.38	402.94		
		Total					**527.68**		
AOC FOR AQUEDUCT (Ch.-0.940 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	150.000	Sqm	**11.80**	1770.66			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	97.060	Sqm	**340.20**	33019.81	5.032	1.417	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	97.060	Sqm	**63.20**	6134.19	0.15		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.417	Cum	**1075.00**	1523.36			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	5.177	MT	**742.00**	3841.47			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		TOTAL (In Rs.)				**46289.49**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.42	Cum	**584.64**	828.48	82.85		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**82.85**		
		AOC FOR CULVERT (Ch.-1.375 Km)							
1	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	42.310	Sqm	**340.20**	14393.86	2.193	0.618	
2	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	42.310	Sqm	**63.20**	2673.99	0.06		
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.618	Cum	**1075.00**	664.06			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	2.257	MT	**742.00**	1674.56			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**19406.47**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.62	Cum	**584.64**	361.15	36.11		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**36.11**		
		AOC FOR FALL/CULVERT (Ch.-1.650 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	150.000	Sqm	**11.80**	1770.66			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	24.000	Sqm	**340.20**	8164.80	1.244	0.350	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	24.000	Sqm	**63.20**	1516.80	0.04		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.350	Cum	**1075.00**	376.68			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.280	MT	**742.00**	949.88			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		TOTAL (In Rs.)				**12778.82**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.35	Cum	**584.64**	204.86	20.49		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**20.49**		
		AOC FOR FALL/CULVERT (Ch.-2.570 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.000	Sqm	**11.80**	1180.44			
2	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	2.140	Cum	**6914.20**	14799.34	0.88	0.92	1.84

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.920	Cum	**1075.00**	989.41			
		Coarse Aggregates (100 Km lead)	1.841	Cum	**1398.00**	2573.39			
		Cement (30 km lead)	0.883	MT	**742.00**	655.13			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**20197.72**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.92	Cum	**584.64**	538.09	53.81		
		Coarse Aggregate	1.84	Cum	**944.26**	1738.16	173.82		
		Total					**227.63**		
		AOC FOR FALL/CULVERT (Ch.-3.500 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	4.201	Cum	**6914.20**	29049.91	1.73	1.81	3.61
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.807	Cum	**1075.00**	1942.14			
		Coarse Aggregates (100 Km lead)	3.613	Cum	**1398.00**	5051.36			
		Cement (30 km lead)	1.733	MT	**742.00**	1285.97			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**38745.90**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.81	Cum	**584.64**	1056.23	105.62		
		Coarse Aggregate	3.61	Cum	**944.26**	3411.87	341.19		
		Total					**446.81**		
		AOC FOR FALL/CULVERT (Ch.-4.400 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.47	Cum	**5021.30**	7392.28	0.17	0.47	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	13.378	Sqm	**340.20**	4551.08	0.693	0.195	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	1.920	Sqm	**63.20**	121.36	0.00		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.666	Cum	**1075.00**	716.39			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.866	MT	**742.00**	642.55			
		Brick (15 km lead)	736.00	No.	**3.18**	2340.48			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**15764.15**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.67	Cum	**584.64**	389.61	38.96		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**38.96**		
		AOC FOR FALL/CULVERT (Ch.-4.990 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.28	Cum	**5021.30**	6413.68	0.15	0.41	

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	11.607	Sqm	**340.20**	3948.61	0.602	0.169	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	1.666	Sqm	**63.20**	105.29	0.00		
4	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	2.780	Cum	**6914.20**	19219.93	1.15	1.20	2.39
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.773	Cum	**1075.00**	1906.51			
		Coarse Aggregates (100 Km lead)	2.391	Cum	**1398.00**	3342.07			
		Cement (30 km lead)	1.898	MT	**742.00**	1408.31			
		Brick (15 km lead)	638.00	No.	**3.18**	2028.84			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**38373.24**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.77	Cum	**584.64**	1036.86	103.69		
		Coarse Aggregate	2.39	Cum	**944.26**	2257.35	225.74		
		Total					**329.42**		
		AOC FOR FALL/CULVERT (Ch.-5.510 Km)							
1	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.679	Cum	**6914.20**	11607.82	0.69	0.72	1.44
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.722	Cum	**1075.00**	776.04			
		Coarse Aggregates (100 Km lead)	1.444	Cum	**1398.00**	2018.43			
		Cement (30 km lead)	0.693	MT	**742.00**	513.85			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**14916.15**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.72	Cum	**584.64**	422.05	42.21		
		Coarse Aggregate	1.44	Cum	**944.26**	1363.32	136.33		
		Total					**178.54**		
		AOC FOR PIPE CULVERT (Ch.-5.800 Km)							
1	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	26.060	Sqm	**340.20**	8865.75	1.351	0.380	
2	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	26.060	Sqm	**63.20**	1647.02	0.04		
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.380	Cum	**1075.00**	409.02			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.390	MT	**742.00**	1031.43			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**11953.21**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.38	Cum	**584.64**	222.44	22.24		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**22.24**		
		AOC FOR FALL/CULVERT (Ch.-6.560 Km)							

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.25	Cum	**5021.30**	6290.32	0.14	0.40	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	11.851	Sqm	**340.20**	4031.58	0.614	0.173	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	2.195	Sqm	**63.20**	138.70	0.00		
4	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	0.54	Cum	**6381.70**	3446.12	0.17	0.24	0.49
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.817	Cum	**1075.00**	878.16			
		Coarse Aggregates (100 Km lead)	0.486	Cum	**1398.00**	679.43			
		Cement (30 km lead)	0.937	MT	**742.00**	695.18			
		Brick (15 km lead)	626.00	No.	**3.18**	1990.68			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**18150.17**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.82	Cum	**584.64**	477.59	47.76		
		Coarse Aggregate	0.49	Cum	**944.26**	458.91	45.89		
		Total					**93.65**		
		AOC FOR PIPE CULVERT (Ch.-6.830 Km)							
		New Structure has been proposed							

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST OF REPAIRED STRUCTURES OF ITMA MR									
AOC FOR FALL (Ch.-0.300 Km)									
1	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	13.000	Sqm	**340.20**	4422.60	0.674	0.190	
2	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	13.000	Sqm	**63.20**	821.60	0.02		
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.190	Cum	**1075.00**	204.04			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.693	MT	**742.00**	514.52			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
TOTAL (In Rs.)						**5962.75**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.19	Cum	**584.64**	110.96	11.10		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**11.10**		
AOC FOR FALL/BRIDGE (Ch.-0.900 Km)									
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	10.727	Cum	**2492.58**	26738.07			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
TOTAL (In Rs.)						**26738.07**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
AOC FOR BRIDGE (Ch.-1.650 Km)									
1	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	29.261	Sqm	**340.20**	9954.52	1.517	0.427	
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.427	Cum	**1075.00**	459.25			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.517	MT	**742.00**	1125.52			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
TOTAL (In Rs.)						**11539.30**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.43	Cum	**584.64**	249.76	24.98		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**24.98**		
AOC FOR FALL (Ch.-1.895 Km)									
1	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	48.880	Sqm	**340.20**	16628.98	2.534	0.714	
2	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	48.880	Sqm	**63.20**	3089.22	0.07		
3	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.946	Cum	**6914.20**	13453.95	0.80	0.84	1.67

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
4	WRD 5.3.22	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.04	Mt	**73574.90**	2809.62			
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.550	Cum	**1075.00**	1666.64			
		Coarse Aggregates (100 Km lead)	1.673	Cum	**1398.00**	2339.45			
		Cement (30 km lead)	3.410	MT	**742.00**	2530.16			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.04	MT	**742.00**	28.33			
		TOTAL (In Rs.)				**42546.34**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.55	Cum	**584.64**	906.40	90.64		
		Coarse Aggregate	1.67	Cum	**944.26**	1580.15	158.01		
		Total					**248.66**		
		AOC FOR BRIDGE (Ch.-2.265 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.82	Cum	**5021.30**	4132.33	0.09	0.26	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	8.412	Sqm	**340.20**	2861.93	0.436	0.123	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	2.195	Sqm	**63.20**	138.70	0.00		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.386	Cum	**1075.00**	415.13			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.534	MT	**742.00**	396.38			
		Brick (15 km lead)	411.00	No.	**3.18**	1306.98			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**9251.44**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.39	Cum	**584.64**	225.77	22.58		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**22.58**		
		AOC FOR FALL(Ch.-2.580 Km)							
1	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	2.789	Cum	**6914.20**	19283.99	1.15	1.20	2.40
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.199	Cum	**1075.00**	1289.23			
		Coarse Aggregates (100 Km lead)	2.399	Cum	**1398.00**	3353.21			
		Cement (30 km lead)	1.150	MT	**742.00**	853.66			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**24780.09**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.20	Cum	**584.64**	701.15	70.12		
		Coarse Aggregate	2.40	Cum	**944.26**	2264.88	226.49		
		Total					**296.60**		
		AOC FOR FALL(Ch.-3.000 Km)							
1	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	1.88	Cum	**6381.70**	11986.56	0.61	0.85	1.69

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
2	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	11.760	Sqm	**578.60**	6804.34			
3	WRD 5.3.22	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.04	Mt	**73574.90**	2712.05			
4	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.112	Cum	**6914.20**	7687.97	0.46	0.48	0.96
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.323	Cum	**1075.00**	1422.59			
		Coarse Aggregates (100 Km lead)	2.647	Cum	**1398.00**	3700.07			
		Cement (30 km lead)	1.067	MT	**742.00**	791.88			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.04	MT	**742.00**	27.35			
		TOTAL (In Rs.)				**35132.81**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.32	Cum	**584.64**	773.68	77.37		
		Coarse Aggregate	2.65	Cum	**944.26**	2499.16	249.92		
		Total					**327.28**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		AOC FOR BRIDGE (Ch.-3.445 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.12	Cum	**5021.30**	5632.21	0.13	0.36	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	10.193	Sqm	**340.20**	3467.49	0.528	0.149	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	1.463	Sqm	**63.20**	92.46	0.00		
4	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	2.56	Cum	**6381.70**	16339.19	0.83	1.15	2.30
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.660	Cum	**1075.00**	1784.38			
		Coarse Aggregates (100 Km lead)	2.304	Cum	**1398.00**	3221.39			
		Cement (30 km lead)	1.489	MT	**742.00**	1105.09			
		Brick (15 km lead)	560.00	No.	**3.18**	1780.80			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**33423.02**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.66	Cum	**584.64**	970.44	97.04		
		Coarse Aggregate	2.30	Cum	**944.26**	2175.85	217.58		
		Total					**314.63**		
		AOC FOR BRIDGE (Ch.-4.225 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.98	Cum	**5021.30**	4928.19	0.11	0.31	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	8.918	Sqm	**340.20**	3034.06	0.462	0.130	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	1.280	Sqm	**63.20**	80.91	0.00		
4	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	2.159	Cum	**6914.20**	14928.11	0.89	0.93	1.86
5	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	2.24	Cum	**6381.70**	14296.79	0.73	1.01	2.02
6		**Carriage of materials**							
		Coarse Sand (60 Km lead)	2.381	Cum	**1075.00**	2559.35			
		Coarse Aggregates (100 Km lead)	3.873	Cum	**1398.00**	5414.50			
		Cement (30 km lead)	2.194	MT	**742.00**	1627.78			
		Brick (15 km lead)	490.00	No.	**3.18**	1558.20			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**48427.89**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	2.38	Cum	**584.64**	1391.91	139.19		
		Coarse Aggregate	3.87	Cum	**944.26**	3657.15	365.72		
		Total					**504.91**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST OF REPAIRED STRUCTURES OF MALI MR									
AOC FOR FALL (Ch.-0.060 Km									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	150.000	Sqm	**11.80**	1770.66			
2	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	460.725	Sqm	**63.20**	29117.80	0.69		
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.691	MT	**742.00**	512.79			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
TOTAL (In Rs.)						**31401.25**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
AOC FOR FALL/BRIDGE (Ch.-0.610 Km)									
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.49	Cum	**5021.30**	2464.09	0.06	0.16	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	4.459	Sqm	**340.20**	1517.03	0.231	0.065	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	1.280	Sqm	**63.20**	80.91	0.00		
4	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	3.591	Cum	**6914.20**	24827.85	1.48	1.54	3.09
6		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.766	Cum	**1075.00**	1898.67			
		Coarse Aggregates (100 Km lead)	3.088	Cum	**1398.00**	4317.21			
		Cement (30 km lead)	1.771	MT	**742.00**	1313.97			
		Brick (15 km lead)	245.00	No.	**3.18**	779.10			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
TOTAL (In Rs.)						**37198.81**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.77	Cum	**584.64**	1032.59	103.26		
		Coarse Aggregate	3.09	Cum	**944.26**	2916.00	291.60		
		Total					**394.86**		
AOC FOR FALL (Ch.-1.370 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	15.174	Sqm	**11.80**	179.12			
2	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.255	Cum	**6914.20**	1763.12	0.11	0.11	0.22
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.110	Cum	**1075.00**	117.87			
		Coarse Aggregates (100 Km lead)	0.219	Cum	**1398.00**	306.58			
		Cement (30 km lead)	0.105	MT	**742.00**	78.05			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
TOTAL (In Rs.)						**2444.74**			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.11	Cum	**584.64**	64.11	6.41		
		Coarse Aggregate	0.22	Cum	**944.26**	207.08	20.71		
		Total					**27.12**		
		AOC FOR PIPE CULVERT (Ch.-1.580 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	90.000	Sqm	**11.80**	1062.40			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.26	Cum	**5021.30**	1280.43	0.03	0.08	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	8.751	Sqm	**340.20**	2977.02	0.454	0.128	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	1.811	Sqm	**63.20**	114.42	0.00		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.209	Cum	**1075.00**	225.06			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.486	MT	**742.00**	360.41			
		Brick (15 km lead)	127.00	No.	**3.18**	403.86			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**6423.61**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.21	Cum	**584.64**	122.40	12.24		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**12.24**		
		AOC FOR FALL/BRIDGE (Ch.-2.000 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.000	Sqm	**11.80**	1180.44			
2	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.251	Cum	**6914.20**	8648.97	0.52	0.54	1.08
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.538	Cum	**1075.00**	578.23			
		Coarse Aggregates (100 Km lead)	1.076	Cum	**1398.00**	1503.93			
		Cement (30 km lead)	0.516	MT	**742.00**	382.87			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**12294.43**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.54	Cum	**584.64**	314.47	31.45		
		Coarse Aggregate	1.08	Cum	**944.26**	1015.81	101.58		
		Total					**133.03**		
		AOC FOR FALL/CULVERT (Ch.-2.800 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.30	Cum	**5021.30**	6547.45	0.15	0.42	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	12.613	Sqm	**340.20**	4291.02	0.654	0.184	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	1.811	Sqm	**63.20**	114.42	0.00		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
4	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.773	Cum	**6914.20**	5346.02	0.32	0.33	0.66
5	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	4.358	Sqm	**578.60**	2521.52			
6	WRD 5.3.22	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.02	Mt	**73574.90**	1116.42			
7		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.934	Cum	**1075.00**	1003.93			
		Coarse Aggregates (100 Km lead)	0.665	Cum	**1398.00**	929.60			
		Cement (30 km lead)	1.126	MT	**742.00**	835.30			
		Brick (15 km lead)	651.00	No.	**3.18**	2070.18			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**24775.86**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.93	Cum	**584.64**	545.99	54.60		
		Coarse Aggregate	0.66	Cum	**944.26**	627.88	62.79		
		Total					**117.39**		
		AOC FOR FALL(Ch.-3.755 Km)							
1	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.865	Cum	**6914.20**	5977.40	0.36	0.37	0.74
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.372	Cum	**1075.00**	399.62			
		Coarse Aggregates (100 Km lead)	0.743	Cum	**1398.00**	1039.38			
		Cement (30 km lead)	0.357	MT	**742.00**	264.61			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**7681.01**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.37	Cum	**584.64**	217.33	21.73		
		Coarse Aggregate	0.74	Cum	**944.26**	702.04	70.20		
		Total					**91.94**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST OF REPAIRED STRUCTURES OF THUMBHI MR.									
AOC FOR FALL (Ch.-0.055 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	3.692	Cum	**6914.20**	25526.47	1.52	1.59	3.18
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.588	Cum	**1075.00**	1706.58			
		Coarse Aggregates (100 Km lead)	3.175	Cum	**1398.00**	4438.69			
		Cement (30 km lead)	1.523	MT	**742.00**	1130.00			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
TOTAL (In Rs.)						**34218.25**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.59	Cum	**584.64**	928.12	92.81		
		Coarse Aggregate	3.18	Cum	**944.26**	2998.05	299.80		
		Total					**392.62**		
AOC FOR BRIDGE/FALL (Ch.-0.545 Km)									
1	**Structure is in good condition and does not requir any repair works.**								
AOC FOR FALL (Ch.-0.965 Km)									
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	17.059	Cum	**2492.58**	42521.79			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
TOTAL (In Rs.)						**42521.79**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
AOC FOR ROAD CROSSING (Ch.-1.750 Km)									
1	**Structure is in good condition and does not requir any repair works.**								
AOC FOR BRIDGE (Ch.-1.950 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.000	Sqm	**11.80**	1180.44			
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	38.494	Sqm	**340.20**	13095.76	1.996	0.562	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	38.494	Sqm	**63.20**	2432.84	0.06		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.562	Cum	**1075.00**	604.17			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	2.053	MT	**742.00**	1523.54			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
TOTAL (In Rs.)						**18836.74**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.56	Cum	**584.64**	328.58	32.86		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**32.86**		
AOC FOR BRIDGE/FALL (Ch.-2.215 Km)									

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.07	Cum	**5021.30**	5397.28	0.12	0.34	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	9.879	Sqm	**340.20**	3360.90	0.512	0.144	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	2.158	Sqm	**63.20**	136.38	0.00		
4	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	3.552	Cum	**6914.20**	24559.15	1.47	1.53	3.05
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	2.016	Cum	**1075.00**	2166.72			
		Coarse Aggregates (100 Km lead)	3.055	Cum	**1398.00**	4270.48			
		Cement (30 km lead)	2.104	MT	**742.00**	1561.46			
		Brick (15 km lead)	537.00	No.	**3.18**	1707.66			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**43160.03**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	2.02	Cum	**584.64**	1178.37	117.84		
		Coarse Aggregate	3.05	Cum	**944.26**	2884.44	288.44		
		Total					**406.28**		
		AOC FOR BRIDGE/FALL (Ch.-2.715Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	150.000	Sqm	**11.80**	1770.66			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.17	Cum	**5021.30**	5877.09	0.13	0.37	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	10.826	Sqm	**340.20**	3683.17	0.561	0.158	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	1.756	Sqm	**63.20**	110.96	0.00		
5	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.399	Cum	**6914.20**	9673.19	0.58	0.60	1.20
6		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.134	Cum	**1075.00**	1219.25			
		Coarse Aggregates (100 Km lead)	1.203	Cum	**1398.00**	1682.03			
		Cement (30 km lead)	1.276	MT	**742.00**	946.65			
		Brick (15 km lead)	585.00	No.	**3.18**	1860.30			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**26823.30**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.13	Cum	**584.64**	663.09	66.31		
		Coarse Aggregate	1.20	Cum	**944.26**	1136.10	113.61		
		Total					**179.92**		
		AOC FOR FALL (Ch.-3.300 Km)							

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	13.599	Cum	**2492.58**	33895.79			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**33895.79**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR FALL (Ch.-4.010 Km)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	1.481	Cum	**2492.58**	3692.33			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**3692.33**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR BRIDGE (Ch.-4.450 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	38.494	Sqm	**340.20**	13095.76	1.996	0.562	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	38.494	Sqm	**63.20**	2432.84	0.06		
4	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.399	Cum	**6914.20**	9673.19	0.58	0.60	1.20
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.164	Cum	**1075.00**	1250.87			
		Coarse Aggregates (100 Km lead)	1.203	Cum	**1398.00**	1682.03			
		Cement (30 km lead)	2.630	MT	**742.00**	1951.75			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**31502.96**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.16	Cum	**584.64**	680.29	68.03		
		Coarse Aggregate	1.20	Cum	**944.26**	1136.10	113.61		
		Total					**181.64**		
		AOC FOR FALL (Ch.-5.010 Km)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	17.960	Cum	**2492.58**	44767.41			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**44767.41**			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR BRIDGE (Ch.-5.240 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.08	Cum	**5021.30**	5408.76	0.12	0.34	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	10.035	Sqm	**340.20**	3413.78	0.520	0.147	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	1.701	Sqm	**63.20**	107.49	0.00		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.491	Cum	**1075.00**	528.04			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.647	MT	**742.00**	479.95			
		Brick (15 km lead)	538.00	No.	**3.18**	1710.84			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**11648.86**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.49	Cum	**584.64**	287.17	28.72		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**28.72**		
		AOC FOR PIPE CULVERT (Ch.-5.545 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	2.46	Cum	**6381.70**	15667.07	0.80	1.10	2.21
3	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	16.560	Sqm	**578.60**	9581.62			
4	WRD 5.3.22	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.05	Mt	**73574.90**	3544.79			
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.105	Cum	**1075.00**	1187.61			
		Coarse Aggregates (100 Km lead)	2.210	Cum	**1398.00**	3088.88			
		Cement (30 km lead)	0.795	MT	**742.00**	590.20			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.05	MT	**742.00**	35.75			
		TOTAL (In Rs.)				**35112.45**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.10	Cum	**584.64**	645.88	64.59		
		Coarse Aggregate	2.21	Cum	**944.26**	2086.34	208.63		
		Total					**273.22**		
		AOC FOR FALL (Ch.-5.755 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	0.47	Cum	**6381.70**	3015.35	0.15	0.21	0.43

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
5	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	6.507	Cum	**6914.20**	44994.02	2.68	2.80	5.60
6		**Carriage of materials**							
		Coarse Sand (60 Km lead)	3.011	Cum	**1075.00**	3236.65			
		Coarse Aggregates (100 Km lead)	6.022	Cum	**1398.00**	8418.31			
		Cement (30 km lead)	2.837	MT	**742.00**	2105.37			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
TOTAL (In Rs.)						**63186.24**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	3.01	Cum	**584.64**	1760.26	176.03		
		Coarse Aggregate	6.02	Cum	**944.26**	5686.03	568.60		
		Total					**744.63**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST OF REPAIRED STRUCTURES OF SOTHIDIH MR									
AOC FOR CD WORK (Ch.-0.180 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	180.000	Sqm	**11.80**	2124.79			
2	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	72.420	Sqm	**63.20**	4576.97	0.109		
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.109	MT	**742.00**	80.60			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**6782.37**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
AOC FOR CD WORK (Ch.-0.310 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	200.000	Sqm	**11.80**	2360.88			
2	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	72.420	Sqm	**63.20**	4576.97	0.109		
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.109	MT	**742.00**	80.60			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**7018.46**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
AOC FOR PIPE CULVERT (Ch.-0.330 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	180.000	Sqm	**11.80**	2124.79			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	13.859	Sqm	**340.20**	4714.76	0.718	0.202	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	13.859	Sqm	**63.20**	875.88	0.021		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.202	Cum	**1075.00**	217.51			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.739	MT	**742.00**	548.51			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**8481.45**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.20	Cum	**584.64**	118.30	11.83		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**11.83**		
AOC FOR PIPE LINE (Ch.-0.535 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	180.000	Sqm	**11.80**	2124.79			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	49.175	Sqm	**340.20**	16729.34	2.549	0.718	

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	49.175	Sqm	**63.20**	3107.86	0.074		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.718	Cum	**1075.00**	771.80			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	2.623	MT	**742.00**	1946.26			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**24680.05**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.72	Cum	**584.64**	419.75	41.97		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**41.97**		
		AOC FOR CD WORK (Ch.-0.585 Km)							
1	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	23.335	Sqm	**340.20**	7938.73	1.210	0.341	
2	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	23.335	Sqm	**63.20**	1474.80	0.04		
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.341	Cum	**1075.00**	366.25			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.245	MT	**742.00**	923.58			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**10703.36**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.34	Cum	**584.64**	199.19	19.92		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**19.92**		
		AOC FOR PPIPE CULVERT (Ch.-0.640 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	140.000	Sqm	**11.80**	1652.61			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	23.500	Sqm	**340.20**	7994.70	1.218	0.343	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	23.500	Sqm	**63.20**	1485.20	0.035		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.343	Cum	**1075.00**	368.83			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.253	MT	**742.00**	930.09			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**12431.44**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.34	Cum	**584.64**	200.59	20.06		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**20.06**		
		AOC FOR CD WORK (Ch.-0.810 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	23.500	Sqm	**340.20**	7994.70	1.218	0.343	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	23.500	Sqm	**63.20**	1485.20	0.035		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.343	Cum	**1075.00**	368.83			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.253	MT	**742.00**	930.09			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**12195.35**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.34	Cum	**584.64**	200.59	20.06		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**20.06**		
		AOC FOR BRIDGE (Ch.-0.830 Km)							
1	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	24.500	Sqm	**340.20**	8334.90	1.270	0.358	
2	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	24.500	Sqm	**63.20**	1548.40	0.037		
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.358	Cum	**1075.00**	384.53			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.307	MT	**742.00**	969.67			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**11237.50**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.36	Cum	**584.64**	209.13	20.91		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**20.91**		
		AOC FOR FALL/BRIDGE (Ch.-1.015 Km)							
1	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.061	Cum	**6914.20**	7333.65	0.44	0.46	0.91
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.456	Cum	**1075.00**	490.29			
		Coarse Aggregates (100 Km lead)	0.912	Cum	**1398.00**	1275.22			
		Cement (30 km lead)	0.438	MT	**742.00**	324.64			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**9423.80**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.46	Cum	**584.64**	266.65	26.66		
		Coarse Aggregate	0.91	Cum	**944.26**	861.33	86.13		
		Total					**112.80**		
		AOC FOR PIPE CULVERT (Ch.-1.560 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	130.000	Sqm	**11.80**	1534.57			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	30.660	Sqm	**340.20**	10430.53	1.589	0.448	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	30.660	Sqm	**63.20**	1937.71	0.046		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.448	Cum	**1075.00**	481.21			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.635	MT	**742.00**	1213.47			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**15597.49**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Coarse Sand	0.45	Cum	**584.64**	261.71	26.17		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**26.17**		
		AOC FOR FALL (Ch.-1.805 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.21	Cum	**5021.30**	1056.04	0.02	0.07	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	2.201	Sqm	**340.20**	748.66	0.114	0.032	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	1.463	Sqm	**63.20**	92.46	0.002		
5	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	3.065	Cum	**6914.20**	21190.14	1.26	1.32	2.64
6		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.417	Cum	**1075.00**	1523.56			
		Coarse Aggregates (100 Km lead)	2.636	Cum	**1398.00**	3684.66			
		Cement (30 km lead)	1.405	MT	**742.00**	1042.29			
		Brick (15 km lead)	105.00	No.	**3.18**	333.90			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**31088.24**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.42	Cum	**584.64**	828.59	82.86		
		Coarse Aggregate	2.64	Cum	**944.26**	2488.75	248.88		
		Total					**331.73**		
		AOC FOR PIPE CULVERT (Ch.-2.450 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.000	Sqm	**11.80**	1180.44			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.96	Cum	**5021.30**	9856.37	0.23	0.63	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	13.350	Sqm	**340.20**	4541.75	0.692	0.195	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	1.829	Sqm	**63.20**	115.58	0.003		
6		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.823	Cum	**1075.00**	884.77			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.921	MT	**742.00**	683.34			
		Brick (15 km lead)	981.00	No.	**3.18**	3119.58			
		Steel (30 Km lead)	0.00	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**20381.84**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.82	Cum	**584.64**	481.19	48.12		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**48.12**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF MAHUARY SUB DISTRIBUTARY								
S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.955 Km)								
1	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Railing	8	0.80		2	*12.80*	*Sqm*
		Parapet Post	4	1.20		1	*4.80*	*Sqm*
		TOTAL					**17.60**	***Sqm***
2	5.5.10	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Abutment Left Side	8	0.80		2	*12.80*	*Sqm*
		Abutment Right Side	4	1.20		1	*4.80*	*Sqm*
		TOTAL					**17.60**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE/HR FOR BARIAWA MR (Ch.-0.975 Km)								
1	5.8.9	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Gate abutment	2	0.45	1.50	3.00	*4.05*	*Cum*
		Gate Bottom	1	0.45	1.50	0.50	*0.34*	*Cum*
		Floor	1	4.00	3.32	0.50	*6.64*	*Cum*
		TOTAL					**11.03**	***Cum***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.1.575 Km)								
1	5.4.6	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Abutment Left Side	1	0.35	0.3	2.7	*0.28*	*Cum*
			1	0.35	0.3	2.45	*0.26*	*Cum*
			1	0.35	0.3	2.2	*0.23*	*Cum*
			1	0.35	0.3	1.95	*0.20*	*Cum*
			1	1.5	0.3	1.7	*0.77*	*Cum*
		TOTAL					**1.74**	**Cum**
2	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Abutment Left Side	1	13.41		2.8	*37.55*	*Sqm*
		Abutment Right Side	1	13.41		2.8	*37.55*	*Sqm*
		TOTAL					**75.10**	***Sqm***
3	5.5.10	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Abutment Left Side	1	13.41		0.5	*6.71*	*Sqm*
		Abutment Right Side	1	13.41		0.5	*6.71*	*Sqm*
		TOTAL					**13.41**	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
4	5.3.5	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	8	4.81584	0.457	*17.61*	*Cum*
		TOTAL					**17.61**	**Cum**
		QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.2.600 Km)						
1	5.4.6	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall D/S	1	5.0292	0.25	0.92	*1.16*	*Cum*
		TOTAL					**1.16**	**Cum**
2	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall D/S	2	5.03		2.09	*21.02*	*Sqm*
		TOTAL					**21.02**	***Sqm***
3	5.5.10	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall D/S	2	5.03		0.3	*3.02*	*Sqm*
		TOTAL					**3.02**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.2.630 Km)						
1	5.4.6	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall D/S	1	4.93776	0.25	0.6	*0.74*	*Cum*
		TOTAL					**0.74**	**Cum**
2	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall D/S	2	4.94		12.25	*120.98*	*Sqm*
		TOTAL					**120.98**	***Sqm***
3	5.5.10	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall D/S	2	4.94		0.3	*2.96*	*Sqm*
		TOTAL					**2.96**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR CROSS DRAINAGE (Ch.-2.645 Km)						
1	5.1.3	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**
		TOTAL					**120.00**	**Sqm**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
2	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Wing Wall	1	4.00	0.45	1.2	*2.16*	*Cum*
		TOTAL					**2.16**	***Cum***
3	**5.3.18**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		Wing Wall	2	4.00		1.2	*9.60*	Sqm
			2		0.45	1.2	*1.08*	Sqm
		TOTAL					**10.68**	**Sqm**
4	**WRD 5.3.22**	**Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.**						
		0.25% skin Reinforcement for Transition Walls	2.16	0.0025	0.005	7850	*42.39*	kg
		TOTAL Weight of Steel (in Kg)					**42.39**	**kg**
		TOTAL Weight of Steel (in Tonne)					**0.04**	**MT**
5	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Wing Wall	4	9.00		1.65	*59.40*	*Sqm*
		Abutment	2	5.00		1.95	*19.50*	*Sqm*
		TOTAL					**78.90**	***Sqm***
6	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Wing Wall	4	9.00		1.65	*59.40*	*Sqm*
		Abutment	2	5.00		1.95	*19.50*	*Sqm*
		TOTAL					**78.90**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR HR FOR ITMA MR.(Ch.-3.985 Km)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Gate abutment	2	0.45	1.50	2.00	*2.70*	*Cum*
		Gate Bottom	1	0.45	1.00	0.50	*0.23*	*Cum*
		Floor	1	3.00	3.32	0.50	*4.98*	*Cum*
		TOTAL					**7.91**	***Cum***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.4.000 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall D/S	2	4.8768	0.25	0.92	*2.24*	*Cum*
		TOTAL					**2.24**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		Parapet Wall D/S	2	4.88		2.09	*20.39*	*Sqm*
		TOTAL					**20.39**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall D/S	2	4.88		0.3	*2.93*	*Sqm*
		TOTAL					**2.93**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL/ BRIDGE / HR FOR MALI MR. (Ch.4.520 Km)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Gate abutment	2	0.45	1.50	2.00	*2.70*	*Cum*
			2	0.45	1.50	1.00	*1.35*	*Cum*
		Gate Bottom	1	0.45	1.00	0.50	*0.23*	*Cum*
		D/S Wing Wall	2	5.00	0.45	1.00	*4.50*	*Cum*
		TOTAL					**8.78**	***Cum***
QUANTITIES OF REPAIRING WORK FOR FALL/ CULVERT (Ch.5.030 Km)								
1	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Pitching in Side slope D/S (Right Side)	1	2.50	1.30	0.15	*0.49*	*Cum*
		TOTAL					**0.49**	***Cum***
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall D/S	2	3.77952	0.25	0.5	*0.94*	*Cum*
		TOTAL					**0.94**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall D/S	2	3.78		1.25	*9.45*	*Sqm*
		TOTAL					**9.45**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall D/S	2	3.78		0.3	*2.27*	*Sqm*
		TOTAL					**2.27**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.5.380 Km)								
1	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		Approach Slab	1	7.00	5.06	0.15	*5.31*	*Cum*
		TOTAL					**5.31**	***Cum***
		QUANTITIES OF REPAIRING WORK FOR FALL/BRIDGE (Ch.5.710 Km)						
1	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Approach Slab	1	7.00	3.35	0.15	*3.52*	*Cum*
		TOTAL					**3.52**	***Cum***
2	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	3.5	8	0.457	*12.80*	*Cum*
		TOTAL					**12.80**	**Cum**
		QUANTITIES OF REPAIRING WORK FOR FALL (Ch.6.560 Km)						
1	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	6.00	3.44	0.15	*3.16*	*Cum*
		Crest	1	3.44	0.34	0.31	*0.35*	*Cum*
		TOTAL					**3.51**	**Cum**
		QUANTITIES OF REPAIRING WORK FOR BRIDGE / HR FOR THUMBHI MR./FALL (Ch.7.260 Km)						
1	**RCD 8.09**	**Providing and applying two Coates of ready mix paint of approved brand on steel surface after through cleaning of surface to give an even shade.**						
		CR Gate Face both side	2	3.38		2	*13.53*	*Sqm*
		Railing	2	3.38		0.02	*0.14*	*Sqm*
		Padestal	1	3.38		1.02	*3.45*	*Sqm*
		Stair	1	2.00		0.1	*0.20*	*Sqm*
		TOTAL					**17.32**	***Sqm***
2	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	7.00	3.38	0.15	*3.60*	*Cum*
		Crest	1	3.38	0.61	0.18	*0.38*	*Cum*
		TOTAL					**3.98**	**Cum**
3	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications**						
		Gate abutment	1	1.50	0.50	2.50	*1.88*	*Cum*
		Gate Bottom	1	1.50	1.00	0.50	*0.75*	*Cum*

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		TOTAL					**2.63**	***Cum***
		QUANTITIES OF REPAIRING WORK FOR FALL /BRIDGE (Ch.8.200Km)						
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Floor	1	8.00	3.32	0.153	*4.07*	*Cum*
		TOTAL					**4.07**	***Cum***
		QUANTITIES OF REPAIRING WORK FOR FALL/BRIDGE (Ch.8.900Km)						
1	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	8.00	3.32	0.46	*12.15*	*Cum*
		TOTAL					**12.15**	**Cum**
		QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.9.000Km)						
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall both Side	2	4.572	0.35	0.92	*2.94*	*Cum*
		TOTAL					**2.94**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall D/S	2	4.57		2.29	*20.94*	*Sqm*
		TOTAL					**20.94**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall D/S	2	4.57		2.29	*20.94*	*Sqm*
		TOTAL					**20.94**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.9.245Km)						
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall both Side	2	4.1148	0.45	0.5	*1.85*	*Cum*
		TOTAL					**1.85**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall D/S	2	4.11		1.1	*9.05*	*Sqm*
		TOTAL					**9.05**	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
3	5.5.10	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall D/S	2	4.11		0.2	*1.65*	*Sqm*
		TOTAL					**1.65**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.10.600Km)						
1	5.3.11	**Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Wearing Coat	1	3.36108	4.02336	0.075	*1.01*	*Cum*
		TOTAL					**1.01**	***Sqm***
2	5.3.5	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per**						
		Floor	1	7.00	3.02	0.61	*12.86*	*Cum*
		TOTAL					**12.86**	**Cum**
		QUANTITIES OF REPAIRING WORK FOR FALL (Ch.11.300Km)						
1	5.4.6	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Damaged Abutment D/S (Right Side)	1	2.7432	0.25	0.3	*0.21*	*Cum*
		TOTAL					**0.21**	**Cum**
2	5.3.5	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	7.00	3.02	0.15	*3.23*	*Cum*
		TOTAL					**3.23**	**Cum**
		QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.11.480 Km)						
1	5.4.6	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall both Side	2	4.11	0.45	0.5	*1.85*	*Cum*
		TOTAL					**1.85**	**Cum**
2	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall D/S	2	4.11		1.1	*9.05*	*Sqm*
		TOTAL					**9.05**	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall D/S	2	4.11		0.2	*1.65*	*Sqm*
		TOTAL					**1.65**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL/HR FOR SOTHIDIH MR. (Ch.12.000 Km)								
1	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Wing Wall	4	3.50	0.25	2	*7.00*	*Cum*
		TOTAL					**7.00**	***Cum***
2	**5.3.18**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		Wing Wall	8	3.50		2	*56.00*	Sqm
			8		0.25	2	*4.00*	Sqm
		TOTAL					**60.00**	**Sqm**
3	**WRD 5.3.22**	**Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.**						
		0.25% skin Reinforcement for Transition Walls	7.00	0.0025	0.018	7850	*137.38*	kg
		TOTAL Weight of Steel (in Kg)					**137.38**	**kg**
		TOTAL Weight of Steel (in Tonne)					**0.14**	**MT**
QUANTITIES OF REPAIRING WORK FOR FALL/BRIDGE (Ch.13.200 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**180.00**	**Sqm**
		TOTAL					**180.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	4.00		2.85	*22.80*	*Sqm*
		TOTAL					**22.80**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	4.00		2.85	*22.80*	*Sqm*
		TOTAL					**22.80**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL(Ch.13.500 Km)								
1	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M.**						
		Wing wall	4	2.00		1.65	*13.20*	*Sqm*
		Abutment	2	4.00		1.65	*13.20*	*Sqm*
		Side wall	2	8.00		1.65	*26.40*	*Sqm*
		TOTAL					**52.80**	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
2	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads**						
		Wing wall	4	2.00		1.65	*13.20*	*Sqm*
		Abutment	2	4.00		1.65	*13.20*	*Sqm*
		Side wall	2	8.00		1.65	*26.40*	*Sqm*
		TOTAL					**52.80**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE. (Ch.14.535 Km)								
1	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Parapet wall Top	2	3.69	0.45	0.3	*1.00*	*Cum*
		TOTAL					**1.00**	***Cum***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.14.780 Km)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Wing Wall U/S	2	2.50	0.45	1	*2.25*	*Cum*
		Wing Wall D/S	2	2.00	0.45	1	*1.80*	*Cum*
		Abutment	2	3.50	0.30	1	*2.10*	*Cum*
		Floor	1	5.00	2.13	0.45	*4.80*	*Cum*
		Crest	1	2.13	0.45	0.614	*0.59*	*Cum*
		TOTAL					**11.54**	***Cum***
QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.15.550 Km)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Wing Wall U/S	2	1.00	0.45	1	*0.90*	*Cum*
		Wing Wall D/S	2	1.00	0.45	1	*0.90*	*Cum*
		Abutment	2	2.44	0.25	1	*1.22*	*Cum*
		Floor	1	6.00	2.26	0.3	*4.06*	*Cum*
		Crest	1	2.26	0.45	0.914	*0.93*	*Cum*
		Slab	1	3.57	4.48	0.15	*2.40*	*Cum*
		TOTAL					**10.40**	***Cum***
QUANTITIES OF REPAIRING WORK FOR FALL(Ch.16.970 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Damaged Abutment U/S (Left Side)	1	2.7432	0.25	0.3	*0.21*	*Cum*
		TOTAL					**0.21**	**Cum**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
2	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	7.00	3.02	0.15	*3.23*	*Cum*
		TOTAL					**3.23**	**Cum**
		QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT(Ch.17.220 Km)						
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**
		TOTAL					**120.00**	**Sqm**
2	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Wing Wall	1	4.00	0.45	1.2	*2.16*	*Cum*
		TOTAL					**2.16**	***Cum***
3	**5.3.18**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		Wing Wall	2	4.00		1.2	*9.60*	Sqm
			2		0.45	1.2	*1.08*	Sqm
		TOTAL					**10.68**	**Sqm**
		QUANTITIES OF REPAIRING WORK FOR CD WORK (Ch.17.780 Km)						
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**150.00**	**Sqm**
		TOTAL					**150.00**	**Sqm**
2	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Wing Wall	1	1.40	0.45	1.2	*0.76*	*Cum*
		TOTAL					**0.76**	***Cum***
3	**5.3.18**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		Wing Wall	2	1.40		1.2	*3.36*	Sqm
			2		0.45	1.2	*1.08*	Sqm
		TOTAL					**4.44**	**Sqm**
4	**WRD 5.3.22**	**Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.**						
		0.25% skin Reinforcement for Transition Walls	0.76	0.0025	0.002	7850	*14.84*	kg

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		TOTAL Weight of Steel (in Kg)					**14.84**	**kg**
		TOTAL Weight of Steel (in Tonne)					**0.01**	**MT**
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.18.280 Km)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Wing Wall U/S	2	2.50	0.30	1.5	*2.25*	*Cum*
		Wing Wall D/S	2	2.50	0.30	1.5	*2.25*	*Cum*
		Abutment	2	3.51	0.30	1.5	*3.15*	*Cum*
		Slab	1	3.51	3.96	0.25	*3.47*	*Cum*
		TOTAL					**11.13**	***Cum***
QUANTITIES OF REPAIRING WORK FOR CD WORK (Ch.18.290 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**160.00**	**Sqm**
		TOTAL					**160.00**	**Sqm**
2	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing**						
		Wing Wall	1	2.00	0.45	1	*0.90*	*Cum*
		TOTAL					**0.90**	***Cum***
3	**5.3.18**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		Wing Wall	2	2.00		1	*4.00*	Sqm
			2		0.45	1	*0.90*	Sqm
		TOTAL					**4.90**	**Sqm**
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.18.600 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall both Side	2	5.00	0.45	0.5	*2.25*	*Cum*
		TOTAL					**2.25**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	5.00		1.45	*14.50*	*Sqm*
		Wing Wall	2	4.50		1.95	*17.55*	*Sqm*
		TOTAL					**32.05**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall D/S	2	5.00		1.45	*14.50*	*Sqm*
		Wing Wall	2	4.50		1.95	*17.55*	*Sqm*
		TOTAL					**32.05**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.19.025 Km)								

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S	1	3.54	0.45	0.5	*0.80*	*Cum*
		Parapet Wall D/S	1	2.50	0.45	0.5	*0.56*	*Cum*
		TOTAL					**1.36**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	3.54		0.7	*2.47*	*Sqm*
		Parapet Wall D/S	1	2.50		1.1	*2.75*	*Sqm*
		TOTAL					**5.22**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall D/S	2	3.54		0.2	*1.41*	*Sqm*
		TOTAL					**1.41**	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF BARIAWA MR								
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-0.040 Km)								
1	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	3.00		2.19	*6.57*	*Sqm*
		Parapet Wall D/S	1	3.00		2.19	*6.57*	*Sqm*
		Wing wall	4	2.50		2.45	*24.50*	*Sqm*
		TOTAL					**37.64**	***Sqm***
2	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	1	3.00		2.19	*6.57*	*Sqm*
		Parapet Wall D/S	1	3.00		2.19	*6.57*	*Sqm*
		Wing wall	4	2.50		2.45	*24.50*	*Sqm*
		TOTAL					**37.64**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.305 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	3.17	0.10	0.92	*0.58*	*Cum*
		TOTAL					**0.58**	**Cum**
2	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	7.00	2.17	0.46	*6.95*	*Cum*
		TOTAL					**6.95**	**Cum**
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.760 Km)								
1	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	7.00	2.32	0.31	*4.96*	*Cum*
		TOTAL					**4.96**	**Cum**
QUANTITIES OF REPAIRING WORK FOR AQUEDUCT (Ch.-0.940 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**150.00**	**Sqm**
		TOTAL					**150.00**	**Sqm**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		SIDE Wall	2	15.00		2.19	*65.70*	*Sqm*
		Wing wall	4	3.20		2.45	*31.36*	*Sqm*
		TOTAL					**97.06**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		SIDE Wall	2	15.00		2.19	*65.70*	*Sqm*
		Wing wall	4	3.20		2.45	*31.36*	*Sqm*
		TOTAL					**97.06**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-1.375 Km)						
1	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	2.50		2.19	*5.48*	*Sqm*
		Parapet Wall D/S	1	2.50		2.19	*5.48*	*Sqm*
		Wing wall	4	3.20		2.45	*31.36*	*Sqm*
		TOTAL					**42.31**	***Sqm***
2	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	1	2.50		2.19	*5.48*	*Sqm*
		Parapet Wall D/S	1	2.50		2.19	*5.48*	*Sqm*
		Wing wall	4	3.20		2.45	*31.36*	*Sqm*
		TOTAL					**42.31**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR FALL/CULVERT (Ch.-1.650 Km)						
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**150.00**	**Sqm**
		TOTAL					**150.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Abutment	2	8.00		1.5	*24.00*	*Sqm*
		Wing Wall U/S	2	3.00		1.5	*9.00*	*Sqm*
		TOTAL					**24.00**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Abutment	2	8.00		1.5	*24.00*	*Sqm*
		Wing Wall U/S	2	3.00		1.5	*9.00*	*Sqm*
		TOTAL					**24.00**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR FALL/CULVERT (Ch.-2.570 Km)						
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**100.00**	**Sqm**
		TOTAL					**100.00**	**Sqm**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
2	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	7.00	2.01	0.15	*2.14*	*Cum*
		TOTAL					**2.14**	**Cum**
QUANTITIES OF REPAIRING WORK FOR FALL/CULVERT (Ch.-3.500 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**
		TOTAL					**120.00**	**Sqm**
2	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	7.00	1.92	0.30	*4.09*	*Cum*
		Crest	1	1.92	0.30	0.20	*0.12*	*Cum*
		TOTAL					**4.20**	**Cum**
QUANTITIES OF REPAIRING WORK FOR FALL/CULVERT (Ch.-4.400 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S	1	3.20	0.25	0.92	*0.74*	*Cum*
		Parapet Wall D/S	1	3.20	0.25	0.92	*0.74*	*Cum*
		TOTAL					**1.47**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	3.20		2.09	*6.69*	*Sqm*
		Parapet Wall D/S	1	3.20		2.09	*6.69*	*Sqm*
		TOTAL					**13.38**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall D/S	2	3.20		0.3	*1.92*	*Sqm*
		TOTAL					**1.92**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL/CULVERT (Ch.-4.990 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S	1	2.78	0.25	0.92	*0.64*	*Cum*

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		Parapet Wall D/S	1	2.78	0.25	0.92	*0.64*	*Cum*
		TOTAL					**1.28**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	2.78		2.09	*5.80*	*Sqm*
		Parapet Wall D/S	1	2.78		2.09	*5.80*	*Sqm*
		TOTAL					**11.61**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall D/S	2	2.78		0.3	*1.67*	*Sqm*
		TOTAL					**1.67**	***Sqm***
4	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	5.00	1.83	0.30	*2.78*	*Cum*
		TOTAL					**2.78**	**Cum**
QUANTITIES OF REPAIRING WORK FOR FALL/CULVERT (Ch.-5.510 Km)								
1	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	6.00	1.83	0.15	*1.68*	*Cum*
		TOTAL					**1.68**	**Cum**
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-5.800 Km)								
1	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Abutment U/S	1	4.57		2.85	*13.03*	*Sqm*
		Abutment D/S	1	4.57		2.85	*13.03*	*Sqm*
		TOTAL					**26.06**	***Sqm***
2	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Abutment U/S	1	4.57		2.85	*13.03*	*Sqm*
		Abutment D/S	1	4.57		2.85	*13.03*	*Sqm*
		TOTAL					**26.06**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL/CULVERT (Ch.-6.560 Km)								

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S	1	3.66	0.25	0.45	*0.41*	*Cum*
		Parapet Wall D/S	1	3.66	0.25	0.92	*0.84*	*Cum*
		TOTAL					**1.25**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	3.66		1.15	*4.21*	*Sqm*
		Parapet Wall D/S	1	3.66		2.09	*7.64*	*Sqm*
		TOTAL					**11.85**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall D/S	2	3.66		0.3	*2.19*	*Sqm*
		TOTAL					**2.19**	***Sqm***
4	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Wing Wall D/S Top	2	4.00	0.45	0.15	*0.54*	*Cum*
		TOTAL					**0.54**	***Cum***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-6.830 Km)								
		New Structure has been proposed.						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF ITMA MR								
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.300 Km)								
1	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Wing wall	2	8.00		0.5	*8.00*	*Sqm*
		Abutment	2	5.00		0.5	*5.00*	*Sqm*
		TOTAL					**13.00**	***Sqm***
2	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Wing wall	2	8.00		0.5	*8.00*	*Sqm*
		Abutment	2	5.00		0.5	*5.00*	*Sqm*
		TOTAL					**13.00**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL/BRIDGE (Ch.-0.900 Km)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Wing Wall U/S	2	2.50	0.30	1.5	*2.25*	*Cum*
		Wing Wall D/S	2	2.50	0.30	1.5	*2.25*	*Cum*
		Abutment	2	3.05	0.30	1.5	*2.74*	*Cum*
		Slab	1	3.05	4.57	0.25	*3.48*	*Cum*
		TOTAL					**10.73**	***Cum***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-1.650 Km)								
1	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Wing wall	4	3.11		1.5	*18.65*	*Sqm*
		Abutment	2	3.54		1.5	*10.61*	*Sqm*
		TOTAL					**29.26**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-1.895 Km)								
1	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Wing wall	4	2.50		1.65	*16.50*	*Sqm*
		Abutment	2	4.00		1.65	*13.20*	*Sqm*
		Side wall	2	7.00		1.37	*19.18*	*Sqm*
		TOTAL					**48.88**	***Sqm***
2	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Wing wall	4	2.50		1.65	*16.50*	*Sqm*
		Abutment	2	4.00		1.65	*13.20*	*Sqm*
		Side wall	2	7.00		1.37	*19.18*	*Sqm*
		TOTAL					**48.88**	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
3	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	5.00	1.28	0.30	*1.95*	*Cum*
		TOTAL					**1.95**	**Cum**
4	**WRD 5.3.22**	**Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.**						
		0.25% skin Reinforcement for Transition Walls	1.95	0.0025	0.005	7850	*38.19*	kg
		TOTAL Weight of Steel (in Kg)					**38.19**	**kg**
		TOTAL Weight of Steel (in Tonne)					**0.04**	**MT**
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-2.265 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S	1	3.66	0.25	0.45	*0.41*	*Cum*
		Parapet Wall D/S	1	3.66	0.25	0.45	*0.41*	*Cum*
		TOTAL					**0.82**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	3.66		1.15	*4.21*	*Sqm*
		Parapet Wall D/S	1	3.66		1.15	*4.21*	*Sqm*
		TOTAL					**8.41**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall D/S	2	3.66		0.3	*2.19*	*Sqm*
		TOTAL					**2.19**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL(Ch.-2.580 Km)								
1	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	7.00	1.31	0.30	*2.79*	*Cum*
		TOTAL					**2.79**	**Cum**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR FALL(Ch.-3.000 Km)								
1	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Wing Wall Left Side	1	2.00	0.45	1.2	*1.08*	*Cum*
		Wing Wall & Abutment Top	1	11.83	0.45	0.15	*0.80*	*Cum*
		TOTAL					**1.88**	***Cum***
2	**5.3.18**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		Abutment U/S & D/S	4	2.00		1.2	*9.60*	Sqm
			4		0.45	1.2	*2.16*	Sqm
		TOTAL					**11.76**	**Sqm**
3	**WRD 5.3.22**	**Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as**						
		0.25% skin Reinforcement for Transition Walls	1.88	0.0025	0.005	7850	*36.86*	kg
		Total Weight of Steel (in Kg)					**36.86**	**kg**
		Total Weight of Steel (in Tonne)					**0.04**	**MT**
4	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	6.00	1.22	0.15	*1.11*	*Cum*
		TOTAL					**1.11**	**Cum**
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-3.445 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S	1	2.44	0.25	0.92	*0.56*	*Cum*
		Parapet Wall D/S	1	2.44	0.25	0.92	*0.56*	*Cum*
		TOTAL					**1.12**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	2.44		2.09	*5.10*	*Sqm*
		Parapet Wall D/S	1	2.44		2.09	*5.10*	*Sqm*
		TOTAL					**10.19**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall D/S	2	2.44		0.3	*1.46*	*Sqm*
		TOTAL					**1.46**	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
4	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Approach Slab	2	3.50	2.44	0.15	*2.56*	*Cum*
		TOTAL					**2.56**	***Cum***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-4.225 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S	1	2.13	0.25	0.92	*0.49*	*Cum*
		Parapet Wall D/S	1	2.13	0.25	0.92	*0.49*	*Cum*
		TOTAL					**0.98**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	2.13		2.09	*4.46*	*Sqm*
		Parapet Wall D/S	1	2.13		2.09	*4.46*	*Sqm*
		TOTAL					**8.92**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall D/S	2	2.13		0.3	*1.28*	*Sqm*
		TOTAL					**1.28**	***Sqm***
4	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	5.00	0.94	0.46	*2.16*	*Cum*
		TOTAL					**2.16**	**Cum**
5	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Approach Slab	2	3.50	2.13	0.15	*2.24*	*Cum*
		TOTAL					**2.24**	***Cum***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF MALI MR								
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.060 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**150.00**	**Sqm**
		TOTAL					**150.00**	**Sqm**
2	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Syphon Abutment	8	3.66		4.2672	*124.86*	*Sqm*
			8	3.66		2.0117	*58.86*	*Sqm*
		Syphon Pier	2	3.66		4.2672	*31.22*	*Sqm*
			2	3.66		2.0726	*15.16*	*Sqm*
		Syphon barrel outer wall	2	31.70		2.4994	*158.46*	*Sqm*
		Syphon barrel Starting wall	1	3.05		6.096	*18.58*	*Sqm*
			1	3.05		1.0973	*3.34*	*Sqm*
		Syphon Floor	1	31.70		1.585	*50.24*	*Sqm*
		TOTAL					**460.72**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL/BRIDGE (Ch.-0.610 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S	1	2.13	0.25	0.92	*0.49*	*Cum*
		Parapet Wall D/S	1	2.13	0.25	0.92	*0.49*	*Cum*
		TOTAL					**0.98**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	2.13		2.09	*4.46*	*Sqm*
		Parapet Wall D/S	1	2.13		2.09	*4.46*	*Sqm*
		TOTAL					**8.92**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall D/S	2	2.13		0.3	*1.28*	*Sqm*
		TOTAL					**1.28**	***Sqm***
4	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	7.00	1.68	0.31	*3.59*	*Cum*
		TOTAL					**3.59**	**Cum**
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-1.370 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**180.00**	**Sqm**
		TOTAL					**180.00**	**Sqm**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
2	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	7.00	1.68	0.61	*7.16*	*Cum*
		TOTAL					**7.16**	**Cum**
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-1.580 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**90.00**	**Sqm**
		TOTAL					**90.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Abutment U/S	1	1.70	0.25	0.6	*0.26*	*Cum*
		TOTAL					**0.26**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Abutment U/S	1	3.02		1.45	*4.38*	*Sqm*
		Abutment D/S	1	3.02		1.45	*4.38*	*Sqm*
		TOTAL					**8.75**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Abutment U/S &D/S	2	3.02		0.3	*1.81*	*Sqm*
		TOTAL					**1.81**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL/BRIDGE (Ch.-2.000 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**100.00**	**Sqm**
		TOTAL					**100.00**	**Sqm**
2	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	5.00	1.65	0.15	*1.25*	*Cum*
		TOTAL					**1.25**	**Cum**
QUANTITIES OF REPAIRING WORK FOR FALL/CULVERT (Ch.-2.800 Km)								

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Abutment U/S & D/S	2	2.83	0.25	0.92	*1.30*	*Cum*
		TOTAL					**1.30**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Abutment U/S	1	3.02		2.09	*6.31*	*Sqm*
		Abutment D/S	1	3.02		2.09	*6.31*	*Sqm*
		TOTAL					**12.61**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Abutment U/S &D/S	2	3.02		0.3	*1.81*	*Sqm*
		TOTAL					**1.81**	***Sqm***
4	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Crest	1	1.58	0.46	1.07	*0.77*	*Cum*
		TOTAL					**0.77**	**Cum**
5	**5.3.18**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		Crest	2	1.58		1.07	*3.38*	Sqm
			2		0.46	1.067	*0.98*	Sqm
		TOTAL					**4.36**	**Sqm**
6	**WRD 5.3.22**	**Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as**						
		0.25% skin Reinforcement for Transition Walls	0.77	0.0025	0.002	7850	*15.17*	kg
		Total Weight of Steel (in Kg)					**15.17**	**kg**
		Total Weight of Steel (in Tonne)					**0.02**	**MT**
QUANTITIES OF REPAIRING WORK FOR FALL(Ch.-3.755 Km)								
1	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	6.00	0.95	0.15	*0.86*	*Cum*
		TOTAL					**0.86**	**Cum**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF THUMBHI MR								
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.055 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**
		TOTAL					**120.00**	**Sqm**
2	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	5.00	1.55	0.46	*3.55*	*Cum*
		Crest	1	1.55	0.45	0.20	*0.14*	*Cum*
		TOTAL					**3.69**	**Cum**
QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.-0.545 Km)								
1		**Structure requires no repair work.**						
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.965 Km)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Wing Wall	2	3.00	0.45	1.3	*3.51*	*Cum*
		Abutment	2	9.00	0.45	1.3	*10.53*	*Cum*
		Crest	1	1.58	0.45	0.9	*0.64*	*Cum*
		Floor	1	5.00	1.58	0.3	*2.38*	*Cum*
		TOTAL					**17.06**	***Cum***
QUANTITIES OF REPAIRING WORK FOR INLET (Ch.-1.750 Km)								
1		**Structure requires no repair work.**						
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-1.950 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**100.00**	**Sqm**
		TOTAL					**100.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet wall	2	2.35		2.1292	*9.99*	*Sqm*
		Wing wall	4	2.50		2.85	*28.50*	*Sqm*
		TOTAL					**38.49**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet wall	2	2.35		2.1292	*9.99*	*Sqm*
		Wing wall	4	2.50		2.85	*28.50*	*Sqm*
		TOTAL					**38.49**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.-2.215 Km)								

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S	1	1.52	0.25	0.65	*0.25*	*Cum*
		Parapet Wall D/S	1	3.60	0.25	0.92	*0.83*	*Cum*
		TOTAL					**1.07**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	1.52		1.55	*2.36*	*Sqm*
		Parapet Wall D/S	1	3.60		2.09	*7.52*	*Sqm*
		TOTAL					**9.88**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall D/S	2	3.60		0.3	*2.16*	*Sqm*
		TOTAL					**2.16**	***Sqm***
4	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	5.00	1.55	0.46	*3.55*	*Cum*
		TOTAL					**3.55**	**Cum**
		QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.-2.715Km)						
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**150.00**	**Sqm**
		TOTAL					**150.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S	1	2.93	0.25	0.8	*0.59*	*Cum*
		Parapet Wall D/S	1	2.93	0.25	0.8	*0.59*	*Cum*
		TOTAL					**1.17**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	2.93		1.85	*5.41*	*Sqm*
		Parapet Wall D/S	1	2.93		1.85	*5.41*	*Sqm*
		TOTAL					**10.83**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall D/S	2	2.93		0.3	*1.76*	*Sqm*

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		TOTAL					**1.76**	***Sqm***
5	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	5.00	1.65	0.15	*1.25*	*Cum*
		Crest	1	1.65	0.45	0.20	*0.15*	*Cum*
		TOTAL					**1.40**	**Cum**
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-3.300 Km)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Wing Wall	2	2.50	0.45	1.22	*2.75*	*Cum*
		Abutment	2	6.00	0.45	1.22	*6.59*	*Cum*
		Crest	1	1.52	0.45	1.22	*0.84*	*Cum*
		Floor	1	5.00	1.52	0.45	*3.43*	*Cum*
		TOTAL					**13.60**	***Cum***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-4.010 Km)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Floor	1	6.00	1.65	0.15	*1.48*	*Cum*
		TOTAL					**1.48**	***Cum***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-4.450 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**
		TOTAL					**120.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet wall	2	2.35		2.1292	*9.99*	*Sqm*
		Wing wall	4	2.50		2.85	*28.50*	*Sqm*
		TOTAL					**38.49**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet wall	2	2.35		2.1292	*9.99*	*Sqm*
		Wing wall	4	2.50		2.85	*28.50*	*Sqm*
		TOTAL					**38.49**	***Sqm***
4	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of**						
		Floor	1	5.00	1.65	0.15	*1.25*	*Cum*
		Crest	1	1.65	0.45	0.20	*0.15*	*Cum*
		TOTAL					**1.40**	**Cum**
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-5.010 Km)								

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
1	5.8.9	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Wing Wall	2	2.50	0.45	1.5	*3.38*	*Cum*
		Abutment	2	7.00	0.45	1.5	*9.45*	*Cum*
		Crest	1	1.58	0.45	1.2	*0.86*	*Cum*
		Floor	1	6.00	1.58	0.45	*4.28*	*Cum*
		TOTAL					**17.96**	***Cum***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-5.240 Km)								
1	5.4.6	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S	1	2.83	0.25	0.6	*0.43*	*Cum*
		Parapet Wall D/S	1	2.83	0.25	0.92	*0.65*	*Cum*
		TOTAL					**1.08**	**Cum**
2	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	2.83		1.45	*4.11*	*Sqm*
		Parapet Wall D/S	1	2.83		2.09	*5.92*	*Sqm*
		TOTAL					**10.03**	***Sqm***
3	5.5.10	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall D/S	2	2.83		0.3	*1.70*	*Sqm*
		TOTAL					**1.70**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-5.545 Km)								
1	5.1.3	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**
		TOTAL					**120.00**	**Sqm**
2	5.3.4	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Abutment U/S & D/S	2	3.00	0.45	1.2	*3.24*	*Cum*
		Deduct Hume Pipe	1	0.79			*-0.79*	*Cum*
		TOTAL					**2.46**	***Cum***
3	5.3.18	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		Abutment U/S & D/S	4	3.00		1.2	*14.40*	Sqm
			4		0.45	1.2	*2.16*	Sqm
		TOTAL					**16.56**	**Sqm**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
4	**WRD 5.3.22**	**Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.**						
		0.25% skin Reinforcement for Transition Walls	2.46	0.0025	0.006	7850	*48.18*	kg
		Total Weight of Steel (in Kg)					**48.18**	**kg**
		Total Weight of Steel (in Tonne)					**0.05**	**MT**
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-5.755 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**
		TOTAL					**120.00**	**Sqm**
2	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Abutment Left & Right Top	2	3.50	0.45	0.15	*0.47*	*Cum*
		TOTAL					**0.47**	***Cum***
3	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	7.00	1.52	0.61	*6.51*	*Cum*
		TOTAL					**6.51**	**Cum**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF SOTHIDIH MR								
QUANTITIES OF REPAIRING WORK FOR CD WORK (Ch.-0.180 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**180.00**	**Sqm**
		TOTAL					**180.00**	**Sqm**
2	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Abutment U/S Both Face	2	5.49		3.3	*36.21*	*Sqm*
		Abutment D/S Both Face	2	5.49		3.3	*36.21*	*Sqm*
		TOTAL					**72.42**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR CD WORK (Ch.-0.310 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**200.00**	**Sqm**
		TOTAL					**200.00**	**Sqm**
2	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Abutment U/S Both Face	2	5.49		3.3	*36.21*	*Sqm*
		Abutment D/S Both Face	2	5.49		3.3	*36.21*	*Sqm*
		TOTAL					**72.42**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-0.330 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**180.00**	**Sqm**
		TOTAL					**180.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet wall	2	4.57		1.45	*13.26*	*Sqm*
			2	0.25		1.2	*0.60*	*Sqm*
		TOTAL					**13.86**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet wall	2	4.57		1.45	*13.26*	*Sqm*
			2	0.25		1.2	*0.60*	*Sqm*
		TOTAL					**13.86**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR PIPE LINE (Ch.-0.535 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**180.00**	**Sqm**
		TOTAL					**180.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		U/S Wing wall	2	2.50		1.45	*7.25*	*Sqm*
			2	0.25		1.2	*0.60*	*Sqm*

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		Side walls	2	4.00		2.85	*22.80*	*Sqm*
		Abutment wall U/S	1	2.50		2.85	*7.13*	*Sqm*
		Abutment wall D/S	1	4.00		2.85	*11.40*	*Sqm*
		TOTAL					**49.18**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		U/S Wing wall	2	2.50		1.45	*7.25*	*Sqm*
			2	0.25		1.2	*0.60*	*Sqm*
		Side walls	2	4.00		2.85	*22.80*	*Sqm*
		Abutment wall U/S	1	2.50		2.85	*7.13*	*Sqm*
		Abutment wall D/S	1	4.00		2.85	*11.40*	*Sqm*
		TOTAL					**49.18**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR CD WORK (Ch.-0.585 Km)						
1	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Abutment	2	5.12		1.65	*16.90*	*Sqm*
		Wingwall	4	0.98		1.65	*6.44*	*Sqm*
		TOTAL					**23.34**	***Sqm***
2	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Abutment	2	5.12		1.65	*16.90*	*Sqm*
		Wingwall	4	0.98		1.65	*6.44*	*Sqm*
		TOTAL					**23.34**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-0.640 Km)						
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**140.00**	**Sqm**
		TOTAL					**140.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet wall	2	5.00		2.25	*22.50*	*Sqm*
			2	0.25		2	*1.00*	*Sqm*
		TOTAL					**23.50**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet wall	2	5.00		2.25	*22.50*	*Sqm*
			2	0.25		2	*1.00*	*Sqm*
		TOTAL					**23.50**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR CD WORK (Ch.-0.810 Km)						
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		TOTAL					**120.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet wall	2	5.00		2.25	*22.50*	*Sqm*
			2	0.25		2	*1.00*	*Sqm*
		TOTAL					**23.50**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet wall	2	5.00		2.25	*22.50*	*Sqm*
			2	0.25		2	*1.00*	*Sqm*
		TOTAL					**23.50**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-0.830 Km)						
1	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet wall	2	5.00		2.45	*24.50*	*Sqm*
		TOTAL					**24.50**	***Sqm***
2	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet wall	2	5.00		2.45	*24.50*	*Sqm*
		TOTAL					**24.50**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR FALL/BRIDGE (Ch.-1.015 Km)						
1	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	4.00	1.34	0.15	*0.82*	*Cum*
		Crest	1	1.34	0.20	0.91	*0.25*	*Cum*
		TOTAL					**1.06**	**Cum**
		QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-1.560 Km)						
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**130.00**	**Sqm**
		TOTAL					**130.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet wall	2	5.00		2.85	*28.50*	*Sqm*
			2	0.45		2.4	*2.16*	*Sqm*
		TOTAL					**30.66**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet wall	2	5.00		2.85	*28.50*	*Sqm*

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
			2	0.45		2.4	*2.16*	*Sqm*
		TOTAL					**30.66**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-1.805 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**
		TOTAL					**120.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S	1	1.34	0.25	0.3	*0.10*	*Cum*
		Parapet Wall D/S	1	0.73	0.25	0.6	*0.11*	*Cum*
		TOTAL					**0.21**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	1.34		0.85	*1.14*	*Sqm*
		Parapet Wall D/S	1	0.73		1.45	*1.06*	*Sqm*
		TOTAL					**2.20**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall D/S	2	2.44		0.3	*1.46*	*Sqm*
		TOTAL					**1.46**	***Sqm***
5	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	4.00	1.34	0.46	*2.45*	*Cum*
		Crest	1	1.34	0.50	0.91	*0.61*	*Cum*
		TOTAL					**3.06**	**Cum**
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-2.450 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**100.00**	**Sqm**
		TOTAL					**100.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S	1	3.05	0.35	0.92	*0.98*	*Cum*
		Parapet Wall D/S	1	3.05	0.35	0.92	*0.98*	*Cum*
		TOTAL					**1.96**	**Cum**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	3.05		2.19	*6.68*	*Sqm*
		Parapet Wall D/S	1	3.05		2.19	*6.68*	*Sqm*
		TOTAL					**13.35**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall D/S	2	3.05		0.3	*1.83*	*Sqm*
		TOTAL					**1.83**	***Sqm***

ABSTRACT OF QUANTITIES FOR CONSTRUCTION OF APPROACH ROAD								
S. No.	Item of Works	Qty.	Unit	Rate (As per RCD 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
1	Excavation for road work in soil with hydraulic excavator including cutting and loading in tipper, trimming bottom and side slopes in accordance with requirements of lines grades and cross sections, and tranporting to the embankment location within all lifts and lead upto 1000m. (RCD SSR Item no. 301)	60.00	Cum	**78.40**	4704.00			
2	Construction of granular sub-base by providing closegraded material, spreading in uniform layers with motorgrader on prepared surface, mixing by mix in placemethod with front end loader at OMC, and compactingwith vibratory roller to achieve the desired density,complete as per clause 401.	60.00	Cum	**1044.90**	62694.00			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	15.00	Cum	**6381.70**	95725.50	4.86	6.75	13.50
4	RCC Grade M-30 using Batching plant, Transit Mixer and Concrete Pump	30.00	Cum	**6217.20**	186516.00	20.94	10.80	21.90
5	**Carriage of materials**							
	Grading Material (26.5 mm & below)(40 Km lead)	60.000	Cum	**1398.00**	83880.00			
	Coarse Sand (60 Km lead)	17.550	Cum	**1075.00**	18866.25			
	Coarse Aggregates (100 Km lead)	35.400	Cum	**1398.00**	49489.20			
	Cement (30 km lead)	25.800	MT	**742.00**	19143.60			
	TOTAL (In Rs.)				**521018.55**			
	TOTAL (In Rs.)				**₹ 5,21,018.55**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	26.50 mm to 9.50 mm	21.00	Cum	**913.48**	19183.08	1918.31		
	9.50 mm TO 4.75 mm	7.50	Cum	**602.28**	4517.10	451.71		
	4.75 mm below	31.50	Cum	**266.62**	8398.53	839.85		
	Coarse Sand	17.55	Cum	**584.64**	10260.43	1026.04		
	Coarse Aggregate	35.40	Cum	**944.26**	33426.80	3342.68		
	Total					**7578.59**		
	For 25 no., Total Seigniorage charges					**189464.87**		

QUANTITIES OF CONSTRUCTION OF GSB ROAD FOR APPROACH ROAD								
S.No.	**Reference Clause**	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
1	RCD SSR Item no. 301	Excavation for road work in soil with hydraulic excavator including cutting and loading in tipper, trimming bottom and side slopes in accordance with requirements of lines grades and cross sections, and tranporting to the embankment location within all lifts and lead upto 1000m.						
		For Making RAMP						
		U/S	1	20.00	5.00	0.30	30.00	Cum
		D/S	1	20.00	5.00	0.30	30.00	Cum
		Total					**60.00**	**Cum**
2	RCD 4.01 B-II	Construction of granular sub-base by providing closegraded material, spreading in uniform layers with motorgrader on prepared surface, mixing by mix in placemethod with front end loader at OMC, and compactingwith vibratory roller to achieve the desired density,complete as per clause 401.						
		U/S	1	20.00	5.00	0.30	30.00	Cum
		D/S	1	20.00	5.00	0.30	30.00	Cum
		Total					**60.00**	**Cum**
3	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
		U/S	1	20.00	5.00	0.08	7.50	Cum
		D/S	1	20.00	5.00	0.08	7.50	Cum
		Total					**15.00**	**Cum**
4	RCD 14.01 C	RCC Grade M-30 using Batching plant, Transit Mixer and Concrete Pump						
		U/S	1	20.00	5.00	0.15	15.00	Cum
		D/S	1	20.00	5.00	0.15	15.00	Cum
		Total					**30.00**	**Cum**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND ANALYSIS OF RATE OF OUTLET GATE			
1	Cost of material **(A)** (Structural Steel WRD M-181)	Rs.	55116.67
2	Wastage **5%** =	Rs.	2755.83
3	Cost of miscellaneous material like electrodes,oxygen, acetylene nut bolt, rope as per site conditions, etc **65 % of (A)**	Rs.	35825.84
	Total 1+2+3= ***(B)*** =	Rs.	93698.34
4	Labour charge 30%(B) =	Rs.	28109.50
5	Overhead charge + Contractor profit **@15% A**	Rs.	8267.50
6	Workshop and energy charge ,**12 % of (B)**	Rs.	11243.80
7	Transportation and erection charge ,**15 % of B**	Rs.	14054.75
	Total = B+4+5+6+7 = ***C***	Rs.	155373.89
8	Other incidental charge , **3 % = of C**	Rs.	4661.22
	Total C+8 = D	Rs.	**160035.11**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND ABSTRACT OF COST FOR CONSTRUCTION OF OUTLET										
Sl. No.	Reference	Name of Item	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount in Rs.	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)	Boulders (cum)
1	**WRD 5.3.9**	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.	7.61	Cum	**6381.70**	48564.42	2.47	3.42	6.85	
2	**WRD 5.4.10**	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.	8.60	Cum	**3391.40**	29172.74	1.24	3.44		8.60
3	**M-1701**	Providing 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	RM	**220.00**	1650.00				
4	**WRD 5.6.1**	Labour Charges for Laying of 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	RM	**238.00**	1785.03				

5	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.								
a.		TMT Grade Fe-500 - 16 mm	0.03	M.T.	**73574.90**	2254.92				
6	**M-181**	Structural Steel (Average rate of Angle, Joint and Channel) etc.	0.08	MT	**160035.11**	12687.05				
7	**WRD 5.1.37**	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .	0.89	Cum	**339.90**	302.80				
8		**Carriage of materials**								
		Coarse Sand (60 Km lead)	7.76	Cum	**1075.00**	**8337.83**				
		Coarse Aggregates (100 Km lead)	6.85	Cum	**1398.00**	**9574.84**				
		Cement (30 km lead)	3.70	MT	**742.00**	**2748.60**				
		Boulders (60 km lead)	8.60	Cum	**1159.00**	**9969.69**				
		Steel (30 Km lead)	0.11	M.T.	**742.00**	**81.56**				
		Hume Pipe (30 Km)	7.50	RM	**82.00**	**615.00**				
		TOTAL (In Rs.)				**127744.47**				
		Seigniorage @10%			Rate	Amount in Rs.	10%			
		Coarse Sand	7.76	Cum	**584.64**	4534.54	453.45			
		Coarse Aggregate	6.85	Cum	**944.26**	6467.19	646.72			
		Total					1100.17			
		For 120 nos. outlet, Total Seigniorage charges					**132020.77**			

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
BILL OF QUANTITIES FOR CONSTRUCTION OF OUTLET							
Sl. No.	**Name of Item**	**No.**	**Length (m)**	**Width (m)**	**Height (m)**	**Qty.**	**Unit**
1	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification &						
	Toe Wall Base in Canal Portion	*1*	*1.5*	*0.75*	*0.15*	*0.17*	*Cum*
	Coping on Stem of Toe Wall	*1*	*1.50*	*0.45*	*0.075*	*0.05*	*Cum*
	Gate Structure (Section A-B)	*1*	*1.80*	*0.75*	*0.15*	*0.20*	*Cum*
	Coping (Section A-B)	*1*	*1.5*	*0.45*	*0.075*	*0.05*	*Cum*
	Water Course (Section C-D)	*1*	*15.00*	*1.50*	*0.15*	*3.38*	*Cum*
	Water Course Floor (Section C-D)	*1*	*15.00*	*0.40*	*0.075*	*0.45*	*Cum*
	Coping above Walls(Section C-D)	*2*	*15*	*0.40*	*0.075*	*0.90*	*Cum*
	Below transition walls	*1*	*1.5*	*1.2*	*0.15*	*0.27*	*Cum*
		1	*1.5*	*0.75*	*0.15*	*0.17*	*Cum*
	Gate Structure (Section A-B)	*2*	*1.50*	*0.45*	*1.21*	*1.63*	*Cum*
	Toe Wall stem	*1*	*1.50*	*0.45*	*0.51*	*0.35*	*Cum*
	TOTAL					***7.61***	*Cum*
2	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.						
	Transition Walls in U/S	*2*	*1.50*	*0.45*	*1.04*	*1.40*	*Cum*
	Water Course (Section C-D)	*2*	*15.00*	*0.40*	*0.60*	*7.20*	*Cum*
	2					**8.60**	Cum
3	Providing 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .						
	150 mm Dia R.C.C. Pipe	1			7.5	**7.5**	**RM**
4	Structural Steel (Average rate of Angle, Joint and Channel) etc.						
	Spindle 25 mm dia	*1*	*0.000491*	*7850.00*	*1.29*	*4.97*	*Kg*
		1	*0.000491*	*7850.00*	*0.24*	*0.92*	*Kg*
	300 X300 MM MS GATE	*1*		*60.00*		*60.00*	*Kg*
	I.M.C. Grove (100 x 50) 9.56 kg/m	*2*		*9.56*	*0.70*	*13.38*	*Kg*
	TOTAL (In Kg)					**79.28**	**Kg**
	TOTAL					**0.08**	**MT**
5	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .						
	Toe Wall Base in Canal Portion	*1*	*1.50*	*0.75*	*0.10*	*0.11*	*Cum*
	Water Course Floor (Section C-D)	*1*	*15.00*	*0.40*	*0.10*	*0.60*	*Cum*
	Below transition walls	*1*	*1.50*	*1.19*	*0.10*	*0.18*	*Cum*
	TOTAL					**0.89**	**Cum**
6	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-15 (Providing Reinforcement @ 0.24%)	*1.63*	*0.0024*	*0.004*	*7850.00*	*30.648*	*Kg*
	TOTAL					**30.65**	**Kg**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
ANALYSIS OF RATES							
Sl. No.	**Refrences SOR No.**	**Description**	**Quantity**	**Unit**	**Rate**	**Amount**	**Ref**
1	**5.1.3**	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 92.94 Sqm					
		Unskilled mazdoor for cutting shrubs, weed	1.50	nos	424.00	₹ 636.00	
		Unskilled mazdoor for removing grass roots and leveling	0.75	nos	424.00	₹ 318.00	
						₹ 954.00	
		Add Overhead charge &c.P @ 15 %				₹ 143.10	
					Total	₹ 1,097.10	
		Rate per Sqm			**Say, Rs**	**₹ 11.80**	**Per M^2**
2	**5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting ,carrying	9.09	nos	424.00	₹ 3,854.16	Sl-1
					Total	₹ 3,854.16	
		Add Overhead charge &c.P @ 15 %				₹ 578.12	
						₹ 4,432.28	
		Rate per Cum			**Say, Rs**	**₹ 156.50**	**Per M^3**
	NOTE:-	Add royalty of earth Rs. 33.00 where needed without overhead charges & C.P.					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
3	**5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	4.50	nos	424.00	₹ 1,908.00	SI-1
		Unskilled mazdoor for carrying	4.00	nos	424.00	₹ 1,696.00	
		Head Mason	0.13	nos	569.00	₹ 71.13	
					Total	₹ 3,675.13	
		Add Overhead charge & C.P @ 15 %				₹ 551.27	
						₹ 4,226.39	
		Rate per Cum			**Say, Rs**	**₹ 149.30**	**Per M^3**
4	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	4.00	nos	424.00	₹ 1,696.00	SI-1
		Unskilled mazdoor for carrying	4.00	nos	424.00	₹ 1,696.00	SI-1
		Unskilled mazdoor for controlling Slope and fine dressing	2.00	nos	424.00	₹ 848.00	SI-2
		Skilled Mazdoor	0.25	nos	536.00	₹ 134.00	SII-70
		Mate	1.00	nos	455.00	₹ 455.00	SII-2
					Total	₹ 4,829.00	
		Add Overhead charge &c.P @ 15 %				₹ 724.35	
						₹ 5,553.35	
		Rate per Cum			**Say, Rs**	**₹ 196.10**	**Per M^3**
5	**5.1.22**	Extra for wet earth all complete as per specifications and direction of E/I.					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Unit: per Cum					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	1.00	nos	424.00	₹ 424.00	Sl-1
		Add Overhead charge &C.P @ 15 %				₹ 63.60	
						₹ 487.60	
		Rate per Cum			**Say, Rs**	**₹ 17.22**	**Per M^3**
6	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.					
		As per Labour rate (19.06.2024)					
		Unit: per Cum					
		Taking Output :- 28.32 cum					
		Labour					
		Unskilled mazdoor for cutting, carrying	9.09	nos	424.00	₹ 3,854.16	Sl-1
		Add extra wages of 1/2 no. unskilled labour per 28.32 m3	0.50	nos	424.00	₹ 212.00	Sl-1
						₹ 4,066.16	
		Add Overhead charge &C.P @ 15 %				₹ 609.92	
						₹ 4,676.08	
					Say, Rs	**₹ 165.12**	**Per M^3**
7	**5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.					
		As per Labour rate (19.06.2024)					
		Unit: per Cum					
		Taking Output :- 28.32 cum					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Cost of water	LS			15.00	
		Bhisti for carriage of water and sprinkling	3.00	nos	417.00	₹ 1,251.00	S II-13
		Hire charges of sheep foot roller assuming 1450 cum to be rolled in 8 hr vide item no. 3.16	0.16	hr	1612.00	₹ 257.92	PM8001
						₹ 1,523.92	
		Add Overhead charge &C.P @ 15 %				₹ 228.59	
						₹ 1,752.51	
					Say, Rs	**₹ 61.88**	**Per M^3**
8	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)					
	5.1.46.1	Beyond 150m but upto 1/2 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				0.65	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				3.9	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes CoI =T				12.7	
	9	Number of trip per hour taken as 50 minutes N=50/T				3.937	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				17.323	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				83.18	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 16.29	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 152.08	
	16	Add overhead charges and CP 15%				₹ 22.81	
	17	**Rate per cubic metre**				**₹ 174.89**	
	5.1.46.2	Beyond 1/2 km but upto 1 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				1.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				9	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				17.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				2.809	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				12.36	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				116.59	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 20.30	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 189.50	
	16	Add overhead charges and CP 15%				₹ 28.42	
	17	**Rate per cubic metre**				**₹ 217.92**	
	5.1.46.3	Beyond 1.00 km but upto 1.50 km					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				2.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				15	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				23.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				2.101	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				9.244	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				155.88	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 25.02	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 233.50	
	16	Add overhead charges and CP 15%				₹ 35.03	
	17	**Rate per cubic metre**				**₹ 268.53**	
	5.1.46.4	Beyond 1.50 km but upto 2.00 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				3.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				21	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				29.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				1.678	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				7.383	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				195.18	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 29.73	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 277.52	
	16	Add overhead charges and CP 15% I like the coffee				₹ 41.63	
	17	**Rate per cubic metre**				**₹ 319.14**	
	5.1.46.5	Beyond 2.00 km but upto 2.50 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				4.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				27	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				35.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				1.397	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				6.15	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441.00	
	12	Carriage cost per metre M^3 = Tr/Q				234.50	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 34.45	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 321.56	
	16	Add overhead charges and CP 15%				₹ 48.24	
	17	**Rate per cubic metre**				**₹ 369.80**	
	5.1.46.6	Beyond 2.50 km but upto 3.00 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				5.5	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				33	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				41.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				1.196	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				5.263	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				273.80	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 39.17	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 365.57	
	16	Add overhead charges and CP 15%				₹ 54.84	
	17	**Rate per cubic metre**				**₹ 420.40**	
9	**5.1.24**	Earthwork in filling in flood embankment, canals banks (Canal Discharge Above 28 Cumecs) as well as special repair of embankments and canal banks in ordinary soil in proper profile obtain from borrow area or any other source free from logs, roots or any other ingredients etc. with intial lead of 30m and initial lift of 1.5m including breaking the clods to maximum 60 mm cube, placing the earth in layers not exceeding 225 mm thicka ll complete as per specification and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	9.00	nos	424.00	₹ 3,816.00	SI-1
		Skilled Mazdoor	1.00	nos	536.00	₹ 536.00	SI-3
		Mate	0.25	nos	455.00	₹ 113.75	SII-2
					Total	₹ 4,465.75	
		Add Overhead charge & C.P @ 15 %				₹ 669.86	
						₹ 5,135.61	
		Rate per Cum			**Say, Rs**	**₹ 181.30**	**Per M^3**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
10	**5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting and carrying	11.00	nos	424.00	₹ 4,664.00	SI-1
		Head Mason	0.25	nos	569.00	₹ 142.25	SII -3
					Total	₹ 4,806.25	
		Add Overhead charge & C.P @ 15 %				₹ 720.94	
						₹ 5,527.19	
		Rate per Cum			**Say, Rs**	**₹ 195.20**	**Per M^3**
11	**5.3.8**	Providing & laying **P.C.C. M-100** with nominal mix of (1:3:6) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A.	**MATERIALS**					
		Coarse aggregates Gr IV **(Rate of approved quality of aggregate as per Design)**	2.66	M^3	1115.24	₹ 2,966.54	M047
		Sand	1.330	M^3	584.64	₹ 777.57	M-004
		Cement	0.443	M^3	8264.70	₹ 3,661.26	M-1P
		Total				₹ 7,405.37	
	B.	**LABOUR**					
		Head mason	0.5	nos	569.00	₹ 284.50	S II -3
		Mason Gr II	1	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor	12	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	C.	**HIRE CHARGES OF MACHINE**					
		(i)Concrete mixer (10 H.P) for 2.832 cum consists	**1.43**	hr	351	₹ 501.93	
		on the basic of mixer production capacity 1.98 m3					
		per hour. Used rate per hourx2.832/1.98					
		(ii) Vibrator 1no. To vibrate 2.832 cum on the	**1.43**	hr	405	₹ 579.15	
		basic of vibrator capacity 1.98 cum per hour.					
		Used rate per hourx2.832/1.98					
		Total				₹ 14,783.95	
		Add Overhead charge & C.P	15	%		₹ 2,217.59	
						₹ 17,001.55	**Per M^3**
					Say, Rs	**₹ 6,003.37**	**Per M^3**
12	**5.3.4**	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		Course Aggregate (20mm & 10mm) **(Taking Rate of approved quality as per design)**	2.55	m^3	913.48	₹ 2,327.55	M044
		Sand	1.27	m^3	584.64	₹ 744.83	M-004
		Cement	0.64	m^3	8264.70	₹ 5,264.62	M-1P
		Total				₹ 8,337.00	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor for controlling Slope and fine dressing	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					Total	₹ 15,715.58	
		Add Overhead charge &c.P @ 15 %				₹ 2,357.34	
						₹ 18,072.92	
		Rate per Cum			**Say, Rs**	**₹ 6,381.70**	**Per M^3**
13	**5.3.5**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		Course Aggregate (20mm & 10mm) **(Taking Rate of approved quality as per design)**	2.44	m^3	913.48	₹ 2,225.24	M044
		Sand	1.22	m^3	584.64	₹ 712.09	M-004
		Cement	0.81	m^3	8264.70	₹ 6,710.94	M-1P
		Total				₹ 9,648.27	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor for controlling Slope and fine dressing	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					Total	₹ 17,026.85	
		Add Overhead charge &c.P @ 15 %				₹ 2,554.03	
						₹ 19,580.88	
		Rate per Cum			**Say, Rs**	**₹ 6,914.20**	**Per M^3**
14	**5.3.5**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		Course Aggregate (20mm & 10mm) **(Taking Rate of approved quality as per design)**	2.436	m^3	913.48	₹ 2,225.24	M044
		Sand	1.218	m^3	584.64	₹ 712.09	M-004
		Cement	0.812	m^3	8264.70	₹ 6,710.94	M-1P
		Total				₹ 9,648.27	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					Total	₹ 17,026.85	
		Add Overhead charge &c.P @ 15 %				₹ 2,554.03	
						₹ 19,580.88	
		Rate per Cum			**Say, Rs**	**₹ 6,914.20**	**Per M^3**
15	**5.3.11**	Providing & laying P.C.C. or R.C.C. **M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		coarse Aggregate (20mm & 10mm) (Cost of coarse aggregates as per design)	2.38	m^3	913.48	₹ 2,173.17	M044
		Sand	1.19	m^4	584.64	₹ 695.14	M-004
		Cement	1.19	m^5	8264.70	₹ 9,826.73	M-1P
		Total				₹ 12,695.04	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor for controlling Slope and fine dressing	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					total	₹ 20,073.62	
		Add Overhead charge &c.P @ 15 %				₹ 3,011.04	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
						₹ 23,084.66	
		Rate per Cum			**Say, Rs**	**₹ 8,151.40**	**Per M^3**
16	**5.3.22**	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.					
		Unit :- **Per M.T**					
		Taking Output :- 1 M.T					
	(a)	TMT grade Fe-500 ***8 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	52450	₹ 55,072.50	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 66,025.70	
		Add Overhead charge &c.P @ 15 %				₹ 9,903.86	
						₹ 75,929.56	
		Rate per M.T			**Say, Rs**	**₹ 75,929.60**	**Per M.T**
	(B)	TMT grade Fe-500 ***10 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	51094	₹ 53,648.70	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 64,601.90	
		Add Overhead charge &c.P @ 15 %				₹ 9,690.29	
						₹ 74,292.19	
		Rate per M.T			**Say, Rs**	**₹ 74,292.20**	**Per M.T**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	(C)	TMT grade Fe-500 ***12 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
	(C)	TMT grade Fe-500 ***16 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
	(C)	TMT grade Fe-500 ***20 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
	(C)	TMT grade Fe-500 ***25 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
17	**5.3.18**	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 Sqm					
	A	**Material**					
		Local wood planks. 38 mm thick =9.3x38x1000	0.35	m^3			
		Add 5% wastage	0.02	m^3			
		Cost of 0.37 cum local wood planks.	0.37	m^3	26000.00	₹ 9,620.00	code no 1198 (RCD)
		Add cost for shattering and propping @ 10% of above				₹ 962.00	
					Total	₹ 10,582.00	
		Assuming 4 uses to calculate	4.00	use			
		Cost of shattering for 2.832 cum total cost /4				₹ 2,645.50	
		Add 1% for cost of nails and spikes on total cost of wood				₹ 105.82	
					Total	₹ 2,751.32	A
	B	**Labour**					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Carpenter Gr-II	1.50	nos	508.00	₹ 762.00	S II-17
		Unskilled mazdoor	2.50	nos	424.00	₹ 1,060.00	S I-1
					Total	₹ 1,822.00	B
	C	**Carriage of materials**					
		Cost of carriage of material from godown and back to godown after use, including loading, unloading and stacking @ 1% of total cost of food materials				₹ 105.82	C
		Total cost for 9.3 sqm=A+B+C				₹ 4,679.14	
		Add Overhead charge &c.P @ 15 %				₹ 701.87	
						₹ 5,381.01	
		Rate per Sqm			**Say, Rs**	**₹ 578.60**	**Per M2**
18	**5.3.20**	Providing centering including strutting, proping etc. and its removal after use indeck slab as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 22.326 Sqm					
		(Assuming size in slab 7.32 x 3.05 =22.326 sqm)					
	A	**MATERIALS**					
		a. 40 mm thick local wood planks (22.326x 40)/1000 = 0.893					
		Add 5% wastages = 0.045					
		0.938	0.94	m^3	**26000.00**	**₹ 24,440.00**	**Code no. 1197 (BCD)**
		Assuming 4 uses to calculate	4.00	use			
		Cost of planks per use = 0.89 x rate of local wood/4				**₹ 6,110.00**	
		b. Assuming avg. height of slab from GL = 3.66 m					
		150 mm sal bullah required = 78 nos.					
		Length of sal bullah = 78X3.66 =285.48	285.48	M	**75.00**	**₹ 21,411.00**	**M SL No. 223**
		(Assuming sal bullah to be used 10 times for centering					
		= 285.48 x Rate per mtr/10				**₹ 2,141.10**	
		c. Salwood scanting required (75 mm * 63 mmsize) = 0.311 cum	0.31	m^3	**60000.00**	**₹ 18,660.00**	**Code no. 1199 (BCD)**
		(Assuming 10 uses)					
		Cost per use = 0.311 x Rate per mtr/10				**₹ 1,866.00**	
		Total				**₹ 10,117.10**	
		Add 1% for cost of nails and spikes				**₹ 101.17**	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
						₹ 10,218.27	**(A)**
	B	**LABOUR**					
		Carpenter Gr-II	4.00	nos	508.00	₹ 2,032.00	S I-17
		Unskilled Majdoor	7.00	nos	424.00	₹ 2,968.00	S I-1
					Total	₹ 5,000.00	**(B)**
	C	Carriage of Materials					
		Cost of carriage of material from godown and back to godown after use, including loading, unloading and stacking @ 1% of total cost of food materials				₹ 101.17	
		Total cost for 22.326 sqm=A+B+C				₹ 15,319.44	
		Add Overhead charge & C.P @ 15 %				₹ 2,297.92	
		Total				₹ 17,617.36	
		Rate per Sqm			**Say, Rs**	**₹ 789.10**	**Per M2**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
17	**5.5.10**	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 Sqm					
		Material					
		Cement	0.01	m^4	8264.70	₹ 115.71	M-1P
					Total	₹ 115.71	
	B	**Labour**					
		Head mason	0.06	nos	569.00	₹ 35.56	S II-3
		Mason Gr-II	0.50	nos	508.00	₹ 254.00	S II-4
		Unskilled mazdoor	0.25	nos	424.00	₹ 106.00	S II-1
					Total	₹ 395.56	
		Total				₹ 511.27	
		Add Overhead charge &c.P @ 15 %				₹ 76.69	
						₹ 587.96	
		Rate per Cum			**Say, Rs**	**₹ 63.20**	**Per M^3**
18	**5.2.2**	Providing filter of stone chips 20 mm and down well graded as per design for lined canal, drains including hand packing etc all complete as per specification and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Material					
		Sone chips (M-040 +M -045)/2	2.83	nos	673.97	₹ 1,908.68	M-004
		Labour					
		Unskilled mazdoor for Screening and grading Filter	2.00	nos	424.00	₹ 848.00	SI-1
		Unskilled mazdoor for laying and hand packing	1.50	nos	424.00	₹ 636.00	SI-1
					Total	₹ 3,392.68	
		Add Overhead charge &c.P @ 15 %				₹ 508.90	
						₹ 3,901.59	
		Rate per Cum			**Say, Rs**	**₹ 1,377.70**	**Per M^3**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
19	**5.7.13**	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Unskilled Mazdoor	3	nos.	424.00	1272.00	
						1272.00	
		Add Overhead charge & C.P. @15%				190.80	
						1462.80	
					Say, Rs	**₹ 516.50**	**Per M^3**
20	**5.7.18.1**	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Unskilled Mazdoor	6	nos.	424.00	2544.00	
		Mason Gr II	0.5	nos.	508.00	254.00	
		Mate	0.25	nos.	455.00	113.75	
		Stone Dresser	0.25	nos.	538.00	134.50	
						3046.25	
		Add Overhead charge & C.P. @15%				456.94	
						3503.19	
					Say, Rs	**₹ 1,237.00**	**Per M^3**
21	**5.1.37**	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Unskilled Mazdoor for cutting	1	nos.	424.00	424.00	
		Local Sand	2.832	nos.	145.87	413.10	
						837.10	
		Add Overhead charge & C.P. @15%				125.57	
						962.67	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
					Say, Rs	₹ 339.90	Per M^3

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
20	**5.5.5**	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.				**Page -261**	
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 cum					
		Materials					
		Cement	0.07	m^3	8264.70	₹ 562.00	M-1 P
		Sand	0.27	m^3	584.64	₹ 159.02	M044
		Total				₹ 721.02	
		Labour					
		Mason Gr II	1.50	nos	508.00	₹ 762.00	SII-4
		Unskilled Mazdoor	2.50	nos	424.00	₹ 1,060.00	SII-1
		Bhisti	0.50	nos	417.00	₹ 208.50	SI-13
					total	₹ 2,030.50	
		Add Overhead charge &c.P @ 15 %				₹ 412.73	
						₹ 3,164.25	
		Rate per Cum			**Say, Rs**	**₹ 340.20**	**Per M^3**
21	**5.6.1**	Labour Charges for Laying of 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .					
	5.6.1.1	**150 mm dia NP2 H.P.**					
		Unit: per m					
		Taking Output =	**8**	**m**			
		(Assuming 4 pipes of 2m length and three collars)					
		Materials					
		Cement	0.011	cum	8264.70	90.91	**M-1 P**
		Sand	0.011	cum	584.64	6.43	**M-004**
		Jute	1.5	Kg	20.89	31.34	**M Sl. No. 257**
		Total				128.68	
		Labour					
		Head Mason	0.50	nos	569.00	284.50	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Unskilled Mazdoor	2.25	nos	424.00	954.00	
		Fitter Gr I	0.50	nos	577.00	288.50	
		Total				1527.00	
						1655.68	
		Add Overhead charge & C.P @ 15 %				₹ 248.35	
						₹ 1,904.03	
					Say, Rs	**₹ 238.00**	**Per M**
	5.6.2	Labour Charges for Laying, fitting and fixing NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .					
	5.6.2.2	**600 mm dia NP3 H.P.**					
		Unit: per m					
		Taking Output =	**7.5**	**m**			
		(Assuming 3 pipes of 2.5 m length and two collars)					
		Materials					
		Cement	0.034	cum	8264.70	281.00	**M-1 P**
		Sand	0.034	cum	584.64	19.88	**M-004**
		Jute	4	Kg	20.89	83.56	**M Sl. No. 257**
		Total				384.44	
		Labour					
		Head Mason	1.5	nos	569.00	853.50	
		Unskilled Mazdoor	7	nos	424.00	2968.00	
		Fitter Gr I	0.75	nos	577.00	432.75	
		Total				4254.25	
						4638.69	
		Add Overhead charge & C.P @ 15 %				₹ 695.80	
						₹ 5,334.49	
					Say, Rs	**₹ 711.27**	**Per M**
	5.6.2.4	**1000 mm dia NP3 H.P.**					
		Unit: per m					
		Taking Output =	**7.5**	**m**			

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		(Assuming 3 pipes of 2.5 m length and two collars)					
		Materials					
		Cement	0.045	cum	8264.70	371.91	**M-1 P**
		Sand	0.045	cum	584.64	26.31	**M-004**
		Jute	7.5	Kg	20.89	156.68	**M Sl. No. 257**
		Total				554.90	
		Labour					
		Head Mason	2	nos	569.00	1138.00	
		Unskilled Mazdoor	21	nos	424.00	8904.00	
		Fitter Gr I	1	nos	577.00	577.00	
		Total				10619.00	
						11173.90	
		Add Overhead charge & C.P @ 15 %				₹ 1,676.08	
						₹ 12,849.98	
					Say, Rs	**₹ 1,713.33**	**Per M**
	5.6.2.5	**Labour Charges for Laying of 1200 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .**					
		Unit: per m					
		Taking Output =	**7.5**	**m**			
		(Assuming 3 pipes of 2.5 m length and two collars)					
		Materials					
		Cement	0.057	cum	8264.70	471.09	**M-1 P**
		Sand	0.057	cum	584.64	33.32	**M-004**
		Jute	12	Kg	20.89	250.68	**M Sl. No. 257**
		Total				755.09	
		Labour					
		Head Mason	2.5	nos	569.00	1422.50	
		Unskilled Mazdoor	25	nos	424.00	10600.00	
		Fitter Gr I	1	nos	577.00	577.00	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Total				12599.50	
						13354.59	
		Add Overhead charge & C.P @ 15 %				₹ 2,003.19	
						₹ 15,357.78	
					Say, Rs	**₹ 2,047.70**	**Per M**
22	**5.4.10**	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 2.832 cum					
		Materials					
		Stone Boulder	2.832	cum	694.61	1967.14	
		Sand	1.12	cum	584.64	654.80	
		Cement	0.28	cum	8264.70	2314.12	
		Labour				4936.05	
		Head Mason	0.125	nos	569.00	71.13	
		Mason Gr II	2	nos	508.00	1016.00	
		Unskilled Mazdoor	5	nos	424.00	2120.00	
		Bhisti	0.5	nos	417.00	208.50	
						3415.63	
						8351.67	
		Add Overhead charge & C.P @ 15 %				₹ 1,252.75	
						₹ 9,604.43	
					Say, Rs	**₹ 3,391.40**	**Per M^3**
23	**5.7.16**	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 cum					
		Materials					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Bricks	800	per 1000 nos	4891.00	3912.80	
		Local Sand	0.425	cum	145.87	61.99	
		Total				3974.79	
		Labour					
		Mason Gr II	1.125	nos	508.00	571.50	
		Unskilled Mazdoor	2.25	nos	424.00	954.00	
						1525.50	
						5500.29	
		Add Overhead charge & C.P @ 15 %				₹ 825.04	
						₹ 6,325.34	
					Say, Rs	**₹ 680.10**	**Per M^3**
24	**5.8.9**	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 2.832 cum					
		Hammer man	2.25	nos	445.00	₹ 1,001.25	SII-17
		Skilled Mazdoor	2.25	nos	536.00	₹ 1,206.00	SII-18
		Unskilled mazdoor	7.00	nos	424.00	₹ 2,968.00	SI-1
		Blacksmith GR II	1.00	nos	508.00	₹ 508.00	SII-10
		Mate	1.00	nos	455.00	₹ 455.00	SII-2
					total	₹ 6,138.25	
		Add Overhead charge & C.P @ 15 %				₹ 920.74	
						₹ 7,058.99	
		Rate per Cum			**Say, Rs**	**₹ 2,492.58**	**Per M^3**
25	**5.4.6**	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 2.832 cum					
		Materials					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Bricks	1150	per 1000 nos	4891.00	5624.65	
		Sand	0.92	cum	584.64	537.87	
		Cement	0.23	cum	8264.70	1900.88	
		Total				8063.40	
		Labour					
		Head Mason	0.125	nos	569.00	71.13	
		Mason Gr II	2.5	nos	508.00	1270.00	
		Unskilled Mazdoor	6	nos	424.00	2544.00	
		Bhisti	1	nos	417.00	417.00	
						4302.13	
						12365.53	
		Add Overhead charge & C.P @ 15 %				₹ 1,854.83	
						₹ 14,220.35	
					Say, Rs	**₹ 5,021.30**	**Per M^3**

ITEM RATES					
Sl. No.	**Reference**		**Particular**	**Unit**	**Rate (in Rs.)**
1	**WRD SOR 2025 & PL 2025**	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	**Sqm**	**11.80**
2	**WRD SOR 2025 & PL 2025**	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.	**Cum**	**156.50**
3	**WRD SOR 2025 & PL 2025**	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	**Cum**	**149.30**
4	**WRD SOR 2025 & PL 2025**	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.	**Cum**	**196.10**
5	**WRD SOR 2025 & PL 2025**	**5.1.22**	Extra for wet earth all complete as per specifications and direction of E/I.	**Cum**	**17.22**
6	**WRD SOR 2025 & PL 2025**	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	**Cum**	**165.12**
7	**WRD SOR 2025 & PL 2025**	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	**Cum**	**61.88**

8	**WRD SOR 2025 & PL 2025**	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)		
		5.1.46.1	Beyond 150m but upto 1/2 km	**174.89**	**Cum**
		5.1.46.2	Beyond 1/2 km but upto 1 km	**217.92**	**Cum**
		5.1.46.3	Beyond 1 km but upto 1.50 km	**268.53**	**Cum**
		5.1.46.4	Beyond 1.50 km but upto 2.00 km	**319.14**	**Cum**
		5.1.46.5	Beyond 2.00 km but upto 2.50 km	**369.80**	**Cum**
		5.1.46.6	Beyond 2.50 km but upto 3.00 km	**420.40**	**Cum**
9	**WRD SOR 2025 & PL 2025**	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	**195.20**	**Cum**
10	**WRD SOR 2025 & PL 2025**	**WRD 5.5.10**	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	**Sqm**	**63.20**
11	**WRD SOR 2023 & PL JUNE 2025**	**5.5.5**	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of D/I.	**Cum**	**340.20**
12	**WRD SOR 2025 & PL 2025**	**5.3.8**	Providing & laying **P.C.C. M-100** with nominal mix of (1:3:6) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.	**Cum**	**6003.37**
13	**WRD SOR 2025 & PL 2025**	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	**Cum**	**6381.70**

14	**WRD SOR 2025 & PL 2025**	**5.3.5**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	**Cum**	**6914.20**
15	**WRD SOR 2025 & PL 2025**	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	**Cum**	**6914.20**
16	**WRD SOR 2025 & PL 2025**	**5.3.11**	Providing & laying **P.C.C. or R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	**Cum**	**8151.40**
17	**RCD 2025**	**RCD 14.09**	Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	**NO.**	5588.70
18	**WRD SOR 2025 & PL 2025**	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.		
			TMT Grade FE-500 - 8 mm	**MT**	**75929.60**
			TMT Grade FE-500 - 10 mm	**MT**	**74292.20**
			TMT Grade FE-500 - 12 mm	**MT**	**73574.90**
			TMT Grade FE-500 - 16 mm	**MT**	**73574.90**
			TMT Grade FE-500 - 20 mm	**MT**	**73574.90**
			TMT Grade FE-500 - 25mm	**MT**	**73574.90**
19	**WRD SOR 2025 & PL 2025**	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	**Cum**	**578.60**
20	**WRD SOR 2025 & PL 2025**	**WRD 5.3.20**	Providing centering including strutting, propping etc. and its removal after use in deck slab as per specifications and direction of E/I.	**Cum**	**789.10**
21	**WRD SOR 2025 & PL 2025**	**WRD 5.2.2**	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	**Cum**	**1377.70**
22	**WRD SOR 2025 & PL 2025**	**WRD 5.7.13**	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	**Cum**	**516.50**
23	**WRD SOR 2025 & PL 2025**	**WRD M-002**	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	**Cum**	694.61

24	**WRD SOR 2025 & PL 2025**	**WRD 5.7.18.1**	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	**Cum**	**1237.00**
25	**WRD SOR 2025 & PL 2025**	**WRD 5.1.37**	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .	**Cum**	**339.90**
26	**WRD SOR 2025 & PL 2025**	**WRD 5.5.5**	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	**Cum**	**340.20**
27	**WRD SOR 2025 & PL 2025**	**M-1701**	Providing 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**RM**	220.00
28	**WRD SOR 2025 & PL 2025**	**WRD 5.6.1.1**	Labour Charges for Laying of 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**RM**	**238.00**
29	**RCD 2025**	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	**R.M.**	6002.82
30	**WRD SOR 2025 & PL 2025**	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**R.M.**	**1713.33**
31	**RCD 2025**	**RCD M-149**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1200 mm dia with spigot	**R.M.**	7015.86
32	**WRD SOR 2025 & PL 2025**	**WRD 5.6.2.5**	Labour for laying 1200mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**R.M.**	**2047.70**
33	**WRD SOR 2025 & PL 2025**	**5.4.10**	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.	**Cum**	**3391.40**
34	**WRD SOR 2025 & PL 2025**	**M-181**	Structural Steel (Average rate of Angle, Joint and Channel) etc.	**MT**	**160035.11**
35	**WRD SOR 2025 & PL 2025**	**5.7.16**	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	**Sqm**	**680.10**
36	**RCD 2025**	**RCD 15.22**	Providing and fixing in position 20 mm thick compressible fibre board in expansion joint complete as per drawing & Technical specification.	**RM**	499.80
37	**RCD 2025**	**RCD M-151**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 600 mm dia with spigot	**RM**	2532.61

38	**WRD SOR 2025 & PL 2025**	**5.6.2.2**	Labour Charges for Laying, fitting and fixing NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**RM**	**711.27**
39	**WRD SOR 2025**	**M-126**	Modular Strip/box seal expansion joint	**RM**	36993.21
40	**PWD NH SOR CHHATISGARH 2025**	**3.18 PWD NH SOR CHHATISGARH 2025**	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (3.18 PWD NH SOR CHHATISGARH 2025)	**RM**	66.00
41	**RCD 2025**	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 900 mm dia with spigot	**R.M.**	4849.67
42	**RCD 2025**	**13.08**	Weepholes	**No.**	152.60
43	**RCD 2025**	**3.06 - 301**	Excavation for road work in soil with hydraulic excavator including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and tranporting to the embankment location within all lifts and lead upto 1000 m	**Cum**	78.40
44	**RCD 2025**	**4.01 B - 401**	Construction of granular sub-base by providing closegraded material, spreading in uniform layers with motorgrader on prepared surface, mixing by mix in placemethod with front end loader at OMC, and compactingwith vibratory roller to achieve the desired density,complete as per clause 401.	**Cum**	1044.90
45	**RCD 2025**	**14.01 C**	RCC Grade M-30 using Batching plant, Transit Mixer and Concrete Pump	**Cum**	6217.20
46	**RCD 2025**	**8.14**	Kilometer Stone M-15	**Nos.**	3853.40

	MATERIAL RATE:				
1	**WRD SOR 2025**	**M-004**	Coarse Sand	**Cum**	584.64
2	**WRD SOR 2025**	**M-012**	Coarse Aggregate	**Cum**	944.26
3	**WRD SOR 2025**	**M-001**	Boulder	**Cum**	694.61
4	**WRD SOR 2025**	**M-11 9(ii)**	Brick	**Cum**	4891
5	**WRD SOR 2025**	**M-006**	Fine Sand	**Cum**	145.87
6	**WRD SOR 2025**	**M1**	Cement (Gaya)	**per bag of 50 Kg**	281.00
7	**WRD SOR 2025**	**M-025**	Aggregate 26.5 mm to 4.75 mm	**Cum**	913.48
8	**WRD SOR 2025**	**M-015**	Aggregate 9.5 mm to 4.75 mm	**Cum**	602.28
9	**WRD SOR 2025**	**M-017**	Aggregate 4.75 mm and below	**Cum**	266.62
10	**WRD SOR 2025**	**M-181**	Structural Steel	**MT**	55116.67

Amba Division – Basdiha Dy.
(Total Cost – Rs. 25.76 Crores)

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND

ABSTRACT OF COST (BASDIHA DISTRIBUTARY)

S. No.	Items	Qty.	Unit	Rate	Seigniorage Charges	Amount (Rs.) Including Seigniorage Charges	Reference for rate	Page no.
1	Earthwork							
	BASDIHA DISTRIBUTARY	1	Job	35760147.17	0.00	₹ 3,57,60,147.17	AOC Earthwork Basdiha Distributary	49
	SHANKARPUR MINOR	1	Job	4730879.23	0.00	₹ 47,30,879.23	AOC Earthwork Shankarpur mr	51
	KHAIRA MINOR	1	Job	15342835.56	0.00	₹ 1,53,42,835.56	AOC Earthwork Khaira mr	53
	GAMHARIYA MINOR	1	Job	7903976.42	0.00	₹ 79,03,976.42	AOC Earthwork Gamhariya mr	55
	PITAMPURA SUB DY.	1	Job	25179631.21	0.00	₹ 2,51,79,631.21	AOC Earthwork Pritampura Sub Dy.	57
	CHANDAULI MINOR	1	Job	4044545.06	0.00	₹ 40,44,545.06	AOC Earthwork Chandauli mr.	59
	SIMRA MINOR	1	Job	7523398.22	0.00	₹ 75,23,398.22	AOC Earthwork Simra mr.	61
	SALEMPUR MINOR	1	Job	7198034.21	0.00	₹ 71,98,034.21	AOC Earthwork Salempur mr.	63
2	Head Regulator							
	SHANKARPUR MINOR	1	No.	1733026.27	12543.79	₹ 17,45,570.06	HR (AOC) Basdiha Distributary	73
	KHAIRA MINOR	1	No.	2139477.78	14841.02	₹ 21,54,318.80	HR (AOC) Khaira mr.	75
	GAMHARIYA MINOR	1	No.	2639665.52	18356.52	₹ 26,58,022.04	HR (AOC) Gamhariya mr.	77
	PITAMPURA SUB DY.	1	No.	3154486.95	19432.75	₹ 31,73,919.70	HR (AOC) Pritampura Sub dy.	79
	CHANDAULI MINOR	1	No.	1316321.91	8465.13	₹ 13,24,787.04	HR (AOC) Chandauli mr.	81
	SIMRA MINOR	1	No.	2139024.37	15733.86	₹ 21,54,758.23	HR (AOC) Simra Mr.	83
	SALEMPUR MINOR	1	No.	2159238.87	16603.82	₹ 21,75,842.69	HR (AOC) Salempur mr.	85
3	Falls							
	BASDIHA DISTRIBUTARY :							
	0.457 m Fall at Ch. 0.355 Km	1	No.	2378574.33	22710.37	₹ 24,01,284.70	Fall (AOC) Basdiha Distributary	128
	1.981 m Fall at Ch. 1.150 Km	1	No.	7895758.48	75006.19	₹ 79,70,764.67		129
	0.305 m Fall at Ch. 3.050 Km	1	No.	2057780.10	19666.10	₹ 20,77,446.20		130
	1.828 m Fall at Ch. 6.100 Km	1	No.	6247630.84	59322.37	₹ 63,06,953.20		133
	0.610 m AT Ch. 10.060 KM	1	No.	2073391.88	20399.27	₹ 20,93,791.15		134
	1.067 m Fall at Ch. 11.150 Km	1	No.	1964435.72	18483.59	₹ 19,82,919.32		135
	0.762 m Fall at Ch. 11.950 Km	1	No.	1640483.19	14759.94	₹ 16,55,243.13		136
	0.610 m Fall at Ch. 13.800 Km	1	No.	1522852.55	20502.21	₹ 15,43,354.77		137
	0.305 M Fall at Ch. 13.900 Km	1	No.	2512151.04	10300.95	₹ 25,22,451.99		139
	0.457 m Fall at Ch. 14.465 Km	1	No.	2178780.85	17328.07	₹ 21,96,108.91		165
	0.914 m Fall at Ch. 15.515 Km	1	No.	2350368.38	20827.35	₹ 23,71,195.73		140
	1.067 m Fall at Ch. 16.000 Km	1	No.	1504931.76	13353.50	₹ 15,18,285.26		141
	0.762 m Fall at Ch. 18.040 Km	1	No.	1982442.07	17337.61	₹ 19,99,779.67		142
	0.610 m Fall at Ch. 19.700 Km	1	No.	984529.61	8549.21	₹ 9,93,078.82		143
	1.067 m Fall at Ch. 20.100 Km	1	No.	1893805.92	16649.08	₹ 19,10,455.00		145
	0.610 m Fall at Ch. 22.000 Km	1	No.	683564.93	5785.83	₹ 6,89,350.76		146
	SHANKARPUR MINOR							
	1.676 m Fall at Ch. 2.950 Km	1	No.	895092.78	7574.50	₹ 9,02,667.28	Fall (AOC) Shankarpur mr.	148
	1.070 m Fall at Ch. 4.350 Km	1	No.	354005.57	2790.60	₹ 3,56,796.17		149
	KHAIRA MINOR :							
	0.305m Fall at Ch. 3.075 Km	1	No.	564226.21	4823.00	₹ 5,69,049.22		150

S. No.	Items	Qty.	Unit	Rate	Seigniorage Charges	Amount (Rs.) Including Seigniorage Charges	Reference for rate	Page no.
	1.372 m Fall at Ch. 3.850 Km	1	No.	1100055.45	9576.65	₹ 11,09,632.10	Fall (AOC) Khaira mr.	151
	0.305m Fall at Ch. 6.635 Km	1	No.	846918.84	7255.15	₹ 8,54,173.99		152
	1.372 m Fall at Ch. 8.450 Km	1	No.	1340033.16	11640.55	₹ 13,51,673.70		153
	PITAMPURA SUB DY.							
	1.676 m Fall at Ch. 2.600 Km	1	No.	2575127.48	23526.09	₹ 25,98,653.57	Fall (AOC) Pritampura sub dy.	154
	0.457 m Fall at Ch. 10.600 Km	1	No.	913645.51	7889.69	₹ 9,21,535.20		155
	0.610m Fall at Ch. 12.150 Km	1	No.	832155.96	7208.47	₹ 8,39,364.43		156
	0.610m Fall at Ch. 13.700 Km	1	No.	520044.62	4351.37	₹ 5,24,395.98		157
	SIMRA MINOR :							
	0.610 m Fall at Ch.1.650 Km	1	No.	505193.14	4201.29	₹ 5,09,394.43	Fall (AOC) Simra mr.	158
	0.610 m Fall at Ch.2.475 Km	1	No.	501102.90	4196.74	₹ 5,05,299.64		159
	0.610 m Fall at Ch.3.46 Km	1	No.	454622.94	3752.81	₹ 4,58,375.76		160
	SALEMPUR MINOR :							
	0.457 m Fall at Ch. 0.950 Km	1	No.	536536.76	4563.66	₹ 5,41,100.42	Fall (AOC) Salempur mr.	162
	1.067 m Fall at Ch. 2.900 Km	1	No.	634736.06	5365.46	₹ 6,40,101.52		163
	0.305 m Fall at Ch. 4.370 Km	1	No.	396787.58	3296.31	₹ 4,00,083.88		164
4	*Slab Bridge*							
	Basdiha Dy.							
	At Km 9.625	1	No.	3050799.00	11517.95	₹ 30,62,316.95	Slab-AOC Basdiha Dy.	276
	Khaira Minor :							
	At Km 3.255	1	No.	1991001.41	5623.39	₹ 19,96,624.81	Slab-AOC Khaira mr.	270
	PITAMPURA SUB DY.							
	At Km 0.410	1	No.	2426888.84	8103.50	₹ 24,34,992.34	Slab-AOC Pritampura Sub dy.	272
	At Km 4.965	1	No.	2416227.86	8048.86	₹ 24,24,276.72		274
5	*Brick Sec*	1	No.	23390310.74	62151.82	₹ 2,34,52,462.55	Brick Sec AOC	289
6	*Repair of Structures*							
	BASDIHA DISTRIBUTARY	21	No.	1705963.324	10032.48	₹ 17,15,995.81	Abstract (Repair St.) Basdiha Distributary	291
	SHANKARPUR MINOR	7	No.	239565.3566	164.29	₹ 2,39,729.65	Abstract (Repair St.) Shankarpur mr.	292
	KHAIRA MINOR	15	No.	1069582.252	7052.16	₹ 10,76,634.42	Abstract (Repair St.) Khaira mr.	293
	GAMHARIYA MINOR	9	No.	139873.3823	542.79	₹ 1,40,416.17	Abstract (Repair St.) Gamhariya mr.	294
	PITAMPURA SUB DY.	28	No.	719473.0919	2638.92	₹ 7,22,112.02	Abstract (Repair St.) Pritampura Sub Dy.	295
	CHANDAULI MINOR	9	No.	200579.6032	640.45	₹ 2,01,220.05	Abstract (Repair St.) Chandauli mr.	296
	SIMRA MINOR	4	No.	289163.0259	1228.02	₹ 2,90,391.04	Abstract (Repair St.) Simra mr.	297
	SALEMPUR MINOR	9	No.	381036.0226	3691.03	₹ 3,84,727.05	Abstract (Repair St.) Salempur mr.	298
	APPROACH ROAD	36	No.	521018.55	7578.59	₹ 1,90,29,497.21	Approach Road AOC	405
7	Outlets							
	BASDIHA DISTRIBUTARY	78	No.	127744.47	1100.17	₹ 1,00,49,881.97	Outlet-AOC	403
	SHANKARPUR MINOR	5	No.	127744.47	1100.17	₹ 6,44,223.20		403
	KHAIRA MINOR	12	No.	127744.47	1100.17	₹ 15,46,135.69		403
	GAMHARIYA MINOR	16	No.	127744.47	1100.17	₹ 20,61,514.25		403
	PITAMPURA SUB DY.	53	No.	127744.47	1100.17	₹ 68,28,765.96		403
	CHANDAULI MINOR	5	No.	127744.47	1100.17	₹ 6,44,223.20		403
	SIMRA MINOR	7	No.	127744.47	1100.17	₹ 9,01,912.48		403
	SALEMPUR MINOR	8	No.	127744.47	1100.17	₹ 10,30,757.13		403
8	Kilometer Stone	76	No.	3853.40	0.00	₹ 2,92,858.40	Rates F61	436
	TOTAL (In Rs.)					**₹ 25,75,57,095.28**		
	TOTAL (In Lacs)					**2575.57**		

	Carriage of Materials -Abstract		
1	Steel & Cement (30 Km)	M.T.	**742.00**
2	RCC Hume Pipe (30 Km)	Per Meter	
	150 mm dia	Per Meter	**82.00**
	600 mm dia	Per Meter	**919.00**
	1000 mm dia	Per Meter	**1470.00**
	1200 mm dia	Per Meter	**1838.00**
3	Bricks (15 Km)	Per 1000 no	**3.18**
4	Boulder (60 Km)	Cumecs	**1159.0**
5	Coarse Sand (60 Km)	Cumecs	**1075.00**
6	Stone Chips/Aggregate (100 Km)	Cumecs	**1398.0**

CARRIAGE OF MATERIAL BY TIPPER OF 18 CUM CAPACITY INCLUDING OVER HEAD CHARGES & C.P																		
Sr No	Name Of Materials	Unit	Gross Tipper Capacity Per Trip	(For Void) Multiplying Factor	Net Tipper capacity (Payable Quantity) Per Trip	Cost of Loading,Unloading & Stacking Per Trip of Tipper (Tipperr capacity 18 cum x Xa_1	Cost of Haulage Per cum			Cost of Haulage Per Tipper of 18 cum capacity (Tipper capacity 18 Cum x H)			Lead in KM			Carriage of Cost =[(18Hsa.Ls+18Hua.Lu+18Hka.Lk)+18 X_a	Per Unit Rate =(col 17 / Net Payable capacity)
							For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed		
						$18X_a$	H_{Sa}	H_{ua}	H_{ka}	$18H_{Sa}$	$18H_{Ua}$	$18H_{Ka}$	L_S	L_U	L_K		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Boulder (60 Kms)	M^3	18	0.80	14.4	6507.00	9.10	11.10	22.20	163.80	199.80	399.60	50	10	0	16695	1159.00
2	Stone Aggregate (100 Kms)	M^3	18	0.924	16.63	6507.00	9.10	11.10	22.20	163.80	199.80	399.60	90	10	0	23247	1398.00
3	Sand (60 Kms)	M^3	18	0.924	16.63	6507.00	9.10	11.10	22.20	163.80	199.80	399.60	45	10	5	17874	1075.00

CARRIAGE OF MATERIAL BY TIPPER OF 25 TONNES CAPACITY INCLUDING OVER HEAD CHARGES & C.P																	
Sr No	Name Of Materials	Unit	Gross Tipper Capacity Per Trip	(For Void) Multiplying Factor	Net Tipper capacity (Payable Quantity) Per Trip	Cost of Loading,Unloading & Stacking Per Trip of Tipper (Tipperr capacity 25 t x X_b)	Cost of Haulage Per cum			Cost of Haulage Per Tipper of 8 tonne capacity (Tipper capacity 8x H)			Lead in KM			Carriage of Cost =[(25Hsa.Ls+25Hua.Lu+25Hka.Lk)+25 X_a	Per Unit Rate =(col 17 / Net Payable capacity)
							For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed		
						$25X_b$	H_{Sb}	Hub	H_{Kb}	$25H_{Sb}$	$25H_{Ub}$	$25H_{Kb}$	L_S	L_U	L_K		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	**Cement & Steel (30 Kms)**	M.T	25	1	25	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	20	10	0	18550	742.00
2	**Brick ($9^{3/4}$x$4^{3/4}$x$2^{3/4}$) (15 Kms)**	Per % 0	5000	1	5000	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	10	5	0	15900	3180.00
3	**R.C.C hume, A.C. pipe (30 Km)**																
a	**150 mm dia**	mtr	225	1	225	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	82.00
b	**500 mm & 600 mm dia**	mtr	20	1	20	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	919.00
c	**900mm & 1000 mm dia**	mtr	12.5	1	12.5	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	1470.00
d	**1100 & 1200 m dia**	mtr	10	1	10	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	1838.00

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

CONCRETE MIX RATIO TABLE

Sl. No.	Mixes	Unit by Volume (Cum)	Crushed Aggregate			
			Cement (bags of 50 kg)	Sand (Cum)	Coarse Aggregate (Cum)	Boulder (Cum)
1	M -10 (1:3:6)	1.00	4.49	0.47	0.94	
2	M -15 (1:2:4)	1.00	6.48	0.45	0.90	
3	M -20 (1:1.5:3)	1.00	8.25	0.43	0.86	
4	M -25 (1:1:2)	1.00	11.34	0.39	0.79	
5	M-30 (1:0.75:1.5)	1.00	13.96	0.36	0.73	
6	RR Masonary (1:4)	1.00	2.880	0.40		1.00
7	Brick Work (1:4)	1.00	2.304	0.320		
8	Cement Plaster (1:4)	1.00	1.037	0.015		
9	Cement Punning	1.00	0.0015			

DETAIL QUANTITIES OF EARTHWORK

BASDIHA SUB DY (0.000 TO 23.600 KM)

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
0		0.000	0	0	0.000	0	0.000
100	100	14.185	7.093	709.250	3.197	1.599	159.850
200	100	10.771	12.478	1247.800	4.510	3.854	385.350
300	100	8.073	9.422	942.200	5.719	5.115	511.450
400	100	12.269	10.171	1017.100	3.071	4.395	439.500
500	100	9.646	10.958	1095.750	5.708	4.390	438.950
600	100	7.052	8.349	834.900	7.452	6.580	658.000
700	100	7.219	7.136	713.550	4.984	6.218	621.800
800	100	7.391	7.305	730.500	4.257	4.621	462.050
900	100	7.937	7.664	766.400	3.975	4.116	411.600
1000	100	8.567	8.252	825.200	4.255	4.115	411.500
1100	100	6.717	7.642	764.200	6.248	5.252	525.150
1200	100	24.014	15.366	1536.550	4.444	5.346	534.600
1300	100	6.345	15.180	1517.950	4.217	4.331	433.050
1400	100	6.348	6.347	634.650	1.610	2.914	291.350
1500	100	5.575	5.962	596.150	2.655	2.133	213.250
1600	100	3.255	4.415	441.500	5.515	4.085	408.500
1700	100	2.766	3.011	301.050	9.549	7.532	753.200
1800	100	2.706	2.736	273.600	11.349	10.449	1044.900
1900	100	2.365	2.536	253.550	7.288	9.319	931.850
2000	100	11.762	7.064	706.350	2.363	4.826	482.550
2100	100	6.359	9.061	906.050	7.141	4.752	475.200
2200	100	4.174	5.267	526.650	4.908	6.025	602.450
2300	100	2.838	3.506	350.600	2.419	3.664	366.350
2400	100	1.537	2.188	218.750	3.253	2.836	283.600
2500	100	1.371	1.454	145.400	3.729	3.491	349.100
2600	100	2.734	2.053	205.250	1.850	2.790	278.950
2700	100	2.513	2.624	262.350	2.629	2.240	223.950
2800	100	2.186	2.350	234.950	3.715	3.172	317.200
2900	100	7.574	4.880	488.000	0.746	2.231	223.050
3000	100	4.674	6.124	612.400	2.494	1.620	162.000
3100	100	4.739	4.707	470.650	2.258	2.376	237.600
3200	100	5.347	5.043	504.300	1.568	1.913	191.300
3300	100	7.043	6.195	619.500	1.623	1.596	159.550
3400	100	4.257	5.650	565.000	2.547	2.085	208.500
3500	100	1.903	3.080	308.000	3.325	2.936	293.600
3600	100	0.743	1.323	132.300	5.485	4.405	440.500
3700	100	0.543	0.643	64.300	8.893	7.189	718.900
3800	100	22.382	11.463	1146.250	3.945	6.419	641.900
3900	100	8.911	15.647	1564.650	1.757	2.851	285.100
4000	100	6.595	7.753	775.300	1.205	1.481	148.100
4100	100	5.949	6.272	627.200	1.507	1.356	135.600
4200	100	6.250	6.100	609.950	1.662	1.585	158.450
4300	100	5.690	5.970	597.000	3.198	2.430	243.000

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
4400	100	5.426	5.558	555.800	3.791	3.495	349.450
4500	100	4.700	5.063	506.300	2.052	2.922	292.150
4600	100	12.629	8.665	866.450	6.190	4.121	412.100
4700	100	6.852	9.741	974.050	6.447	6.319	631.850
4800	100	8.850	7.851	785.100	5.235	5.841	584.100
4900	100	9.202	9.026	902.600	3.182	4.209	420.850
5000	100	8.196	8.699	869.900	3.002	3.092	309.200
5100	100	7.992	8.094	809.400	1.962	2.482	248.200
5200	100	6.732	7.362	736.200	1.806	1.884	188.400
5300	100	5.036	5.884	588.400	2.563	2.185	218.450
5400	100	3.907	4.472	447.150	3.824	3.194	319.350
5500	100	3.786	3.847	384.650	3.076	3.450	345.000
5600	100	2.764	3.275	327.500	4.645	3.861	386.050
5700	100	2.201	2.483	248.250	6.429	5.537	553.700
5800	100	3.206	2.704	270.350	6.759	6.594	659.400
5900	100	2.464	2.835	283.500	9.414	8.087	808.650
6000	100	2.133	2.299	229.850	11.855	10.635	1063.450
6100	100	31.876	17.005	1700.450	7.982	9.919	991.850
6200	100	8.639	20.258	2025.750	5.189	6.586	658.550
6300	100	7.366	8.003	800.250	3.542	4.366	436.550
6400	100	6.372	6.869	686.900	3.281	3.412	341.150
6500	100	6.685	6.529	652.850	2.327	2.804	280.400
6600	100	8.659	7.672	767.200	2.503	2.415	241.500
6700	100	6.749	7.704	770.400	2.392	2.448	244.750
6800	100	4.932	5.841	584.050	2.437	2.415	241.450
6900	100	6.126	5.529	552.900	2.429	2.433	243.300
7000	100	7.985	7.056	705.550	1.672	2.051	205.050
7100	100	10.270	9.128	912.750	0.683	1.178	117.750
7200	100	5.637	7.954	795.350	2.789	1.736	173.600
7300	100	7.093	6.365	636.500	1.465	2.127	212.700
7400	100	6.805	6.949	694.900	1.121	1.293	129.300
7500	100	6.385	6.595	659.500	4.020	2.571	257.050
7600	100	6.002	6.194	619.350	2.550	3.285	328.500
7700	100	4.708	5.355	535.500	1.715	2.133	213.250
7800	100	3.963	4.336	433.550	2.074	1.895	189.450
7900	100	5.136	4.550	454.950	0.679	1.377	137.650
8000	100	4.720	4.928	492.800	1.547	1.113	111.300
8100	100	5.869	5.295	529.450	1.786	1.667	166.650
8200	100	4.613	5.241	524.100	2.562	2.174	217.400
8300	100	3.938	4.276	427.550	3.773	3.168	316.750
8400	100	3.668	3.803	380.300	3.964	3.869	386.850
8500	100	3.458	3.563	356.300	4.162	4.063	406.300
8600	100	3.279	3.369	336.850	4.355	4.259	425.850
8700	100	3.099	3.189	318.900	4.551	4.453	445.300
8800	100	2.925	3.012	301.200	4.781	4.666	466.600
8900	100	3.176	3.051	305.050	5.168	4.975	497.450

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
9000	100	3.851	3.514	351.350	5.438	5.303	530.300
9100	100	3.912	3.882	388.150	5.156	5.297	529.700
9200	100	4.084	3.998	399.800	4.845	5.001	500.050
9300	100	4.302	4.193	419.300	4.589	4.717	471.700
9400	100	4.333	4.318	431.750	3.391	3.990	399.000
9500	100	4.446	4.390	438.950	3.382	3.387	338.650
9600	100	4.505	4.476	447.550	3.292	3.337	333.700
9700	100	3.659	4.082	408.200	2.271	2.782	278.150
9800	100	3.868	3.764	376.350	1.773	2.022	202.200
9900	100	4.289	4.079	407.850	1.498	1.636	163.550
10000	100	4.559	4.424	442.400	1.465	1.482	148.150
10100	100	6.560	5.560	555.950	2.135	1.800	180.000
10200	100	6.920	6.740	674.000	0.642	1.389	138.850
10300	100	6.597	6.759	675.850	3.357	2.000	199.950
10400	100	5.645	6.121	612.100	2.174	2.766	276.550
10500	100	4.784	5.215	521.450	1.876	2.025	202.500
10600	100	18.602	11.693	1169.300	2.181	2.029	202.850
10700	100	4.409	11.506	1150.550	2.193	2.187	218.700
10800	100	3.078	3.744	374.350	1.546	1.870	186.950
10900	100	3.285	3.182	318.150	1.705	1.626	162.550
11000	100	3.518	3.402	340.150	1.857	1.781	178.100
11100	100	3.912	3.715	371.500	1.787	1.822	182.200
11200	100	8.114	6.013	601.300	2.610	2.199	219.850
11300	100	6.297	7.206	720.550	1.938	2.274	227.400
11400	100	4.535	5.416	541.600	1.571	1.755	175.450
11500	100	3.753	4.144	414.400	1.041	1.306	130.600
11600	100	3.678	3.716	371.550	1.589	1.315	131.500
11700	100	2.907	3.293	329.250	3.856	2.723	272.250
11800	100	25.804	14.356	1435.550	4.751	4.304	430.350
11900	100	6.915	16.360	1635.950	1.639	3.195	319.500
12000	100	6.849	6.882	688.200	1.517	1.578	157.800
12100	100	7.063	6.956	695.600	1.387	1.452	145.200
12200	100	6.271	6.667	666.700	1.725	1.556	155.600
12300	100	5.590	5.931	593.050	2.123	1.924	192.400
12400	100	4.982	5.286	528.600	1.766	1.945	194.450
12500	100	2.759	3.871	387.050	1.083	1.425	142.450
12600	100	3.291	3.025	302.500	0.419	0.751	75.100
12700	100	9.089	6.190	619.000	2.643	1.531	153.100
12800	100	2.861	5.975	597.500	1.297	1.970	197.000
12900	100	1.942	2.402	240.150	2.309	1.803	180.300
13000	100	1.649	1.796	179.550	2.637	2.473	247.300
13100	100	1.417	1.533	153.300	3.564	3.101	310.050
13200	100	1.609	1.513	151.300	4.335	3.950	394.950
13300	100	2.868	2.239	223.850	2.598	3.467	346.650
13400	100	2.192	2.530	253.000	2.274	2.436	243.600
13500	100	1.884	2.038	203.800	2.298	2.286	228.600

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
13600	100	1.964	1.924	192.400	2.829	2.564	256.350
13700	100	2.392	2.178	217.800	3.532	3.181	318.050
13800	100	15.685	9.039	903.850	4.837	4.185	418.450
13900	100	2.143	8.914	891.400	2.105	3.471	347.100
14000	100	1.836	1.990	198.950	2.287	2.196	219.600
14100	100	1.714	1.775	177.500	2.668	2.478	247.750
14200	100	1.541	1.628	162.750	2.896	2.782	278.200
14300	100	1.594	1.568	156.750	3.515	3.206	320.550
14400	100	1.630	1.612	161.200	4.164	3.840	383.950
14500	100	8.488	5.059	505.900	3.143	3.654	365.350
14600	100	6.596	7.542	754.200	1.325	2.234	223.400
14700	100	5.963	6.280	627.950	1.620	1.473	147.250
14800	100	4.055	5.009	500.900	3.746	2.683	268.300
14900	100	3.208	3.632	363.150	6.856	5.301	530.100
15000	100	1.589	2.399	239.850	3.566	5.211	521.100
15100	100	0.827	1.208	120.800	7.358	5.462	546.200
15200	100	1.915	1.371	137.100	5.898	6.628	662.800
15300	100	3.458	2.687	268.650	5.561	5.730	572.950
15400	100	4.971	4.215	421.450	5.954	5.758	575.750
15500	100	6.596	5.784	578.350	6.722	6.338	633.800
15600	100	2.649	4.623	462.250	3.041	4.882	488.150
15700	100	1.985	2.317	231.700	1.714	2.378	237.750
15800	100	0.558	1.272	127.150	3.334	2.524	252.400
15900	100	0.067	0.313	31.250	6.238	4.786	478.600
16000	100	5.878	2.973	297.250	0.405	3.322	332.150
16100	100	2.038	3.958	395.800	2.032	1.219	121.850
16200	100	1.526	1.782	178.200	2.833	2.433	243.250
16300	100	1.937	1.732	173.150	1.097	1.965	196.500
16400	100	1.290	1.614	161.350	1.935	1.516	151.600
16500	100	0.963	1.127	112.650	3.152	2.544	254.350
16600	100	1.040	1.002	100.150	4.256	3.704	370.400
16700	100	1.664	1.352	135.200	3.092	3.674	367.400
16800	100	1.314	1.489	148.900	4.202	3.647	364.700
16900	100	1.014	1.164	116.400	5.447	4.825	482.450
17000	100	0.759	0.887	88.650	6.773	6.110	611.000
17100	100	1.037	0.898	89.800	4.871	5.822	582.200
17200	100	0.490	0.764	76.350	6.454	5.663	566.250
17300	100	3.953	2.222	222.150	1.008	3.731	373.100
17400	100	3.496	3.725	372.450	0.521	0.765	76.450
17500	100	2.805	3.151	315.050	0.804	0.663	66.250
17600	100	2.411	2.608	260.800	1.226	1.015	101.500
17700	100	4.656	3.534	353.350	2.731	1.979	197.850
17800	100	1.329	2.993	299.250	4.822	3.777	377.650
17900	100	1.844	1.587	158.650	4.186	4.504	450.400
18000	100	1.373	1.609	160.850	6.220	5.203	520.300
18100	100	1.757	1.565	156.500	2.807	4.514	451.350

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
18200	100	1.515	1.636	163.600	2.485	2.646	264.600
18300	100	1.228	1.372	137.150	3.390	2.938	293.750
18400	100	1.083	1.156	115.550	4.395	3.893	389.250
18500	100	1.029	1.056	105.600	4.984	4.690	468.950
18600	100	1.050	1.040	103.950	6.112	5.548	554.800
18700	100	1.244	1.147	114.700	7.212	6.662	666.200
18800	100	1.511	1.378	137.750	8.329	7.771	777.050
18900	100	11.192	6.352	635.150	1.580	4.955	495.450
19000	100	2.696	6.944	694.400	1.613	1.597	159.650
19100	100	1.913	2.305	230.450	2.599	2.106	210.600
19200	100	1.161	1.537	153.700	3.064	2.832	283.150
19300	100	0.850	1.006	100.550	2.247	2.656	265.550
19400	100	0.684	0.767	76.700	2.674	2.461	246.050
19500	100	0.829	0.757	75.650	3.373	3.024	302.350
19600	100	1.255	1.042	104.200	4.196	3.785	378.450
19700	100	4.859	3.057	305.700	4.496	4.346	434.600
19800	100	5.074	4.967	496.650	5.683	5.090	508.950
19900	100	5.611	5.343	534.250	7.114	6.399	639.850
20000	100	6.080	5.846	584.550	8.082	7.598	759.800
20100	100	13.075	9.578	957.750	9.625	8.854	885.350
20200	100	5.401	9.238	923.800	3.643	6.634	663.400
20300	100	1.131	3.266	326.600	1.430	2.537	253.650
20400	100	1.010	1.071	107.050	2.006	1.718	171.800
20500	100	0.997	1.004	100.350	2.419	2.213	221.250
20600	100	0.941	0.969	96.900	2.535	2.477	247.700
20700	100	1.965	1.453	145.300	1.626	2.081	208.050
20800	100	2.003	1.984	198.400	1.212	1.419	141.900
20900	100	2.128	2.066	206.550	0.957	1.085	108.450
21000	100	2.611	2.370	236.950	0.926	0.942	94.150
21100	100	9.657	6.134	613.400	0.489	0.708	70.750
21200	100	3.897	6.777	677.700	1.041	0.765	76.500
21300	100	5.083	4.490	449.000	1.363	1.202	120.200
21400	100	3.862	4.473	447.250	0.879	1.121	112.100
21500	100	2.096	2.979	297.900	1.007	0.943	94.300
21600	100	1.452	1.774	177.400	1.498	1.253	125.250
21700	100	0.813	1.133	113.250	2.594	2.046	204.600
21800	100	0.498	0.656	65.550	3.990	3.292	329.200
21900	100	0.534	0.516	51.600	4.788	4.389	438.900
22000	100	1.185	0.860	85.950	2.514	3.651	365.100
22100	100	1.048	1.117	111.650	1.981	2.248	224.750
22200	100	1.021	1.035	103.450	2.086	2.034	203.350
22300	100	0.712	0.867	86.650	2.378	2.232	223.200
22400	100	0.507	0.610	60.950	3.035	2.707	270.650
22500	100	0.930	0.719	71.850	2.548	2.792	279.150
22600	100	12.941	6.936	693.550	3.546	3.047	304.700
22700	100	5.338	9.140	913.950	1.849	2.698	269.750

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
22800	100	2.245	3.792	379.150	5.622	3.736	373.550
22900	100	0.951	1.598	159.800	8.737	7.180	717.950
23000	100	1.189	1.070	107.000	4.762	6.750	674.950
23100	100	0.858	1.024	102.350	4.552	4.657	465.700
23200	100	0.628	0.743	74.300	3.703	4.128	412.750
23300	100	0.708	0.668	66.800	4.506	4.105	410.450
23400	100	0.343	0.526	52.550	6.086	5.296	529.600
23500	100	0.384	0.364	36.350	8.392	7.239	723.900
23600	100	0.525	0.455	45.450	7.986	8.189	818.900
Total				**107418.750**			**81920.600**
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							**107418.750**
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							**81920.600**
NET QUANTITY OF EARTHWORK IN FILLING							**25498.15**

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK SHANKARPUR MR (0.000 TO 4.900 KM)							
0	0	0.000	0	0	0.000	0	0.000
100	100	0.932	0.466	46.600	2.458	1.229	122.900
200	100	0.742	0.837	83.700	2.559	2.509	250.850
300	100	0.491	0.617	61.650	2.673	2.616	261.600
400	100	0.614	0.553	55.250	2.282	2.478	247.750
500	100	0.851	0.733	73.250	1.987	2.135	213.450
600	100	2.571	1.711	171.100	1.470	1.729	172.850
700	100	0.626	1.599	159.850	1.233	1.352	135.150
800	100	0.262	0.444	44.400	1.476	1.355	135.450
900	100	0.698	0.480	48.000	3.227	2.352	235.150
1000	100	0.633	0.666	66.550	2.640	2.934	293.350
1100	100	0.617	0.625	62.500	1.418	2.029	202.900
1200	100	0.000	0.309	30.850	3.018	2.218	221.800
1300	100	4.297	2.149	214.850	2.537	2.778	277.750
1400	100	0.609	2.453	245.300	1.129	1.833	183.300
1500	100	0.744	0.677	67.650	1.175	1.152	115.200
1600	100	0.871	0.808	80.750	0.858	1.017	101.650
1700	100	0.939	0.905	90.500	0.381	0.620	61.950
1800	100	0.000	0.470	46.950	4.115	2.248	224.800
1900	100	0.026	0.013	1.300	4.790	4.453	445.250
2000	100	0.375	0.201	20.050	2.097	3.444	344.350
2100	100	0.200	0.288	28.750	2.746	2.422	242.150
2200	100	0.088	0.144	14.400	3.821	3.284	328.350
2300	100	3.952	2.020	202.000	1.856	2.839	283.850
2400	100	1.485	2.719	271.850	1.565	1.711	171.050
2500	100	0.734	1.110	110.950	2.718	2.142	214.150
2600	100	0.199	0.467	46.650	2.435	2.577	257.650
2700	100	0.548	0.374	37.350	1.802	2.119	211.850
2800	100	0.000	0.274	27.400	4.305	3.054	305.350
2900	100	0.000	0.000	0.000	6.767	5.536	553.600
3000	100	4.339	2.170	216.950	1.706	4.237	423.650
3100	100	2.233	3.286	328.600	0.484	1.095	109.500
3200	100	0.931	1.582	158.200	0.532	0.508	50.800
3300	100	0.375	0.653	65.300	1.271	0.902	90.150
3400	100	0.519	0.447	44.700	1.251	1.261	126.100
3500	100	0.000	0.260	25.950	3.090	2.171	217.050
3600	100	0.000	0.000	0.000	4.766	3.928	392.800
3700	100	1.787	0.894	89.350	0.747	2.757	275.650
3800	100	0.732	1.260	125.950	0.957	0.852	85.200
3900	100	0.290	0.511	51.100	1.730	1.344	134.350
4000	100	0.412	0.351	35.100	1.064	1.397	139.700
4100	100	0.000	0.206	20.600	3.084	2.074	207.400
4200	100	0.000	0.000	0.000	3.360	3.222	322.200
4300	100	0.000	0.000	0.000	4.498	3.929	392.900

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
4400	100	1.260	0.630	63.000	2.362	3.430	343.000
4500	100	1.180	1.220	122.000	1.648	2.005	200.500
4600	100	0.588	0.884	88.400	0.690	1.169	116.900
4700	100	0.439	0.514	51.350	1.553	1.122	112.150
4800	100	0.371	0.405	40.500	2.920	2.237	223.650
4900	100	0.098	0.235	23.450	5.697	4.309	430.850
Total				**3960.900**			**11209.950**
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							**3960.900**
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							**11209.950**
NET QUANTITY OF EARTHWORK IN FILLING							**7249.05**

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK KHAIRA MR (0.000 TO 9.373 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	0.097	0.049	4.850	6.796	3.398	339.800
200	100	0.188	0.143	14.250	6.831	6.814	681.350
300	100	0.282	0.235	23.500	6.913	6.872	687.200
400	100	0.397	0.340	33.950	3.943	5.428	542.800
500	100	0.837	0.617	61.700	2.188	3.066	306.550
600	100	1.421	1.129	112.900	2.010	2.099	209.900
700	100	1.434	1.428	142.750	1.903	1.957	195.650
800	100	1.573	1.504	150.350	2.551	2.227	222.700
900	100	1.462	1.518	151.750	2.172	2.362	236.150
1000	100	1.001	1.232	123.150	1.801	1.987	198.650
1100	100	0.531	0.766	76.600	4.524	3.163	316.250
1200	100	0.436	0.484	48.350	4.634	4.579	457.900
1300	100	0.396	0.416	41.600	3.546	4.090	409.000
1400	100	0.428	0.412	41.200	5.217	4.382	438.150
1500	100	0.043	0.236	23.550	6.672	5.945	594.450
1600	100	0.502	0.273	27.250	4.660	5.666	566.600
1700	100	0.055	0.279	27.850	4.433	4.547	454.650
1800	100	0.000	0.028	2.750	5.364	4.899	489.850
1900	100	0.000	0.000	0.000	5.433	5.399	539.850
2000	100	0.000	0.000	0.000	5.393	5.413	541.300
2100	100	3.344	1.672	167.200	0.944	3.169	316.850
2200	100	1.042	2.193	219.300	4.790	2.867	286.700
2300	100	0.425	0.734	73.350	3.633	4.212	421.150
2400	100	0.363	0.394	39.400	2.594	3.114	311.350
2500	100	0.268	0.316	31.550	1.771	2.183	218.250
2600	100	0.508	0.388	38.800	4.490	3.131	313.050
2700	100	0.264	0.386	38.600	2.727	3.609	360.850
2800	100	0.121	0.193	19.250	2.926	2.827	282.650
2900	100	0.195	0.158	15.800	4.277	3.602	360.150
3000	100	2.351	1.273	127.300	0.250	2.264	226.350
3100	100	2.004	2.178	217.750	2.533	1.392	139.150
3200	100	2.042	2.023	202.300	0.924	1.729	172.850
3300	100	1.079	1.561	156.050	2.598	1.761	176.100
3400	100	0.614	0.847	84.650	2.002	2.300	230.000
3500	100	0.199	0.407	40.650	2.040	2.021	202.100
3600	100	0.000	0.100	9.950	3.792	2.916	291.600
3700	100	0.000	0.000	0.000	5.733	4.763	476.250
3800	100	0.000	0.000	0.000	6.998	6.366	636.550
3900	100	0.305	0.153	15.250	3.026	5.012	501.200
4000	100	0.423	0.364	36.400	1.262	2.144	214.400
4100	100	0.090	0.257	25.650	2.985	2.124	212.350
4200	100	0.092	0.091	9.100	3.700	3.343	334.250
4300	100	0.109	0.101	10.050	4.199	3.950	394.950

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
4400	100	1.253	0.681	68.100	0.760	2.480	247.950
4500	100	1.125	1.189	118.900	2.047	1.404	140.350
4600	100	1.115	1.120	112.000	1.468	1.758	175.750
4700	100	1.102	1.109	110.850	1.353	1.411	141.050
4800	100	0.410	0.756	75.600	3.643	2.498	249.800
4900	100	0.739	0.575	57.450	2.752	3.198	319.750
5000	100	0.750	0.745	74.450	2.108	2.430	243.000
5100	100	0.046	0.398	39.800	3.116	2.612	261.200
5200	100	0.000	0.023	2.300	4.904	4.010	401.000
5300	100	0.000	0.000	0.000	5.118	5.011	501.100
5400	100	0.000	0.000	0.000	5.180	5.149	514.900
5500	100	1.316	0.658	65.800	2.269	3.725	372.450
5600	100	0.298	0.807	80.700	2.774	2.522	252.150
5700	100	0.226	0.262	26.200	2.791	2.783	278.250
5800	100	0.114	0.170	17.000	2.715	2.753	275.300
5900	100	0.036	0.075	7.500	2.719	2.717	271.700
6000	100	0.069	0.053	5.250	3.495	3.107	310.700
6100	100	0.157	0.113	11.300	4.444	3.970	396.950
6200	100	0.250	0.204	20.350	5.207	4.826	482.550
6300	100	0.346	0.298	29.800	5.788	5.498	549.750
6400	100	0.209	0.278	27.750	5.817	5.803	580.250
6500	100	0.047	0.128	12.800	6.718	6.268	626.750
6600	100	0.000	0.024	2.350	7.267	6.993	699.250
6700	100	0.713	0.357	35.650	1.779	4.523	452.300
6800	100	0.419	0.566	56.600	1.106	1.443	144.250
6900	100	0.477	0.448	44.800	1.227	1.167	116.650
7000	100	0.901	0.689	68.900	1.782	1.505	150.450
7100	100	0.542	0.722	72.150	1.555	1.669	166.850
7200	100	0.150	0.346	34.600	2.470	2.013	201.250
7300	100	0.040	0.095	9.500	3.479	2.975	297.450
7400	100	0.026	0.033	3.300	4.619	4.049	404.900
7500	100	0.693	0.360	35.950	1.887	3.253	325.300
7600	100	0.572	0.633	63.250	3.059	2.473	247.300
7700	100	0.230	0.401	40.100	4.115	3.587	358.700
7800	100	0.055	0.143	14.250	5.388	4.752	475.150
7900	100	0.000	0.028	2.750	6.827	6.108	610.750
8000	100	0.649	0.325	32.450	4.596	5.712	571.150
8100	100	0.516	0.583	58.250	2.819	3.708	370.750
8200	100	0.714	0.615	61.500	2.705	2.762	276.200
8300	100	1.086	0.900	90.000	1.070	1.888	188.750
8400	100	0.174	0.630	63.000	1.919	1.495	149.450
8500	100	3.187	1.681	168.050	0.724	1.322	132.150
8600	100	0.641	1.914	191.400	1.594	1.159	115.900
8700	100	0.343	0.492	49.200	1.897	1.746	174.550
8800	100	0.105	0.224	22.400	2.765	2.331	233.100
8900	100	0.039	0.072	7.200	2.932	2.849	284.850

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
9000	100	0.300	0.170	16.950	1.710	2.321	232.100
9100	100	0.534	0.417	41.700	1.682	1.696	169.600
9200	100	0.273	0.404	40.350	2.014	1.848	184.800
9300	100	0.144	0.209	20.850	2.488	2.251	225.100
9373	73	0.000	0.072	5.256	3.053	2.771	202.247
Total				**5003.256**			**31261.747**
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							**5003.256**
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							**31261.747**
NET QUANTITY OF EARTHWORK IN FILLING							**26258.49**

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK GAMHARIA MR (0.000 TO 6.100 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	0.789	0.395	39.450	3.324	1.662	166.200
200	100	0.777	0.783	78.300	4.682	4.003	400.300
300	100	0.874	0.826	82.550	4.860	4.771	477.100
400	100	0.539	0.707	70.650	5.596	5.228	522.800
500	100	9.316	4.928	492.750	2.932	4.264	426.400
600	100	3.226	6.271	627.100	0.666	1.799	179.900
700	100	2.555	2.891	289.050	0.174	0.420	42.000
800	100	1.005	1.780	178.000	2.596	1.385	138.500
900	100	0.730	0.868	86.750	1.787	2.192	219.150
1000	100	0.091	0.411	41.050	4.159	2.973	297.300
1100	100	0.435	0.263	26.300	5.586	4.873	487.250
1200	100	0.386	0.411	41.050	6.710	6.148	614.800
1300	100	0.275	0.331	33.050	7.728	7.219	721.900
1400	100	0.124	0.200	19.950	8.903	8.316	831.550
1500	100	0.000	0.062	6.200	8.195	8.549	854.900
1600	100	6.321	3.161	316.050	0.242	4.219	421.850
1700	100	1.365	3.843	384.300	1.615	0.929	92.850
1800	100	1.248	1.307	130.650	1.769	1.692	169.200
1900	100	0.486	0.867	86.700	1.173	1.471	147.100
2000	100	1.342	0.914	91.400	0.516	0.845	84.450
2100	100	1.297	1.320	131.950	0.225	0.371	37.050
2200	100	1.472	1.385	138.450	0.305	0.265	26.500
2300	100	0.757	1.115	111.450	0.855	0.580	58.000
2400	100	0.291	0.524	52.400	0.817	0.836	83.600
2500	100	3.508	1.900	189.950	0.788	0.803	80.250
2600	100	2.922	3.215	321.500	1.240	1.014	101.400
2700	100	1.841	2.382	238.150	2.668	1.954	195.400
2800	100	0.494	1.168	116.750	1.010	1.839	183.900
2900	100	0.595	0.545	54.450	3.613	2.312	231.150
3000	100	0.350	0.473	47.250	4.375	3.994	399.400
3100	100	0.061	0.206	20.550	5.222	4.799	479.850
3200	100	0.000	0.031	3.050	6.070	5.646	564.600
3300	100	4.580	2.290	229.000	1.572	3.821	382.100
3400	100	3.118	3.849	384.900	0.554	1.063	106.300
3500	100	2.193	2.656	265.550	0.324	0.439	43.900
3600	100	0.920	1.557	155.650	1.757	1.041	104.050
3700	100	0.755	0.838	83.750	1.493	1.625	162.500
3800	100	1.454	1.105	110.450	0.712	1.103	110.250
3900	100	1.108	1.281	128.100	0.673	0.693	69.250
4000	100	0.319	0.714	71.350	2.353	1.513	151.300
4100	100	0.000	0.160	15.950	4.577	3.465	346.500
4200	100	0.000	0.000	0.000	7.349	5.963	596.300
4300	100	3.235	1.618	161.750	3.206	5.278	527.750

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
4400	100	1.277	2.256	225.600	1.650	2.428	242.800
4500	100	0.669	0.973	97.300	1.046	1.348	134.800
4600	100	0.191	0.430	43.000	1.854	1.450	145.000
4700	100	0.350	0.271	27.050	0.816	1.335	133.500
4800	100	0.026	0.188	18.800	1.394	1.105	110.500
4900	100	0.000	0.013	1.300	3.566	2.480	248.000
5000	100	0.000	0.000	0.000	6.003	4.785	478.450
5100	100	0.000	0.000	0.000	7.246	6.625	662.450
5200	100	0.000	0.000	0.000	8.273	7.760	775.950
5300	100	0.801	0.401	40.050	0.716	4.495	449.450
5400	100	0.889	0.845	84.500	1.045	0.881	88.050
5500	100	0.514	0.702	70.150	2.105	1.575	157.500
5600	100	0.369	0.442	44.150	2.156	2.131	213.050
5700	100	0.277	0.323	32.300	2.223	2.190	218.950
5800	100	0.369	0.323	32.300	1.381	1.802	180.200
5900	100	0.440	0.405	40.450	1.230	1.306	130.550
6000	100	0.557	0.499	49.850	1.100	1.165	116.500
6100	100	0.876	0.717	71.650	1.373	1.237	123.650
Total				**7032.100**			**16946.150**
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							**7032.100**
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							**16946.150**
NET QUANTITY OF EARTHWORK IN FILLING							**9914.05**

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK PRITAMPURA SUB DY (0.000 TO 14.384 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	1.930	0.965	96.500	4.758	2.379	237.900
200	100	1.685	1.808	180.750	5.321	5.040	503.950
300	100	1.473	1.579	157.900	5.642	5.482	548.150
400	100	9.628	5.551	555.050	6.978	6.310	631.000
500	100	7.487	8.558	855.750	2.640	4.809	480.900
600	100	6.670	7.079	707.850	1.422	2.031	203.100
700	100	5.233	5.952	595.150	2.717	2.070	206.950
800	100	4.802	5.018	501.750	2.457	2.587	258.700
900	100	3.151	3.977	397.650	4.185	3.321	332.100
1000	100	2.469	2.810	281.000	4.716	4.451	445.050
1100	100	2.846	2.658	265.750	1.188	2.952	295.200
1200	100	2.495	2.671	267.050	2.241	1.715	171.450
1300	100	1.402	1.949	194.850	3.049	2.645	264.500
1400	100	2.176	1.789	178.900	3.240	3.145	314.450
1500	100	1.310	1.743	174.300	3.487	3.364	336.350
1600	100	1.115	1.213	121.250	3.564	3.526	352.550
1700	100	6.202	3.659	365.850	3.511	3.538	353.750
1800	100	3.226	4.714	471.400	4.003	3.757	375.700
1900	100	2.203	2.715	271.450	3.380	3.692	369.150
2000	100	4.371	3.287	328.700	2.055	2.718	271.750
2100	100	4.997	4.684	468.400	3.228	2.642	264.150
2200	100	5.514	5.256	525.550	3.567	3.398	339.750
2300	100	4.455	4.985	498.450	2.584	3.076	307.550
2400	100	3.928	4.192	419.150	5.109	3.847	384.650
2500	100	0.124	2.026	202.600	13.919	9.514	951.400
2600	100	12.277	6.201	620.050	7.003	10.461	1046.100
2700	100	1.283	6.780	678.000	4.680	5.842	584.150
2800	100	1.091	1.187	118.700	4.348	4.514	451.400
2900	100	0.371	0.731	73.100	7.938	6.143	614.300
3000	100	0.327	0.349	34.900	10.632	9.285	928.500
3100	100	0.874	0.601	60.050	8.394	9.513	951.300
3200	100	14.720	7.797	779.700	4.590	6.492	649.200
3300	100	6.518	10.619	1061.900	5.041	4.816	481.550
3400	100	2.594	4.556	455.600	3.723	4.382	438.200
3500	100	1.397	1.996	199.550	4.329	4.026	402.600
3600	100	1.583	1.490	149.000	4.000	4.165	416.450
3700	100	1.414	1.499	149.850	4.685	4.343	434.250
3800	100	0.108	0.761	76.100	6.935	5.810	581.000
3900	100	0.141	0.125	12.450	9.530	8.233	823.250
4000	100	0.383	0.262	26.200	9.964	9.747	974.700
4100	100	3.992	2.188	218.750	5.868	7.916	791.600
4200	100	11.939	7.966	796.550	0.323	3.096	309.550
4300	100	5.340	8.640	863.950	1.885	1.104	110.400

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
4400	100	3.856	4.598	459.800	0.842	1.364	136.350
4500	100	0.655	2.256	225.550	3.918	2.380	238.000
4600	100	1.068	0.862	86.150	5.385	4.652	465.150
4700	100	4.543	2.806	280.550	1.694	3.540	353.950
4800	100	2.956	3.750	374.950	4.156	2.925	292.500
4900	100	2.713	2.835	283.450	3.533	3.845	384.450
5000	100	2.298	2.506	250.550	4.748	4.141	414.050
5100	100	0.885	1.592	159.150	4.449	4.599	459.850
5200	100	3.205	2.045	204.500	2.229	3.339	333.900
5300	100	2.889	3.047	304.700	3.477	2.853	285.300
5400	100	2.194	2.542	254.150	3.333	3.405	340.500
5500	100	1.218	1.706	170.600	4.603	3.968	396.800
5600	100	0.880	1.049	104.900	4.287	4.445	444.500
5700	100	0.865	0.873	87.250	4.607	4.447	444.700
5800	100	1.471	1.168	116.800	5.546	5.077	507.650
5900	100	3.071	2.271	227.100	2.375	3.961	396.050
6000	100	3.608	3.340	333.950	1.230	1.803	180.250
6100	100	4.203	3.906	390.550	2.525	1.878	187.750
6200	100	3.349	3.776	377.600	2.450	2.488	248.750
6300	100	2.976	3.163	316.250	3.687	3.069	306.850
6400	100	1.535	2.256	225.550	2.792	3.240	323.950
6500	100	0.678	1.107	110.650	4.390	3.591	359.100
6600	100	0.470	0.574	57.400	4.953	4.672	467.150
6700	100	2.546	1.508	150.800	0.609	2.781	278.100
6800	100	2.497	2.522	252.150	1.608	1.109	110.850
6900	100	3.615	3.056	305.600	1.546	1.577	157.700
7000	100	3.919	3.767	376.700	2.810	2.178	217.800
7100	100	1.795	2.857	285.700	4.597	3.704	370.350
7200	100	2.739	2.267	226.700	4.386	4.492	449.150
7300	100	2.855	2.797	279.700	3.041	3.714	371.350
7400	100	3.007	2.931	293.100	6.071	4.556	455.600
7500	100	6.099	4.553	455.300	5.168	5.620	561.950
7600	100	2.555	4.327	432.700	4.610	4.889	488.900
7700	100	2.358	2.457	245.650	5.418	5.014	501.400
7800	100	1.716	2.037	203.700	1.572	3.495	349.500
7900	100	1.959	1.838	183.750	4.227	2.900	289.950
8000	100	1.706	1.833	183.250	4.156	4.192	419.150
8100	100	1.607	1.657	165.650	4.072	4.114	411.400
8200	100	1.398	1.503	150.250	3.389	3.731	373.050
8300	100	0.564	0.981	98.100	5.834	4.612	461.150
8400	100	2.674	1.619	161.900	2.324	4.079	407.900
8500	100	3.544	3.109	310.900	0.798	1.561	156.100
8600	100	2.511	3.028	302.750	3.189	1.994	199.350
8700	100	1.742	2.127	212.650	3.111	3.150	315.000
8800	100	1.196	1.469	146.900	3.860	3.486	348.550
8900	100	0.063	0.630	62.950	6.109	4.985	498.450

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
9000	100	0.487	0.275	27.500	6.570	6.340	633.950
9100	100	0.155	0.321	32.100	7.689	7.130	712.950
9200	100	0.218	0.187	18.650	8.865	8.277	827.700
9300	100	1.600	0.909	90.900	2.591	5.728	572.800
9400	100	2.696	2.148	214.800	3.497	3.044	304.400
9500	100	1.602	2.149	214.900	2.455	2.976	297.600
9600	100	1.260	1.431	143.100	2.662	2.559	255.850
9700	100	1.545	1.403	140.250	5.193	3.928	392.750
9800	100	0.174	0.860	85.950	7.869	6.531	653.100
9900	100	0.283	0.229	22.850	5.891	6.880	688.000
10000	100	0.251	0.267	26.700	5.529	5.710	571.000
10100	100	4.141	2.196	219.600	7.933	6.731	673.100
10200	100	0.618	2.380	237.950	5.755	6.844	684.400
10300	100	1.226	0.922	92.200	4.346	5.051	505.050
10400	100	0.577	0.902	90.150	5.497	4.922	492.150
10500	100	0.000	0.289	28.850	7.500	6.499	649.850
10600	100	1.053	0.527	52.650	2.987	5.244	524.350
10700	100	0.226	0.640	63.950	4.164	3.576	357.550
10800	100	0.538	0.382	38.200	5.997	5.081	508.050
10900	100	0.558	0.548	54.800	4.018	5.008	500.750
11000	100	0.820	0.689	68.900	4.174	4.096	409.600
11100	100	0.884	0.852	85.200	4.838	4.506	450.600
11200	100	1.069	0.977	97.650	5.545	5.192	519.150
11300	100	4.549	2.809	280.900	1.082	3.314	331.350
11400	100	1.809	3.179	317.900	3.614	2.348	234.800
11500	100	2.049	1.929	192.900	2.309	2.962	296.150
11600	100	1.278	1.664	166.350	3.501	2.905	290.500
11700	100	0.722	1.000	100.000	5.173	4.337	433.700
11800	100	0.163	0.443	44.250	9.562	7.368	736.750
11900	100	0.072	0.118	11.750	9.407	9.485	948.450
12000	100	0.000	0.036	3.600	9.288	9.348	934.750
12100	100	0.000	0.000	0.000	9.160	9.224	922.400
12200	100	1.164	0.582	58.200	2.444	5.802	580.200
12300	100	0.935	1.050	104.950	3.015	2.730	272.950
12400	100	0.964	0.950	94.950	3.341	3.178	317.800
12500	100	0.884	0.924	92.400	3.245	3.293	329.300
12600	100	0.818	0.851	85.100	3.766	3.506	350.550
12700	100	0.438	0.628	62.800	2.275	3.021	302.050
12800	100	0.173	0.306	30.550	4.336	3.306	330.550
12900	100	0.598	0.386	38.550	5.798	5.067	506.700
13000	100	0.021	0.310	30.950	6.496	6.147	614.700
13100	100	0.000	0.011	1.050	8.824	7.660	766.000
13200	100	0.000	0.000	0.000	8.745	8.785	878.450
13300	100	0.000	0.000	0.000	8.644	8.695	869.450
13400	100	3.973	1.987	198.650	2.360	5.502	550.200
13500	100	0.322	2.148	214.750	2.132	2.246	224.600

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
13600	100	0.179	0.251	25.050	2.886	2.509	250.900
13700	100	2.536	1.358	135.750	1.812	2.349	234.900
13800	100	1.453	1.995	199.450	2.836	2.324	232.400
13900	100	0.947	1.200	120.000	2.599	2.718	271.750
14000	100	0.646	0.797	79.650	2.198	2.399	239.850
14100	100	0.276	0.461	46.100	3.245	2.722	272.150
14200	100	0.138	0.207	20.700	2.117	2.681	268.100
14300	100	0.081	0.110	10.950	3.089	2.603	260.300
14384	84	0.153	0.117	9.828	3.299	3.194	268.296
Total				**31272.178**			**62854.546**
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							**31272.178**
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							**62854.546**
NET QUANTITY OF EARTHWORK IN FILLING							**31582.37**

Chainge	Length	Earthwork in Cutting			Earthwork in filling		
		Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK CHANDAULI MR (0.000 TO 2.993 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	2.019	1.010	100.950	1.658	0.829	82.900
200	100	0.596	1.308	130.750	2.378	2.018	201.800
300	100	1.002	0.799	79.900	3.014	2.696	269.600
400	100	0.245	0.624	62.350	4.823	3.919	391.850
500	100	0.372	0.309	30.850	2.910	3.867	386.650
600	100	0.984	0.678	67.800	1.928	2.419	241.900
700	100	0.236	0.610	61.000	3.857	2.893	289.250
800	100	0.000	0.118	11.800	4.432	4.145	414.450
900	100	0.838	0.419	41.900	3.633	4.033	403.250
1000	100	0.815	0.827	82.650	3.042	3.338	333.750
1100	100	0.360	0.588	58.750	3.597	3.320	331.950
1200	100	0.329	0.345	34.450	3.784	3.691	369.050
1300	100	0.687	0.508	50.800	2.622	3.203	320.300
1400	100	0.258	0.473	47.250	2.138	2.380	238.000
1500	100	0.013	0.136	13.550	2.617	2.378	237.750
1600	100	0.283	0.148	14.800	3.944	3.281	328.050
1700	100	0.205	0.244	24.400	5.296	4.620	462.000
1800	100	0.507	0.356	35.600	2.672	3.984	398.400
1900	100	0.711	0.609	60.900	2.025	2.349	234.850
2000	100	0.652	0.682	68.150	1.665	1.845	184.500
2100	100	0.819	0.736	73.550	1.412	1.539	153.850
2200	100	0.375	0.597	59.700	3.166	2.289	228.900
2300	100	0.788	0.582	58.150	2.446	2.806	280.600
2400	100	0.912	0.850	85.000	2.226	2.336	233.600
2500	100	0.477	0.695	69.450	2.611	2.419	241.850
2600	100	0.491	0.484	48.400	1.463	2.037	203.700
2700	100	0.345	0.418	41.800	1.626	1.545	154.450
2800	100	0.061	0.203	20.300	4.397	3.012	301.150
2900	100	0.130	0.096	9.550	4.882	4.640	463.950
2993	93	0.195	0.163	15.113	6.002	5.442	506.106
Total				**1559.613**			**8888.406**
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							**1559.613**
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							**8888.406**
NET QUANTITY OF EARTHWORK IN FILLING							**7328.79**

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK SIMRA MR (0.000 TO 5.151 KM)							
0	0	0.000	0	0	0.000	0	0.000
100	100	0.000	0.000	0.000	3.871	1.936	193.550
200	100	0.000	0.000	0.000	5.604	4.738	473.750
300	100	0.000	0.000	0.000	6.886	6.245	624.500
400	100	0.000	0.000	0.000	8.064	7.475	747.500
500	100	0.000	0.000	0.000	5.507	6.786	678.550
600	100	0.000	0.000	0.000	5.596	5.552	555.150
700	100	0.763	0.382	38.150	3.300	4.448	444.800
800	100	0.584	0.674	67.350	2.988	3.144	314.400
900	100	0.523	0.554	55.350	2.270	2.629	262.900
1000	100	0.329	0.426	42.600	2.513	2.392	239.150
1100	100	0.301	0.315	31.500	2.897	2.705	270.500
1200	100	0.221	0.261	26.100	3.445	3.171	317.100
1300	100	0.131	0.176	17.600	3.989	3.717	371.700
1400	100	0.049	0.090	9.000	4.524	4.257	425.650
1500	100	0.007	0.028	2.800	5.067	4.796	479.550
1600	100	0.920	0.464	46.350	1.745	3.406	340.600
1700	100	0.967	0.944	94.350	4.517	3.131	313.100
1800	100	0.639	0.803	80.300	5.209	4.863	486.300
1900	100	0.999	0.819	81.900	5.569	5.389	538.900
2000	100	1.789	1.394	139.400	4.034	4.802	480.150
2100	100	1.236	1.513	151.250	4.515	4.275	427.450
2200	100	1.553	1.395	139.450	1.369	2.942	294.200
2300	100	0.170	0.862	86.150	3.144	2.257	225.650
2400	100	0.000	0.085	8.500	5.213	4.179	417.850
2500	100	1.170	0.585	58.500	1.175	3.194	319.400
2600	100	1.063	1.117	111.650	0.687	0.931	93.100
2700	100	0.833	0.948	94.800	1.887	1.287	128.700
2800	100	1.113	0.973	97.300	2.225	2.056	205.600
2900	100	0.958	1.036	103.550	3.142	2.684	268.350
3000	100	0.000	0.479	47.900	3.680	3.411	341.100
3100	100	0.000	0.000	0.000	3.823	3.752	375.150
3200	100	0.000	0.000	0.000	4.078	3.951	395.050
3300	100	0.000	0.000	0.000	4.285	4.182	418.150
3400	100	0.048	0.024	2.400	4.788	4.537	453.650
3500	100	0.578	0.313	31.300	2.903	3.846	384.550
3600	100	0.678	0.628	62.800	1.887	2.395	239.500
3700	100	0.207	0.443	44.250	1.569	1.728	172.800
3800	100	0.955	0.581	58.100	0.632	1.101	110.050
3900	100	0.935	0.945	94.500	0.960	0.796	79.600
4000	100	0.452	0.694	69.350	1.204	1.082	108.200
4100	100	0.469	0.461	46.050	1.656	1.430	143.000
4200	100	0.460	0.465	46.450	1.782	1.719	171.900
4300	100	0.551	0.506	50.550	1.072	1.427	142.700

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
4400	100	0.402	0.477	47.650	1.254	1.163	116.300
4500	100	0.378	0.390	39.000	1.541	1.398	139.750
4600	100	0.368	0.373	37.300	1.827	1.684	168.400
4700	100	0.278	0.323	32.300	1.867	1.847	184.700
4800	100	0.169	0.224	22.350	1.837	1.852	185.200
4900	100	0.060	0.115	11.450	1.992	1.915	191.450
5000	100	0.000	0.030	3.000	2.252	2.122	212.200
5100	100	0.000	0.000	0.000	3.169	2.711	271.050
5151	51	0.000	0.000	0.000	4.037	3.603	183.753
Total				**2330.600**			**16126.303**
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							**2330.600**
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							**16126.303**
NET QUANTITY OF EARTHWORK IN FILLING							**13795.70**

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK SALEMPUR MR (0.000 TO 5.980 KM)							
0	0	0.000	0	0	0.000	0	0.000
100	100	0.065	0.033	3.250	3.239	1.620	161.950
200	100	0.190	0.128	12.750	4.120	3.680	367.950
300	100	0.050	0.120	12.000	3.709	3.915	391.450
400	100	0.152	0.101	10.100	3.175	3.442	344.200
500	100	0.386	0.269	26.900	2.650	2.913	291.250
600	100	0.607	0.497	49.650	1.650	2.150	215.000
700	100	0.261	0.434	43.400	2.638	2.144	214.400
800	100	0.525	0.393	39.300	1.341	1.990	198.950
900	100	0.472	0.499	49.850	2.250	1.796	179.550
1000	100	1.307	0.890	88.950	0.267	1.259	125.850
1100	100	0.752	1.030	102.950	0.666	0.467	46.650
1200	100	0.750	0.751	75.100	1.052	0.859	85.900
1300	100	0.560	0.655	65.500	2.239	1.646	164.550
1400	100	0.282	0.421	42.100	3.074	2.657	265.650
1500	100	0.462	0.372	37.200	2.099	2.587	258.650
1600	100	1.764	1.113	111.300	0.843	1.471	147.100
1700	100	0.535	1.150	114.950	2.563	1.703	170.300
1800	100	0.867	0.701	70.100	2.081	2.322	232.200
1900	100	0.143	0.505	50.500	2.996	2.539	253.850
2000	100	0.118	0.131	13.050	3.540	3.268	326.800
2100	100	0.191	0.155	15.450	4.017	3.779	377.850
2200	100	0.314	0.253	25.250	4.560	4.289	428.850
2300	100	0.797	0.556	55.550	3.451	4.006	400.550
2400	100	0.442	0.620	61.950	3.345	3.398	339.800
2500	100	0.141	0.292	29.150	2.550	2.948	294.750
2600	100	0.574	0.358	35.750	1.359	1.955	195.450
2700	100	0.190	0.382	38.200	2.185	1.772	177.200
2800	100	0.000	0.095	9.500	3.093	2.639	263.900
2900	100	4.789	2.395	239.450	2.167	2.630	263.000
3000	100	1.246	3.018	301.750	2.417	2.292	229.200
3100	100	1.695	1.471	147.050	0.899	1.658	165.800
3200	100	0.344	1.020	101.950	3.121	2.010	201.000
3300	100	0.056	0.200	20.000	4.274	3.698	369.750
3400	100	0.160	0.108	10.800	3.207	3.741	374.050
3500	100	0.058	0.109	10.900	3.477	3.342	334.200
3600	100	3.410	1.734	173.400	0.264	1.871	187.050
3700	100	1.552	2.481	248.100	1.648	0.956	95.600
3800	100	0.986	1.269	126.900	2.125	1.887	188.650
3900	100	0.573	0.780	77.950	1.754	1.940	193.950
4000	100	0.254	0.414	41.350	2.056	1.905	190.500
4100	100	0.005	0.130	12.950	3.766	2.911	291.100
4200	100	0.131	0.068	6.800	3.780	3.773	377.300
4300	100	0.100	0.116	11.550	2.321	3.051	305.050

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
4400	100	0.000	0.050	5.000	5.218	3.770	376.950
4500	100	0.000	0.000	0.000	7.574	6.396	639.600
4600	100	0.454	0.227	22.700	1.437	4.506	450.550
4700	100	0.820	0.637	63.700	4.509	2.973	297.300
4800	100	0.976	0.898	89.800	1.303	2.906	290.600
4900	100	0.970	0.973	97.300	1.650	1.477	147.650
5000	100	0.748	0.859	85.900	0.860	1.255	125.500
5100	100	0.365	0.557	55.650	1.222	1.041	104.100
5200	100	0.414	0.390	38.950	2.203	1.713	171.250
5300	100	0.225	0.320	31.950	3.099	2.651	265.100
5400	100	0.431	0.328	32.800	3.484	3.292	329.150
5500	100	0.478	0.455	45.450	3.692	3.588	358.800
5600	100	0.431	0.455	45.450	3.385	3.539	353.850
5700	100	0.385	0.408	40.800	3.116	3.251	325.050
5800	100	0.450	0.418	41.750	2.544	2.830	283.000
5900	100	0.361	0.406	40.550	4.318	3.431	343.100
5980	80	0.251	0.306	24.480	6.276	5.297	423.760
Total				**3582.830**			**15972.060**
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							**3582.830**
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							**15972.060**
NET QUANTITY OF EARTHWORK IN FILLING							**12389.23**

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

BASDIHA DISTRIBUTARY (0.000 TO 23.700 KM)

JUNGLE CLEARANCE QUANTITY

Reaches (km)	Length (m)	Perimeter (m)	Quantity	
0.00 - 0.520	520	10.15	5278.00	Sqm
0.520 - 4.580	4060	9.45	38367.00	Sqm
4.580 - 9.450	4870	8.46	41200.20	Sqm
9.450 - 10.060	610	8.1	4941.00	Sqm
10.060 - 12.530	2470	6.34	15659.80	Sqm
12.530 - 12.685	155	5.65	875.75	Sqm
12.685 - 14.200	1515	5.19	7862.85	Sqm
14.200 -16.000	1800	4.92	8856.00	Sqm
16.000 - 18.100	2100	3.95	8295.00	Sqm
18.100 - 19.250	1150	3.48	4002.00	Sqm
19.250-20.100	850	3.18	2703.00	Sqm
20.100-21.580	1480	2.85	4218.00	Sqm
21.580-22.400	820	2.38	1951.60	Sqm
22.400-22.800	400	1.93	772.00	Sqm
22.800-23.700	900	1.52	1368.00	Sqm
	TOTAL		**146350.20**	**Sqm**

LIP CUTTING QUANTITY

Reaches (km)	Length (m)	Perimeter (m)	Thickness (m)	Quantity	
0.00 - 0.520	520	10.150	0.15	791.70	Cum
0.520 - 4.580	4060	9.450	0.15	5755.05	Cum
4.580 - 9.450	4870	8.460	0.15	6180.03	Cum
9.450 - 10.060	610	8.100	0.15	741.15	Cum
10.060 - 12.530	2470	6.340	0.15	2348.97	Cum
12.530 - 12.685	155	5.650	0.15	131.36	Cum
12.685 - 14.200	1515	5.190	0.15	1179.43	Cum
14.200 -16.000	1800	4.920	0.15	1328.40	Cum
16.000 - 18.100	2100	3.950	0.15	1244.25	Cum
18.100 - 19.250	1150	3.480	0.15	600.30	Cum
19.250-20.100	850	3.180	0.15	405.45	Cum
20.100-21.580	1480	2.850	0.15	632.70	Cum
21.580-22.400	820	2.380	0.15	292.74	Cum
22.400-22.800	400	1.930	0.15	115.80	Cum
22.800-23.700	900	1.520	0.15	205.20	Cum
	TOTAL			**21952.53**	**Cum**

SHANKARPUR MINOR (0.000 TO 4.950 KM)				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Quantity**	
0.00 - 2.300	2300	2.18	5014.00	Sqm
2.300 -4.150	1850	1.69	3126.50	Sqm
4.150-4.950	800	1.25	1000.00	Sqm
	TOTAL		**9140.50**	**Sqm**

LIP CUTTING QUANTITY					
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Thickness (m)**	**Quantity**	
0.00 - 2.300	2300	2.18	0.15	752.10	Cum
2.300 -4.150	1850	1.69	0.15	468.98	Cum
4.150-4.950	800	1.25	0.15	150.00	Cum
	TOTAL			**1371.08**	**Cum**

KHAIRA MINOR (0.000 TO 9.400 KM)				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Quantity**	
0.00 - 4.800	4800	3.09	14832.00	Sqm
4.800 - 6.400	1600	2.70	4320.00	Sqm
6.400 - 7.620	1220	2.32	2830.40	Sqm
7.620 - 9.144	1524	1.76	2682.24	Sqm
9.144 - 9.400	256	1.20	307.20	Sqm
	TOTAL		**24971.84**	**Sqm**

LIP CUTTING QUANTITY					
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Thickness (m)**	**Quantity**	
0.00 - 4.800	4800	3.09	0.15	2224.80	Cum
4.800 - 6.400	1600	2.70	0.15	648.00	Cum
6.400 - 7.620	1220	2.32	0.15	424.56	Cum
7.620 - 9.144	1524	1.76	1.15	3084.58	Cum
9.144 - 9.400	256	1.20	2.15	660.48	Cum
	TOTAL			**7042.42**	**Cum**

GAMHARIA MINOR (0.000 TO 6.150 KM)				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	Length (m)	Perimeter (m)	Quantity	
0.00 -1.700	1700	3.61	6137.00	Sqm
1.700-3.900	2200	3.14	6908.00	Sqm
3.900-4.300	400	2.32	928.00	Sqm
4.300-4.570	270	2.16	583.20	Sqm
4.570-5.330	760	2.01	1527.60	Sqm
5.330-5.550	220	1.58	347.60	Sqm
5.550-6.150	600	1.25	750.00	Sqm
	TOTAL		**17181.40**	**Sqm**

LIP CUTTING QUANTITY					
Reaches (km)	Length (m)	Perimeter (m)	Thickness (m)	Quantity	
0.00 -1.700	1700	3.61	0.15	920.55	Cum
1.700-3.900	2200	3.14	0.15	1036.20	Cum
3.900-4.300	400	2.32	0.15	139.20	Cum
4.300-4.570	270	2.16	0.15	87.48	Cum
4.570-5.330	760	2.01	1.15	1756.74	Cum
5.330-5.550	220	1.58	2.15	747.34	Cum
5.550-6.150	600	1.25	3.15	2362.50	Cum
	TOTAL			**7050.01**	**Cum**

SIMRA MR. (0.000 TO 5.200 KM)				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	Length (m)	Perimeter (m)	Quantity	
0.00 -0.950	950	2.45	2327.50	Sqm
0.950-3.000	2050	2.12	4346.00	Sqm
3.000-3.850	850	1.79	1521.50	Sqm
3.850-5.200	1350	1.3	1755.00	Sqm
	TOTAL		**9950.00**	**Sqm**

LIP CUTTING QUANTITY					
Reaches (km)	Length (m)	Perimeter (m)	Thickness (m)	Quantity	
0.00 -0.950	950	2.45	0.15	349.13	Cum
0.950-3.000	2050	2.12	0.15	651.90	Cum
3.000-3.850	850	1.79	0.15	228.23	Cum
3.850-5.200	1350	1.3	0.15	263.25	Cum
	TOTAL			**1492.50**	**Cum**

SALEMPUR MR (0.000 TO 6.000 KM)				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Quantity**	
0.00 -1.250	1250	2.54	3175.00	Sqm
1.250-3.050	1800	2.12	3816.00	Sqm
3.050-4.600	1550	1.74	2697.00	Sqm
4.600-6.000	1400	1.3	1820.00	Sqm
	TOTAL		**11508.00**	**Sqm**

LIP CUTTING QUANTITY					
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Thickness (m)**	**Quantity**	
0.00 -1.250	1250	2.54	0.15	476.25	Cum
1.250-3.050	1800	2.12	0.15	572.40	Cum
3.050-4.600	1550	1.74	0.15	404.55	Cum
4.600-6.000	1400	1.3	0.15	273.00	Cum
	TOTAL			**1726.20**	**Cum**

PRITAMPURA SUB-DY. (0.000 TO 14.400 KM)				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Quantity**	
0.00 - 2.700	2700	5.94	16038.00	Sqm
2.700 - 5.100	2400	5.47	13128.00	Sqm
5.100 - 7.450	2350	5.16	12126.00	Sqm
7.450- 9.950	2500	4.38	10950.00	Sqm
9.950 - 10.900	950	3.88	3686.00	Sqm
10.900 - 11.450	550	3.52	1936.00	Sqm
11.450 - 12.250	800	3.12	2496.00	Sqm
12.250- 12.550	300	2.83	849.00	Sqm
12.550 - 13.000	450	2.5	1125.00	Sqm
13.000-13.500	500	2.07	1035.00	Sqm
13.500-14.000	500	1.74	870.00	Sqm
14.000-14.400	400	1.35	540.00	Sqm
	TOTAL		**64779.00**	**Sqm**

LIP CUTTING QUANTITY					
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Thickness (m)**	**Quantity**	
0.00 - 2.700	2700	5.940	0.15	2405.70	Cum
2.700 - 5.100	2400	5.470	0.15	1969.20	Cum
5.100 - 7.450	2350	5.160	0.15	1818.90	Cum
7.450- 9.950	2500	4.380	0.15	1642.50	Cum
9.950 - 10.900	950	3.880	0.15	552.90	Cum
10.900 - 11.450	550	3.520	0.15	290.40	Cum
11.450 - 12.250	800	3.120	0.15	374.40	Cum
12.250- 12.550	300	2.830	0.15	127.35	Cum
12.550 - 13.000	450	2.500	0.15	168.75	Cum
13.000-13.500	500	2.070	0.15	155.25	Cum
13.500-14.000	500	1.740	1.15	1000.50	Cum
14.000-14.400	400	1.350	2.15	1161.00	Cum
	TOTAL			**11666.85**	**Cum**

CHANDAULI MR (0.000 TO 3.000 KM)				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Quantity**	
0.00 - 0.560	560	2.11	1181.60	Sqm
0.560 - 1.600	1040	1.69	1757.60	Sqm
1.600- 3.000	1400	1.25	1750.00	Sqm
	TOTAL		**4689.20**	**Sqm**

LIP CUTTING QUANTITY					
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Thickness (m)**	**Quantity**	
0.00 - 0.560	560	2.11	0.15	177.24	Cum
0.560 - 1.600	1040	1.69	0.15	263.64	Cum
1.600- 3.000	1400	1.25	0.15	262.50	Cum
	TOTAL			**703.38**	**Cum**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND DETAILS OF QUANTITIES FOR EARTH WORK FOR BASDIHA DISTRIBUTARY				
S.No.	**Items**	**No.**	**Quantity**	**Unit**
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***146350.20***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	107418.750	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	42967.5	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	25498.150	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	7649.45	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	6374.54	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	11474.17	Cum
6	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.	1	21952.53	Cum

S.No.	Items	No.	Quantity	Unit
7	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	81920.60	Cum

S.No.	Items	No.	Quantity	Unit
	DETAILS OF QUANTITIES FOR EARTH WORK FOR SHANKARPUR MR.			
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***9140.50***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation)** **Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	3960.900	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	1584.36	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	7249.050	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	2174.72	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	1812.26	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	3262.07	Cum
6	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.	1	1371.08	Cum

S.No.	Items	No.	Quantity	Unit
7	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	11209.95	Cum

S.No.	Items	No.	Quantity	Unit
	DETAILS OF QUANTITIES FOR EARTH WORK FOR KHAIRA MR.			
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***24971.84***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	5003.256	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	2001.3024	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	26258.491	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	7877.55	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	6564.62	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	11816.32	Cum
6	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.	1	7042.42	Cum

S.No.	Items	No.	Quantity	Unit
7	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	31261.75	Cum

S.No.	Items	No.	Quantity	Unit
	DETAILS OF QUANTITIES FOR EARTH WORK FOR GAMHARIA MINOR			
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	*17181.40*	*Sqm*
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	7032.100	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	2812.84	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	9914.050	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	2974.22	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	2478.51	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	4461.32	Cum
6	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.	1	7050.01	Cum

S.No.	Items	No.	Quantity	Unit
7	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	16946.15	Cum

S.No.	Items	No.	Quantity	Unit
	DETAILS OF QUANTITIES FOR EARTH WORK FOR PITAMPURA SUB DY.			
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	*64779.00*	*Sqm*
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation)** **Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	31272.178	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			

S.No.	Items	No.	Quantity	Unit
	(40% of Total Cutting)	1	12508.8712	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	31582.368	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	9474.71	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	7895.59	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	14212.07	Cum
6	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.	1	11666.85	Cum
7	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	62854.55	Cum

S.No.	Items	No.	Quantity	Unit
	DETAILS OF QUANTITIES FOR EARTH WORK FOR SIMRA MINOR			
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	*9950.00*	*Sqm*
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	2330.600	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	932.24	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	13795.703	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	4138.71	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	3448.93	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	6208.07	Cum
6	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.	1	1492.50	Cum

S.No.	Items	No.	Quantity	Unit
7	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	16126.30	Cum

S.No.	Items	No.	Quantity	Unit
	DETAILS OF QUANTITIES FOR EARTH WORK FOR SALEMPUR MINOR			
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	*11508.00*	*Sqm*
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	3582.830	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	1433.132	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	12389.230	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	3716.77	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	3097.31	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	5575.15	Cum
6	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.	1	1726.20	Cum

S.No.	Items	No.	Quantity	Unit
7	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	15972.06	Cum

S.No.	Items	No.	Quantity	Unit
	DETAILS OF QUANTITIES FOR EARTH WORK FOR CHANDAULI MINOR			
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***4689.20***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	1559.613	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	623.845	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	7328.794	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	2198.64	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	1832.20	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	3297.96	Cum
6	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.	1	703.38	Cum

S.No.	Items	No.	Quantity	Unit
7	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	8888.41	Cum

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND						
ABSTRACT OF QUANTITY OF EARTHWORK FOR BASDIHA DISTRIBUTARY						
Sl. No.	**Reference Clause no.**	**Particular**	**Quantity**	**Unit**	**Rate (in Rs.)**	**Amount in Rs.**
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	146350.20	Sqm	**11.80**	1727574.827
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	107418.75	Cum	**156.50**	16811034.38
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	42967.50	Cum	**17.22**	739793.5381
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	25498.15	Cum	**165.12**	4210151.53
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	7649.45	Cum	**174.89**	1337811.44
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (25% of net filling)	6374.54	Cum	**217.92**	1389139.21
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	11474.17	Cum	**319.14**	3661865.82
6	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.				
			21952.53	Cum	**196.10**	4304891.13

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
7	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	25498.15	Cum	**61.88**	1577885.31
TOTAL COST OF EARTHWORK (in Rs.)						**35760147.17**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**357.601**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR SHANKARPUR MINOR						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	9140.50	Sqm	**11.80**	107898.0261
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	3960.90	Cum	**156.50**	619880.85
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	1584.36	Cum	**17.22**	27278.74068
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	7249.05	Cum	**165.12**	1196933.85
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	2174.72	Cum	**174.89**	380335.91
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (25% of net filling)	1812.26	Cum	**217.92**	394928.24
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	3262.07	Cum	**319.14**	1041057.82
6	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.				
			1371.08	Cum	**196.10**	268867.81

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
7	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	11209.95	Cum	**61.88**	693697.99
TOTAL COST OF EARTHWORK (in Rs.)						**4730879.23**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**47.309**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR KHAIRA MINOR						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	24971.84	Sqm	**11.80**	294777.3366
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	5003.26	Cum	**156.50**	783009.564
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	2001.30	Cum	**17.22**	34457.45234
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	26258.49	Cum	**165.12**	4335695.88
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	7877.55	Cum	**174.89**	1377704.22
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (25% of net filling)	6564.62	Cum	**217.92**	1430562.56
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	11816.32	Cum	**319.14**	3771060.60
6	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.				
			7042.42	Cum	**196.10**	1381017.78

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
7	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	31261.75	Cum	**61.88**	1934550.17
TOTAL COST OF EARTHWORK (in Rs.)						**15342835.56**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**153.428**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR GAMHARIYA MINOR						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	17181.40	Sqm	**11.80**	202815.9451
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	7032.10	Cum	**156.50**	1100523.65
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	2812.84	Cum	**17.22**	48430.11243
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	9914.05	Cum	**165.12**	1636967.89
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	2974.22	Cum	**174.89**	520160.46
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (25% of net filling)	2478.51	Cum	**217.92**	540117.44
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	4461.32	Cum	**319.14**	1423786.46
6	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.				
			7050.01	Cum	**196.10**	1382506.96

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
7	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	16946.15	Cum	**61.88**	1048667.49
TOTAL COST OF EARTHWORK (in Rs.)						**7903976.42**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**79.040**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR PITAMPURA SUB DY.						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	64779.00	Sqm	**11.80**	764676.5752
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	31272.18	Cum	**156.50**	4894095.857
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	12508.87	Cum	**17.22**	215371.6666
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	31582.37	Cum	**165.12**	5214753.03
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	9474.71	Cum	**174.89**	1657032.10
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (25% of net filling)	7895.59	Cum	**217.92**	1720607.41
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	14212.07	Cum	**319.14**	4535638.62
6	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.				
			11666.85	Cum	**196.10**	2287869.29

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
7	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	62854.55	Cum	**61.88**	3889586.68
TOTAL COST OF EARTHWORK (in Rs.)						**25179631.21**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**251.796**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR SIMRA MINOR						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	9950.00	Sqm	**11.80**	117453.6798
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	2330.60	Cum	**156.50**	364738.9
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	932.24	Cum	**17.22**	16050.85537
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	13795.70	Cum	**165.12**	2277890.75
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	4138.71	Cum	**174.89**	723819.15
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (25% of net filling)	3448.93	Cum	**217.92**	751589.90
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	6208.07	Cum	**319.14**	1981242.29
6	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.				
			1492.50	Cum	**196.10**	292679.25

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
7	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	16126.30	Cum	**61.88**	997933.44
TOTAL COST OF EARTHWORK (in Rs.)						**7523398.22**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**75.234**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR SALEMPUR MINOR						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	11508.00	Sqm	**11.80**	135844.9193
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	3582.83	Cum	**156.50**	560712.895
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	1433.13	Cum	**17.22**	24674.97045
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	12389.23	Cum	**165.12**	2045659.61
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	3716.77	Cum	**174.89**	650025.73
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (25% of net filling)	3097.31	Cum	**217.92**	674965.25
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	5575.15	Cum	**319.14**	1779254.49
6	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.				
			1726.20	Cum	**196.10**	338507.82

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
7	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	15972.06	Cum	**61.88**	988388.52
TOTAL COST OF EARTHWORK (in Rs.)						**7198034.21**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**71.980**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR CHANDAULI MINOR						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	4689.20	Sqm	**11.80**	55353.14526
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	1559.61	Cum	**156.50**	244079.3563
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	623.85	Cum	**17.22**	10741.0601
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	7328.79	Cum	**165.12**	1210100.78
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	2198.64	Cum	**174.89**	384519.81
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (25% of net filling)	1832.20	Cum	**217.92**	399272.67
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	3297.96	Cum	**319.14**	1052510.02
6	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.				
			703.38	Cum	**196.10**	137932.82

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
7	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	8888.41	Cum	**61.88**	550035.40
TOTAL COST OF EARTHWORK (in Rs.)						**4044545.06**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**40.445**

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF SHANKARPUR MINOR				
Calculation procedure of Gate's weight for estimation purpose				
1	**Weight of 1 Vertical lift gate including embedded parts**	**0.1332x(L^2XHxh)^0.659**		
	(L) is length = clear vent width in m + 0.50m.	1.200	0.500	**1.70**
	(H) is height of gate in m = clear vent height in m+ 0.20m.	1.100	0.200	**1.30**
	(h) is head of water above sill of gate in m	1.100	0.3	**1.400**
	Weight of lift gate including embedded parts	**0.40**		**T**
2	**Capacity of screw hoist in tone including 25%reserve capacity (Hoist capacity shall be rounded off to next 1 tonne)**	**2.50 xWt of gate**		
		2.5	0.40	1.0
	Weight of screw hoist with all accessories	300 kg per tonne capacity of hoist		
		300	1.0	298.32
	Weight of screw hoist with all accessories	**0.30**		**T**
3	**Weight of hoist bridge:**			
(i)	Columns with bracings/Anchors/Stiffeners	400 kg per meter height		
		1.400	400	560
	Columns with bracings/Anchors/Stiffeners	**0.56**		**T**
(ii)	Beams with cross beams/stiffeners	400 kg per meter span		
		1.4	400	560
	Beams with cross beams/stiffeners	**0.56**		**T**
(iii)	Railing/ Chequered plate/Ladder etc	10% of wt. of columns/beams		
		1.12	10%	0.112
	Railing/ Chequered plate/Ladder etc	**0.112**		**T**
Total Weight of One Gate		**1.93**		**T**

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF KHAIRA MINOR				
Calculation procedure of Gate's weight for estimation purpose				
1	**Weight of 1 Vertical lift gate including embedded parts**	**0.1332x(L^2XHxh)^0.659**		
	(L) is length = clear vent width in m + 0.50m.	1.750	0.500	**2.25**
	(H) is height of gate in m = clear vent height in m+ 0.20m.	1.350	0.200	**1.55**
	(h) is head of water above sill of gate in m	1.350	0.3	**1.650**
	Weight of lift gate including embedded parts	**0.72**		**T**
2	**Capacity of screw hoist in tone including 25%reserve capacity (Hoist capacity shall be rounded off to next 1 tonne)**	**2.50 xWt of gate**		
		2.5	0.72	1.8
	Weight of screw hoist with all accessories	300 kg per tonne capacity of hoist		
		300	2	540.12
	Weight of screw hoist with all accessories	**0.54**		**T**
3	**Weight of hoist bridge:**			
(i)	Columns with bracings/Anchors/Stiffeners	400 kg per meter height		
		1.650	400	660
	Columns with bracings/Anchors/Stiffeners	**0.66**		**T**
(ii)	Beams with cross beams/stiffeners	400 kg per meter span		
		1.65	400	660
	Beams with cross beams/stiffeners	**0.66**		**T**
(iii)	Railing/ Chequered plate/Ladder etc	10% of wt. of columns/beams		
		1.32	10%	0.132
	Railing/ Chequered plate/Ladder etc	**0.132**		**T**
Total Weight of One Gate		**2.71**		**T**

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF GAMHARIA MINOR				
Calculation procedure of Gate's weight for estimation purpose				
1	**Weight of 1 Vertical lift gate including embedded parts**	**0.1332x(L^2XHxh)^0.659**		
	(L) is length = clear vent width in m + 0.50m.	2.250	0.500	**2.75**
	(H) is height of gate in m = clear vent height in m+ 0.20m.	1.620	0.200	**1.82**
	(h) is head of water above sill of gate in m	1.620	0.3	**1.920**
	Weight of lift gate including embedded parts	**1.15**		**T**
2	**Capacity of screw hoist in tone including 25%reserve capacity (Hoist capacity shall be rounded off to next 1 tonne)**	**2.50 xWt of gate**		
		2.5	1.15	2.9
	Weight of screw hoist with all accessories	300 kg per tonne capacity of hoist		
		300	2.9	864.35
	Weight of screw hoist with all accessories	**0.86**		**T**
3	**Weight of hoist bridge:**			
(i)	Columns with bracings/Anchors/Stiffeners	400 kg per meter height		
		1.920	400	768
	Columns with bracings/Anchors/Stiffeners	**0.768**		**T**
(ii)	Beams with cross beams/stiffeners	400 kg per meter span		
		1.92	400	768
	Beams with cross beams/stiffeners	**0.768**		**T**
(iii)	Railing/ Chequered plate/Ladder etc	10% of wt. of columns/beams		
		1.536	10%	0.1536
	Railing/ Chequered plate/Ladder etc	**0.1536**		**T**
Total Weight of One Gate		**3.71**		**T**

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF PRITAMPURA MR.				
Calculation procedure of Gate's weight for estimation purpose				
1	**Weight of 1 Vertical lift gate including embedded parts**	**0.1332x(L^2XHxh)^0.659**		
	(L) is length = clear vent width in m + 0.50m.	1.900	0.500	**2.40**
	(H) is height of gate in m = clear vent height in m+ 0.20m.	1.470	0.200	**1.67**
	(h) is head of water above sill of gate in m	1.470	0.3	**1.770**
	Weight of lift gate including embedded parts	**0.86**		**T**
2	**Capacity of screw hoist in tone including 25%reserve capacity (Hoist capacity shall be rounded off to next 1 tonne)**	**2.50 xWt of gate**		
		2.5	0.86	2.2
	Weight of screw hoist with all accessories	300 kg per tonne capacity of hoist		
		300	2	646.95
	Weight of screw hoist with all accessories	**0.65**		**T**
3	**Weight of hoist bridge:**			
(i)	Columns with bracings/Anchors/Stiffeners	400 kg per meter height		
		1.770	400	708
	Columns with bracings/Anchors/Stiffeners	**0.708**		**T**
(ii)	Beams with cross beams/stiffeners	400 kg per meter span		
		1.77	400	708
	Beams with cross beams/stiffeners	**0.708**		**T**
(iii)	Railing/ Chequered plate/Ladder etc	10% of wt. of columns/beams		
		1.416	10%	0.1416
	Railing/ Chequered plate/Ladder etc	**0.1416**		**T**
Total Weight of Two Gate		**6.13**		**T**

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF CHANDAULI MR.				
Calculation procedure of Gate's weight for estimation purpose				
1	**Weight of 1 Vertical lift gate including embedded parts**	**0.1332x(L^2XHxh)^0.659**		
	(L) is length = clear vent width in m + 0.50m.	1.170	0.500	**1.67**
	(H) is height of gate in m = clear vent height in m+ 0.20m.	1.100	0.200	**1.30**
	(h) is head of water above sill of gate in m	1.100	0.3	**1.400**
	Weight of lift gate including embedded parts	**0.39**		**T**
2	**Capacity of screw hoist in tone including 25%reserve capacity (Hoist capacity shall be rounded off to next 1 tonne)**	**2.50 xWt of gate**		
		2.5	0.39	1.00
	Weight of screw hoist with all accessories	300 kg per tonne capacity of hoist		
		300	1	300.00
	Weight of screw hoist with all accessories	**0.30**		**T**
3	**Weight of hoist bridge:**			
(i)	Columns with bracings/Anchors/Stiffeners	400 kg per meter height		
		1.400	400	560
	Columns with bracings/Anchors/Stiffeners	**0.56**		**T**
(ii)	Beams with cross beams/stiffeners	400 kg per meter span		
		1.4	400	560
	Beams with cross beams/stiffeners	**0.56**		**T**
(iii)	Railing/ Chequered plate/Ladder etc	10% of wt. of columns/beams		
		1.12	10%	0.112
	Railing/ Chequered plate/Ladder etc	**0.112**		**T**
Total Weight of One Gate		**1.92**		**T**

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF SIMRA MR.				
Calculation procedure of Gate's weight for estimation purpose				
1	**Weight of 1 Vertical lift gate including embedded parts**	**0.1332x(L^2XHxh)^0.659**		
	(L) is length = clear vent width in m + 0.50m.	1.200	0.500	**1.70**
	(H) is height of gate in m = clear vent height in m+ 0.20m.	1.330	0.200	**1.53**
	(h) is head of water above sill of gate in m	1.330	0.3	**1.630**
	Weight of lift gate including embedded parts	**0.49**		**T**
2	**Capacity of screw hoist in tone including 25%reserve capacity (Hoist capacity shall be rounded off to next 1 tonne)**	**2.50 xWt of gate**		
		2.5	0.49	1.2
	Weight of screw hoist with all accessories	300 kg per tonne capacity of hoist		
		300	1	367.15
	Weight of screw hoist with all accessories	**0.37**		**T**
3	**Weight of hoist bridge:**			
(i)	Columns with bracings/Anchors/Stiffeners	400 kg per meter height		
		1.630	400	652
	Columns with bracings/Anchors/Stiffeners	**0.652**		**T**
(ii)	Beams with cross beams/stiffeners	400 kg per meter span		
		1.63	400	652
	Beams with cross beams/stiffeners	**0.652**		**T**
(iii)	Railing/ Chequered plate/Ladder etc	10% of wt. of columns/beams		
		1.304	10%	0.1304
	Railing/ Chequered plate/Ladder etc	**0.1304**		**T**
Total Weight of One Gate		**2.29**		**T**

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF SALEMPUR MR.				
Calculation procedure of Gate's weight for estimation purpose				
1	**Weight of 1 Vertical lift gate including embedded parts**	**0.1332x(L^2XHxh)^0.659**		
	(L) is length = clear vent width in m + 0.50m.	1.200	0.500	**1.70**
	(H) is height of gate in m = clear vent height in m+ 0.20m.	0.960	0.200	**1.16**
	(h) is head of water above sill of gate in m	0.960	0.3	**1.260**
	Weight of lift gate including embedded parts	**0.34**		**T**
2	**Capacity of screw hoist in tone including 25%reserve capacity (Hoist capacity shall be rounded off to next 1 tonne)**	**2.50 xWt of gate**		
		2.5	0.34	1.0
	Weight of screw hoist with all accessories	300 kg per tonne capacity of hoist		
		300	1.0	300.00
	Weight of screw hoist with all accessories	**0.30**		**T**
3	**Weight of hoist bridge:**			
(i)	Columns with bracings/Anchors/Stiffeners	400 kg per meter height		
		1.260	400	504
	Columns with bracings/Anchors/Stiffeners	**0.504**		**T**
(ii)	Beams with cross beams/stiffeners	400 kg per meter span		
		1.26	400	504
	Beams with cross beams/stiffeners	**0.504**		**T**
(iii)	Railing/ Chequered plate/Ladder etc	10% of wt. of columns/beams		
		1.008	10%	0.1008
	Railing/ Chequered plate/Ladder etc	**0.1008**		**T**
Total Weight of One Gate		**1.75**		**T**

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND ANALYSIS OF RATE OF HEAD REGULATOR GATE			
1	Cost of material **(A)** (Structural Steel WRD M-181)	Rs.	55116.67
2	Wastage **5%** =	Rs.	2755.83
3	Cost of miscellaneous material like electrodes,oxygen, acetylene nut bolt, rope	Rs.	35825.84
	Total 1+2+3= ***(B)*** =	Rs.	93698.34
4	Labour charge 30%(B) =	Rs.	28109.50
5	Overhead charge + Contractor profit **@15% A**	Rs.	8267.50
6	Workshop and energy charge ,**12 % of (B)**	Rs.	11243.80
7	Transportation and erection charge ,**15 % of B**	Rs.	14054.75
	Total = B+4+5+6+7 = ***C***	Rs.	155373.89
8	Other incidental charge , **3 % = of C**	Rs.	4661.22
	Total C+8 = D	Rs.	**160035.11**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
ABSTRACT OF COST HR FOR SHANKARPUR MR OFFTAKING FROM RD-0+345 KM (R.) AT BASDIHA DISTRIBUTARY								
S. No.	**Item of Works**	**Qty.**	**Unit**	**Rate (As per WRD SOR 2025 & PL 2025)**	**Amount (Rs)**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	138.153	Cum	**156.50**	21620.93			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	19.24	Cum	**6381.70**	122767.79	6.23	8.66	17.31
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	80.41	Cum	**6914.20**	555999.11	33.17	34.58	69.16
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	16.73	Cum	**8151.40**	136377.52	9.49	6.52	13.22
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.16	MT	**73574.90**	158683.81			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1.93	MT	**160035.11**	308560.97			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	274.44	Sqm	**578.60**	158791.20			
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	11.59	Sqm	**680.10**	7879.64			
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry. (WRD M-002)	1.62	Cum	**694.61**	1125.27			
10	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.62	Cum	**1237.00**	2003.94			
11	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)	1.16	Cum	**1377.70**	1591.24			
12	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.16	Cum	**516.50**	596.56			
13	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	3.07	Sqm	**63.20**	194.20			
14	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	Cum	**5588.70**	11177.40			
15	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (3.18 PWD NH SOR CHHATISGARH 2025)	4.20	Sqm	**66.00**	277.20			
16	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications.	10.50	RM	**499.80**	5247.90			
17	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully	29.99	Sqm	**149.30**	4477.75			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
18	**Carriage of materials**							
	Coarse Sand (60 Km lead)	49.760	Cum	**1075.00**	53491.83			
	Coarse Aggregates (100 Km lead)	100.842	Cum	**1398.00**	140977.10			
	Cement (30 km lead)	48.890	MT	**742.00**	36276.37			
	Boulder (60 Km lead)	1.62	Cum	**1159.00**	1877.58			
	Steel (30 Km lead)	4.08	MT	**742.00**	3030.96			
	TOTAL (In Rs.)				**1733026.27**			
	TOTAL (In Rs.)				**1733026.27**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	49.76	Cum	**584.64**	29091.59	2909.16		
	Coarse Aggregate	100.84	Cum	**944.26**	95221.06	9522.11		
	Boulders	1.62	Cum	**694.61**	1125.27	112.53		
	Total					12543.79		
	For 1 nos. HR, Total Seigniorage charges					**12543.79**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF COST HR FOR KHAIRA MR OFFTAKING FROM RD-0+345 KM (R.) AT BASDIHA DISTRIBUTARY							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	166.248	Cum	**156.50**	26017.87			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	20.67	Cum	**6381.70**	131936.40	6.70	9.30	18.61
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	97.22	Cum	**6914.20**	672223.22	40.10	41.81	83.61
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	19.26	Cum	**8151.40**	157012.89	10.92	7.51	15.22
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.96	MT	**73574.90**	217444.85			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	2.71	MT	**160035.11**	434061.09			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	312.93	Sqm	**578.60**	181058.59			
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	14.40	Sqm	**680.10**	9793.44			
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry. (WRD M-002)	3.11	Cum	**694.61**	2156.76			
10	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	3.11	Cum	**1237.00**	3840.89			
11	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)	1.16	Cum	**1377.70**	1591.24			
12	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.16	Cum	**516.50**	596.56			
13	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	3.71	Sqm	**63.20**	234.28			
14	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	Cum	**5588.70**	11177.40			
15	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (3.18 PWD NH SOR CHHATISGARH 2025)	4.20	Sqm	**66.00**	277.20			
16	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications.	10.50	RM	**499.80**	5247.90			
17	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	35.92	Sqm	**149.30**	5362.63			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
18	**Carriage of materials**							
	Coarse Sand (60 Km lead)	58.622	Cum	**1075.00**	63018.35			
	Coarse Aggregates (100 Km lead)	118.591	Cum	**1398.00**	165790.32			
	Cement (30 km lead)	57.725	MT	**742.00**	42831.77			
	Boulder (60 Km lead)	3.11	Cum	**1159.00**	3598.70			
	Steel (30 Km lead)	5.67	MT	**742.00**	4205.44			
	TOTAL (In Rs.)				**2139477.78**			
	TOTAL (In Rs.)				**2139477.78**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	58.62	Cum	**584.64**	34272.61	3427.26		
	Coarse Aggregate	118.59	Cum	**944.26**	111980.80	11198.08		
	Boulders	3.11	Cum	**694.61**	2156.76	215.68		
	Total					14841.02		
	For 1 nos. HR, Total Seigniorage charges					**14841.02**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF COST HR FOR GAMHARIA MR OFFTAKING FROM RD-4+580 KM (L.) AT BASDIHA DISTRIBUTARY							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	195.234	Cum	**156.50**	30554.16			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	22.54	Cum	**6381.70**	143870.76	7.30	10.14	20.29
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	124.14	Cum	**6914.20**	858323.50	51.21	53.38	106.76
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	22.55	Cum	**8151.40**	183800.79	12.78	8.79	17.81
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.13	MT	**73574.90**	230620.66			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	3.71	MT	**160035.11**	593155.98			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	367.08	Sqm	**578.60**	212390.46			
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	11.67	Sqm	**680.10**	7936.77			
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry. (WRD M-002)	4.46	Cum	**694.61**	3094.49			
10	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	4.46	Cum	**1237.00**	5510.84			
11	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)	1.49	Cum	**1377.70**	2045.88			
12	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.49	Cum	**516.50**	767.00			
13	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	4.51	Sqm	**63.20**	284.95			
14	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	Cum	**5588.70**	11177.40			
15	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (3.18 PWD NH SOR CHHATISGARH 2025)	4.20	Sqm	**66.00**	277.20			
16	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications.	10.50	RM	**499.80**	5247.90			
17	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	34.35	Sqm	**149.30**	5128.55			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
18	**Carriage of materials**							
	Coarse Sand (60 Km lead)	72.319	Cum	**1075.00**	77742.56			
	Coarse Aggregates (100 Km lead)	146.348	Cum	**1398.00**	204594.22			
	Cement (30 km lead)	71.297	MT	**742.00**	52902.15			
	Boulder (60 Km lead)	4.46	Cum	**1159.00**	5163.35			
	Steel (30 Km lead)	6.84	MT	**742.00**	5075.96			
	TOTAL (In Rs.)				**2639665.52**			
	TOTAL (In Rs.)				**2639665.52**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	72.32	Cum	**584.64**	42280.38	4228.04		
	Coarse Aggregate	146.35	Cum	**944.26**	138190.37	13819.04		
	Boulders	4.46	Cum	**694.61**	3094.49	309.45		
	Total					18356.52		
	For 1 nos. HR, Total Seigniorage charges					**18356.52**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF COST HR FOR PRITAMPURA SUB DY OFFTAKING FROM RD-10+060 KM (R.) AT BASDIHA DISTRIBUTARY							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	207.284	Cum	**156.50**	32439.95			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	27.44	Cum	**6381.70**	175145.73	8.89	12.35	24.70
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	119.12	Cum	**6914.20**	823590.46	49.14	51.22	102.44
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	29.46	Cum	**8151.40**	240104.11	16.70	11.49	23.27
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.64	MT	**73574.90**	267920.95			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	6.13	MT	**160035.11**	981700.84			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	364.08	Sqm	**578.60**	210658.98			
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	17.10	Sqm	**680.10**	11629.71			
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry. (WRD M-002)	8.69	Cum	**694.61**	6038.94			
10	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	8.69	Cum	**1237.00**	10754.48			
11	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)	2.52	Cum	**1377.70**	3473.46			
12	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	2.52	Cum	**516.50**	1302.20			
13	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	4.04	Sqm	**63.20**	255.32			
14	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	Cum	**5588.70**	11177.40			
15	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (3.18 PWD NH SOR CHHATISGARH 2025)	4.20	Sqm	**66.00**	277.20			
16	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications.	10.50	RM	**499.80**	5247.90			
17	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	36.88	Sqm	**149.30**	5505.80			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
18	**Carriage of materials**							
	Coarse Sand (60 Km lead)	75.058	Cum	**1075.00**	80687.04			
	Coarse Aggregates (100 Km lead)	152.931	Cum	**1398.00**	213797.79			
	Cement (30 km lead)	74.729	MT	**742.00**	55448.73			
	Boulder (60 Km lead)	8.69	Cum	**1159.00**	10076.35			
	Steel (30 Km lead)	9.78	MT	**742.00**	7253.61			
	TOTAL (In Rs.)				**3154486.95**			
	TOTAL (In Rs.)				**3154486.95**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	75.06	Cum	**584.64**	43881.74	4388.17		
	Coarse Aggregate	152.93	Cum	**944.26**	144406.80	14440.68		
	Boulders	8.69	Cum	**694.61**	6038.94	603.89		
	Total					19432.75		
	For 1 nos. HR, Total Seigniorage charges					**19432.75**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF COST HR FOR CHANDAULI MR OFFTAKING FROM RD-7+435 KM (R.) AT PRITAMPURA SUB-DY							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	8.150	Cum	**156.50**	1275.54			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	0.41	Cum	**6381.70**	2616.50	0.13	0.18	0.37
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	4.10	Cum	**6914.20**	28349.95	1.69	1.76	3.53
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	11.59	Cum	**8151.40**	94442.12	6.57	4.52	9.15
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	6.75	MT	**73574.90**	496789.50			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1.92	MT	**160035.11**	307353.23			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	0.19	Sqm	**578.60**	109.05			
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	0.51	Sqm	**680.10**	345.63			
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry. (WRD M-002)	97.22	Cum	**694.61**	67532.46			
10	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	97.22	Cum	**1237.00**	120265.56			
11	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)	1.08	Cum	**1377.70**	1484.68			
12	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.08	Cum	**516.50**	556.61			
13	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	0.81	Sqm	**63.20**	51.37			
14	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	4.88	Cum	**5588.70**	27294.76			
15	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (3.18 PWD NH SOR CHHATISGARH 2025)	0.53	Sqm	**66.00**	34.89			
16	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications.	0.81	RM	**499.80**	407.23			
17	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	102.94	Sqm	**149.30**	15368.65			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
18	**Carriage of materials**							
	Coarse Sand (60 Km lead)	6.466	Cum	**1075.00**	6951.11			
	Coarse Aggregates (100 Km lead)	14.126	Cum	**1398.00**	19747.88			
	Cement (30 km lead)	8.393	MT	**742.00**	6227.94			
	Boulder (60 Km lead)	97.22	Cum	**1159.00**	112682.12			
	Steel (30 Km lead)	8.67	MT	**742.00**	6435.14			
	TOTAL (In Rs.)				**1316321.91**			
	TOTAL (In Rs.)				**1316321.91**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	6.47	Cum	**584.64**	3780.37	378.04		
	Coarse Aggregate	14.13	Cum	**944.26**	13338.43	1333.84		
	Boulders	97.22	Cum	**694.61**	67532.46	6753.25		
	Total					8465.13		
	For 1 nos. HR, Total Seigniorage charges					**8465.13**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF COST HR FOR SIMRA MR OFFTAKING FROM RD-12+685 KM (R.) AT BASDIHA DISTRIBUTARY							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	175.920	Cum	**156.50**	27531.50			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	21.06	Cum	**6381.70**	134390.40	6.82	9.48	18.95
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	108.64	Cum	**6914.20**	751186.56	44.82	46.72	93.43
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	16.93	Cum	**8151.40**	138010.72	9.60	6.60	13.38
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.70	MT	**73574.90**	198968.19			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	2.29	MT	**160035.11**	366652.80			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	332.19	Sqm	**578.60**	192207.99			
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	12.88	Sqm	**680.10**	8761.05			
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry. (WRD M-002)	1.62	Cum	**694.61**	1125.27			
10	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.62	Cum	**1237.00**	2003.94			
11	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)	0.79	Cum	**1377.70**	1091.14			
12	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.79	Cum	**516.50**	409.07			
13	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	3.72	Sqm	**63.20**	235.10			
14	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	Cum	**5588.70**	11177.40			
15	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (3.18 PWD NH SOR CHHATISGARH 2025)	4.20	Sqm	**66.00**	277.20			
16	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications.	10.50	RM	**499.80**	5247.90			
17	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	28.78	Sqm	**149.30**	4296.19			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
18	**Carriage of materials**							
	Coarse Sand (60 Km lead)	62.796	Cum	**1075.00**	67506.15			
	Coarse Aggregates (100 Km lead)	126.554	Cum	**1398.00**	176922.69			
	Cement (30 km lead)	61.239	MT	**742.00**	45438.98			
	Boulder (60 Km lead)	1.62	Cum	**1159.00**	1877.58			
	Steel (30 Km lead)	5.00	MT	**742.00**	3706.57			
	TOTAL (In Rs.)				**2139024.37**			
	TOTAL (In Rs.)				**2139024.37**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	62.80	Cum	**584.64**	36713.30	3671.33		
	Coarse Aggregate	126.55	Cum	**944.26**	119500.01	11950.00		
	Boulders	1.62	Cum	**694.61**	1125.27	112.53		
	Total					15733.86		
	For 1 nos. HR, Total Seigniorage charges					**15733.86**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF COST HR FOR SALEMPUR MR OFFTAKING FROM RD-15+950 KM (R.) AT BASDIHA DISTRIBUTARY							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	185.179	Cum	**156.50**	28980.56			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	21.07	Cum	**6381.70**	134483.38	6.83	9.48	18.97
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	116.93	Cum	**6914.20**	808482.38	48.23	50.28	100.56
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	16.80	Cum	**8151.40**	136929.79	9.52	6.55	13.27
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.93	MT	**73574.90**	215917.72			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1.75	MT	**160035.11**	280547.51			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	356.30	Sqm	**578.60**	206156.02			
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	13.31	Sqm	**680.10**	9054.85			
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry. (WRD M-002)	1.62	Cum	**694.61**	1125.27			
10	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.62	Cum	**1237.00**	2003.94			
11	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)	0.79	Cum	**1377.70**	1091.14			
12	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.79	Cum	**516.50**	409.07			
13	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	2.67	Sqm	**63.20**	169.04			
14	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	Cum	**5588.70**	11177.40			
15	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (3.18 PWD NH SOR CHHATISGARH 2025)	4.20	Sqm	**66.00**	277.20			
16	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications.	10.50	RM	**499.80**	5247.90			
17	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	39.26	Sqm	**149.30**	5861.20			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
18	**Carriage of materials**							
	Coarse Sand (60 Km lead)	66.315	Cum	**1075.00**	71288.12			
	Coarse Aggregates (100 Km lead)	133.589	Cum	**1398.00**	186757.48			
	Cement (30 km lead)	64.586	MT	**742.00**	47923.04			
	Boulder (60 Km lead)	1.62	Cum	**1159.00**	1877.58			
	Steel (30 Km lead)	4.69	MT	**742.00**	3478.28			
	TOTAL (In Rs.)				**2159238.87**			
	TOTAL (In Rs.)				**2159238.87**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	66.31	Cum	**584.64**	38770.13	3877.01		
	Coarse Aggregate	133.59	Cum	**944.26**	126142.79	12614.28		
	Boulders	1.62	Cum	**694.61**	1125.27	112.53		
	Total					16603.82		
	For 1 nos. HR, Total Seigniorage charges					**16603.82**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILS OF QUANTITIES OF HR FOR SHANKARPUR MR OFFTAKING FROM RD-0+345 KM (R.) AT BASDIHA DISTRIBUTARY							
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section A-A	*2*	*1.70*	*1.58*	*2.601*	*13.965*	*Cum*
	Section B-B	*2*	*5.25*	*1.87*	*2.280*	*44.720*	*Cum*
	Section C-C	*2*	*0.50*	*1.69*	*2.280*	*3.849*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*3.13*	*1.21*	*2.600*	*9.858*	*Cum*
	Left Bank Sec a to d	1	3.08	2.60	1.950	*15.602*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.49*	*1.10*	*2.608*	*2.806*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.61*	*1.85*	*2.608*	*25.164*	*Cum*
	Floor						
	U/S key	*1*	*1.2575*	*2.106*	*0.850*	*2.251*	*Cum*
	Floor	*1*	*3.286*	*2.106*	*0.650*	*4.498*	*Cum*
		1	*0.419*	*1.75*	*0.450*	*0.330*	*Cum*
		1	*0.718*	*1.75*	*0.350*	*0.440*	*Cum*
		1	*0.419*	*1.75*	*0.300*	*0.733*	*Cum*
		1	*2.579*	*1.75*	*0.950*	*4.288*	*Cum*
		1	*0.9*	*1.75*	*0.200*	*0.315*	*Cum*
		1	*0.135*	*1.75*	*0.200*	*0.047*	*Cum*
		1	*2.415*	*1.75*	*0.650*	*2.747*	*Cum*
		1	*0.725*	*1.75*	*0.650*	*0.825*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*1*	*2.200*	*1.750*	*0.600*	*2.310*	*Cum*
	Toe Wall Base D/S Portion	*1*	*1.750*	*0.850*	*1.200*	*1.785*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*3.000*	*0.900*	*0.600*	*1.620*	*Cum*
						138.15	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor						
		1	*0.629*	*2.437*	*0.150*	*0.23*	*Cum*
		1	*1.522*	*1.531*	*0.150*	*0.35*	*Cum*
		1	*1.269*	*1.750*	*0.150*	*0.33*	*Cum*
		1	*0.670*	*1.750*	*0.150*	*0.18*	*Cum*
		1	*2.838*	*1.750*	*0.150*	*0.74*	*Cum*
		1	*0.973*	*1.750*	*0.150*	*0.26*	*Cum*
		1	*1.340*	*1.750*	*0.150*	*0.35*	*Cum*
		1	*0.567*	*1.750*	*0.150*	*0.15*	*Cum*
		1	*0.692*	*1.750*	*0.150*	*0.18*	*Cum*
	PCC Below Abutment						
	Section A-A	*2*	*1.698*	*1.581*	*0.300*	*1.61*	*Cum*
	Section B-B	*2*	*5.250*	*1.868*	*0.300*	*5.88*	*Cum*
	Section C-C	*2*	*0.500*	*1.688*	*0.300*	*0.51*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*3.131*	*1.211*	*0.300*	*1.14*	*Cum*
	Left Bank Sec a to d	*1*	*3.075*	*2.602*	*0.150*	*1.20*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.489*	*1.100*	*0.300*	*0.32*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.605*	*1.852*	*0.300*	*2.89*	*Cum*
	Toe Wall Base D/S Portion	*1*	*1.750*	*0.850*	*0.300*	*0.45*	*Cum*
	Toe Wall Stem D/S Portion	*1*	*1.750*	*0.450*	*0.900*	*0.71*	*Cum*
	Toe Wall Base (For Brick Pitching)	*1*	*3.000*	*0.450*	*0.300*	*0.41*	*Cum*
	Toe Wall Stem (For Brick Pitching)	*1*	*3.000*	*0.300*	*0.900*	*0.81*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*5*	*0.600*	*0.600*	*0.300*	*0.54*	*Cum*
	TOTAL					**19.24**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section A-A	*2*	*1.70*	*0.82*	*0.50*	*1.39*	*Cum*
		2	*1.70*	*1.00*	*0.60*	*2.04*	*Cum*
		2	*1.70*	*1.18*	*1.20*	*4.81*	*Cum*
	Section B-B	*2*	*5.25*	*1.14*	*1.08*	*12.97*	*Cum*
		2	*5.25*	*1.47*	*0.90*	*13.87*	*Cum*
	Section C-C	*2*	*0.50*	*1.05*	*0.78*	*0.82*	*Cum*
		2	*0.50*	*1.29*	*1.20*	*1.55*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*3.13*	*0.45*	*0.50*	*0.70*	*Cum*
		1	*3.13*	*0.63*	*0.60*	*1.18*	*Cum*
		1	*3.13*	*0.81*	*1.20*	*3.05*	*Cum*
	Left Bank						
	Section a-a	*1*		2.479	*0.50*	*1.24*	*Sqm*
		1		*2.31*	*0.20*	*0.46*	*Sqm*
		1		*1.31*	*1.10*	*1.44*	*Sqm*
						3.14	***Sqm***
	Section b-b	*1*		*2.48*	*0.50*	*1.24*	*Sqm*
		1		*2.04*	*0.20*	*0.41*	*Sqm*
		1		*1.26*	*1.10*	*1.38*	*Sqm*
						3.03	***Sqm***
	Section c-c	*1*		*2.48*	*0.50*	*1.24*	*Sqm*
		1		*1.67*	*0.20*	*0.33*	*Sqm*
		1		*1.08*	*1.10*	*1.18*	*Sqm*
						2.76	***Sqm***
	Section d-d	*1*		*2.48*	*0.50*	*1.24*	*Sqm*
		1		*0.48*	*0.20*	*0.10*	*Sqm*
		1		*0.48*	*1.10*	*0.53*	*Sqm*
						1.86	***Sqm***
	Bottom Key	*1*	*3.08*	*1.28*	*0.70*	*2.74*	*Cum*
	Top Stem Area	*1*	*3.08*	*2.70*		*8.29*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.49*	*0.70*	*0.90*	*0.62*	*Cum*
		2	*0.49*	*0.53*	*0.91*	*0.47*	*Cum*
		2	*0.49*	*0.35*	*0.50*	*0.17*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.61*	*1.45*	*0.90*	*6.81*	*Cum*
		2	*2.61*	*1.13*	*0.91*	*5.32*	*Cum*
		2	*2.61*	*0.67*	*0.50*	*1.75*	*Cum*
	TOTAL					**68.57**	**Cum**
	Floor						
	U/S key	*1*	*1.26*	*2.11*	*0.70*	*1.85*	*Cum*
	Floor	*1*	*3.29*	*2.11*	*0.50*	*3.46*	*Cum*
		1	*0.42*	*1.75*	*0.30*	*0.22*	*Cum*
		1	*0.72*	*1.75*	*0.20*	*0.25*	*Cum*
		1	*0.42*	*1.75*	*0.30*	*0.22*	*Cum*
		1	*2.58*	*1.75*	*0.50*	*2.26*	*Cum*
		1	*0.90*	*1.75*	*0.20*	*0.32*	*Cum*
		1	*0.14*	*1.75*		*0.24*	*Cum*
		1	*0.53*	*1.75*	*0.30*	*0.28*	*Cum*
		1	*2.42*	*1.75*	*0.50*	*2.11*	*Cum*
	D/S key	*1*	*0.73*	*1.75*	*0.50*	*0.63*	*Cum*
	TOTAL					**80.41**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Floor	*1*	*3.29*	*2.11*	*0.20*	*1.38*	*Cum*
		1	*0.67*	*1.75*	*0.20*	*0.23*	*Cum*
		1	*2.58*	*1.75*	*0.20*	*0.90*	*Cum*
		1	*0.95*	*1.75*	*0.20*	*0.33*	*Cum*
		1	*2.42*	*1.75*	*0.20*	*0.85*	*Cum*
	Top Slab	*1*	*5.25*	*2.00*	*0.39*	*4.10*	*Cum*
	75mm Th. Wearing coat on top slab	*1*	*4.25*	*2.00*	*0.08*	*0.64*	*Cum*
	Dirt wall	*2*	*5.75*	0.82	*0.50*	*4.72*	*Cum*
		2	*5.75*	*0.40*	*0.43*	*1.96*	*Cum*
	Parapet	*2*	*2.84*	*0.45*	*0.18*	*0.44*	*Cum*
		2	*2.84*	*0.35*	*0.25*	*0.50*	*Cum*
		2	*2.84*	*0.22*	*0.55*	*0.68*	*Cum*
	TOTAL					**16.73**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	**Length**	**Nos.**		**Weight per m**	**Quantity**	**Unit**
	Slab Per Span						
a1	*16*	*2.460*	*29*		*1.578*	*112.584*	*Kg*
a2	*10*	*5.650*	*10*		*0.616*	*34.830*	*Kg*
a3	*10*	*5.150*	*2*		*0.616*	*6.350*	*Kg*
a4	*10*	*2.380*	*18*		*0.616*	*26.409*	*Kg*
a5	*10*	*5.550*	*7*		*0.616*	*23.949*	*Kg*
	Dirt Wall						
d1	*12*	*4.460*	*26*		*0.888*	*102.938*	*Kg*
d2	*12*	*5.550*	*14*		*0.888*	*68.975*	*Kg*
	Crash Barrier						
x1	*12*	*2.501*	*32*		*0.888*	*71.045*	*Kg*
x2	*16*	*1.265*	*32*		*1.578*	*63.883*	*Kg*
x3	*10*	*1.900*	*24*		*0.616*	*28.111*	*Kg*
	Floor R/F						
	U/S Key						
	12	*6.673*	*5*		*0.888*	*29.618*	*Kg*
	12	*1.900*	*25*		*0.888*	*42.166*	*Kg*
	floor raft						
	12	*3.394*	*5*		*0.888*	*15.064*	*Kg*
	12	*8.117*	*10*		*0.888*	*72.055*	*Kg*
	12	*1.900*	*67*		*0.888*	*113.005*	*Kg*
	0.25 % Skin Reinforcement for Transition walls	*68.57*	*0.25%*	*0.17*	*7850*	*1345.78*	*Kg*
	TOTAL Weight of steel (in kg)					2156.77	Kg
	TOTAL Weight of Steel (in Tonne)					**2.16**	**MT**
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1		1.93		**1.93**	**MT**
	*Separate sheet attached						
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section A-A	*4*	*1.70*		*0.50*	*3.40*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*1.70*		*0.60*	*4.08*	*Sqm*
		4		*1.00*	*0.60*	*2.41*	*Sqm*
		4	*1.70*		*1.20*	*8.15*	*Sqm*
		4		*1.18*	*1.20*	*5.67*	*Sqm*
	Section B-B	*4*	*5.25*		*1.08*	*22.68*	*Sqm*
		4		*1.14*	*1.08*	*4.94*	*Sqm*
		4	*5.25*		*0.90*	*18.90*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4		1.47	0.90	5.28	Sqm
	Section C-C	4	0.50		0.78	1.56	Sqm
		4		1.05	0.78	3.29	Sqm
		4	0.50		1.20	2.40	Sqm
		4		1.29	1.20	6.18	Sqm
	U/S Transition wall						
	Right Bank (Section D-D)	2	3.13		0.50	3.13	Sqm
		2		0.45	0.50	0.45	Sqm
		2	3.13		0.60	3.76	Sqm
		2		0.63	0.60	0.76	Sqm
		2	3.13		1.20	7.51	Sqm
		2		0.81	1.20	1.95	Sqm
	Left Bank						
	Bottom Key	2	3.08		0.70	4.31	Sqm
		2		1.28	0.70	1.79	Sqm
	Section a-a	2	1.03		0.50	1.03	Sqm
		2		2.48	0.50	2.48	Sqm
		2	1.03		0.20	0.41	Sqm
		2		2.31	0.20	0.92	Sqm
		2	1.03		1.10	2.26	Sqm
		2		1.31	1.10	2.87	Sqm
	Section b-b	2	1.03		0.50	1.03	Sqm
		2		2.48	0.50	2.48	Sqm
		2	1.03		0.20	0.41	Sqm
		2		2.04	0.20	0.81	Sqm
		2	1.03		1.10	2.26	Sqm
		2		1.26	1.10	2.77	Sqm
	Section c-c	2	1.03		0.50	1.03	Sqm
		2		2.48	0.50	2.48	Sqm
		2	1.03		0.20	0.41	Sqm
		2		1.67	0.20	0.67	Sqm
		2	1.03		1.10	2.26	Sqm
		2		1.08	1.10	2.37	Sqm
	Section d-d	2	1.03		0.50	1.03	Sqm
		2		2.48	0.50	2.48	Sqm
		2	1.03		0.20	0.41	Sqm
		2		0.48	0.20	0.19	Sqm
		2	1.03		1.10	2.26	Sqm
		2		0.48	1.10	1.06	Sqm
	D/S Transition wall						
	Sec 4-4	4	0.49		0.90	1.76	Sqm
		4		0.70	0.90	2.52	Sqm
		4	0.49		0.91	1.78	Sqm
		4		0.53	0.91	1.91	Sqm
		4	0.49		0.50	0.98	Sqm
		4		0.35	0.50	0.70	Sqm
	Avg. of Sec 1-1 & 3-3	4	2.61		0.90	9.38	Sqm
		4		1.45	0.90	5.23	Sqm
		4	2.61		0.91	9.46	Sqm
		4		1.13	0.91	4.09	Sqm
		4	2.61		0.50	5.21	Sqm
		4		0.67	0.50	1.35	Sqm
	Floor						
	U/S key	2	1.26		0.70	1.76	Sqm
		2		2.11	0.70	2.95	Sqm
	Floor	2	3.29		0.50	3.29	Sqm
		2		2.11	0.50	2.11	Sqm
		2	0.42		0.30	0.25	Sqm
		2		1.75	0.30	1.05	Sqm
		2	0.72		0.20	0.29	Sqm
		2		1.75	0.20	0.70	Sqm
		2	0.42		0.30	0.84	Sqm
		2		1.75	0.30	3.50	Sqm
		2	2.58		0.50	2.58	Sqm
		2		1.75	0.50	1.75	Sqm
		2	0.90		0.20	0.36	Sqm
		2		1.75	0.20	0.70	Sqm
		2	0.14			0.27	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*1.75*		*3.50*	*Sqm*
		2	*2.42*		*0.50*	*2.42*	*Sqm*
		2		*1.75*	*0.50*	*1.75*	*Sqm*
	D/S key	*2*	*0.73*		*0.50*	*0.73*	*Sqm*
		2		*1.75*	*0.50*	*1.75*	*Sqm*
	Toe Wall Base D/S Portion	*2*	*1.75*		*0.30*	*1.05*	*Sqm*
		2		*0.85*	*0.30*	*0.51*	*Sqm*
	Toe Wall Stem D/S Portion	*2*	*1.75*		*0.90*	*3.15*	*Sqm*
		2		*0.45*	*0.90*	*0.81*	*Sqm*
	Top Slab	*2*	*5.25*		*0.39*	*4.10*	*Sqm*
		2		*2.00*	*0.39*	*1.56*	*Sqm*
	Dirt wall	*4*	*5.75*		*0.50*	*11.50*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*5.75*		*0.43*	*9.78*	*Sqm*
		4		*0.40*	*0.43*	*0.68*	*Sqm*
	Parapet	*4*	*2.84*		*0.18*	*1.99*	*Sqm*
		4		*0.45*	*0.18*	*0.31*	*Sqm*
		4	*2.84*		*0.25*	*2.84*	*Sqm*
		4		*0.35*	*0.25*	*0.35*	*Sqm*
		4	*2.84*		*0.55*	*6.25*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**274.44**	**Sqm**
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.00*	*1.93*		*11.59*	*Sqm*
	TOTAL					**11.59**	**Sqm**
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.**(WRD M-002)**						
	Boulder Apron in D/S Portion	*1*	*3.00*	*0.90*	*0.60*	*1.62*	***Cum***
	TOTAL					**1.62**	**Cum**
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)						
	In D/S Portion below C.C. Blocks	*1*	*2.20*	*1.75*	*0.15*	*0.58*	*Cum*
	In D/S Portion below Stone Chips	*1*	*2.20*	*1.75*	*0.15*	*0.58*	*Cum*
	TOTAL					**1.16**	**Cum**
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	U/S transition	*2*	*1.65*	*0.48*		*1.59*	*Sqm*
	On Abutment Top	*2*	*5.06*	*0.45*		*1.49*	*Sqm*
	TOTAL					**3.07**	**Sqm**
12	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2	1			**2.00**	**No.**
13	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications**. (3.18 PWD NH SOR CHHATISGARH 2025)**	2	5.25	0.40		**4.20**	**Sqm**
14	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications. **(RCD 15.22 - (ii))**	2	5.25			**10.50**	**RM**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
15	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compa.cted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Abutment						
	Section A-A	2	*1.70*	*0.82*		*2.781*	*Cum*
	Section B-B	2	*5.25*	*1.53*		*16.086*	*Cum*
	Section C-C	2	*0.50*	*1.27*		*1.268*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	1	*3.13*	*0.74*		*2.326*	*Cum*
	D/S Transition wall						
	Sec 4-4	2	*0.49*	*0.80*		*0.778*	*Cum*
	Avg. of Sec 1-1 & 3-3	2	*2.61*	*1.30*		*6.752*	*Cum*
	TOTAL					**29.99**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF HR FOR KHAIRA MR OFFTAKING FROM RD-0+345 KM (R.) AT BASDIHA DISTRIBUTARY						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section A-A	*2*	*1.00*	*1.72*	*3.030*	*10.405*	*Cum*
	Section B-B	*2*	*5.25*	*2.00*	*2.507*	*52.752*	*Cum*
	Section C-C	*2*	*0.71*	*1.82*	*2.507*	*6.457*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*3.17*	*1.35*	*3.030*	*12.938*	*Cum*
	Left Bank Sec a to d	1	3.61	2.91	2.180	*22.923*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.51*	*1.10*	*2.835*	*3.150*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.71*	*1.99*	*2.835*	*30.520*	*Cum*
	Floor						
	U/S key	*1*	*1.4465*	*2.975*	*0.850*	*3.658*	*Cum*
	Floor	*1*	*3.628*	*2.975*	*0.650*	*7.016*	*Cum*
		1	*0.418*	*1.75*	*0.450*	*0.329*	*Cum*
		1	*0.718*	*1.75*	*0.350*	*0.440*	*Cum*
		1	*0.1077*	*1.75*	*0.000*	*0.188*	*Cum*
		1	*3.079*	*1.75*	*1.000*	*5.388*	*Cum*
		1	*0.968*	*1.75*	*0.200*	*0.339*	*Cum*
		2	*0.145*	*1.75*	*0.200*	*0.102*	*Cum*
		1	*1.423*	*1.75*	*0.650*	*1.619*	*Cum*
		1	*0.725*	*1.75*	*0.650*	*0.825*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*1*	*2.200*	*1.750*	*0.600*	*2.310*	*Cum*
	Toe Wall Base D/S Portion	*1*	*1.750*	*0.850*	*1.200*	*1.785*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*3.000*	*1.150*	*0.900*	*3.105*	*Cum*
						166.25	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor						
		1	*0.629*	*3.469*	*0.150*	*0.33*	*Cum*
		1	*1.832*	*2.244*	*0.150*	*0.62*	*Cum*
		1	*1.269*	*1.750*	*0.150*	*0.33*	*Cum*
		1	*0.782*	*1.750*	*0.150*	*0.21*	*Cum*
		1	*3.088*	*1.750*	*0.150*	*0.81*	*Cum*
		1	*1.131*	*1.750*	*0.150*	*0.30*	*Cum*
		1	*0.348*	*1.750*	*0.150*	*0.09*	*Cum*
		1	*0.567*	*1.750*	*0.150*	*0.15*	*Cum*
		1	*0.692*	*1.750*	*0.150*	*0.18*	*Cum*
	PCC Below Abutment						
	Section A-A	*2*	*1.000*	*1.717*	*0.300*	*1.03*	*Cum*
	Section B-B	*2*	*5.250*	*2.004*	*0.300*	*6.31*	*Cum*
	Section C-C	*2*	*0.706*	*1.824*	*0.300*	*0.77*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*3.170*	*1.347*	*0.300*	*1.28*	*Cum*
	Left Bank Sec a to d	*1*	*3.611*	*2.912*	*0.150*	*1.58*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.505*	*1.100*	*0.300*	*0.33*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.709*	*1.987*	*0.300*	*3.23*	*Cum*
	Toe Wall Base D/S Portion	*1*	*1.750*	*0.850*	*0.300*	*0.45*	*Cum*
	Toe Wall Stem D/S Portion	*1*	*1.750*	*0.450*	*0.900*	*0.71*	*Cum*
	Toe Wall Base (For Brick Pitching)	*1*	*3.000*	*0.450*	*0.300*	*0.41*	*Cum*
	Toe Wall Stem (For Brick Pitching)	*1*	*3.000*	*0.300*	*0.900*	*0.81*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*7*	*0.600*	*0.600*	*0.300*	*0.76*	*Cum*
	TOTAL					**20.67**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section A-A	*2*	*1.00*	*0.82*	*0.50*	*0.82*	*Cum*
		2	*1.00*	*1.07*	*0.83*	*1.77*	*Cum*
		2	*1.00*	*1.32*	*1.40*	*3.69*	*Cum*
	Section B-B	*2*	*5.25*	*1.21*	*1.31*	*16.63*	*Cum*
		2	*5.25*	*1.60*	*0.90*	*15.16*	*Cum*
	Section C-C	*2*	*0.71*	*1.12*	*1.01*	*1.60*	*Cum*
		2	*0.71*	*1.42*	*1.20*	*2.41*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*3.17*	*0.45*	*0.50*	*0.71*	*Cum*
		1	*3.17*	*0.70*	*0.83*	*1.84*	*Cum*
		1	*3.17*	*0.95*	*1.40*	*4.20*	*Cum*
	Left Bank						
	Section a-a	*1*		*2.773*	*0.50*	*1.39*	*Sqm*
		1		*2.62*	*0.20*	*0.52*	*Sqm*
		1		*1.48*	*1.33*	*1.96*	*Sqm*
						3.87	***Sqm***
	Section b-b	*1*		*2.77*	*0.50*	*1.39*	*Sqm*
		1		*2.20*	*0.20*	*0.44*	*Sqm*
		1		*1.34*	*1.33*	*1.78*	*Sqm*
						3.61	***Sqm***
	Section c-c	*1*		*2.77*	*0.50*	*1.39*	*Sqm*
		1		*1.80*	*0.20*	*0.36*	*Sqm*
		1		*1.14*	*1.33*	*1.52*	*Sqm*
						3.26	***Sqm***
	Section d-d	*1*		*2.77*	*0.50*	*1.39*	*Sqm*
		1		*0.48*	*0.20*	*0.10*	*Sqm*
		1		*0.48*	*1.33*	*0.64*	*Sqm*
						2.12	***Sqm***
	Bottom Key	*1*	*3.61*	*1.45*	*0.70*	*3.66*	*Cum*
	Top Stem Area	*1*	*3.61*	*3.22*		*11.62*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.51*	*0.70*	*0.90*	*0.64*	*Cum*
		2	*0.51*	*0.53*	*1.14*	*0.60*	*Cum*
		2	*0.51*	*0.35*	*0.50*	*0.18*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.71*	*1.59*	*0.90*	*7.74*	*Cum*
		2	*2.71*	*1.20*	*1.14*	*7.36*	*Cum*
		2	*2.71*	*0.68*	*0.50*	*1.84*	*Cum*
	TOTAL					**82.47**	**Cum**
	Floor						
	U/S key	*1*	*1.45*	*2.98*	*0.70*	*3.01*	*Cum*
	Floor	*1*	*3.63*	*2.98*	*0.50*	*5.40*	*Cum*
		1	*0.42*	*1.75*	*0.30*	*0.22*	*Cum*
		1	*0.72*	*1.75*	*0.20*	*0.25*	*Cum*
		1	*0.11*	*1.75*		*0.19*	*Cum*
		1	*3.08*	*1.75*	*0.55*	*2.96*	*Cum*
		1	*0.97*	*1.75*	*0.20*	*0.34*	*Cum*
		2	*0.15*	*1.75*		*0.51*	*Cum*
		1	*1.42*	*1.75*	*0.50*	*1.25*	*Cum*
	D/S key	*1*	*0.73*	*1.75*	*0.50*	*0.63*	*Cum*
	TOTAL					**97.22**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Over Floor	*1*	*3.75*	*2.98*	*0.20*	*2.23*	*Cum*
		1	*0.67*	*1.75*	*0.20*	*0.23*	*Cum*
		1	*3.08*	*1.75*	*0.20*	*1.08*	*Cum*
		1	*0.95*	*1.75*	*0.20*	*0.33*	*Cum*
		1	*1.43*	*1.75*	*0.20*	*0.50*	*Cum*
	Top Slab	*1*	*5.25*	*2.55*	*0.39*	*5.23*	*Cum*
	75mm Th. Wearing coat on top slab	*1*	*4.25*	*2.55*	*0.08*	*0.81*	*Cum*
	Dirt wall	*2*	*5.96*	*0.82*	*0.50*	*4.88*	*Cum*
		2	*5.96*	*0.40*	*0.43*	*2.03*	*Cum*
	Parapet	*2*	*3.39*	*0.45*	*0.18*	*0.53*	*Cum*
		2	*3.39*	*0.35*	*0.25*	*0.60*	*Cum*
		2	*3.39*	*0.22*	*0.55*	*0.81*	*Cum*
	TOTAL					**19.26**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	**Length**	**Nos.**		**Weight per m**	**Quantity**	**Unit**
	Slab Per Span						
a1	*16*	*3.010*	*29*		*1.578*	*137.756*	*Kg*
a2	*10*	*5.650*	*113*		*0.616*	*393.579*	*Kg*
a3	*10*	*5.150*	*2*		*0.616*	*6.350*	*Kg*
a4	*10*	*2.930*	*9*		*0.616*	*16.256*	*Kg*
a5	*10*	*5.550*	*10*		*0.616*	*34.214*	*Kg*
	Dirt Wall						
d1	*12*	*4.460*	*26*		*0.888*	*102.938*	*Kg*
d2	*12*	*5.550*	*14*		*0.888*	*68.975*	*Kg*
	Crash Barrier						
x1	*12*	*2.501*	*42*		*0.888*	*93.246*	*Kg*
x2	*16*	*1.265*	*42*		*1.578*	*83.847*	*Kg*
x3	*10*	*2.450*	*24*		*0.616*	*36.248*	*Kg*
	Floor R/F						
	U/S Key						
	12	*7.325*	*7*		*0.888*	*45.517*	*Kg*
	12	*2.450*	*28*		*0.888*	*60.896*	*Kg*
	floor raft						
	12	*3.394*	*7*		*0.888*	*21.090*	*Kg*
	12	*7.625*	*14*		*0.888*	*94.762*	*Kg*
	12	*2.450*	*65*		*0.888*	*141.367*	*Kg*
	0.25 % Skin Reinforcement for Transition walls	*82.47*	*0.25%*	*0.21*	*7850*	*1618.38*	*Kg*
	TOTAL Weight of steel (in kg)					2955.42	Kg
	TOTAL Weight of Steel (in Tonne)					**2.96**	**MT**
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1		2.71		**2.71**	**MT**
	*Separate sheet attached						
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section A-A	*4*	*1.00*		*0.50*	*2.00*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*1.00*		*0.83*	*3.32*	*Sqm*
		4		*1.07*	*0.83*	*3.55*	*Sqm*
		4	*1.00*		*1.40*	*5.60*	*Sqm*
		4		*1.32*	*1.40*	*7.38*	*Sqm*
	Section B-B	*4*	*5.25*		*1.31*	*27.45*	*Sqm*
		4		*1.21*	*1.31*	*6.34*	*Sqm*
		4	*5.25*		*0.90*	*18.90*	*Sqm*
		4		*1.60*	*0.90*	*5.77*	*Sqm*
	Section C-C	*4*	*0.71*		*1.01*	*2.84*	*Sqm*
		4		*1.12*	*1.01*	*4.52*	*Sqm*
		4	*0.71*		*1.20*	*3.39*	*Sqm*
		4		*1.42*	*1.20*	*6.84*	*Sqm*
	U/S Transition wall						
	Right Bank (Section D-D)	*2*	*3.17*		*0.50*	*3.17*	*Sqm*
		2		*0.45*	*0.50*	*0.45*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	3.17		0.83	5.26	Sqm
		2		0.70	0.83	1.16	Sqm
		2	3.17		1.40	8.88	Sqm
		2		0.95	1.40	2.65	Sqm
	Left Bank						
	Bottom Key	2	3.61		0.70	5.06	Sqm
		2		1.45	0.70	2.03	Sqm
	Section a-a	2	1.20		0.50	1.20	Sqm
		2		2.77	0.50	2.77	Sqm
		2	1.20		0.20	0.48	Sqm
		2		2.62	0.20	1.05	Sqm
		2	1.20		1.33	3.20	Sqm
		2		1.48	1.33	3.93	Sqm
	Section b-b	2	1.20		0.50	1.20	Sqm
		2		2.77	0.50	2.77	Sqm
		2	1.20		0.20	0.48	Sqm
		2		2.20	0.20	0.88	Sqm
		2	1.20		1.33	3.20	Sqm
		2		1.34	1.33	3.57	Sqm
	Section c-c	2	1.20		0.50	1.20	Sqm
		2		2.77	0.50	2.77	Sqm
		2	1.20		0.20	0.48	Sqm
		2		1.80	0.20	0.72	Sqm
		2	1.20		1.33	3.20	Sqm
		2		1.14	1.33	3.03	Sqm
	Section d-d	2	1.20		0.50	1.20	Sqm
		2		2.77	0.50	2.77	Sqm
		2	1.20		0.20	0.48	Sqm
		2		0.48	0.20	0.19	Sqm
		2	1.20		1.33	3.20	Sqm
		2		0.48	1.33	1.28	Sqm
	D/S Transition wall						
	Sec 4-4	4	0.51		0.90	1.82	Sqm
		4		0.70	0.90	2.52	Sqm
		4	0.51		1.14	2.29	Sqm
		4		0.53	1.14	2.38	Sqm
		4	0.51		0.50	1.01	Sqm
		4		0.35	0.50	0.70	Sqm
	Avg. of Sec 1-1 & 3-3	4	2.71		0.90	9.75	Sqm
		4		1.59	0.90	5.71	Sqm
		4	2.71		1.14	12.30	Sqm
		4		1.20	1.14	5.43	Sqm
		4	2.71		0.50	5.42	Sqm
		4		0.68	0.50	1.36	Sqm
	Floor						
	U/S key	2	1.45		0.70	2.03	Sqm
		2		2.98	0.70	4.17	Sqm
	Floor	2	3.63		0.50	3.63	Sqm
		2		2.98	0.50	2.98	Sqm
		2	0.42		0.30	0.25	Sqm
		2		1.75	0.30	1.05	Sqm
		2	0.72		0.20	0.29	Sqm
		2		1.75	0.20	0.70	Sqm
		2	0.11		0.00	0.22	Sqm
		2		1.75	0.00	3.50	Sqm
		2	3.08		0.55	3.39	Sqm
		2		1.75	0.55	1.93	Sqm
		2	0.97		0.20	0.39	Sqm
		2		1.75	0.20	0.70	Sqm
		4	0.15			0.58	Sqm
		4		1.75		7.00	Sqm
		2	1.42		0.50	1.42	Sqm
		2		1.75	0.50	1.75	Sqm
	D/S key	2	0.73		0.50	0.73	Sqm
		2		1.75	0.50	1.75	Sqm
	Toe Wall Base D/S Portion	2	1.75		0.30	1.05	Sqm
		2		0.85	0.30	0.51	Sqm
	Toe Wall Stem D/S Portion	2	1.75		0.90	3.15	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.45*	*0.90*	*0.81*	*Sqm*
	Top Slab	*2*	*5.25*		*0.39*	*4.10*	*Sqm*
		2		*2.55*	*0.39*	*1.99*	*Sqm*
	Dirt wall	*4*	*5.96*		*0.50*	*11.91*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*5.96*		*0.43*	*10.13*	*Sqm*
		4		*0.40*	*0.43*	*0.68*	*Sqm*
	Parapet	*4*	*3.39*		*0.18*	*2.37*	*Sqm*
		4		*0.45*	*0.18*	*0.31*	*Sqm*
		4	*3.39*		*0.25*	*3.39*	*Sqm*
		4		*0.35*	*0.25*	*0.35*	*Sqm*
		4	*3.39*		*0.55*	*7.46*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**312.93**	**Sqm**
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.00*	*2.40*		*14.40*	*Sqm*
	TOTAL					**14.40**	**Sqm**
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.**(WRD M-002)**						
	Boulder Apron in D/S Portion	*1*	*3.00*	*1.15*	*0.90*	*3.11*	***Cum***
	TOTAL					**3.11**	**Cum**
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)						
	In D/S Portion below C.C. Blocks	*1*	*2.20*	*1.75*	*0.15*	*0.58*	*Cum*
	In D/S Portion below Stone Chips	*1*	*2.20*	*1.75*	*0.15*	*0.58*	*Cum*
	TOTAL					**1.16**	**Cum**
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	U/S transition	*2*	*1.99*	*0.48*		*1.91*	*Sqm*
	On Abutment Top	*2*	*4.97*	*0.45*		*1.79*	*Sqm*
	TOTAL					**3.71**	**Sqm**
12	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2	1			**2.00**	**No.**
13	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications**. (3.18 PWD NH SOR CHHATISGARH 2025)**	2	5.25	0.40		**4.20**	**Sqm**
14	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications. **(RCD 15.22 - (ii))**	2	5.25			**10.50**	**RM**
15	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compa.cted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Abutment						
	Section A-A	*2*	*1.00*	*1.13*		*2.260*	*Cum*
	Section B-B	*2*	*5.25*	*1.87*		*19.593*	*Cum*
	Section C-C	*2*	*0.71*	*1.55*		*2.194*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	1	*3.17*	*0.99*		*3.149*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.51*	*0.87*		*0.879*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.71*	*1.45*		*7.843*	*Cum*
	TOTAL					**35.92**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF HR FOR GAMHARIA MR OFFTAKING FROM RD-4+580 KM (L.) AT BASDIHA DISTRIBUTARY							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section A-A	*2*	*1.00*	*1.89*	*3.825*	*14.459*	*Cum*
	Section B-B	*2*	*5.25*	*1.77*	*2.819*	*52.273*	*Cum*
	Section C-C	*2*	*0.78*	*1.59*	*2.659*	*6.545*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*2.69*	*1.52*	*3.825*	*15.660*	*Cum*
	Left Bank Sec a to d	1	4.29	3.41	2.066	*30.202*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.51*	*1.10*	*2.819*	*3.138*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.72*	*2.00*	*2.819*	*30.557*	*Cum*
	Floor						
	U/S key	*1*	*1.662*	*3.979*	*1.050*	*6.944*	*Cum*
	Floor	*1*	*4.034*	*3.979*	*0.750*	*12.038*	*Cum*
		1	*0.441*	*2.25*	*0.450*	*0.447*	*Cum*
		1	*0.741*	*2.25*	*0.450*	*0.750*	*Cum*
		1	*0.11115*	*2.25*	*0.000*	*0.250*	*Cum*
		1	*2.68*	*2.25*	*1.110*	*6.693*	*Cum*
		1	*1.3*	*2.25*	*0.200*	*0.585*	*Cum*
		1	*0.135*	*2.25*	*0.200*	*0.061*	*Cum*
		1	*1.49*	*2.25*	*0.650*	*2.179*	*Cum*
		1	*0.9*	*2.25*	*1.350*	*2.734*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*1*	*2.200*	*2.250*	*0.600*	*2.970*	*Cum*
	Toe Wall Base D/S Portion	*1*	*2.250*	*0.850*	*1.200*	*2.295*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*3.000*	*1.650*	*0.900*	*4.455*	*Cum*
						195.23	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor						
		1	*0.630*	*4.731*	*0.150*	*0.45*	*Cum*
		1	*2.310*	*2.998*	*0.150*	*1.04*	*Cum*
		1	*1.244*	*2.250*	*0.150*	*0.42*	*Cum*
		1	*0.804*	*2.250*	*0.150*	*0.27*	*Cum*
		1	*2.762*	*2.250*	*0.150*	*0.93*	*Cum*
		1	*1.478*	*2.250*	*0.150*	*0.50*	*Cum*
		1	*0.064*	*2.250*	*0.150*	*0.02*	*Cum*
		1	*1.360*	*2.250*	*0.150*	*0.46*	*Cum*
		1	*0.692*	*2.250*	*0.150*	*0.23*	*Cum*
	PCC Below Abutment						
	Section A-A	*2*	*1.000*	*1.890*	*0.300*	*1.13*	*Cum*
	Section B-B	*2*	*5.250*	*1.766*	*0.300*	*5.56*	*Cum*
	Section C-C	*2*	*0.776*	*1.586*	*0.300*	*0.74*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*2.694*	*1.520*	*0.300*	*1.23*	*Cum*
	Left Bank Sec a to d	*1*	*4.287*	*3.410*	*0.150*	*2.19*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.506*	*1.100*	*0.300*	*0.33*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.716*	*1.996*	*0.300*	*3.25*	*Cum*
	Toe Wall Base D/S Portion	*1*	*2.250*	*0.850*	*0.300*	*0.57*	*Cum*
	Toe Wall Stem D/S Portion	*1*	*2.250*	*0.450*	*0.900*	*0.91*	*Cum*
	Toe Wall Base (For Brick Pitching)	*1*	*3.000*	*0.450*	*0.300*	*0.41*	*Cum*
	Toe Wall Stem (For Brick Pitching)	*1*	*3.000*	*0.300*	*0.900*	*0.81*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*10*	*0.600*	*0.600*	*0.300*	*1.08*	*Cum*
	TOTAL					**22.54**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section A-A	*2*	*1.00*	*0.82*	*0.50*	*0.82*	*Cum*
		2	*1.00*	*1.16*	*1.12*	*2.58*	*Cum*
		2	*1.00*	*1.49*	*1.91*	*5.69*	*Cum*
	Section B-B	*2*	*5.25*	*1.09*	*0.91*	*10.44*	*Cum*
		2	*5.25*	*1.37*	*1.61*	*23.08*	*Cum*
	Section C-C	*2*	*0.78*	*1.00*	*0.45*	*0.70*	*Cum*
		2	*0.78*	*1.19*	*1.91*	*3.51*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*2.69*	*0.45*	*0.50*	*0.61*	*Cum*
		1	*2.69*	*0.79*	*1.12*	*2.36*	*Cum*
		1	*2.69*	*1.12*	*1.91*	*5.76*	*Cum*
	Left Bank						
	Section a-a	*1*		3.204	*0.60*	*1.92*	*Sqm*
		1		*3.05*	*0.20*	*0.61*	*Sqm*
		1		*1.69*	*1.12*	*1.89*	*Sqm*
						4.42	***Sqm***
	Section b-b	*1*		*3.20*	*0.60*	*1.92*	*Sqm*
		1		*2.69*	*0.20*	*0.54*	*Sqm*
		1		*1.58*	*1.12*	*1.77*	*Sqm*
						4.23	***Sqm***
	Section c-c	*1*		*3.20*	*0.60*	*1.92*	*Sqm*
		1		*1.95*	*0.20*	*0.39*	*Sqm*
		1		*1.22*	*1.12*	*1.36*	*Sqm*
						3.67	***Sqm***
	Section d-d	*1*		*3.20*	*0.60*	*1.92*	*Sqm*
		1		*0.48*	*0.20*	*0.10*	*Sqm*
		1		*0.48*	*1.12*	*0.54*	*Sqm*
						2.55	***Sqm***
	Bottom Key	*1*	*4.29*	*1.66*	*0.90*	*6.41*	*Cum*
	Top Stem Area	*1*	*4.29*	*3.72*		*15.94*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.51*	*0.70*	*1.41*	*1.00*	*Cum*
		2	*0.51*	*0.53*	*0.61*	*0.32*	*Cum*
		2	*0.51*	*0.35*	*0.50*	*0.18*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.72*	*1.60*	*1.41*	*12.21*	*Cum*
		2	*2.72*	*1.26*	*0.61*	*4.19*	*Cum*
		2	*2.72*	*0.74*	*0.50*	*2.02*	*Cum*
	TOTAL					**97.82**	**Cum**
	Floor						
	U/S key	*1*	*1.66*	*3.98*	*0.90*	*5.95*	*Cum*
	Floor	*1*	*4.03*	*3.98*	*0.60*	*9.63*	*Cum*
		1	*0.44*	*2.25*	*0.30*	*0.30*	*Cum*
		1	*0.74*	*2.25*	*0.30*	*0.50*	*Cum*
		1	*0.11*	*2.25*		*0.25*	*Cum*
		1	*2.68*	*2.25*	*0.66*	*3.98*	*Cum*
		1	*1.30*	*2.25*	*0.20*	*0.59*	*Cum*
		1	*0.14*	*2.25*		*0.30*	*Cum*
		1	*0.32*	*2.25*		*0.71*	*Cum*
		1	*1.49*	*2.25*	*0.50*	*1.68*	*Cum*
	D/S key	*1*	*0.90*	*2.25*	*1.20*	*2.43*	*Cum*
	TOTAL					**124.14**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Floor	*1*	*4.18*	*3.98*	*0.20*	*3.32*	*Cum*
		1	*0.67*	*2.25*	*0.20*	*0.30*	*Cum*
		1	*3.08*	*2.25*	*0.20*	*1.39*	*Cum*
		1	*0.95*	*2.25*	*0.20*	*0.43*	*Cum*
		1	*1.49*	*2.25*	*0.20*	*0.67*	*Cum*
	Top Slab	*1*	*5.25*	*3.05*	*0.39*	*6.25*	*Cum*
	75mm Th. Wearing coat on top slab	*1*	*4.25*	*3.05*	*0.08*	*0.97*	*Cum*
	Dirt wall	*2*	*6.03*	*0.82*	*0.50*	*4.94*	*Cum*
		2	*6.03*	*0.40*	*0.43*	*2.05*	*Cum*
	Parapet	*2*	*3.89*	*0.45*	*0.18*	*0.61*	*Cum*
		2	*3.89*	*0.35*	*0.25*	*0.68*	*Cum*
		2	*3.89*	*0.22*	*0.55*	*0.93*	*Cum*
	TOTAL					**22.55**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	**Length**	**Nos.**		**Weight per m**	**Quantity**	**Unit**
	Slab Per Span						
a1	*16*	*3.510*	*29*		*1.578*	*160.639*	*Kg*
a2	*10*	*5.650*	*12*		*0.616*	*41.796*	*Kg*
a3	*10*	*5.150*	*2*		*0.616*	*6.350*	*Kg*
a4	*10*	*3.430*	*18*		*0.616*	*38.060*	*Kg*
a5	*10*	*5.550*	*11*		*0.616*	*37.635*	*Kg*
	Dirt Wall						
d1	*12*	*4.460*	*26*		*0.888*	*102.938*	*Kg*
d2	*12*	*5.550*	*14*		*0.888*	*68.975*	*Kg*
	Crash Barrier						
x1	*12*	*2.501*	*48*		*0.888*	*106.567*	*Kg*
x2	*16*	*1.265*	*48*		*1.578*	*95.825*	*Kg*
x3	*10*	*2.850*	*24*		*0.616*	*42.166*	*Kg*
	Floor R/F						
	U/S Key						
	12	*8.743*	*9*		*0.888*	*69.851*	*Kg*
	12	*2.949*	*33*		*0.888*	*86.389*	*Kg*
	floor raft						
	12	*5.250*	*9*		*0.888*	*41.944*	*Kg*
	12	*7.795*	*18*		*0.888*	*124.554*	*Kg*
	12	*2.949*	*73*		*0.888*	*191.102*	*Kg*
	0.25 % Skin Reinforcement for Transition walls	*97.82*	*0.25%*	*0.24*	*7850*	*1919.71*	*Kg*
	TOTAL Weight of steel (in kg)					3134.50	Kg
	TOTAL Weight of Steel (in Tonne)					**3.13**	**MT**
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1		3.71		**3.71**	**MT**
	*Separate sheet attached						
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section A-A	*4*	*1.00*		*0.50*	*2.00*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*1.00*		*1.12*	*4.46*	*Sqm*
		4		*1.16*	*1.12*	*5.16*	*Sqm*
		4	*1.00*		*1.91*	*7.64*	*Sqm*
		4		*1.49*	*1.91*	*11.38*	*Sqm*
	Section B-B	*4*	*5.25*		*0.91*	*19.11*	*Sqm*
		4		*1.09*	*0.91*	*3.98*	*Sqm*
		4	*5.25*		*1.61*	*33.79*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4		1.37	1.61	8.79	Sqm
	Section C-C	4	0.78		0.45	1.40	Sqm
		4		1.00	0.45	1.81	Sqm
		4	0.78		1.91	5.93	Sqm
		4		1.19	1.91	9.06	Sqm
	U/S Transition wall						
	Right Bank (Section D-D)	2	2.69		0.50	2.69	Sqm
		2		0.45	0.50	0.45	Sqm
		2	2.69		1.12	6.01	Sqm
		2		0.79	1.12	1.75	Sqm
		2	2.69		1.91	10.28	Sqm
		2		1.12	1.91	4.28	Sqm
	Left Bank						
	Bottom Key	2	4.29		0.90	7.72	Sqm
		2		1.66	0.90	2.99	Sqm
	Section a-a	2	1.43		0.60	1.71	Sqm
		2		3.20	0.60	3.84	Sqm
		2	1.43		0.20	0.57	Sqm
		2		3.05	0.20	1.22	Sqm
		2	1.43		1.12	3.19	Sqm
		2		1.69	1.12	3.78	Sqm
	Section b-b	2	1.43		0.60	1.71	Sqm
		2		3.20	0.60	3.84	Sqm
		2	1.43		0.20	0.57	Sqm
		2		2.69	0.20	1.08	Sqm
		2	1.43		1.12	3.19	Sqm
		2		1.58	1.12	3.54	Sqm
	Section c-c	2	1.43		0.60	1.71	Sqm
		2		3.20	0.60	3.84	Sqm
		2	1.43		0.20	0.57	Sqm
		2		1.95	0.20	0.78	Sqm
		2	1.43		1.12	3.19	Sqm
		2		1.22	1.12	2.72	Sqm
	Section d-d	2	1.43		0.60	1.71	Sqm
		2		3.20	0.60	3.84	Sqm
		2	1.43		0.20	0.57	Sqm
		2		0.48	0.20	0.19	Sqm
		2	1.43		1.12	3.19	Sqm
		2		0.48	1.12	1.07	Sqm
	D/S Transition wall						
	Sec 4-4	4	0.51		1.41	2.85	Sqm
		4		0.70	1.41	3.95	Sqm
		4	0.51		0.61	1.23	Sqm
		4		0.53	0.61	1.28	Sqm
		4	0.51		0.50	1.01	Sqm
		4		0.35	0.50	0.70	Sqm
	Avg. of Sec 1-1 & 3-3	4	2.72		1.41	15.31	Sqm
		4		1.60	1.41	8.99	Sqm
		4	2.72		0.61	6.63	Sqm
		4		1.26	0.61	3.08	Sqm
		4	2.72		0.50	5.43	Sqm
		4		0.74	0.50	1.49	Sqm
	Floor						
	U/S key	2	1.66		0.90	2.99	Sqm
		2		3.98	0.90	7.16	Sqm
	Floor	2	4.03		0.60	4.84	Sqm
		2		3.98	0.60	4.77	Sqm
		2	0.44		0.30	0.26	Sqm
		2		2.25	0.30	1.35	Sqm
		2	0.74		0.30	0.44	Sqm
		2		2.25	0.30	1.35	Sqm
		2	0.11		0.00	0.22	Sqm
		2		2.25	0.00	4.50	Sqm
		2	2.68		0.66	3.54	Sqm
		2		2.25	0.66	2.97	Sqm
		2	1.30		0.20	0.52	Sqm
		2		2.25	0.20	0.90	Sqm
		2	0.14			0.27	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*2.25*		*4.50*	*Sqm*
		2	*0.32*			*0.63*	*Sqm*
		2		*2.25*		*4.50*	*Sqm*
		2	*1.49*		*0.50*	*1.49*	*Sqm*
		2		*2.25*	*0.50*	*2.25*	*Sqm*
	D/S key	*2*	*0.90*		*1.20*	*2.16*	*Sqm*
		2		*2.25*	*1.20*	*5.40*	*Sqm*
	Toe Wall Base D/S Portion	*2*	*2.25*		*0.30*	*1.35*	*Sqm*
		2		*0.85*	*0.30*	*0.51*	*Sqm*
	Toe Wall Stem D/S Portion	*2*	*2.25*		*0.90*	*4.05*	*Sqm*
		2		*0.45*	*0.90*	*0.81*	*Sqm*
	Top Slab	*2*	*5.25*		*0.39*	*4.10*	*Sqm*
		2		*3.05*	*0.39*	*2.38*	*Sqm*
	Dirt wall	*4*	*6.03*		*0.50*	*12.05*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*6.03*		*0.43*	*10.24*	*Sqm*
		4		*0.40*	*0.43*	*0.68*	*Sqm*
	Parapet	*4*	*3.89*		*0.18*	*2.72*	*Sqm*
		4		*0.45*	*0.18*	*0.31*	*Sqm*
		4	*3.89*		*0.25*	*3.89*	*Sqm*
		4		*0.35*	*0.25*	*0.35*	*Sqm*
		4	*3.89*		*0.55*	*8.56*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**367.08**	**Sqm**
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.00*	*1.95*		*11.67*	*Sqm*
	TOTAL					**11.67**	**Sqm**
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.**(WRD M-002)**						
	Boulder Apron in D/S Portion	*1*	*3.00*	*1.65*	*0.90*	*4.46*	***Cum***
	TOTAL					**4.46**	**Cum**
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)						
	In D/S Portion below C.C. Blocks	*1*	*2.20*	*2.25*	*0.15*	*0.74*	*Cum*
	In D/S Portion below Stone Chips	*1*	*2.20*	*2.25*	*0.15*	*0.74*	*Cum*
	TOTAL					**1.49**	**Cum**
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	U/S transition	*2*	*2.42*	*0.48*		*2.33*	*Sqm*
	On Abutment Top	*2*	*5.04*	*0.45*		*2.18*	*Sqm*
	TOTAL					**4.51**	**Sqm**
12	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2	1			**2.00**	**No.**
13	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications**. (3.18 PWD NH SOR CHHATISGARH 2025)**	2	5.25	0.40		**4.20**	**Sqm**
14	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications. **(RCD 15.22 - (ii))**	2	5.25			**10.50**	**RM**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
15	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compa.cted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Abutment						
	Section A-A	2	*1.00*	*1.61*		*3.211*	*Cum*
	Section B-B	2	*5.25*	*1.56*		*16.388*	*Cum*
	Section C-C	2	*0.78*	*1.35*		*2.098*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	1	*2.69*	*1.37*		*3.698*	*Cum*
	D/S Transition wall						
	Sec 4-4	2	*0.51*	*0.79*		*0.795*	*Cum*
	Avg. of Sec 1-1 & 3-3	2	*2.72*	*1.50*		*8.160*	*Cum*
	TOTAL					**34.35**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF HR FOR PRITAMPURA SUB DY OFFTAKING FROM RD-10+060 KM (R.) AT BASDIHA DY						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section A-A	*2*	*1.00*	*1.79*	*3.148*	*11.264*	*Cum*
	Section B-B	*2*	*5.25*	*1.97*	*2.648*	*54.774*	*Cum*
	Section C-C	*2*	*0.53*	*1.79*	*2.648*	*5.005*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*3.35*	*1.42*	*3.148*	*14.964*	*Cum*
	Left Bank Sec a to d	1	3.92	3.07	2.398	*28.819*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.53*	*1.10*	*2.650*	*3.113*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.98*	*2.29*	*2.650*	*36.115*	*Cum*
	Floor						
	U/S key	*1*	*1.536*	*3.7375*	*0.750*	*4.306*	*Cum*
	Floor	*1*	*3.782*	*3.7375*	*0.750*	*10.601*	*Cum*
		1	*0.3725*	*3.82*	*0.450*	*0.640*	*Cum*
		1	*0.604*	*3.82*	*0.450*	*1.038*	*Cum*
		1	*0.0906*	*3.82*	*0.000*	*0.346*	*Cum*
		1	*2.997*	*3.82*	*1.050*	*12.021*	*Cum*
		1	*1.116*	*3.82*	*0.200*	*0.853*	*Cum*
		1	*0.240*	*3.82*	*0.200*	*0.183*	*Cum*
		1	*1.245*	*3.82*	*0.650*	*3.091*	*Cum*
		1	*0.775*	*3.82*	*0.850*	*2.516*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*1*	*2.200*	*3.820*	*0.600*	*5.042*	*Cum*
	Toe Wall Base D/S Portion	*1*	*3.820*	*0.850*	*1.200*	*3.896*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*3.000*	*0.900*	*3.220*	*8.694*	*Cum*
						207.28	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor						
		1	*0.624*	*5.659*	*0.150*	*0.53*	*Cum*
		1	*1.965*	*4.406*	*0.150*	*1.30*	*Cum*
		1	*1.525*	*3.820*	*0.150*	*0.87*	*Cum*
		1	*0.670*	*3.820*	*0.150*	*0.38*	*Cum*
		1	*3.062*	*3.820*	*0.150*	*1.75*	*Cum*
		1	*1.264*	*3.820*	*0.150*	*0.72*	*Cum*
		1	*0.097*	*3.820*	*0.150*	*0.06*	*Cum*
		1	*0.782*	*3.820*	*0.150*	*0.45*	*Cum*
		1	*0.692*	*3.820*	*0.150*	*0.40*	*Cum*
	PCC Below Abutment						
	Section A-A	*2*	*1.000*	*1.789*	*0.300*	*1.07*	*Cum*
	Section B-B	*2*	*5.250*	*1.970*	*0.300*	*6.21*	*Cum*
	Section C-C	*2*	*0.528*	*1.790*	*0.300*	*0.57*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*3.350*	*1.419*	*0.300*	*1.43*	*Cum*
	Left Bank Sec a to d	*1*	*3.921*	*3.065*	*0.150*	*1.80*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.534*	*1.100*	*0.300*	*0.35*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.975*	*2.291*	*0.300*	*4.09*	*Cum*
	Toe Wall Base D/S Portion	*1*	*3.820*	*0.850*	*0.300*	*0.97*	*Cum*
	Toe Wall Stem D/S Portion	*1*	*3.820*	*0.450*	*0.900*	*1.55*	*Cum*
	Toe Wall Base (For Brick Pitching)	*1*	*3.000*	*0.450*	*0.300*	*0.41*	*Cum*
	Toe Wall Stem (For Brick Pitching)	*1*	*3.000*	*0.300*	*0.900*	*0.81*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*16*	*0.600*	*0.600*	*0.300*	*1.73*	*Cum*
	TOTAL					**27.44**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section A-A	*2*	*1.00*	*0.82*	*0.50*	*0.82*	*Cum*
		2	*1.00*	*1.10*	*0.95*	*2.09*	*Cum*
		2	*1.00*	*1.39*	*1.40*	*3.89*	*Cum*
	Section B-B	*2*	*5.25*	*1.20*	*1.25*	*15.66*	*Cum*
		2	*5.25*	*1.57*	*1.10*	*18.13*	*Cum*
	Section C-C	*2*	*0.53*	*1.11*	*0.95*	*1.11*	*Cum*
		2	*0.53*	*1.40*	*1.40*	*2.07*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*3.35*	*0.45*	*0.50*	*0.75*	*Cum*
		1	*3.35*	*0.73*	*0.95*	*2.33*	*Cum*
		1	*3.35*	*1.02*	*1.40*	*4.78*	*Cum*
	Left Bank						
	Section a-a	*1*		2.952	*0.60*	*1.77*	*Sqm*
		1		*2.80*	*0.20*	*0.56*	*Sqm*
		1		*1.57*	*1.45*	*2.27*	*Sqm*
						4.60	***Sqm***
	Section b-b	*1*		*2.95*	*0.60*	*1.77*	*Sqm*
		1		*2.41*	*0.20*	*0.48*	*Sqm*
		1		*1.44*	*1.45*	*2.09*	*Sqm*
						4.34	***Sqm***
	Section c-c	*1*		*2.95*	*0.60*	*1.77*	*Sqm*
		1		*1.87*	*0.20*	*0.37*	*Sqm*
		1		*1.17*	*1.45*	*1.70*	*Sqm*
						3.84	***Sqm***
	Section d-d	*1*		*2.95*	*0.60*	*1.77*	*Sqm*
		1		*0.48*	*0.20*	*0.10*	*Sqm*
		1		*0.48*	*1.45*	*0.70*	*Sqm*
						2.56	***Sqm***
	Bottom Key	*1*	*3.92*	*1.54*	*0.60*	*3.61*	*Cum*
	Top Stem Area	*1*	*3.92*	*3.84*		*15.04*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.53*	*0.70*	*0.90*	*0.67*	*Cum*
		2	*0.53*	*0.53*	*0.95*	*0.53*	*Cum*
		2	*0.53*	*0.35*	*0.50*	*0.19*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.98*	*1.89*	*0.90*	*10.12*	*Cum*
		2	*2.98*	*1.42*	*0.95*	*8.03*	*Cum*
		2	*2.98*	*0.76*	*0.50*	*2.27*	*Cum*
	TOTAL					**92.12**	**Cum**
	Floor						
	U/S key	*1*	*1.54*	*3.74*	*0.60*	*3.44*	*Cum*
	Floor	*1*	*3.78*	*3.74*	*0.60*	*8.48*	*Cum*
		1	*0.37*	*3.82*	*0.30*	*0.43*	*Cum*
		1	*0.60*	*3.82*	*0.30*	*0.69*	*Cum*
		1	*0.09*	*3.82*		*0.35*	*Cum*
		1	*3.00*	*3.82*	*0.60*	*6.87*	*Cum*
		1	*1.12*	*3.82*	*0.20*	*0.85*	*Cum*
		1	*0.24*	*3.82*		*0.92*	*Cum*
		1	*0.13*	*3.82*		*0.51*	*Cum*
		1	*1.25*	*3.82*	*0.50*	*2.38*	*Cum*
	D/S key	*1*	*0.78*	*3.82*	*0.70*	*2.07*	*Cum*
	TOTAL					**119.12**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Floor	*1*	*3.92*	*3.74*	*0.20*	*2.93*	*Cum*
		1	*0.67*	*3.82*	*0.20*	*0.51*	*Cum*
		1	*3.08*	*3.82*	*0.20*	*2.35*	*Cum*
		1	*0.95*	*3.82*	*0.20*	*0.72*	*Cum*
		1	*1.25*	*3.82*	*0.20*	*0.95*	*Cum*
	Top Slab	*1*	*5.25*	*4.62*	*0.44*	*10.68*	*Cum*
	75mm Th. Wearing coat on top slab	*1*	*4.25*	*4.62*	*0.08*	*1.47*	*Cum*
	Dirt wall	*2*	*5.78*	0.82	*0.50*	*4.74*	*Cum*
		2	*5.78*	*0.40*	*0.43*	*1.96*	*Cum*
	Parapet	*2*	*5.46*	*0.45*	*0.18*	*0.85*	*Cum*
		2	*5.46*	*0.35*	*0.25*	*0.96*	*Cum*
		2	*5.46*	*0.22*	*0.55*	*1.31*	*Cum*
	TOTAL					**29.46**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	**Length**	**Nos.**		**Weight per m**	**Quantity**	**Unit**
	Slab Per Span						
a1	*16*	*5.280*	*32*		*1.578*	*266.642*	*Kg*
a2	*10*	*5.650*	*37*		*0.616*	*128.871*	*Kg*
a3	*10*	*5.150*	*2*		*0.616*	*6.350*	*Kg*
a4	*10*	*4.200*	*23*		*0.616*	*59.550*	*Kg*
a5	*10*	*5.550*	*21*		*0.616*	*71.848*	*Kg*
	Dirt Wall						
d1	*12*	*4.460*	*26*		*0.888*	*102.938*	*Kg*
d2	*12*	*5.550*	*14*		*0.888*	*68.975*	*Kg*
	Crash Barrier						
x1	*12*	*2.602*	*72*		*0.888*	*166.306*	*Kg*
x2	*16*	*1.265*	*72*		*1.578*	*143.737*	*Kg*
x3	*10*	*4.300*	*24*		*0.616*	*63.619*	*Kg*
	Floor R/F						
	U/S Key						
	12	*7.837*	*15*		*0.888*	*104.354*	*Kg*
	12	*4.520*	*30*		*0.888*	*120.373*	*Kg*
	floor raft						
	12	*3.918*	*15*		*0.888*	*52.170*	*Kg*
	12	*7.547*	*30*		*0.888*	*200.985*	*Kg*
	12	*4.520*	*69*		*0.888*	*276.857*	*Kg*
	0.25 % Skin Reinforcement for Transition walls	*92.12*	*0.25%*	*0.23*	*7850*	*1807.90*	*Kg*
	TOTAL Weight of steel (in kg)					3641.47	Kg
	TOTAL Weight of Steel (in Tonne)					**3.64**	**MT**
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1	6.13			**6.13**	**MT**
	*Separate sheet attached						
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section A-A	*4*	*1.00*		*0.50*	*2.00*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*1.00*		*0.95*	*3.79*	*Sqm*
		4		*1.10*	*0.95*	*4.19*	*Sqm*
		4	*1.00*		*1.40*	*5.60*	*Sqm*
		4		*1.39*	*1.40*	*7.78*	*Sqm*
	Section B-B	*4*	*5.25*		*1.25*	*26.21*	*Sqm*
		4		*1.20*	*1.25*	*5.97*	*Sqm*
		4	*5.25*		*1.10*	*23.10*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4		1.57	1.10	6.91	Sqm
	Section C-C	4	0.53		0.95	2.00	Sqm
		4		1.11	0.95	4.21	Sqm
		4	0.53		1.40	2.96	Sqm
		4		1.40	1.40	7.84	Sqm
	U/S Transition wall						
	Right Bank (Section D-D)	2	3.35		0.50	3.35	Sqm
		2		0.45	0.50	0.45	Sqm
		2	3.35		0.95	6.35	Sqm
		2		0.73	0.95	1.39	Sqm
		2	3.35		1.40	9.38	Sqm
		2		1.02	1.40	2.85	Sqm
	Left Bank						
	Bottom Key	2	3.92		0.60	4.71	Sqm
		2		1.54	0.60	1.84	Sqm
	Section a-a	2	1.31		0.60	1.57	Sqm
		2		2.95	0.60	3.54	Sqm
		2	1.31		0.20	0.52	Sqm
		2		2.80	0.20	1.12	Sqm
		2	1.31		1.45	3.79	Sqm
		2		1.57	1.45	4.54	Sqm
	Section b-b	2	1.31		0.60	1.57	Sqm
		2		2.95	0.60	3.54	Sqm
		2	1.31		0.20	0.52	Sqm
		2		2.41	0.20	0.96	Sqm
		2	1.31		1.45	3.79	Sqm
		2		1.44	1.45	4.18	Sqm
	Section c-c	2	1.31		0.60	1.57	Sqm
		2		2.95	0.60	3.54	Sqm
		2	1.31		0.20	0.52	Sqm
		2		1.87	0.20	0.75	Sqm
		2	1.31		1.45	3.79	Sqm
		2		1.17	1.45	3.40	Sqm
	Section d-d	2	1.31		0.60	1.57	Sqm
		2		2.95	0.60	3.54	Sqm
		2	1.31		0.20	0.52	Sqm
		2		0.48	0.20	0.19	Sqm
		2	1.31		1.45	3.79	Sqm
		2		0.48	1.45	1.39	Sqm
	D/S Transition wall						
	Sec 4-4	4	0.53		0.90	1.92	Sqm
		4		0.70	0.90	2.52	Sqm
		4	0.53		0.95	2.03	Sqm
		4		0.53	0.95	2.00	Sqm
		4	0.53		0.50	1.07	Sqm
		4		0.35	0.50	0.70	Sqm
	Avg. of Sec 1-1 & 3-3	4	2.98		0.90	10.71	Sqm
		4		1.89	0.90	6.81	Sqm
		4	2.98		0.95	11.31	Sqm
		4		1.42	0.95	5.40	Sqm
		4	2.98		0.50	5.95	Sqm
		4		0.76	0.50	1.53	Sqm
	Floor						
	U/S key	2	1.54		0.60	1.84	Sqm
		2		3.74	0.60	4.49	Sqm
	Floor	2	3.78		0.60	4.54	Sqm
		2		3.74	0.60	4.49	Sqm
		2	0.37		0.30	0.22	Sqm
		2		3.82	0.30	2.29	Sqm
		2	0.60		0.30	0.36	Sqm
		2		3.82	0.30	2.29	Sqm
		2	0.09		0.00	0.18	Sqm
		2		3.82	0.00	7.64	Sqm
		2	3.00		0.60	3.60	Sqm
		2		3.82	0.60	4.58	Sqm
		2	1.12		0.20	0.45	Sqm
		2		3.82	0.20	1.53	Sqm
		2	0.24			0.48	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*3.82*		*7.64*	*Sqm*
		2	*1.25*		*0.50*	*1.25*	*Sqm*
		2		*3.82*	*0.50*	*3.82*	*Sqm*
	D/S key	*2*	*0.78*		*0.70*	*1.09*	*Sqm*
		2		*3.82*	*0.70*	*5.35*	*Sqm*
	Toe Wall Base D/S Portion	*2*	*3.82*		*0.30*	*2.29*	*Sqm*
		2		*0.85*	*0.30*	*0.51*	*Sqm*
	Toe Wall Stem D/S Portion	*2*	*3.82*		*0.90*	*6.88*	*Sqm*
		2		*0.45*	*0.90*	*0.81*	*Sqm*
	Top Slab	*2*	*5.25*		*0.44*	*4.63*	*Sqm*
		2		*4.62*	*0.44*	*4.07*	*Sqm*
	Dirt wall	*4*	*5.78*		*0.50*	*11.56*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*5.78*		*0.43*	*9.82*	*Sqm*
		4		*0.40*	*0.43*	*0.68*	*Sqm*
	Parapet	*4*	*5.46*		*0.18*	*3.82*	*Sqm*
		4		*0.45*	*0.18*	*0.31*	*Sqm*
		4	*5.46*		*0.25*	*5.46*	*Sqm*
		4		*0.35*	*0.25*	*0.35*	*Sqm*
		4	*5.46*		*0.55*	*12.01*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**364.08**	**Sqm**
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.00*	*2.85*		*17.10*	*Sqm*
	TOTAL					**17.10**	**Sqm**
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.**(WRD M-002)**						
	Boulder Apron in D/S Portion	*1*	*3.00*	*0.90*	*3.22*	*8.69*	***Cum***
	TOTAL					**8.69**	**Cum**
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)						
	In D/S Portion below C.C. Blocks	*1*	*2.20*	*3.82*	*0.15*	*1.26*	*Cum*
	In D/S Portion below Stone Chips	*1*	*2.20*	*3.82*	*0.15*	*1.26*	*Cum*
	TOTAL					**2.52**	**Cum**
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	U/S transition	*2*	*2.17*	*0.48*		*2.09*	*Sqm*
	On Abutment Top	*2*	*5.10*	*0.45*		*1.95*	*Sqm*
	TOTAL					**4.04**	**Sqm**
12	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2	1			**2.00**	**No.**
13	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications**. (3.18 PWD NH SOR CHHATISGARH 2025)**	2	5.25	0.40		**4.20**	**Sqm**
14	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications. **(RCD 15.22 - (ii))**	2	5.25			**10.50**	**RM**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
15	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compa.cted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Abutment						
	Section A-A	2	*1.00*	*1.21*		*2.426*	*Cum*
	Section B-B	2	*5.25*	*1.90*		*19.940*	*Cum*
	Section C-C	2	*0.53*	*1.60*		*1.687*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	1	*3.35*	*1.12*		*3.752*	*Cum*
	D/S Transition wall						
	Sec 4-4	2	*0.53*	*0.81*		*0.866*	*Cum*
	Avg. of Sec 1-1 & 3-3	2	*2.98*	*1.38*		*8.206*	*Cum*
	TOTAL					**36.88**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF HR FOR CHANDAULI MR OFFTAKING FROM RD-7+435 KM (R.) AT PRITAMPURA SUB DY						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section A-A	*2*	*1.54*	*1.58*	*2.604*	*12.713*	*Cum*
	Section B-B	*2*	*5.25*	*1.67*	*1.950*	*34.193*	*Cum*
	Section C-C	*2*	*0.50*	*1.49*	*1.950*	*2.906*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*2.91*	*1.21*	*2.600*	*9.151*	*Cum*
	Left Bank Sec a to d	1	2.22	2.60	1.950	*11.276*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.49*	*1.10*	*2.150*	*2.318*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.61*	*1.86*	*2.150*	*20.869*	*Cum*
	Floor						
	U/S key	*1*	*1.278*	*2.418*	*0.850*	*2.627*	*Cum*
	Floor	*1*	*3.29*	*2.418*	*0.650*	*5.171*	*Cum*
		1	*0.418*	*1.1*	*0.450*	*0.207*	*Cum*
		1	*0.718*	*1.1*	*0.350*	*0.276*	*Cum*
		1	*0.418*	*1.1*	*0.300*	*0.460*	*Cum*
		1	*3.079*	*1.1*	*0.950*	*3.218*	*Cum*
		1	*0.9*	*1.1*	*0.200*	*0.198*	*Cum*
		1	*0.135*	*1.1*	*0.200*	*0.030*	*Cum*
		1	*1.761*	*1.1*	*0.650*	*1.259*	*Cum*
		1	*0.725*	*1.1*	*0.650*	*0.518*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*1*	*2.200*	*1.100*	*0.600*	*1.452*	*Cum*
	Toe Wall Base D/S Portion	*1*	*1.100*	*0.850*	*1.200*	*1.122*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*3.000*	*0.900*	*0.500*	*1.350*	*Cum*
						111.31	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor						
		1	*0.629*	*2.878*	*0.150*	*0.27*	*Cum*
		1	*1.526*	*1.560*	*0.150*	*0.36*	*Cum*
		1	*1.269*	*1.100*	*0.150*	*0.21*	*Cum*
		1	*0.670*	*1.100*	*0.150*	*0.11*	*Cum*
		1	*3.338*	*1.100*	*0.150*	*0.55*	*Cum*
		1	*0.973*	*1.100*	*0.150*	*0.16*	*Cum*
		1	*0.686*	*1.100*	*0.150*	*0.11*	*Cum*
		1	*0.567*	*1.100*	*0.150*	*0.09*	*Cum*
		1	*0.692*	*1.100*	*0.150*	*0.11*	*Cum*
	PCC Below Abutment						
	Section A-A	*2*	*1.544*	*1.581*	*0.300*	*1.46*	*Cum*
	Section B-B	*2*	*5.250*	*1.670*	*0.300*	*5.26*	*Cum*
	Section C-C	*2*	*0.500*	*1.490*	*0.300*	*0.45*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*2.907*	*1.211*	*0.300*	*1.06*	*Cum*
	Left Bank Sec a to d	*1*	*2.224*	*2.600*	*0.150*	*0.87*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.490*	*1.100*	*0.300*	*0.32*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.610*	*1.860*	*0.300*	*2.91*	*Cum*
	Toe Wall Base D/S Portion	*1*	*1.100*	*0.850*	*0.300*	*0.28*	*Cum*
	Toe Wall Stem D/S Portion	*1*	*1.100*	*0.450*	*0.900*	*0.45*	*Cum*
	Toe Wall Base (For Brick Pitching)	*1*	*3.000*	*0.450*	*0.300*	*0.41*	*Cum*
	Toe Wall Stem (For Brick Pitching)	*1*	*3.000*	*0.300*	*0.900*	*0.81*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*5*	*0.600*	*0.600*	*0.300*	*0.54*	*Cum*
	TOTAL					**16.79**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section A-A	*2*	*1.54*	*0.82*	*0.50*	*1.27*	*Cum*
		2	*1.54*	*1.00*	*0.60*	*1.87*	*Cum*
		2	*1.54*	*1.18*	*1.20*	*4.38*	*Cum*
	Section B-B	*2*	*5.25*	*1.05*	*0.75*	*8.23*	*Cum*
		2	*5.25*	*1.27*	*0.90*	*12.00*	*Cum*
	Section C-C	*2*	*0.50*	*0.96*	*0.45*	*0.43*	*Cum*
		2	*0.50*	*1.09*	*1.20*	*1.31*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*2.91*	*0.45*	*0.50*	*0.65*	*Cum*
		1	*2.91*	*0.63*	*0.60*	*1.10*	*Cum*
		1	*2.91*	*0.81*	*1.20*	*2.83*	*Cum*
	Left Bank						
	Section a-a	*1*		2.436	*0.50*	*1.22*	*Sqm*
		1		*2.29*	*0.20*	*0.46*	*Sqm*
		1		*1.31*	*1.10*	*1.44*	*Sqm*
						3.11	***Sqm***
	Section b-b	*1*		*2.44*	*0.50*	*1.22*	*Sqm*
		1		*2.04*	*0.20*	*0.41*	*Sqm*
		1		*1.26*	*1.10*	*1.39*	*Sqm*
						3.01	***Sqm***
	Section c-c	*1*		*2.44*	*0.50*	*1.22*	*Sqm*
		1		*1.67*	*0.20*	*0.33*	*Sqm*
		1		*1.07*	*1.10*	*1.18*	*Sqm*
						2.73	***Sqm***
	Section d-d	*1*		*2.44*	*0.50*	*1.22*	*Sqm*
		1		*0.48*	*0.20*	*0.10*	*Sqm*
		1		*0.48*	*1.10*	*0.53*	*Sqm*
						1.84	***Sqm***
	Bottom Key	*1*	*2.22*	*1.28*	*0.70*	*1.99*	*Cum*
	Top Stem Area	*1*	*2.22*	*2.67*		*5.95*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.49*	*0.70*	*0.90*	*0.62*	*Cum*
		2	*0.49*	*0.53*	*0.45*	*0.23*	*Cum*
		2	*0.49*	*0.35*	*0.50*	*0.17*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.61*	*1.46*	*0.90*	*6.86*	*Cum*
		2	*2.61*	*1.13*	*0.45*	*2.65*	*Cum*
		2	*2.61*	*0.67*	*0.50*	*1.76*	*Cum*
	TOTAL					**54.28**	**Cum**
	Floor						
	U/S key	*1*	*1.28*	*2.42*	*0.70*	*2.16*	*Cum*
	Floor	*1*	*3.29*	*2.42*	*0.50*	*3.98*	*Cum*
		1	*0.42*	*1.10*	*0.30*	*0.14*	*Cum*
		1	*0.72*	*1.10*	*0.20*	*0.16*	*Cum*
		1	*0.42*	*1.10*	*0.30*	*0.14*	*Cum*
		1	*3.08*	*1.10*	*0.50*	*1.69*	*Cum*
		1	*0.90*	*1.10*	*0.20*	*0.20*	*Cum*
		1	*0.14*	*1.10*		*0.15*	*Cum*
		1	*0.53*	*1.10*	*0.30*	*0.18*	*Cum*
		1	*1.76*	*1.10*	*0.50*	*0.97*	*Cum*
	D/S key	*1*	*0.73*	*1.10*	*0.50*	*0.40*	*Cum*
	TOTAL					**64.44**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Floor	*1*	*3.41*	*2.42*	*0.20*	*1.65*	*Cum*
		1	*0.67*	*1.10*	*0.20*	*0.15*	*Cum*
		1	*3.08*	*1.10*	*0.20*	*0.68*	*Cum*
		1	*0.95*	*1.10*	*0.20*	*0.21*	*Cum*
		1	*1.76*	*1.10*	*0.20*	*0.39*	*Cum*
	Top Slab	*1*	*5.25*	*1.90*	*0.39*	*3.90*	*Cum*
	75mm Th. Wearing coat on top slab	*1*	*4.25*	*1.90*	*0.08*	*0.61*	*Cum*
	Dirt wall	*2*	*5.75*	0.82	*0.50*	*4.72*	*Cum*
		2	*5.75*	*0.40*	*0.43*	*1.96*	*Cum*
	Parapet	*2*	*2.74*	*0.45*	*0.18*	*0.43*	*Cum*
		2	*2.74*	*0.35*	*0.25*	*0.48*	*Cum*
		2	*2.74*	*0.22*	*0.55*	*0.66*	*Cum*
	TOTAL					**15.81**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	**Length**	**Nos.**		**Weight per m**	**Quantity**	**Unit**
	Slab Per Span						
a1	*16*	*2.360*	*29*		*1.578*	*108.008*	*Kg*
a2	*10*	*5.650*	*10*		*0.616*	*34.830*	*Kg*
a3	*10*	*5.150*	*2*		*0.616*	*6.350*	*Kg*
a4	*10*	*2.280*	*18*		*0.616*	*25.300*	*Kg*
a5	*10*	*5.550*	*7*		*0.616*	*23.949*	*Kg*
	Dirt Wall						
d1	*12*	*4.460*	*26*		*0.888*	*102.938*	*Kg*
d2	*12*	*5.550*	*14*		*0.888*	*68.975*	*Kg*
	Crash Barrier						
x1	*12*	*2.501*	*32*		*0.888*	*71.045*	*Kg*
x2	*16*	*1.265*	*32*		*1.578*	*63.883*	*Kg*
x3	*10*	*1.800*	*24*		*0.616*	*26.631*	*Kg*
	Floor R/F						
	U/S Key						
	12	*6.682*	*5*		*0.888*	*29.658*	*Kg*
	12	*1.800*	*26*		*0.888*	*41.545*	*Kg*
	floor raft						
	12	*3.460*	*5*		*0.888*	*15.357*	*Kg*
	12	*7.963*	*10*		*0.888*	*70.688*	*Kg*
	12	*1.800*	*67*		*0.888*	*107.057*	*Kg*
	0.25 % Skin Reinforcement for Transition walls	*54.28*	*0.25%*	*0.14*	*7850*	*1065.34*	*Kg*
	TOTAL Weight of steel (in kg)					1861.55	Kg
	TOTAL Weight of Steel (in Tonne)					**1.86**	**MT**
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1		1.92		**1.92**	**MT**
	*Separate sheet attached						
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section A-A	*4*	*1.54*		*0.50*	*3.09*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*1.54*		*0.60*	*3.73*	*Sqm*
		4		*1.00*	*0.60*	*2.42*	*Sqm*
		4	*1.54*		*1.20*	*7.41*	*Sqm*
		4		*1.18*	*1.20*	*5.67*	*Sqm*
	Section B-B	*4*	*5.25*		*0.75*	*15.75*	*Sqm*
		4		*1.05*	*0.75*	*3.14*	*Sqm*
		4	*5.25*		*0.90*	*18.90*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4		1.27	0.90	4.57	Sqm
	Section C-C	4	0.50		0.45	0.90	Sqm
		4		0.96	0.45	1.72	Sqm
		4	0.50		1.20	2.40	Sqm
		4		1.09	1.20	5.23	Sqm
	U/S Transition wall						
	Right Bank (Section D-D)	2	2.91		0.50	2.91	Sqm
		2		0.45	0.50	0.45	Sqm
		2	2.91		0.60	3.49	Sqm
		2		0.63	0.60	0.76	Sqm
		2	2.91		1.20	6.98	Sqm
		2		0.81	1.20	1.95	Sqm
	Left Bank						
	Bottom Key	2	2.22		0.70	3.11	Sqm
		2		1.28	0.70	1.79	Sqm
	Section a-a	2	0.74		0.50	0.74	Sqm
		2		2.44	0.50	2.44	Sqm
		2	0.74		0.20	0.30	Sqm
		2		2.29	0.20	0.91	Sqm
		2	0.74		1.10	1.63	Sqm
		2		1.31	1.10	2.88	Sqm
	Section b-b	2	0.74		0.50	0.74	Sqm
		2		2.44	0.50	2.44	Sqm
		2	0.74		0.20	0.30	Sqm
		2		2.04	0.20	0.82	Sqm
		2	0.74		1.10	1.63	Sqm
		2		1.26	1.10	2.77	Sqm
	Section c-c	2	0.74		0.50	0.74	Sqm
		2		2.44	0.50	2.44	Sqm
		2	0.74		0.20	0.30	Sqm
		2		1.67	0.20	0.67	Sqm
		2	0.74		1.10	1.63	Sqm
		2		1.07	1.10	2.36	Sqm
	Section d-d	2	0.74		0.50	0.74	Sqm
		2		2.44	0.50	2.44	Sqm
		2	0.74		0.20	0.30	Sqm
		2		0.48	0.20	0.19	Sqm
		2	0.74		1.10	1.63	Sqm
		2		0.48	1.10	1.06	Sqm
	D/S Transition wall						
	Sec 4-4	4	0.49		0.90	1.76	Sqm
		4		0.70	0.90	2.52	Sqm
		4	0.49		0.45	0.88	Sqm
		4		0.53	0.45	0.95	Sqm
		4	0.49		0.50	0.98	Sqm
		4		0.35	0.50	0.70	Sqm
	Avg. of Sec 1-1 & 3-3	4	2.61		0.90	9.40	Sqm
		4		1.46	0.90	5.25	Sqm
		4	2.61		0.45	4.70	Sqm
		4		1.13	0.45	2.03	Sqm
		4	2.61		0.50	5.22	Sqm
		4		0.67	0.50	1.35	Sqm
	Floor						
	U/S key	2	1.28		0.70	1.79	Sqm
		2		2.42	0.70	3.39	Sqm
	Floor	2	3.29		0.50	3.29	Sqm
		2		2.42	0.50	2.42	Sqm
		2	0.42		0.30	0.25	Sqm
		2		1.10	0.30	0.66	Sqm
		2	0.72		0.20	0.29	Sqm
		2		1.10	0.20	0.44	Sqm
		2	0.42		0.30	0.84	Sqm
		2		1.10	0.30	2.20	Sqm
		2	3.08		0.50	3.08	Sqm
		2		1.10	0.50	1.10	Sqm
		2	0.90		0.20	0.36	Sqm
		2		1.10	0.20	0.44	Sqm
		2	0.14			0.27	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*1.10*		*2.20*	*Sqm*
		2	*1.76*		*0.50*	*1.76*	*Sqm*
		2		*1.10*	*0.50*	*1.10*	*Sqm*
	D/S key	*2*	*0.73*		*0.50*	*0.73*	*Sqm*
		2		*1.10*	*0.50*	*1.10*	*Sqm*
	Toe Wall Base D/S Portion	*2*	*1.10*		*0.30*	*0.66*	*Sqm*
		2		*0.85*	*0.30*	*0.51*	*Sqm*
	Toe Wall Stem D/S Portion	*2*	*1.10*		*0.90*	*1.98*	*Sqm*
		2		*0.45*	*0.90*	*0.81*	*Sqm*
	Top Slab	*2*	*5.25*		*0.39*	*4.10*	*Sqm*
		2		*1.90*	*0.39*	*1.48*	*Sqm*
	Dirt wall	*4*	*5.75*		*0.50*	*11.50*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*5.75*		*0.43*	*9.78*	*Sqm*
		4		*0.40*	*0.43*	*0.68*	*Sqm*
	Parapet	*4*	*2.74*		*0.18*	*1.92*	*Sqm*
		4		*0.45*	*0.18*	*0.31*	*Sqm*
		4	*2.74*		*0.25*	*2.74*	*Sqm*
		4		*0.35*	*0.25*	*0.35*	*Sqm*
		4	*2.74*		*0.55*	*6.03*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**238.46**	**Sqm**
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.00*	*1.95*		*11.69*	*Sqm*
	TOTAL					**11.69**	**Sqm**
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.**(WRD M-002)**						
	Boulder Apron in D/S Portion	*1*	*3.00*	*0.90*	*0.50*	*1.35*	***Cum***
	TOTAL					**1.35**	**Cum**
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)						
	In D/S Portion below C.C. Blocks	*1*	*2.20*	*1.10*	*0.15*	*0.36*	*Cum*
	In D/S Portion below Stone Chips	*1*	*2.20*	*1.10*	*0.15*	*0.36*	*Cum*
	TOTAL					**0.73**	**Cum**
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	U/S transition	*2*	*1.77*	*0.48*		*1.70*	*Sqm*
	On Abutment Top	*2*	*4.92*	*0.45*		*1.60*	*Sqm*
	TOTAL					**3.30**	**Sqm**
12	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2	1			**2.00**	**No.**
13	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications**. (3.18 PWD NH SOR CHHATISGARH 2025)**	2	5.25	0.40		**4.20**	**Sqm**
14	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications. **(RCD 15.22 - (ii))**	2	5.25			**10.50**	**RM**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
15	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compa.cted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Abutment						
	Section A-A	2	*1.54*	*0.82*		*2.532*	*Cum*
	Section B-B	2	*5.25*	*1.10*		*11.550*	*Cum*
	Section C-C	2	*0.50*	*0.88*		*0.884*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	1	*2.91*	*0.75*		*2.183*	*Cum*
	D/S Transition wall						
	Sec 4-4	2	*0.49*	*0.62*		*0.611*	*Cum*
	Avg. of Sec 1-1 & 3-3	2	*2.61*	*1.02*		*5.329*	*Cum*
	TOTAL					**23.09**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF HR FOR SIMRA MR OFFTAKING FROM RD-12+685 KM (R.) AT BASDIHA DISTRIBUTARY						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section A-A	*2*	*3.30*	*1.72*	*3.590*	*40.754*	*Cum*
	Section B-B	*2*	*5.25*	*1.74*	*2.360*	*43.018*	*Cum*
	Section C-C	*2*	*0.50*	*1.56*	*2.250*	*3.466*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*3.68*	*1.35*	*3.590*	*17.833*	*Cum*
	Left Bank Sec a to d	1	3.61	2.92	2.183	*22.994*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.50*	*1.10*	*2.260*	*2.486*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.68*	*1.95*	*2.260*	*23.676*	*Cum*
	Floor						
	U/S key	*1*	*1.4495*	*2.5415*	*0.850*	*3.131*	*Cum*
	Floor	*1*	*3.636*	*2.5415*	*0.650*	*6.007*	*Cum*
		1	*0.618*	*1.2*	*0.650*	*0.482*	*Cum*
		1	*1.118*	*1.2*	*0.410*	*0.550*	*Cum*
		1	*0.30875*	*1.2*	*0.000*	*0.371*	*Cum*
		1	*3.047*	*1.2*	*1.150*	*4.205*	*Cum*
		1	*0.932*	*1.2*	*0.200*	*0.224*	*Cum*
		1	*0.304*	*1.2*	*0.200*	*0.073*	*Cum*
		1	*1.761*	*1.2*	*0.650*	*1.374*	*Cum*
		1	*0.7875*	*1.2*	*0.900*	*0.851*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*1*	*2.200*	*1.200*	*0.600*	*1.584*	*Cum*
	Toe Wall Base D/S Portion	*1*	*1.200*	*0.850*	*1.200*	*1.224*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*3.000*	*0.900*	*0.600*	*1.620*	*Cum*
						175.92	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor						
		1	*0.624*	*3.105*	*0.150*	*0.29*	*Cum*
		1	*1.838*	*1.764*	*0.150*	*0.49*	*Cum*
		1	*1.270*	*1.200*	*0.150*	*0.23*	*Cum*
		1	*1.946*	*1.200*	*0.150*	*0.35*	*Cum*
		1	*3.047*	*1.200*	*0.150*	*0.55*	*Cum*
		1	*1.423*	*1.200*	*0.150*	*0.26*	*Cum*
		1	*1.094*	*1.200*	*0.150*	*0.20*	*Cum*
		1	*0.838*	*1.200*	*0.150*	*0.15*	*Cum*
		1	*0.692*	*1.200*	*0.150*	*0.12*	*Cum*
	PCC Below Abutment						
	Section A-A	*2*	*3.300*	*1.720*	*0.300*	*3.41*	*Cum*
	Section B-B	*2*	*5.250*	*1.736*	*0.300*	*5.47*	*Cum*
	Section C-C	*2*	*0.495*	*1.556*	*0.300*	*0.46*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*3.680*	*1.350*	*0.300*	*1.49*	*Cum*
	Left Bank Sec a to d	*1*	*3.611*	*2.917*	*0.150*	*1.58*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.500*	*1.100*	*0.300*	*0.33*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.682*	*1.953*	*0.300*	*3.14*	*Cum*
	Toe Wall Base D/S Portion	*1*	*1.200*	*0.850*	*0.300*	*0.31*	*Cum*
	Toe Wall Stem D/S Portion	*1*	*1.200*	*0.450*	*0.900*	*0.49*	*Cum*
	Toe Wall Base (For Brick Pitching)	*1*	*3.000*	*0.450*	*0.300*	*0.41*	*Cum*
	Toe Wall Stem (For Brick Pitching)	*1*	*3.000*	*0.300*	*0.900*	*0.81*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*5*	*0.600*	*0.600*	*0.300*	*0.54*	*Cum*
	TOTAL					**21.06**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section A-A	*2*	*3.30*	*0.82*	*0.50*	*2.71*	*Cum*
		2	*3.30*	*1.07*	*0.83*	*5.88*	*Cum*
		2	*3.30*	*1.32*	*1.96*	*17.05*	*Cum*
	Section B-B	*2*	*5.25*	*1.08*	*0.86*	*9.73*	*Cum*
		2	*5.25*	*1.34*	*1.20*	*16.83*	*Cum*
	Section C-C	*2*	*0.50*	*0.99*	*0.45*	*0.44*	*Cum*
		2	*0.50*	*1.16*	*1.50*	*1.72*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*3.68*	*0.45*	*0.50*	*0.83*	*Cum*
		1	*3.68*	*0.70*	*0.83*	*2.15*	*Cum*
		1	*3.68*	*0.95*	*1.96*	*6.84*	*Cum*
	Left Bank						
	Section a-a	*1*		*2.779*	*0.50*	*1.39*	*Sqm*
		1		*2.63*	*0.20*	*0.53*	*Sqm*
		1		*1.48*	*1.33*	*1.97*	*Sqm*
						3.89	***Sqm***
	Section b-b	*1*		*2.78*	*0.50*	*1.39*	*Sqm*
		1		*2.34*	*0.20*	*0.47*	*Sqm*
		1		*1.41*	*1.33*	*1.88*	*Sqm*
						3.73	***Sqm***
	Section c-c	*1*		*2.78*	*0.50*	*1.39*	*Sqm*
		1		*1.82*	*0.20*	*0.36*	*Sqm*
		1		*1.15*	*1.33*	*1.53*	*Sqm*
						3.29	***Sqm***
	Section d-d	*1*		*2.78*	*0.50*	*1.39*	*Sqm*
		1		*0.48*	*0.20*	*0.10*	*Sqm*
		1		*0.48*	*1.33*	*0.64*	*Sqm*
						2.13	***Sqm***
	Bottom Key	*1*	*3.61*	*1.45*	*0.70*	*3.66*	*Cum*
	Top Stem Area	*1*	*3.61*	*3.26*		*11.77*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.50*	*0.70*	*0.90*	*0.63*	*Cum*
		2	*0.50*	*0.53*	*0.56*	*0.29*	*Cum*
		2	*0.50*	*0.35*	*0.50*	*0.18*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.68*	*1.55*	*0.90*	*7.50*	*Cum*
		2	*2.68*	*1.18*	*0.56*	*3.54*	*Cum*
		2	*2.68*	*0.68*	*0.50*	*1.82*	*Cum*
	TOTAL					**93.56**	**Cum**
	Floor						
	U/S key	*1*	*1.45*	*2.54*	*0.70*	*2.58*	*Cum*
	Floor	*1*	*3.64*	*2.54*	*0.50*	*4.62*	*Cum*
		1	*0.62*	*1.20*	*0.50*	*0.37*	*Cum*
		1	*1.12*	*1.20*	*0.26*	*0.35*	*Cum*
		1	*0.31*	*1.20*		*0.37*	*Cum*
		1	*3.05*	*1.20*	*0.70*	*2.56*	*Cum*
		1	*0.93*	*1.20*	*0.20*	*0.22*	*Cum*
		1	*0.30*	*1.20*		*0.36*	*Cum*
		1	*0.14*	*1.20*		*0.16*	*Cum*
		1	*2.60*	*1.20*	*0.55*	*1.72*	*Cum*
		1	*1.76*	*1.20*	*0.50*	*1.06*	*Cum*
	D/S key	*1*	*0.79*	*1.20*	*0.75*	*0.71*	*Cum*
	TOTAL					**108.64**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Floor	*1*	*3.75*	*2.54*	*0.20*	*1.91*	*Cum*
		1	*1.69*	*1.20*	*0.20*	*0.41*	*Cum*
		1	*3.08*	*1.20*	*0.20*	*0.74*	*Cum*
		1	*0.95*	*1.20*	*0.20*	*0.23*	*Cum*
		1	*2.60*	*1.20*	*0.20*	*0.62*	*Cum*
	Top Slab	*1*	*5.25*	*2.00*	*0.39*	*4.10*	*Cum*
	75mm Th. Wearing coat on top slab	*1*	*4.25*	*2.00*	*0.08*	*0.64*	*Cum*
	Dirt wall	*2*	*5.75*	0.82	*0.50*	*4.71*	*Cum*
		2	*5.75*	*0.40*	*0.43*	*1.95*	*Cum*
	Parapet	*2*	*2.84*	*0.45*	*0.18*	*0.44*	*Cum*
		2	*2.84*	*0.35*	*0.25*	*0.50*	*Cum*
		2	*2.84*	*0.22*	*0.55*	*0.68*	*Cum*
	TOTAL					**16.93**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	**Length**	**Nos.**		**Weight per m**	**Quantity**	**Unit**
	Slab Per Span						
a1	*16*	*2.460*	*29*		*1.578*	*112.584*	*Kg*
a2	*10*	*5.650*	*10*		*0.616*	*34.830*	*Kg*
a3	*10*	*5.150*	*2*		*0.616*	*6.350*	*Kg*
a4	*10*	*2.380*	*18*		*0.616*	*26.409*	*Kg*
a5	*10*	*5.550*	*7*		*0.616*	*23.949*	*Kg*
	Dirt Wall						
d1	*12*	*4.460*	*26*		*0.888*	*102.938*	*Kg*
d2	*12*	*5.550*	*14*		*0.888*	*68.975*	*Kg*
	Crash Barrier						
x1	*12*	*2.501*	*32*		*0.888*	*71.045*	*Kg*
x2	*16*	*1.265*	*32*		*1.578*	*63.883*	*Kg*
x3	*10*	*1.900*	*24*		*0.616*	*28.111*	*Kg*
	Floor R/F						
	U/S Key						
	12	*7.367*	*5*		*0.888*	*32.699*	*Kg*
	12	*1.900*	*28*		*0.888*	*47.226*	*Kg*
	floor raft						
	12	*4.179*	*5*		*0.888*	*18.549*	*Kg*
	12	*9.827*	*10*		*0.888*	*87.235*	*Kg*
	12	*1.900*	*85*		*0.888*	*143.364*	*Kg*
	0.25 % Skin Reinforcement for Transition walls	*93.56*	*0.25%*	*0.23*	*7850*	*1836.15*	*Kg*
	TOTAL Weight of steel (in kg)					2704.29	Kg
	TOTAL Weight of Steel (in Tonne)					**2.70**	**MT**
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1		2.29		**2.29**	**MT**
	*Separate sheet attached						
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section A-A	*4*	*3.30*		*0.50*	*6.60*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*3.30*		*0.83*	*11.00*	*Sqm*
		4		*1.07*	*0.83*	*3.57*	*Sqm*
		4	*3.30*		*1.96*	*25.83*	*Sqm*
		4		*1.32*	*1.96*	*10.33*	*Sqm*
	Section B-B	*4*	*5.25*		*0.86*	*18.06*	*Sqm*
		4		*1.08*	*0.86*	*3.71*	*Sqm*
		4	*5.25*		*1.20*	*25.20*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4		1.34	1.20	6.41	Sqm
	Section C-C	4	0.50		0.45	0.89	Sqm
		4		0.99	0.45	1.78	Sqm
		4	0.50		1.50	2.97	Sqm
		4		1.16	1.50	6.94	Sqm
	U/S Transition wall						
	Right Bank (Section D-D)	2	3.68		0.50	3.68	Sqm
		2		0.45	0.50	0.45	Sqm
		2	3.68		0.83	6.13	Sqm
		2		0.70	0.83	1.17	Sqm
		2	3.68		1.96	14.40	Sqm
		2		0.95	1.96	3.72	Sqm
	Left Bank						
	Bottom Key	2	3.61		0.70	5.06	Sqm
		2		1.45	0.70	2.03	Sqm
	Section a-a	2	1.20		0.50	1.20	Sqm
		2		2.78	0.50	2.78	Sqm
		2	1.20		0.20	0.48	Sqm
		2		2.63	0.20	1.05	Sqm
		2	1.20		1.33	3.21	Sqm
		2		1.48	1.33	3.94	Sqm
	Section b-b	2	1.20		0.50	1.20	Sqm
		2		2.78	0.50	2.78	Sqm
		2	1.20		0.20	0.48	Sqm
		2		2.34	0.20	0.93	Sqm
		2	1.20		1.33	3.21	Sqm
		2		1.41	1.33	3.76	Sqm
	Section c-c	2	1.20		0.50	1.20	Sqm
		2		2.78	0.50	2.78	Sqm
		2	1.20		0.20	0.48	Sqm
		2		1.82	0.20	0.73	Sqm
		2	1.20		1.33	3.21	Sqm
		2		1.15	1.33	3.07	Sqm
	Section d-d	2	1.20		0.50	1.20	Sqm
		2		2.78	0.50	2.78	Sqm
		2	1.20		0.20	0.48	Sqm
		2		0.48	0.20	0.19	Sqm
		2	1.20		1.33	3.21	Sqm
		2		0.48	1.33	1.28	Sqm
	D/S Transition wall						
	Sec 4-4	4	0.50		0.90	1.80	Sqm
		4		0.70	0.90	2.52	Sqm
		4	0.50		0.56	1.12	Sqm
		4		0.53	0.56	1.18	Sqm
		4	0.50		0.50	1.00	Sqm
		4		0.35	0.50	0.70	Sqm
	Avg. of Sec 1-1 & 3-3	4	2.68		0.90	9.66	Sqm
		4		1.55	0.90	5.59	Sqm
		4	2.68		0.56	6.01	Sqm
		4		1.18	0.56	2.64	Sqm
		4	2.68		0.50	5.36	Sqm
		4		0.68	0.50	1.36	Sqm
	Floor						
	U/S key	2	1.45		0.70	2.03	Sqm
		2		2.54	0.70	3.56	Sqm
	Floor	2	3.64		0.50	3.64	Sqm
		2		2.54	0.50	2.54	Sqm
		2	0.62		0.50	0.62	Sqm
		2		1.20	0.50	1.20	Sqm
		2	1.12		0.26	0.58	Sqm
		2		1.20	0.26	0.62	Sqm
		2	0.31		0.00	0.62	Sqm
		2		1.20	0.00	2.40	Sqm
		2	3.05		0.70	4.27	Sqm
		2		1.20	0.70	1.68	Sqm
		2	0.93		0.20	0.37	Sqm
		2		1.20	0.20	0.48	Sqm
		2	0.30			0.61	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*1.20*		*2.40*	*Sqm*
		2	*0.14*			*0.27*	*Sqm*
		2		*1.20*		*2.40*	*Sqm*
		2	*2.603*		*0.55*	*2.86*	*Sqm*
		2		*1.2*	*0.55*	*1.32*	*Sqm*
		2	*1.76*		*0.50*	*1.76*	*Sqm*
		2		*1.20*	*0.50*	*1.20*	*Sqm*
	D/S key	*2*	*0.79*		*0.75*	*1.18*	*Sqm*
		2		*1.20*	*0.75*	*1.80*	*Sqm*
	Toe Wall Base D/S Portion	*2*	*1.20*		*0.30*	*0.72*	*Sqm*
		2		*0.85*	*0.30*	*0.51*	*Sqm*
	Toe Wall Stem D/S Portion	*2*	*1.20*		*0.90*	*2.16*	*Sqm*
		2		*0.45*	*0.90*	*0.81*	*Sqm*
	Top Slab	*2*	*5.25*		*0.39*	*4.10*	*Sqm*
		2		*2.00*	*0.39*	*1.56*	*Sqm*
	Dirt wall	*4*	*5.75*		*0.50*	*11.49*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*5.75*		*0.43*	*9.77*	*Sqm*
		4		*0.40*	*0.43*	*0.68*	*Sqm*
	Parapet	*4*	*2.84*		*0.18*	*1.99*	*Sqm*
		4		*0.45*	*0.18*	*0.31*	*Sqm*
		4	*2.84*		*0.25*	*2.84*	*Sqm*
		4		*0.35*	*0.25*	*0.35*	*Sqm*
		4	*2.84*		*0.55*	*6.25*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**332.19**	**Sqm**
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.00*	*2.15*		*12.88*	*Sqm*
	TOTAL					**12.88**	**Sqm**
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.**(WRD M-002)**						
	Boulder Apron in D/S Portion	*1*	*3.00*	*0.90*	*0.60*	*1.62*	***Cum***
	TOTAL					**1.62**	**Cum**
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)						
	In D/S Portion below C.C. Blocks	*1*	*2.20*	*1.20*	*0.15*	*0.40*	*Cum*
	In D/S Portion below Stone Chips	*1*	*2.20*	*1.20*	*0.15*	*0.40*	*Cum*
	TOTAL					**0.79**	**Cum**
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	U/S transition	*2*	*2.00*	*0.48*		*1.92*	*Sqm*
	On Abutment Top	*2*	*6.73*	*0.45*		*1.80*	*Sqm*
	TOTAL					**3.72**	**Sqm**
12	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2	1			**2.00**	**No.**
13	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications**. (3.18 PWD NH SOR CHHATISGARH 2025)**	2	5.25	0.40		**4.20**	**Sqm**
14	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications. **(RCD 15.22 - (ii))**	2	5.25			**10.50**	**RM**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
15	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compa.cted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Abutment						
	Section A-A	2	*3.30*	*1.34*		*8.818*	*Cum*
	Section B-B	2	*5.25*	*1.14*		*11.918*	*Cum*
	Section C-C	2	*0.50*	*1.13*		*1.119*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	1	*3.68*	*1.12*		*4.106*	*Cum*
	D/S Transition wall						
	Sec 4-4	2	*0.50*	*0.66*		*0.658*	*Cum*
	Avg. of Sec 1-1 & 3-3	2	*2.68*	*0.40*		*2.157*	*Cum*
	TOTAL					**28.78**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF HR FOR SALEMPUR MR OFFTAKING FROM RD-15+950 KM (R.) AT BASDIHA DISTRIBUTARY							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section A-A	*2*	*4.91*	*1.50*	*3.952*	*58.031*	*Cum*
	Section B-B	*2*	*5.25*	*1.74*	*2.679*	*48.833*	*Cum*
	Section C-C	*2*	*0.50*	*1.56*	*2.679*	*4.169*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*2.70*	*1.13*	*3.952*	*11.982*	*Cum*
	Left Bank Sec a to d	1	2.74	2.42	1.809	*11.970*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.51*	*1.10*	*2.579*	*2.865*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.71*	*1.99*	*2.579*	*27.764*	*Cum*
	Floor						
	U/S key	*1*	*1.169*	*2.125*	*0.850*	*2.112*	*Cum*
	Floor	*1*	*3.073*	*2.125*	*0.650*	*4.245*	*Cum*
		1	*0.618*	*1.2*	*0.650*	*0.482*	*Cum*
		2	*1.118*	*1.2*	*0.507*	*1.360*	*Cum*
		1	*0.44905*	*1.2*	*0.000*	*0.539*	*Cum*
		1	*3.579*	*1.2*	*1.150*	*4.939*	*Cum*
		1	*0.9*	*1.2*	*0.200*	*0.216*	*Cum*
		1	*0.135*	*1.2*	*0.200*	*0.032*	*Cum*
		1	*0.857*	*1.2*	*1.179*	*1.212*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*1*	*2.200*	*1.200*	*0.600*	*1.584*	*Cum*
	Toe Wall Base D/S Portion	*1*	*1.200*	*0.850*	*1.200*	*1.224*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*3.000*	*0.900*	*0.600*	*1.620*	*Cum*
						185.18	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor						
		1	*0.624*	*2.415*	*0.150*	*0.23*	*Cum*
		1	*1.336*	*1.490*	*0.150*	*0.30*	*Cum*
		1	*1.270*	*1.200*	*0.150*	*0.23*	*Cum*
		1	*2.953*	*1.200*	*0.150*	*0.53*	*Cum*
		1	*3.759*	*1.200*	*0.150*	*0.68*	*Cum*
		1	*1.423*	*1.200*	*0.150*	*0.26*	*Cum*
		1	*0.954*	*1.200*	*0.150*	*0.17*	*Cum*
		1	*1.150*	*1.200*	*0.150*	*0.21*	*Cum*
		1	*0.692*	*1.200*	*0.150*	*0.12*	*Cum*
	PCC Below Abutment						
	Section A-A	*2*	*4.911*	*1.495*	*0.300*	*4.41*	*Cum*
	Section B-B	*2*	*5.250*	*1.736*	*0.300*	*5.47*	*Cum*
	Section C-C	*2*	*0.500*	*1.556*	*0.300*	*0.47*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*2.695*	*1.125*	*0.300*	*0.91*	*Cum*
	Left Bank Sec a to d	*1*	*2.740*	*2.415*	*0.150*	*0.99*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.505*	*1.100*	*0.300*	*0.33*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.709*	*1.987*	*0.300*	*3.23*	*Cum*
	Toe Wall Base D/S Portion	*1*	*1.200*	*0.850*	*0.300*	*0.31*	*Cum*
	Toe Wall Stem D/S Portion	*1*	*1.200*	*0.450*	*0.900*	*0.49*	*Cum*
	Toe Wall Base (For Brick Pitching)	*1*	*3.000*	*0.450*	*0.300*	*0.41*	*Cum*
	Toe Wall Stem (For Brick Pitching)	*1*	*3.000*	*0.300*	*0.900*	*0.81*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*5*	*0.600*	*0.600*	*0.300*	*0.54*	*Cum*
	TOTAL					**21.07**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section A-A	*2*	*4.91*	*0.82*	*0.50*	*4.03*	*Cum*
		2	*4.91*	*0.96*	*0.46*	*4.32*	*Cum*
		2	*4.91*	*1.10*	*2.69*	*28.96*	*Cum*
	Section B-B	*2*	*5.25*	*1.08*	*0.90*	*10.19*	*Cum*
		2	*5.25*	*1.34*	*1.48*	*20.75*	*Cum*
	Section C-C	*2*	*0.50*	*0.99*	*0.60*	*0.59*	*Cum*
		2	*0.50*	*1.16*	*1.78*	*2.06*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*2.70*	*0.45*	*0.50*	*0.61*	*Cum*
		1	*2.70*	*0.59*	*0.46*	*0.73*	*Cum*
		1	*2.70*	*0.73*	*2.69*	*5.26*	*Cum*
	Left Bank						
	Section a-a	*1*		2.218	*0.50*	*1.11*	*Sqm*
		1		*2.07*	*0.20*	*0.41*	*Sqm*
		1		*1.20*	*0.96*	*1.15*	*Sqm*
						2.67	***Sqm***
	Section b-b	*1*		*2.22*	*0.50*	*1.11*	*Sqm*
		1		*1.83*	*0.20*	*0.37*	*Sqm*
		1		*1.15*	*0.96*	*1.11*	*Sqm*
						2.58	***Sqm***
	Section c-c	*1*		*2.22*	*0.50*	*1.11*	*Sqm*
		1		*1.57*	*0.20*	*0.31*	*Sqm*
		1		*1.02*	*0.96*	*0.98*	*Sqm*
						2.41	***Sqm***
	Section d-d	*1*		*2.22*	*0.50*	*1.11*	*Sqm*
		1		*0.48*	*0.20*	*0.10*	*Sqm*
		1		*0.48*	*0.96*	*0.46*	*Sqm*
						1.67	***Sqm***
	Bottom Key	*1*	*2.74*	*1.17*	*0.70*	*2.24*	*Cum*
	Top Stem Area	*1*	*2.74*	*2.33*		*6.39*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.51*	*0.70*	*1.18*	*0.83*	*Cum*
		2	*0.51*	*0.53*	*0.60*	*0.32*	*Cum*
		2	*0.51*	*0.35*	*0.50*	*0.18*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.71*	*1.59*	*1.18*	*10.14*	*Cum*
		2	*2.71*	*1.20*	*0.60*	*3.89*	*Cum*
		2	*2.71*	*0.68*	*0.50*	*1.84*	*Cum*
	TOTAL					**103.32**	**Cum**
	Floor						
	U/S key	*1*	*1.17*	*2.13*	*0.70*	*1.74*	*Cum*
	Floor	*1*	*3.07*	*2.13*	*0.50*	*3.27*	*Cum*
		1	*0.62*	*1.20*	*0.50*	*0.37*	*Cum*
		2	*1.12*	*1.20*	*0.36*	*0.96*	*Cum*
		1	*0.45*	*1.20*		*0.54*	*Cum*
		1	*3.58*	*1.20*	*0.70*	*3.01*	*Cum*
		1	*0.90*	*1.20*	*0.20*	*0.22*	*Cum*
		1	*0.14*	*1.20*		*0.16*	*Cum*
		1	*0.84*	*1.20*	*0.45*	*0.45*	*Cum*
		1	*2.80*	*1.20*	*0.55*	*1.85*	*Cum*
	D/S key	*1*	*0.86*	*1.20*	*1.03*	*1.06*	*Cum*
	TOTAL					**116.93**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Floor	*1*	*3.19*	*2.13*	*0.20*	*1.36*	*Cum*
		1	*2.71*	*1.20*	*0.20*	*0.65*	*Cum*
		1	*3.58*	*1.20*	*0.20*	*0.86*	*Cum*
		1	*0.95*	*1.20*	*0.20*	*0.23*	*Cum*
		1	*2.80*	*1.20*	*0.20*	*0.67*	*Cum*
	Top Slab	*1*	*5.25*	*2.00*	*0.39*	*4.10*	*Cum*
	75mm Th. Wearing coat on top slab	*1*	*4.25*	*2.00*	*0.08*	*0.64*	*Cum*
	Dirt wall	*2*	*5.75*	0.82	*0.50*	*4.72*	*Cum*
		2	*5.75*	*0.40*	*0.43*	*1.96*	*Cum*
	Parapet	*2*	*2.84*	*0.45*	*0.18*	*0.44*	*Cum*
		2	*2.84*	*0.35*	*0.25*	*0.50*	*Cum*
		2	*2.84*	*0.22*	*0.55*	*0.68*	*Cum*
	TOTAL					**16.80**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	**Length**	**Nos.**		**Weight per m**	**Quantity**	**Unit**
	Slab Per Span						
a1	*16*	*2.460*	*29*		*1.578*	*112.584*	*Kg*
a2	*10*	*5.650*	*10*		*0.616*	*34.830*	*Kg*
a3	*10*	*5.150*	*2*		*0.616*	*6.350*	*Kg*
a4	*10*	*2.380*	*18*		*0.616*	*26.409*	*Kg*
a5	*10*	*5.550*	*7*		*0.616*	*23.949*	*Kg*
	Dirt Wall						
d1	*12*	*4.460*	*26*		*0.888*	*102.938*	*Kg*
d2	*12*	*5.550*	*14*		*0.888*	*68.975*	*Kg*
	Crash Barrier						
x1	*12*	*2.501*	*32*		*0.888*	*71.045*	*Kg*
x2	*16*	*1.265*	*32*		*1.578*	*63.883*	*Kg*
x3	*10*	*1.900*	*24*		*0.616*	*28.111*	*Kg*
	Floor R/F						
	U/S Key						
	12	*6.274*	*5*		*0.888*	*27.847*	*Kg*
	12	*1.900*	*25*		*0.888*	*42.166*	*Kg*
	floor raft						
	12	*4.910*	*5*		*0.888*	*21.793*	*Kg*
	12	*11.546*	*10*		*0.888*	*102.494*	*Kg*
	12	*1.900*	*103*		*0.888*	*173.724*	*Kg*
	0.25 % Skin Reinforcement for Transition walls	*103.32*	*0.25%*	*0.26*	*7850*	*2027.57*	*Kg*
	TOTAL Weight of steel (in kg)					2934.67	Kg
	TOTAL Weight of Steel (in Tonne)					**2.93**	**MT**
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1		1.75		**1.75**	**MT**
	*Separate sheet attached						
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section A-A	*4*	*4.91*		*0.50*	*9.82*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*4.91*		*0.46*	*9.02*	*Sqm*
		4		*0.96*	*0.46*	*1.76*	*Sqm*
		4	*4.91*		*2.69*	*52.90*	*Sqm*
		4		*1.10*	*2.69*	*11.80*	*Sqm*
	Section B-B	*4*	*5.25*		*0.90*	*18.90*	*Sqm*
		4		*1.08*	*0.90*	*3.88*	*Sqm*
		4	*5.25*		*1.48*	*31.06*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4		1.34	1.48	7.90	Sqm
	Section C-C	4	0.50		0.60	1.20	Sqm
		4		0.99	0.60	2.37	Sqm
		4	0.50		1.78	3.56	Sqm
		4		1.16	1.78	8.23	Sqm
	U/S Transition wall						
	Right Bank (Section D-D)	2	2.70		0.50	2.70	Sqm
		2		0.45	0.50	0.45	Sqm
		2	2.70		0.46	2.47	Sqm
		2		0.59	0.46	0.54	Sqm
		2	2.70		2.69	14.52	Sqm
		2		0.73	2.69	3.90	Sqm
	Left Bank						
	Bottom Key	2	2.74		0.70	3.84	Sqm
		2		1.17	0.70	1.64	Sqm
	Section a-a	2	0.91		0.50	0.91	Sqm
		2		2.22	0.50	2.22	Sqm
		2	0.91		0.20	0.37	Sqm
		2		2.07	0.20	0.83	Sqm
		2	0.91		0.96	1.75	Sqm
		2		1.20	0.96	2.30	Sqm
	Section b-b	2	0.91		0.50	0.91	Sqm
		2		2.22	0.50	2.22	Sqm
		2	0.91		0.20	0.37	Sqm
		2		1.83	0.20	0.73	Sqm
		2	0.91		0.96	1.75	Sqm
		2		1.15	0.96	2.21	Sqm
	Section c-c	2	0.91		0.50	0.91	Sqm
		2		2.22	0.50	2.22	Sqm
		2	0.91		0.20	0.37	Sqm
		2		1.57	0.20	0.63	Sqm
		2	0.91		0.96	1.75	Sqm
		2		1.02	0.96	1.96	Sqm
	Section d-d	2	0.91		0.50	0.91	Sqm
		2		2.22	0.50	2.22	Sqm
		2	0.91		0.20	0.37	Sqm
		2		0.48	0.20	0.19	Sqm
		2	0.91		0.96	1.75	Sqm
		2		0.48	0.96	0.92	Sqm
	D/S Transition wall						
	Sec 4-4	4	0.51		1.18	2.38	Sqm
		4		0.70	1.18	3.30	Sqm
		4	0.51		0.60	1.21	Sqm
		4		0.53	0.60	1.26	Sqm
		4	0.51		0.50	1.01	Sqm
		4		0.35	0.50	0.70	Sqm
	Avg. of Sec 1-1 & 3-3	4	2.71		1.18	12.78	Sqm
		4		1.59	1.18	7.48	Sqm
		4	2.71		0.60	6.50	Sqm
		4		1.20	0.60	2.87	Sqm
		4	2.71		0.50	5.42	Sqm
		4		0.68	0.50	1.36	Sqm
	Floor						
	U/S key	2	1.17		0.70	1.64	Sqm
		2		2.13	0.70	2.98	Sqm
	Floor	2	3.07		0.50	3.07	Sqm
		2		2.13	0.50	2.13	Sqm
		2	0.62		0.50	0.62	Sqm
		2		1.20	0.50	1.20	Sqm
		2	1.12		0.36	0.80	Sqm
		2		1.20	0.36	0.86	Sqm
		2	0.45		0.00	0.90	Sqm
		2		1.20	0.00	2.40	Sqm
		2	3.58		0.70	5.01	Sqm
		2		1.20	0.70	1.68	Sqm
		2	0.90		0.20	0.36	Sqm
		2		1.20	0.20	0.48	Sqm
		2	0.14			0.27	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*1.20*		*2.40*	*Sqm*
		2	*0.84*			*1.68*	*Sqm*
		2		*1.20*		*2.40*	*Sqm*
		2	*2.8*		*0.55*	*3.08*	*Sqm*
		2		*1.2*	*0.55*	*1.32*	*Sqm*
	D/S key	*2*	*0.86*		*1.03*	*1.76*	*Sqm*
		2		*1.20*	*1.03*	*2.47*	*Sqm*
	Toe Wall Base D/S Portion	*2*	*1.20*		*0.30*	*0.72*	*Sqm*
		2		*0.85*	*0.30*	*0.51*	*Sqm*
	Toe Wall Stem D/S Portion	*2*	*1.20*		*0.90*	*2.16*	*Sqm*
		2		*0.45*	*0.90*	*0.81*	*Sqm*
	Top Slab	*2*	*5.25*		*0.39*	*4.10*	*Sqm*
		2		*2.00*	*0.39*	*1.56*	*Sqm*
	Dirt wall	*4*	*5.75*		*0.50*	*11.50*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*5.75*		*0.43*	*9.78*	*Sqm*
		4		*0.40*	*0.43*	*0.68*	*Sqm*
	Parapet	*4*	*2.84*		*0.18*	*1.99*	*Sqm*
		4		*0.45*	*0.18*	*0.31*	*Sqm*
		4	*2.84*		*0.25*	*2.84*	*Sqm*
		4		*0.35*	*0.25*	*0.35*	*Sqm*
		4	*2.84*		*0.55*	*6.25*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**356.30**	**Sqm**
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.00*	*2.22*		*13.31*	*Sqm*
	TOTAL					**13.31**	**Sqm**
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.**(WRD M-002)**						
	Boulder Apron in D/S Portion	*1*	*3.00*	*0.90*	*0.60*	*1.62*	***Cum***
	TOTAL					**1.62**	**Cum**
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)						
	In D/S Portion below C.C. Blocks	*1*	*2.20*	*1.20*	*0.15*	*0.40*	*Cum*
	In D/S Portion below Stone Chips	*1*	*2.20*	*1.20*	*0.15*	*0.40*	*Cum*
	TOTAL					**0.79**	**Cum**
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	U/S transition	*2*	*1.44*	*0.48*		*1.38*	*Sqm*
	On Abutment Top	*2*	*8.27*	*0.45*		*1.29*	*Sqm*
	TOTAL					**2.67**	**Sqm**
12	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2	1			**2.00**	**No.**
13	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications**. (3.18 PWD NH SOR CHHATISGARH 2025)**	2	5.25	0.40		**4.20**	**Sqm**
14	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications. **(RCD 15.22 - (ii))**	2	5.25			**10.50**	**RM**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
15	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compa.cted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Abutment						
	Section A-A	2	*4.91*	*1.30*		*12.759*	*Cum*
	Section B-B	2	*5.25*	*1.45*		*15.181*	*Cum*
	Section C-C	2	*0.50*	*1.25*		*1.250*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	1	*2.70*	*0.93*		*2.509*	*Cum*
	D/S Transition wall						
	Sec 4-4	2	*0.51*	*0.74*		*0.743*	*Cum*
	Avg. of Sec 1-1 & 3-3	2	*2.71*	*1.26*		*6.816*	*Cum*
	TOTAL					**39.26**	**Cum**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR BASDIHA DISTRIBUTARY								
S. No.	**Item of Works**	**Qty.**	**Unit**	**Rate (As per WRD SOR 2025 & PL 2025)**	**Amount (Rs)**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**
SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 0.355 KM								
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	345.778	Cum	**195.20**	67495.92			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	32.75	Cum	**6381.70**	208968.84	10.61	14.74	29.47
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	164.00	Cum	**6914.20**	1133920.47	67.65	70.52	141.04
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	2.26	Cum	**8151.40**	18461.82	1.28	0.88	1.79
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.57	MT	**73574.90**	189439.26			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	401.84	Sqm	**578.60**	232502.92			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	59.29	Sqm	**680.10**	40324.49			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	8.57	Cum	**694.61**	5954.54			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	8.57	Cum	**1237.00**	10604.18			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	8.57	Cum	**1377.70**	11810.33			8.57
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	8.57	Cum	**516.50**	4427.70			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	19.23	Sqm	**63.20**	1215.64			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	98.03	Cum	**149.30**	14636.24			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	86.138	Cum	**1075.00**	92598.39			
	Coarse Aggregates (100 Km lead)	180.871	Cum	**1398.00**	252857.96			
	Cement (30 km lead)	79.543	MT	**742.00**	59020.95			
	Boulder (60 Km lead)	8.57	Cum	**1159.00**	9935.53			
	Brick (15 km lead)	3557.00	No.	**3.18**	11311.26			
	Steel (30 Km lead)	2.57	MT	**742.00**	1910.49			
	TOTAL (In Rs.)				**2378574.33**			
	TOTAL (in Rs.)				**2378574.33**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	86.14	Cum	**584.64**	50359.74	5035.97		
	Coarse Aggregate	180.87	Cum	**944.26**	170789.45	17078.95		
	Boulders	8.57	Cum	**694.61**	5954.54	595.45		
	Total					22710.37		
	For 1 nos. fall, Total Seigniorage charges					**22710.37**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE BRIDGE/FALL OF HEIGHT 1.981 METER AT CH. 1.150 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	836.958	Cum	**195.20**	163374.20			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	58.02	Cum	**6381.70**	370274.48	18.80	26.11	52.22
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	599.05	Cum	**6914.20**	4141978.12	247.11	257.59	515.19
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	35.45	Cum	**8151.40**	288990.85	20.10	13.83	28.01
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	11.84	MT	**73574.90**	871087.65			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	917.21	Sqm	**578.60**	530698.16			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	65.88	Sqm	**680.10**	44804.99			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	8.48	Cum	**694.61**	5886.82			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	8.48	Cum	**1237.00**	10483.58			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	8.48	Cum	**1377.70**	11676.01			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	8.48	Cum	**516.50**	4377.34			8.48
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	20.36	Sqm	**63.20**	1286.80			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	215.59	Cum	**149.30**	32187.72			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	297.529	Cum	**1075.00**	319844.07			
	Coarse Aggregates (100 Km lead)	603.888	Cum	**1398.00**	844235.80			
	Cement (30 km lead)	286.010	MT	**742.00**	212219.73			
	Boulder (60 Km lead)	8.48	Cum	**1159.00**	9822.53			
	Brick (15 km lead)	3952.00	No.	**3.18**	12567.36			
	Steel (30 Km lead)	11.84	MT	**742.00**	8784.89			
	TOTAL (In Rs.)				**7895758.48**			
	TOTAL (in Rs.)				**7895758.48**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	297.53	Cum	**584.64**	173947.57	17394.76		
	Coarse Aggregate	603.89	Cum	**944.26**	570227.54	57022.75		
	Boulders	8.48	Cum	**694.61**	5886.82	588.68		
	Total					75006.19		
	For 1 nos. fall, Total Seigniorage charges					**75006.19**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.304 METER AT CH. 3.050							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	226.679	Cum	**195.20**	44247.82			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	30.41	Cum	**6381.70**	194062.61	9.85	13.68	27.37
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	139.84	Cum	**6914.20**	966914.48	57.69	60.13	120.27
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.64	Cum	**8151.40**	13376.20	0.93	0.64	1.30
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.20	MT	**73574.90**	161538.28			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	371.99	Sqm	**578.60**	215232.45			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	59.29	Sqm	**680.10**	40324.49			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	7.63	Cum	**694.61**	5298.14			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	7.63	Cum	**1237.00**	9435.22			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	7.63	Cum	**1377.70**	10508.41			7.63
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	7.63	Cum	**516.50**	3939.60			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	18.76	Sqm	**63.20**	1185.44			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	60.58	Cum	**149.30**	9044.27			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	74.457	Cum	**1075.00**	80041.67			
	Coarse Aggregates (100 Km lead)	156.559	Cum	**1398.00**	218868.99			
	Cement (30 km lead)	68.469	MT	**742.00**	50803.98			
	Boulder (60 Km lead)	7.63	Cum	**1159.00**	8840.27			
	Brick (15 km lead)	3557.00	No.	**3.18**	11311.26			
	Steel (30 Km lead)	2.20	MT	**742.00**	1629.11			
	TOTAL (In Rs.)				**2057780.10**			
	TOTAL (in Rs.)				**2057780.10**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	74.46	Cum	**584.64**	43530.76	4353.08		
	Coarse Aggregate	156.56	Cum	**944.26**	147832.07	14783.21		
	Boulders	7.63	Cum	**694.61**	5298.14	529.81		
	Total					19666.10		
	For 1 nos. fall, Total Seigniorage charges					**19666.10**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH. 4.580							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	528.834	Cum	**195.20**	103228.46			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	42.34	Cum	**6381.70**	270179.65	13.72	19.05	38.10
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	314.88	Cum	**6914.20**	2177156.66	129.89	135.40	270.80
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.83	Cum	**8151.40**	14900.13	1.04	0.71	1.44
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	4.94	MT	**73574.90**	363728.29			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	601.41	Sqm	**578.60**	347977.21			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	51.26	Sqm	**680.10**	34859.21			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	30.98	Cum	**694.61**	21519.07			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	30.98	Cum	**1237.00**	38322.35			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	5.72	Cum	**1377.70**	7885.95			5.72
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	5.72	Cum	**516.50**	2956.45			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	20.45	Sqm	**63.20**	1292.34			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	153.41	Cum	**149.30**	22903.72			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	155.164	Cum	**1075.00**	166800.87			
	Coarse Aggregates (100 Km lead)	316.069	Cum	**1398.00**	441865.14			
	Cement (30 km lead)	144.642	MT	**742.00**	107324.58			
	Boulder (60 Km lead)	30.98	Cum	**1159.00**	35905.90			
	Brick (15 km lead)	3075.00	No.	**3.18**	9778.50			
	Steel (30 Km lead)	4.94	MT	**742.00**	3668.19			
	TOTAL (In Rs.)				**4183430.07**			
	TOTAL (in Rs.)				**4183430.07**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	155.16	Cum	**584.64**	90714.85	9071.48		
	Coarse Aggregate	316.07	Cum	**944.26**	298451.77	29845.18		
	Boulders	30.98	Cum	**694.61**	21519.07	2151.91		
	Total					41068.57		
	For 1 nos. fall, Total Seigniorage charges					**41068.57**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE BRIDGE/FALL OF HEIGHT 1.828 METER AT CH. 6.100							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	491.797	Cum	**195.20**	95998.77			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	49.37	Cum	**6381.70**	315047.79	16.00	22.22	44.43
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	468.98	Cum	**6914.20**	3242622.79	193.45	201.66	403.32
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	29.76	Cum	**8151.40**	242598.38	16.87	11.61	23.51
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	9.29	MT	**73574.90**	683621.71			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	792.58	Sqm	**578.60**	458586.31			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	57.58	Sqm	**680.10**	39161.52			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	6.44	Cum	**694.61**	4472.94			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	6.44	Cum	**1237.00**	7965.66			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	6.44	Cum	**1377.70**	8871.70			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	6.44	Cum	**516.50**	3326.00			6.44
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	18.58	Sqm	**63.20**	1174.17			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	125.62	Cum	**149.30**	18755.46			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	235.484	Cum	**1075.00**	253145.09			
	Coarse Aggregates (100 Km lead)	477.705	Cum	**1398.00**	667831.21			
	Cement (30 km lead)	226.324	MT	**742.00**	167932.53			
	Boulder (60 Km lead)	6.44	Cum	**1159.00**	7463.38			
	Brick (15 km lead)	3454.00	No.	**3.18**	10983.72			
	Steel (30 Km lead)	9.29	Cum	**742.00**	6894.30			
	TOTAL (In Rs.)				**6247630.84**			
	TOTAL (in Rs.)				**6247630.84**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	235.48	Cum	**584.64**	137673.25	13767.33		
	Coarse Aggregate	477.70	Cum	**944.26**	451077.47	45107.75		
	Boulders	6.44	Cum	**694.61**	4472.94	447.29		
	Total					59322.37		
	For 1 nos. fall, Total Seigniorage charges					**59322.37**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 10.060 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	242.599	Cum	**195.20**	47355.32			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	27.37	Cum	**6381.70**	174693.84	8.87	12.32	24.64
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	145.67	Cum	**6914.20**	1007193.51	60.09	62.64	125.28
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.42	Cum	**8151.40**	11554.36	0.80	0.55	1.12
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.29	MT	**73574.90**	168267.53			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	355.99	Sqm	**578.60**	205975.92			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	29.26	Sqm	**680.10**	19897.01			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	3.20	Cum	**694.61**	2219.28			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	3.20	Cum	**1237.00**	3952.22			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	15.90	Cum	**1377.70**	21904.60			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	15.90	Cum	**516.50**	8212.04			15.90
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	15.90	Sqm	**63.20**	1004.84			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	85.03	Cum	**149.30**	12695.64			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	75.509	Cum	**1075.00**	81172.63			
	Coarse Aggregates (100 Km lead)	166.932	Cum	**1398.00**	233371.52			
	Cement (30 km lead)	69.762	MT	**742.00**	51763.36			
	Boulder (60 Km lead)	3.20	Cum	**1159.00**	3703.01			
	Brick (15 km lead)	1755.00	No.	**3.18**	5580.90			
	Steel (30 Km lead)	2.29	Cum	**742.00**	1696.97			
	TOTAL (In Rs.)				**2073391.88**			
	TOTAL (in Rs.)				**2073391.88**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	75.51	Cum	**584.64**	44145.83	4414.58		
	Coarse Aggregate	166.93	Cum	**944.26**	157627.60	15762.76		
	Boulders	3.20	Cum	**694.61**	2219.28	221.93		
	Total					20399.27		
	For 1 nos. fall, Total Seigniorage charges					**20399.27**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH. 11.150							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	257.073	Cum	**195.20**	50180.62			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	25.03	Cum	**6381.70**	159712.91	8.11	11.26	22.52
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	141.00	Cum	**6914.20**	974911.74	58.16	60.63	121.26
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.40	Cum	**8151.40**	11394.43	0.79	0.55	1.10
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.21	MT	**73574.90**	162874.35			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	346.92	Sqm	**578.60**	200728.32			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	31.70	Sqm	**680.10**	21559.51			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	3.46	Cum	**694.61**	2404.22			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	3.46	Cum	**1237.00**	4281.57			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	3.46	Cum	**1377.70**	4768.56			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	3.46	Cum	**516.50**	1787.74			3.46
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	17.37	Sqm	**63.20**	1098.07			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	72.52	Cum	**149.30**	10827.06			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	72.438	Cum	**1075.00**	77870.60			
	Coarse Aggregates (100 Km lead)	148.351	Cum	**1398.00**	207394.38			
	Cement (30 km lead)	67.064	MT	**742.00**	49761.71			
	Boulder (60 Km lead)	3.46	Cum	**1159.00**	4011.59			
	Brick (15 km lead)	1902.00	No.	**3.18**	6048.36			
	Steel (30 Km lead)	2.21	Cum	**742.00**	1642.58			
	TOTAL (In Rs.)				**1964435.72**			
	TOTAL (in Rs.)				**1964435.72**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	72.44	Cum	**584.64**	42350.02	4235.00		
	Coarse Aggregate	148.35	Cum	**944.26**	140081.70	14008.17		
	Boulders	3.46	Cum	**694.61**	2404.22	240.42		
	Total					18483.59		
	For 1 nos. fall, Total Seigniorage charges					**18483.59**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.762 METER AT CH. 11.950							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	207.069	Cum	**195.20**	40419.77			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	22.70	Cum	**6381.70**	144857.37	7.35	10.21	20.43
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	108.52	Cum	**6914.20**	750325.15	44.76	46.66	93.33
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.29	Cum	**8151.40**	10535.48	0.73	0.50	1.02
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.56	MT	**73574.90**	188030.44			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	297.27	Sqm	**578.60**	172000.50			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	31.70	Sqm	**680.10**	21559.51			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	3.46	Cum	**694.61**	2404.22			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	3.46	Cum	**1237.00**	4281.57			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	3.46	Cum	**1377.70**	4768.56			3.46
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	3.46	Cum	**516.50**	1787.74			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	15.89	Sqm	**63.20**	1004.22			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	61.47	Cum	**149.30**	9176.90			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	57.382	Cum	**1075.00**	61685.56			
	Coarse Aggregates (100 Km lead)	118.238	Cum	**1398.00**	165296.74			
	Cement (30 km lead)	52.852	MT	**742.00**	39215.84			
	Boulder (60 Km lead)	3.46	Cum	**1159.00**	4011.59			
	Brick (15 km lead)	1902.00	No.	**3.18**	6048.36			
	Steel (30 Km lead)	2.56	MT	**742.00**	1896.28			
	TOTAL (In Rs.)				**1640483.19**			
	TOTAL (in Rs.)				**1640483.19**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	57.38	Cum	**584.64**	33547.76	3354.78		
	Coarse Aggregate	118.24	Cum	**944.26**	111647.42	11164.74		
	Boulders	3.46	Cum	**694.61**	2404.22	240.42		
	Total					14759.94		
	For 1 nos. fall, Total Seigniorage charges					**14759.94**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 13.800							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	130.568	Cum	**195.20**	25486.90			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	21.36	Cum	**6381.70**	136316.90	6.92	9.61	19.22
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	110.26	Cum	**6914.20**	762354.77	45.48	47.41	94.82
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.14	Cum	**8151.40**	9320.72	0.65	0.45	0.90
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.60	MT	**73574.90**	191045.04			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	305.18	Sqm	**578.60**	176576.08			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	31.69	Sqm	**680.10**	21555.09			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	14.73	Cum	**694.61**	10228.31			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	14.73	Cum	**1237.00**	18215.15			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	2.34	Cum	**1377.70**	3223.82			2.34
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	2.34	Cum	**516.50**	1208.61			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	16.12	Sqm	**63.20**	1018.72			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	24.87	Cum	**149.30**	3713.37			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	57.470	Cum	**1075.00**	61779.93			
	Coarse Aggregates (100 Km lead)	117.291	Cum	**1398.00**	163972.61			
	Cement (30 km lead)	53.051	MT	**742.00**	39363.93			
	Boulder (60 Km lead)	14.73	Cum	**1159.00**	17066.58			
	Brick (15 km lead)	1901.00	No.	**3.18**	6045.18			
	Steel (30 Km lead)	2.60	MT	**742.00**	1926.68			
	TOTAL (In Rs.)				**1522852.55**			
	TOTAL (in Rs.)				**1522852.55**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	57.47	Cum	**584.64**	33599.09	3359.91		
	Coarse Aggregate	117.29	Cum	**944.26**	110753.06	11075.31		
	Boulders	14.73	Cum	**694.61**	10228.31	1022.83		
	Total					15458.05		
	For 1 nos. fall, Total Seigniorage charges					**15458.05**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.304 METER AT CH. 13.900 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	229.423	Cum	**195.20**	44783.30			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	27.94	Cum	**6381.70**	178292.69	9.05	12.57	25.14
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	142.21	Cum	**6914.20**	983264.53	58.66	61.15	122.30
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	19.36	Cum	**8151.40**	157846.32	10.98	7.55	15.30
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.09	MT	**73574.90**	227356.14			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	357.72	Sqm	**578.60**	206979.11			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	31.69	Sqm	**680.10**	21555.09			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	2.34	Cum	**694.61**	1625.39			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	2.34	Cum	**1237.00**	2894.58			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	2.34	Cum	**1377.70**	3223.82			2.34
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	2.34	Cum	**516.50**	1208.61			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.86	Sqm	**63.20**	560.04			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	287288.35			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	51.41	Cum	**149.30**	7674.80			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	81.274	Cum	**1075.00**	87369.87			
	Coarse Aggregates (100 Km lead)	165.082	Cum	**1398.00**	230784.97			
	Cement (30 km lead)	78.693	MT	**742.00**	58390.14			
	Boulder (60 Km lead)	2.34	Cum	**1159.00**	2712.06			
	Brick (15 km lead)	1902.00	No.	**3.18**	6048.36			
	Steel (30 Km lead)	3.09	MT	**742.00**	2292.88			
	TOTAL (In Rs.)				**2512151.04**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	81.27	Cum	**584.64**	47516.21	4751.62		
	Coarse Aggregate	165.08	Cum	**944.26**	155880.56	15588.06		
	Boulders	2.34	Cum	**694.61**	1625.39	162.54		
	Total					20502.21		
	For 1 nos. fall, Total Seigniorage charges					**20502.21**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE CULVERT/FALL OF HEIGHT 0.914 METER AT CH. 15.515							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	220.506	Cum	**195.20**	43042.75			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	27.55	Cum	**6381.70**	175842.22	8.93	12.40	24.80
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	148.98	Cum	**6914.20**	1030090.96	61.46	64.06	128.12
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	16.35	Cum	**8151.40**	133294.63	9.27	6.38	12.92
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	4.31	MT	**73574.90**	317290.07			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	361.50	Sqm	**578.60**	209161.92			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	28.49	Sqm	**680.10**	19374.69			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.98	Cum	**694.61**	1375.33			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.98	Cum	**1237.00**	2449.26			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.98	Cum	**1377.70**	2727.85			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.98	Cum	**516.50**	1022.67			1.98
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	12.07	Sqm	**63.20**	762.65			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	60.66	Cum	**149.30**	9056.66			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	82.839	Cum	**1075.00**	89051.94			
	Coarse Aggregates (100 Km lead)	167.822	Cum	**1398.00**	234614.54			
	Cement (30 km lead)	79.654	MT	**742.00**	59103.55			
	Boulder (60 Km lead)	1.98	Cum	**1159.00**	2294.82			
	Brick (15 km lead)	1709.00	No.	**3.18**	5434.62			
	Steel (30 Km lead)	4.31	MT	**742.00**	3199.86			
	TOTAL (In Rs.)				**2350368.38**			
	TOTAL (In Rs.)				**2350368.38**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	82.84	Cum	**584.64**	48431.00	4843.10		
	Coarse Aggregate	167.82	Cum	**944.26**	158467.18	15846.72		
	Boulders	1.98	Cum	**694.61**	1375.33	137.53		
	Total					20827.35		
	For 1 nos. fall, Total Seigniorage charges					**20827.35**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH. 16.000 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	96.201	Cum	**195.20**	18778.37			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	18.93	Cum	**6381.70**	120836.65	6.13	8.52	17.04
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	103.92	Cum	**6914.20**	718531.01	42.87	44.69	89.37
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.10	Cum	**8151.40**	8963.44	0.62	0.43	0.87
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.45	MT	**73574.90**	180062.87			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	288.29	Sqm	**578.60**	166805.30			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	27.44	Sqm	**680.10**	18664.66			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.26	Cum	**694.61**	875.21			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.26	Cum	**1237.00**	1558.62			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.26	Cum	**1377.70**	1735.90			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.26	Cum	**516.50**	650.79			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	16.59	Sqm	**63.20**	1048.64			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	15.21	Cum	**149.30**	2271.22			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	53.636	Cum	**1075.00**	57658.27			
	Coarse Aggregates (100 Km lead)	107.282	Cum	**1398.00**	149980.51			
	Cement (30 km lead)	49.626	MT	**742.00**	36822.36			
	Boulder (60 Km lead)	1.26	Cum	**1159.00**	1460.34			
	Brick (15 km lead)	1646.00	No.	**3.18**	5234.28			
	Steel (30 Km lead)	2.45	MT	**742.00**	1815.93			
	TOTAL (In Rs.)				**1504931.76**			
	TOTAL (In Rs.)				**1504931.76**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	53.64	Cum	**584.64**	31357.52	3135.75		
	Coarse Aggregate	107.28	Cum	**944.26**	101302.28	10130.23		
	Boulders	1.26	Cum	**694.61**	875.21	87.52		
	Total					13353.50		
	For 1 nos. fall, Total Seigniorage charges					**13353.50**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE BRIDGE/FALL OF HEIGHT 0.762 METER AT CH. 18.040 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	193.136	Cum	**195.20**	37700.13			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	24.48	Cum	**6381.70**	156225.69	7.93	11.02	22.03
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	124.92	Cum	**6914.20**	863704.08	51.53	53.71	107.43
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	12.74	Cum	**8151.40**	103875.98	7.23	4.97	10.07
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.54	MT	**73574.90**	260190.47			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	325.15	Sqm	**578.60**	188131.31			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	27.44	Sqm	**680.10**	18664.66			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.26	Cum	**694.61**	875.21			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.26	Cum	**1237.00**	1558.62			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.26	Cum	**1377.70**	1735.90			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.26	Cum	**516.50**	650.79			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	11.41	Sqm	**63.20**	720.90			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	56.55	Cum	**149.30**	8442.81			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	69.701	Cum	**1075.00**	74928.05			
	Coarse Aggregates (100 Km lead)	139.528	Cum	**1398.00**	195060.78			
	Cement (30 km lead)	66.686	MT	**742.00**	49480.65			
	Boulder (60 Km lead)	1.26	Cum	**1159.00**	1460.34			
	Brick (15 km lead)	1646.00	No.	**3.18**	5234.28			
	Steel (30 Km lead)	3.54	MT	**742.00**	2624.01			
	TOTAL (In Rs.)				**1982442.07**			
	TOTAL (In Rs.)				**1982442.07**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	69.70	Cum	**584.64**	40749.71	4074.97		
	Coarse Aggregate	139.53	Cum	**944.26**	131751.14	13175.11		
	Boulders	1.26	Cum	**694.61**	875.21	87.52		
	Total					17337.61		
	For 1 nos. fall, Total Seigniorage charges					**17337.61**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 19.700 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	105.530	Cum	**195.20**	20599.36			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	14.60	Cum	**6381.70**	93190.12	4.73	6.57	13.14
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	63.35	Cum	**6914.20**	438019.28	26.13	27.24	54.48
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.78	Cum	**8151.40**	6388.42	0.44	0.31	0.62
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.49	MT	**73574.90**	109767.02			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	210.60	Sqm	**578.60**	121852.50			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	20.02	Sqm	**680.10**	13612.20			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.68	Cum	**694.61**	468.86			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.68	Cum	**1237.00**	834.98			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.68	Cum	**1377.70**	929.95			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.68	Cum	**516.50**	348.64			0.68
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	12.97	Sqm	**63.20**	819.98			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	30.55	Cum	**149.30**	4561.12			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	34.118	Cum	**1075.00**	36676.49			
	Coarse Aggregates (100 Km lead)	68.918	Cum	**1398.00**	96347.59			
	Cement (30 km lead)	31.308	MT	**742.00**	23230.39			
	Boulder (60 Km lead)	0.68	Cum	**1159.00**	782.33			
	Brick (15 km lead)	1200.00	No.	**3.18**	3816.00			
	Steel (30 Km lead)	1.49	MT	**742.00**	1107.00			
	TOTAL (In Rs.)				**984529.61**			
	TOTAL (In Rs.)				**984529.61**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	34.12	Cum	**584.64**	19946.55	1994.66		
	Coarse Aggregate	68.92	Cum	**944.26**	65076.67	6507.67		
	Boulders	0.68	Cum	**694.61**	468.86	46.89		
	Total					8549.21		
	For 1 nos. fall, Total Seigniorage charges					**8549.21**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE BRIDGE/FALL OF HEIGHT 1.067 METER AT CH. 20.100 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	194.113	Cum	**195.20**	37890.91			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	21.85	Cum	**6381.70**	139446.05	7.08	9.83	19.67
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	122.70	Cum	**6914.20**	848399.71	50.62	52.76	105.53
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	11.09	Cum	**8151.40**	90360.76	6.29	4.32	8.76
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.37	MT	**73574.90**	248184.31			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	315.31	Sqm	**578.60**	182439.95			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	16.30	Sqm	**680.10**	11088.01			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.54	Cum	**694.61**	375.09			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.54	Cum	**1237.00**	667.98			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.54	Cum	**1377.70**	743.96			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.54	Cum	**516.50**	278.91			0.54
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	10.65	Sqm	**63.20**	672.83			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	56.36	Cum	**149.30**	8414.82			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	66.919	Cum	**1075.00**	71937.80			
	Coarse Aggregates (100 Km lead)	134.489	Cum	**1398.00**	188015.10			
	Cement (30 km lead)	63.980	MT	**742.00**	47473.49			
	Boulder (60 Km lead)	0.54	Cum	**1159.00**	625.86			
	Brick (15 km lead)	978.00	No.	**3.18**	3110.04			
	Steel (30 Km lead)	3.37	MT	**742.00**	2502.93			
	TOTAL (In Rs.)				**1893805.92**			
	TOTAL (In Rs.)				***1893805.92***			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	66.92	Cum	**584.64**	39123.46	3912.35		
	Coarse Aggregate	134.49	Cum	**944.26**	126992.23	12699.22		
	Boulders	0.54	Cum	**694.61**	375.09	37.51		
	Total					16649.08		
	For 1 no. fall, Total Seigniorage charges					**16649.08**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 22.000 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	87.056	Cum	**195.20**	16993.34			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	11.30	Cum	**6381.70**	72105.27	3.66	5.08	10.17
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	41.33	Cum	**6914.20**	285761.65	17.05	17.77	35.54
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.67	Cum	**8151.40**	5483.85	0.38	0.26	0.53
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.97	MT	**73574.90**	71611.47			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	160.69	Sqm	**578.60**	92976.01			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	16.21	Sqm	**680.10**	11024.42			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.41	Cum	**694.61**	286.53			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.41	Cum	**1237.00**	510.26			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.41	Cum	**1377.70**	568.30			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.41	Cum	**516.50**	213.06			0.41
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	11.39	Sqm	**63.20**	719.53			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	27.54	Cum	**149.30**	4112.00			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	23.119	Cum	**1075.00**	24852.47			
	Coarse Aggregates (100 Km lead)	46.656	Cum	**1398.00**	65225.61			
	Cement (30 km lead)	21.091	MT	**742.00**	15649.33			
	Boulder (60 Km lead)	0.41	Cum	**1159.00**	478.09			
	Brick (15 km lead)	973.00	No.	**3.18**	3094.14			
	Steel (30 Km lead)	0.97	MT	**742.00**	722.20			
	TOTAL (In Rs.)				**683564.93**			
	TOTAL (In Rs.)				**683564.93**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	23.12	Cum	**584.64**	13516.04	1351.60		
	Coarse Aggregate	46.66	Cum	**944.26**	44055.75	4405.57		
	Boulders	0.41	Cum	**694.61**	286.53	28.65		
	Total					5785.83		
	For 1 no. fall, Total Seigniorage charges					**5785.83**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR SHANKARPUR MR.								
SHARDA TYPE FALL OF HEIGHT 1.676 METER AT CH. 2.950 KM								
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	115.007	Cum	**195.20**	22449.27			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.41	Cum	**6381.70**	60047.63	3.05	4.23	8.47
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	60.61	Cum	**6914.20**	419090.41	25.00	26.06	52.13
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.68	Cum	**8151.40**	5575.31	0.39	0.27	0.54
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.43	MT	**73574.90**	105023.47			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	207.98	Sqm	**578.60**	120338.75			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.62	Sqm	**680.10**	3819.44			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.09	Cum	**694.61**	62.51			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.09	Cum	**1237.00**	111.33			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.09	Cum	**1377.70**	123.99			0.09
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.09	Cum	**516.50**	46.49			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	11.40	Sqm	**63.20**	720.44			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	31.63	Cum	**149.30**	4721.68			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	30.565	Cum	**1075.00**	32856.89			
	Coarse Aggregates (100 Km lead)	61.226	Cum	**1398.00**	85593.85			
	Cement (30 km lead)	28.439	MT	**742.00**	21101.96			
	Boulder (60 Km lead)	0.09	Cum	**1159.00**	104.31			
	Brick (15 km lead)	336.00	No.	**3.18**	1068.48			
	Steel (30 Km lead)	1.43	MT	**742.00**	1059.16			
	TOTAL (In Rs.)				**895092.78**			
	TOTAL (In Rs.)				**895092.78**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	30.56	Cum	**584.64**	17869.26	1786.93		
	Coarse Aggregate	61.23	Cum	**944.26**	57813.20	5781.32		
	Boulders	0.09	Cum	**694.61**	62.51	6.25		
	Total					7574.50		
	For 1 nos. fall, Total Seigniorage charges					**7574.50**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.070 METER AT CH. 4.350 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	43.521	Cum	**195.20**	8495.39			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	4.77	Cum	**6381.70**	30410.66	1.54	2.14	4.29
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	20.77	Cum	**6914.20**	143584.56	8.57	8.93	17.86
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.39	Cum	**8151.40**	3159.36	0.22	0.15	0.31
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.49	MT	**73574.90**	35982.09			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	103.13	Sqm	**578.60**	59670.29			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	7.95	Sqm	**680.10**	5406.80			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.20	Cum	**694.61**	140.66			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.20	Cum	**1237.00**	250.49			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.20	Cum	**1377.70**	278.98			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.20	Cum	**516.50**	104.59			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	6.29	Sqm	**63.20**	397.48			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	11.45	Cum	**149.30**	1709.45			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	11.225	Cum	**1075.00**	12067.07			
	Coarse Aggregates (100 Km lead)	22.454	Cum	**1398.00**	31391.04			
	Cement (30 km lead)	10.330	MT	**742.00**	7664.82			
	Boulder (60 Km lead)	0.20	Cum	**1159.00**	234.70			
	Brick (15 km lead)	477.00	No.	**3.18**	1516.86			
	Steel (30 Km lead)	0.49	MT	**742.00**	362.88			
	TOTAL (In Rs.)				**354005.57**			
	TOTAL (In Rs.)				**354005.57**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	11.23	Cum	**584.64**	6562.69	656.27		
	Coarse Aggregate	22.45	Cum	**944.26**	21202.65	2120.26		
	Boulders	0.20	Cum	**694.61**	140.66	14.07		
	Total					2790.60		
	For 1 nos. fall, Total Seigniorage charges					**2790.60**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR KHAIRA MR.							
	SHARDA TYPE FALL OF HEIGHT .304 METER AT CH. 3.075 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	76.670	Cum	**195.20**	14966.08			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.78	Cum	**6381.70**	62402.64	3.17	4.40	8.80
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	33.49	Cum	**6914.20**	231584.96	13.82	14.40	28.80
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.61	Cum	**8151.40**	4996.73	0.35	0.24	0.48
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.79	MT	**73574.90**	58034.87			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	134.63	Sqm	**578.60**	77898.12			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.93	Sqm	**680.10**	6071.93			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.69	Cum	**694.61**	479.28			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.69	Cum	**1237.00**	853.53			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.69	Cum	**1377.70**	950.61			0.69
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.69	Cum	**516.50**	356.39			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.11	Sqm	**63.20**	575.74			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	21.75	Cum	**149.30**	3247.25			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	19.042	Cum	**1075.00**	20469.94			
	Coarse Aggregates (100 Km lead)	38.780	Cum	**1398.00**	54214.06			
	Cement (30 km lead)	17.332	MT	**742.00**	12860.40			
	Boulder (60 Km lead)	0.69	Cum	**1159.00**	799.71			
	Brick (15 km lead)	535.00	No.	**3.18**	1701.30			
	Steel (30 Km lead)	0.79	MT	**742.00**	585.28			
	TOTAL (In Rs.)				**564226.21**			
	TOTAL (In Rs.)				**564226.21**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	19.04	Cum	**584.64**	11132.60	1113.26		
	Coarse Aggregate	38.78	Cum	**944.26**	36618.15	3661.81		
	Boulders	0.69	Cum	**694.61**	479.28	47.93		
	Total					4823.00		
	For 1 nos. fall, Total Seigniorage charges					**4823.00**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.372 METER AT CH. 3.850 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	139.475	Cum	**195.20**	27225.44			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	12.75	Cum	**6381.70**	81378.60	4.13	5.74	11.48
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	74.87	Cum	**6914.20**	517691.48	30.89	32.20	64.39
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.84	Cum	**8151.40**	6852.56	0.48	0.33	0.66
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.76	MT	**73574.90**	129732.76			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	227.89	Sqm	**578.60**	131859.30			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.93	Sqm	**680.10**	6071.93			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.69	Cum	**694.61**	479.28			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.69	Cum	**1237.00**	853.53			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.69	Cum	**1377.70**	950.61			0.69
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.69	Cum	**516.50**	356.39			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	12.35	Sqm	**63.20**	780.56			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	36.25	Cum	**149.30**	5411.88			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	38.262	Cum	**1075.00**	41131.51			
	Coarse Aggregates (100 Km lead)	77.222	Cum	**1398.00**	107956.57			
	Cement (30 km lead)	35.494	MT	**742.00**	26336.29			
	Boulder (60 Km lead)	0.69	Cum	**1159.00**	799.71			
	Brick (15 km lead)	535.00	No.	**3.18**	1701.30			
	Steel (30 Km lead)	1.76	MT	**742.00**	1308.35			
	TOTAL (In Rs.)				**1100055.45**			
	TOTAL (In Rs.)				**1100055.45**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	38.26	Cum	**584.64**	22369.42	2236.94		
	Coarse Aggregate	77.22	Cum	**944.26**	72917.79	7291.78		
	Boulders	0.69	Cum	**694.61**	479.28	47.93		
	Total					9576.65		
	For 1 nos. fall, Total Seigniorage charges					**9576.65**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE BRIDGE/FALL OF HEIGHT 0.305 METER AT CH. 6.635 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	74.585	Cum	**195.20**	14559.05			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	12.98	Cum	**6381.70**	82840.94	4.21	5.84	11.68
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	46.52	Cum	**6914.20**	321618.32	19.19	20.00	40.00
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	8.43	Cum	**8151.40**	68685.94	4.78	3.29	6.66
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.48	MT	**73574.90**	108989.45			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	160.39	Sqm	**578.60**	92801.32			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	7.18	Sqm	**680.10**	4884.48			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.26	Cum	**694.61**	182.34			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.26	Cum	**1237.00**	324.71			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.26	Cum	**1377.70**	361.65			0.26
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.26	Cum	**516.50**	135.58			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	5.50	Sqm	**63.20**	347.82			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	20.70	Cum	**149.30**	3091.23			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	29.129	Cum	**1075.00**	31314.13			
	Coarse Aggregates (100 Km lead)	58.606	Cum	**1398.00**	81930.64			
	Cement (30 km lead)	28.171	MT	**742.00**	20903.06			
	Boulder (60 Km lead)	0.26	Cum	**1159.00**	304.24			
	Brick (15 km lead)	430.00	No.	**3.18**	1367.40			
	Steel (30 Km lead)	1.48	MT	**742.00**	1099.15			
	TOTAL (In Rs.)				**846918.84**			
	TOTAL (In Rs.)				**846918.84**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	29.13	Cum	**584.64**	17030.23	1703.02		
	Coarse Aggregate	58.61	Cum	**944.26**	55338.93	5533.89		
	Boulders	0.26	Cum	**694.61**	182.34	18.23		
	Total					7255.15		
	For 1 nos. fall, Total Seigniorage charges					**7255.15**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE BRIDGE/FALL OF HEIGHT 1.372 METER AT CH. 8.450 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	139.151	Cum	**195.20**	27162.36			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	15.15	Cum	**6381.70**	96663.57	4.91	6.82	13.63
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	86.40	Cum	**6914.20**	597418.40	35.64	37.15	74.31
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	7.75	Cum	**8151.40**	63185.17	4.40	3.02	6.12
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.38	MT	**73574.90**	175198.06			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	241.75	Sqm	**578.60**	139876.99			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	6.16	Sqm	**680.10**	4186.70			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.07	Cum	**694.61**	46.89			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.07	Cum	**1237.00**	83.50			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.07	Cum	**1377.70**	92.99			0.07
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.07	Cum	**516.50**	34.86			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	7.02	Sqm	**63.20**	443.66			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	40.07	Cum	**149.30**	5981.90			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	46.993	Cum	**1075.00**	50517.66			
	Coarse Aggregates (100 Km lead)	94.131	Cum	**1398.00**	131595.64			
	Cement (30 km lead)	44.945	MT	**742.00**	33348.88			
	Boulder (60 Km lead)	0.07	Cum	**1159.00**	78.23			
	Brick (15 km lead)	369.00	No.	**3.18**	1173.42			
	Steel (30 Km lead)	2.38	MT	**742.00**	1766.87			
	TOTAL (In Rs.)				**1340033.16**			
	TOTAL (In Rs.)				**1340033.16**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	46.99	Cum	**584.64**	27474.09	2747.41		
	Coarse Aggregate	94.13	Cum	**944.26**	88884.48	8888.45		
	Boulders	0.07	Cum	**694.61**	46.89	4.69		
	Total					11640.55		
	For 1 nos. fall, Total Seigniorage charges					**11640.55**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR PRITAMPURA SUB DY.							
	SHARDA TYPE FALL OF HEIGHT 1.676 METER AT CH. 2.600 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	202.623	Cum	**195.20**	39552.08			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	25.96	Cum	**6381.70**	165660.65	8.41	11.68	23.36
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	188.25	Cum	**6914.20**	1301622.55	77.65	80.95	161.90
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.46	Cum	**8151.40**	11897.46	0.83	0.57	1.15
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	4.43	MT	**73574.90**	326184.80			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	416.38	Sqm	**578.60**	240917.56			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	28.58	Sqm	**680.10**	19435.90			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	2.90	Cum	**694.61**	2012.98			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	2.90	Cum	**1237.00**	3584.83			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	2.90	Cum	**1377.70**	3992.57			2.90
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	2.90	Cum	**516.50**	1496.82			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	18.30	Sqm	**63.20**	1156.83			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	33.58	Cum	**149.30**	5014.08			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	93.200	Cum	**1075.00**	100189.64			
	Coarse Aggregates (100 Km lead)	189.312	Cum	**1398.00**	264658.06			
	Cement (30 km lead)	86.893	MT	**742.00**	64474.44			
	Boulder (60 Km lead)	2.90	Cum	**1159.00**	3358.78			
	Brick (15 km lead)	1714.00	No.	**3.18**	5450.52			
	Steel (30 Km lead)	4.43	MT	**742.00**	3289.56			
	TOTAL (In Rs.)				**2575127.48**			
	TOTAL (In Rs.)				**2575127.48**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	93.20	Cum	**584.64**	54488.25	5448.82		
	Coarse Aggregate	189.31	Cum	**944.26**	178759.67	17875.97		
	Boulders	2.90	Cum	**694.61**	2012.98	201.30		
	Total					23526.09		
	For 1 nos. fall, Total Seigniorage charges					**23526.09**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 10.600 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	99.856	Cum	**195.20**	19491.80			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	14.86	Cum	**6381.70**	94854.47	4.82	6.69	13.38
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	57.05	Cum	**6914.20**	394451.69	23.53	24.53	49.06
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.87	Cum	**8151.40**	7127.79	0.50	0.34	0.69
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.34	MT	**73574.90**	98849.05			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	198.08	Sqm	**578.60**	114607.44			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	20.02	Sqm	**680.10**	13612.20			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.20	Cum	**694.61**	833.53			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.20	Cum	**1237.00**	1484.40			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.20	Cum	**1377.70**	1653.24			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.20	Cum	**516.50**	619.80			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	13.20	Sqm	**63.20**	834.15			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	28.50	Cum	**149.30**	4254.62			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	31.561	Cum	**1075.00**	33927.96			
	Coarse Aggregates (100 Km lead)	63.131	Cum	**1398.00**	88256.48			
	Cement (30 km lead)	28.844	MT	**742.00**	21402.62			
	Boulder (60 Km lead)	1.20	Cum	**1159.00**	1390.80			
	Brick (15 km lead)	1201.00	No.	**3.18**	3819.18			
	Steel (30 Km lead)	1.34	MT	**742.00**	996.89			
	TOTAL (In Rs.)				**913645.51**			
	TOTAL (In Rs.)				**913645.51**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	31.56	Cum	**584.64**	18451.76	1845.18		
	Coarse Aggregate	63.13	Cum	**944.26**	59611.64	5961.16		
	Boulders	1.20	Cum	**694.61**	833.53	83.35		
	Total					7889.69		
	For 1 no. fall, Total Seigniorage charges					**7889.69**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 12.150 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	81.631	Cum	**195.20**	15934.32			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	13.29	Cum	**6381.70**	84806.91	4.31	5.98	11.96
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	52.01	Cum	**6914.20**	359580.56	21.45	22.36	44.73
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.78	Cum	**8151.40**	6356.75	0.44	0.30	0.62
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.22	MT	**73574.90**	90110.39			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	185.99	Sqm	**578.60**	107614.68			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	18.68	Sqm	**680.10**	12704.27			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.75	Cum	**694.61**	520.96			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.75	Cum	**1237.00**	927.75			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.75	Cum	**1377.70**	1033.28			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.75	Cum	**516.50**	387.38			0.75
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	12.48	Sqm	**63.20**	788.53			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	23.30	Cum	**149.30**	3478.02			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	28.647	Cum	**1075.00**	30795.36			
	Coarse Aggregates (100 Km lead)	58.051	Cum	**1398.00**	81155.98			
	Cement (30 km lead)	26.200	MT	**742.00**	19440.65			
	Boulder (60 Km lead)	0.75	Cum	**1159.00**	869.25			
	Brick (15 km lead)	1121.00	No.	**3.18**	3564.78			
	Steel (30 Km lead)	1.22	MT	**742.00**	908.76			
	TOTAL (In Rs.)				**832155.96**			
	TOTAL (In Rs.)				**832155.96**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	28.65	Cum	**584.64**	16748.09	1674.81		
	Coarse Aggregate	58.05	Cum	**944.26**	54815.69	5481.57		
	Boulders	0.75	Cum	**694.61**	520.96	52.10		
	Total					7208.47		
	For 1 no. fall, Total Seigniorage charges					**7208.47**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 13.700 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	64.247	Cum	**195.20**	12541.11			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.78	Cum	**6381.70**	56008.88	2.84	3.95	7.90
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	31.03	Cum	**6914.20**	214541.23	12.80	13.34	26.69
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.58	Cum	**8151.40**	4716.85	0.33	0.23	0.46
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.73	MT	**73574.90**	53763.73			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	131.06	Sqm	**578.60**	75833.39			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.02	Sqm	**680.10**	5451.68			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.11	Cum	**694.61**	78.14			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.11	Cum	**1237.00**	139.16			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.11	Cum	**1377.70**	154.99			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.11	Cum	**516.50**	58.11			0.11
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	10.04	Sqm	**63.20**	634.72			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	19.53	Cum	**149.30**	2916.47			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	17.518	Cum	**1075.00**	18831.41			
	Coarse Aggregates (100 Km lead)	35.153	Cum	**1398.00**	49144.56			
	Cement (30 km lead)	15.971	MT	**742.00**	11850.61			
	Boulder (60 Km lead)	0.11	Cum	**1159.00**	130.39			
	Brick (15 km lead)	481.00	No.	**3.18**	1529.58			
	Steel (30 Km lead)	0.73	MT	**742.00**	542.21			
	TOTAL (In Rs.)				**520044.62**			
	TOTAL (In Rs.)				**520044.62**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	17.52	Cum	**584.64**	10241.49	1024.15		
	Coarse Aggregate	35.15	Cum	**944.26**	33194.02	3319.40		
	Boulders	0.11	Cum	**694.61**	78.14	7.81		
	Total					4351.37		
	For 1 no. fall, Total Seigniorage charges					**4351.37**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 1.650							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	62.525	Cum	**195.20**	12204.98			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.15	Cum	**6381.70**	52036.22	2.64	3.67	7.34
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	30.35	Cum	**6914.20**	209827.69	12.52	13.05	26.10
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.53	Cum	**8151.40**	4344.53	0.30	0.21	0.42
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.71	MT	**73574.90**	52582.53			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	127.99	Sqm	**578.60**	74057.50			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	7.18	Sqm	**680.10**	4882.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.21	Cum	**694.61**	145.87			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.21	Cum	**1237.00**	259.77			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.21	Cum	**1377.70**	289.32			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.21	Cum	**516.50**	108.47			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.86	Sqm	**63.20**	559.93			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	23.93	Cum	**149.30**	3572.72			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	16.927	Cum	**1075.00**	18196.00			
	Coarse Aggregates (100 Km lead)	33.858	Cum	**1398.00**	47333.98			
	Cement (30 km lead)	15.462	MT	**742.00**	11473.08			
	Boulder (60 Km lead)	0.21	Cum	**1159.00**	243.39			
	Brick (15 km lead)	430.00	No.	**3.18**	1367.40			
	Steel (30 Km lead)	0.71	MT	**742.00**	530.29			
	TOTAL (In Rs.)				**505193.14**			
	TOTAL (In Rs.)				**505193.14**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	16.93	Cum	**584.64**	9895.92	989.59		
	Coarse Aggregate	33.86	Cum	**944.26**	31971.09	3197.11		
	Boulders	0.21	Cum	**694.61**	145.87	14.59		
	Total					4201.29		
	For 1 nos. fall, Total Seigniorage charges					**4201.29**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 2.475 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	50.489	Cum	**195.20**	9855.50			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.13	Cum	**6381.70**	51894.19	2.63	3.66	7.32
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	30.33	Cum	**6914.20**	209692.86	12.51	13.04	26.08
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.53	Cum	**8151.40**	4344.53	0.30	0.21	0.42
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.71	MT	**73574.90**	52548.74			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	127.96	Sqm	**578.60**	74034.93			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	7.18	Sqm	**680.10**	4882.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.21	Cum	**694.61**	145.87			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.21	Cum	**1237.00**	259.77			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.21	Cum	**1377.70**	289.32			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.21	Cum	**516.50**	108.47			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.86	Sqm	**63.20**	559.93			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	15.06	Cum	**149.30**	2248.04			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	16.908	Cum	**1075.00**	18176.22			
	Coarse Aggregates (100 Km lead)	33.822	Cum	**1398.00**	47282.54			
	Cement (30 km lead)	15.447	MT	**742.00**	11461.76			
	Boulder (60 Km lead)	0.21	Cum	**1159.00**	243.39			
	Brick (15 km lead)	430.00	No.	**3.18**	1367.40			
	Steel (30 Km lead)	0.71	MT	**742.00**	529.95			
	TOTAL (In Rs.)				**501102.90**			
	TOTAL (In Rs.)				**501102.90**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	16.91	Cum	**584.64**	9885.16	988.52		
	Coarse Aggregate	33.82	Cum	**944.26**	31936.34	3193.63		
	Boulders	0.21	Cum	**694.61**	145.87	14.59		
	Total					4196.74		
	For 1 nos. fall, Total Seigniorage charges					**4196.74**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 3.460 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	60.767	Cum	**195.20**	11861.77			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	7.41	Cum	**6381.70**	47311.58	2.40	3.34	6.67
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	26.99	Cum	**6914.20**	186638.98	11.13	11.61	23.21
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.51	Cum	**8151.40**	4122.98	0.29	0.20	0.40
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.64	MT	**73574.90**	46771.47			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	118.43	Sqm	**578.60**	68523.94			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	6.15	Sqm	**680.10**	4184.66			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.11	Cum	**694.61**	78.14			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.11	Cum	**1237.00**	139.16			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.11	Cum	**1377.70**	154.99			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.11	Cum	**516.50**	58.11			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.59	Sqm	**63.20**	542.64			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	16.13	Cum	**149.30**	2408.01			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	15.141	Cum	**1075.00**	16276.18			
	Coarse Aggregates (100 Km lead)	30.286	Cum	**1398.00**	42340.29			
	Cement (30 km lead)	13.824	MT	**742.00**	10257.15			
	Boulder (60 Km lead)	0.11	Cum	**1159.00**	130.39			
	Brick (15 km lead)	369.00	No.	**3.18**	1173.42			
	Steel (30 Km lead)	0.64	MT	**742.00**	471.69			
	TOTAL (In Rs.)				**454622.94**			
	TOTAL (In Rs.)				**454622.94**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	15.14	Cum	**584.64**	8851.82	885.18		
	Coarse Aggregate	30.29	Cum	**944.26**	28598.17	2859.82		
	Boulders	0.11	Cum	**694.61**	78.14	7.81		
	Total					3752.81		
	For 1 nos. fall, Total Seigniorage charges					**3752.81**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR SALEMPUR MR.							
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 0.000 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	31.595	Cum	**195.20**	6167.28			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.56	Cum	**6381.70**	61010.42	3.10	4.30	8.60
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	40.18	Cum	**6914.20**	277783.25	16.57	17.28	34.55
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.62	Cum	**8151.40**	5033.41	0.35	0.24	0.49
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.95	MT	**73574.90**	69612.10			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	154.44	Sqm	**578.60**	89357.41			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.93	Sqm	**680.10**	6071.93			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.36	Cum	**694.61**	250.06			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.36	Cum	**1237.00**	445.32			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.36	Cum	**1377.70**	495.97			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.36	Cum	**516.50**	185.94			0.36
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.65	Sqm	**63.20**	609.87			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	5.94	Cum	**149.30**	887.42			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	21.818	Cum	**1075.00**	23454.88			
	Coarse Aggregates (100 Km lead)	44.003	Cum	**1398.00**	61516.42			
	Cement (30 km lead)	20.020	MT	**742.00**	14854.93			
	Boulder (60 Km lead)	0.36	Cum	**1159.00**	417.24			
	Brick (15 km lead)	535.00	No.	**3.18**	1701.30			
	Steel (30 Km lead)	0.95	MT	**742.00**	702.04			
	TOTAL (In Rs.)				**631734.58**			
	TOTAL (In Rs.)				**631734.58**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	21.82	Cum	**584.64**	12755.96	1275.60		
	Coarse Aggregate	44.00	Cum	**944.26**	41550.43	4155.04		
	Boulders	0.36	Cum	**694.61**	250.06	25.01		
	Total					5455.65		
	For 1 nos. fall, Total Seigniorage charges					**5455.65**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 0.950 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	49.564	Cum	**195.20**	9674.86			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.97	Cum	**6381.70**	57264.73	2.91	4.04	8.08
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	32.45	Cum	**6914.20**	224364.31	13.39	13.95	27.91
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.57	Cum	**8151.40**	4611.57	0.32	0.22	0.45
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.76	MT	**73574.90**	56225.38			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	133.80	Sqm	**578.60**	77414.32			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.93	Sqm	**680.10**	6071.93			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.36	Cum	**694.61**	250.06			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.36	Cum	**1237.00**	445.32			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.36	Cum	**1377.70**	495.97			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.36	Cum	**516.50**	185.94			0.36
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.15	Sqm	**63.20**	578.58			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	11.75	Cum	**149.30**	1753.56			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	18.212	Cum	**1075.00**	19577.92			
	Coarse Aggregates (100 Km lead)	36.790	Cum	**1398.00**	51431.99			
	Cement (30 km lead)	16.614	MT	**742.00**	12327.33			
	Boulder (60 Km lead)	0.36	Cum	**1159.00**	417.24			
	Brick (15 km lead)	535.00	No.	**3.18**	1701.30			
	Steel (30 Km lead)	0.76	MT	**742.00**	567.03			
	TOTAL (In Rs.)				**536536.76**			
	TOTAL (In Rs.)				**536536.76**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	18.21	Cum	**584.64**	10647.47	1064.75		
	Coarse Aggregate	36.79	Cum	**944.26**	34739.04	3473.90		
	Boulders	0.36	Cum	**694.61**	250.06	25.01		
	Total					4563.66		
	For 1 nos. fall, Total Seigniorage charges					**4563.66**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH. 2.900							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	74.720	Cum	**195.20**	14585.36			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.90	Cum	**6381.70**	56782.38	2.88	4.00	8.01
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	40.46	Cum	**6914.20**	279766.43	16.69	17.40	34.80
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.59	Cum	**8151.40**	4821.02	0.34	0.23	0.47
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.95	MT	**73574.90**	70109.08			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	151.50	Sqm	**578.60**	87658.51			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	7.18	Sqm	**680.10**	4882.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.21	Cum	**694.61**	145.87			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.21	Cum	**1237.00**	259.77			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.21	Cum	**1377.70**	289.32			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.21	Cum	**516.50**	108.47			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.58	Sqm	**63.20**	605.37			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	22.84	Cum	**149.30**	3410.04			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	21.634	Cum	**1075.00**	23256.05			
	Coarse Aggregates (100 Km lead)	43.273	Cum	**1398.00**	60495.62			
	Cement (30 km lead)	19.909	MT	**742.00**	14772.49			
	Boulder (60 Km lead)	0.21	Cum	**1159.00**	243.39			
	Brick (15 km lead)	430.00	No.	**3.18**	1367.40			
	Steel (30 Km lead)	0.95	MT	**742.00**	707.05			
	TOTAL (In Rs.)				**634736.06**			
	TOTAL (In Rs.)				**634736.06**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	21.63	Cum	**584.64**	12647.83	1264.78		
	Coarse Aggregate	43.27	Cum	**944.26**	40860.94	4086.09		
	Boulders	0.21	Cum	**694.61**	145.87	14.59		
	Total					5365.46		
	For 1 nos. fall, Total Seigniorage charges					**5365.46**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.305 METER AT CH. 4.370							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	36.586	Cum	**195.20**	7141.55			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	7.06	Cum	**6381.70**	45057.88	2.29	3.18	6.35
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	23.08	Cum	**6914.20**	159564.55	9.52	9.92	19.85
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.50	Cum	**8151.40**	4058.05	0.28	0.19	0.39
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.54	MT	**73574.90**	39986.65			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	107.05	Sqm	**578.60**	61938.62			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.61	Sqm	**680.10**	3817.40			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.11	Cum	**694.61**	78.14			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.11	Cum	**1237.00**	139.16			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.11	Cum	**1377.70**	154.99			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.11	Cum	**516.50**	58.11			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.43	Sqm	**63.20**	532.57			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	9.66	Cum	**149.30**	1442.02			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	13.295	Cum	**1075.00**	14291.94			
	Coarse Aggregates (100 Km lead)	26.595	Cum	**1398.00**	37179.30			
	Cement (30 km lead)	12.089	MT	**742.00**	8970.38			
	Boulder (60 Km lead)	0.11	Cum	**1159.00**	130.39			
	Brick (15 km lead)	336.00	No.	**3.18**	1068.48			
	Steel (30 Km lead)	0.54	MT	**742.00**	403.26			
	TOTAL (In Rs.)				**396787.58**			
	TOTAL (In Rs.)				**396787.58**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	13.29	Cum	**584.64**	7772.69	777.27		
	Coarse Aggregate	26.59	Cum	**944.26**	25112.25	2511.22		
	Boulders	0.11	Cum	**694.61**	78.14	7.81		
	Total					3296.31		
	For 1 nos. fall, Total Seigniorage charges					**3296.31**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 14.465							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	228.273	0.00	**195.20**	44558.97			
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	25.64	Cum	**6381.70**	163605.38	8.31	11.54	23.07
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	116.06	Cum	**6914.20**	802462.68	47.87	49.91	99.81
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	18.56	Cum	**8151.40**	151306.74	10.52	7.24	14.66
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.66	MT	**73574.90**	195916.13			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	309.86	MT	**578.60**	179284.36			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	28.48	Sqm	**680.10**	19370.61			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.98	Sqm	**694.61**	1375.33			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.98	Cum	**1237.00**	2449.26			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.98	Cum	**1377.70**	2727.85			1.98
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.98	Cum	**516.50**	1022.67			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	7.99	Sqm	**63.20**	505.04			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	Sqm	**5588.70**	278656.99			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	49.86	No.	**149.30**	7444.22			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	68.682	0.00	**1075.00**	73832.65			
	Coarse Aggregates (100 Km lead)	139.529	Cum	**1398.00**	195061.10			
	Cement (30 km lead)	66.706	Cum	**742.00**	49495.66			
	Boulder (60 Km lead)	1.98	MT	**1159.00**	2294.82			
	Brick (15 km lead)	1709.00	Cum	**3.18**	5434.62			
	Steel (30 Km lead)	2.66	MT	**742.00**	1975.81			
	TOTAL (In Rs.)				**2178780.85**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	68.68	Cum	**584.64**	40153.97	4015.40		
	Coarse Aggregate	139.53	Cum	**944.26**	131751.35	13175.14		
	Boulders	1.98	Cum	**694.61**	1375.33	137.53		
	Total					17328.07		
	For 1 nos. fall, Total Seigniorage charges					**17328.07**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR BASDIHA DISTRIBUTARY.							
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 0.355 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.64*	*2.002*	*3.596*	*23.621*	*Cum*
	Section 2-2	*2*	*3.00*	*1.728*	*3.596*	*37.283*	*Cum*
	Section 3-3	*2*	*2.20*	*1.608*	*3.396*	*24.027*	*Cum*
	Section 5-5	*2*	*8.36*	*2.152*	*3.596*	*129.459*	*Cum*
	Section 6-6	*2*	*4.70*	*1.608*	*3.396*	*51.298*	*Cum*
	U/S Key Floor	*1*	*0.61*	*6.950*	*0.800*	*3.406*	*Cum*
	U/S Floor	*1*	*2.50*	*6.950*	*1.357*	*23.578*	*Cum*
	D/S Floor	*1*	*3.00*	*6.950*	*0.900*	*18.765*	*Cum*
		1	*2.50*	*6.950*	*0.700*	*12.163*	*Cum*
	D/S Key Floor	*1*	*0.68*	*6.950*	*1.050*	*4.926*	*Cum*
	Toe Wall D/S Portion	*1*	*19.56*	*0.750*	*0.900*	*13.203*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*4.50*	*0.600*	*0.750*	*4.050*	*Cum*
						345.78	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*6.950*	*0.150*	*0.57*	*Cum*
		1	*0.73*	*6.950*	*0.150*	*0.76*	*Cum*
		1	*5.10*	*6.950*	*0.150*	*5.32*	*Cum*
		1	*0.35*	*6.950*	*0.150*	*0.37*	*Cum*
		1	*0.79*	*6.950*	*0.150*	*0.82*	*Cum*
		1	*1.01*	*6.950*	*0.150*	*1.05*	*Cum*
		1	*0.54*	*6.950*	*0.150*	*0.57*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.64*	*2.002*	*0.150*	*0.99*	*Cum*
	Section 2-2	*2*	*3.00*	*1.728*	*0.150*	*1.56*	*Cum*
	Section 3-3	*2*	*2.20*	*1.608*	*0.150*	*1.06*	*Cum*
	Section 5-5	*2*	*8.36*	*2.152*	*0.150*	*5.40*	*Cum*
	Section 6-6	*2*	*4.70*	*1.608*	*0.150*	*2.27*	*Cum*
	Toe Wall D/S Portion	*1*	*19.56*	*0.750*	*0.300*	*4.40*	*Cum*
	Toe Wall D/S Portion	*1*	*19.26*	*0.450*	*0.600*	*5.20*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*4.50*	*0.600*	*0.150*	*0.81*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*4.50*	*0.300*	*0.600*	*1.62*	*Cum*
	TOTAL					**32.75**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.42*	*0.450*	*0.450*	*0.57*	*Cum*
		2	*1.42*	*1.076*	*2.087*	*6.36*	*Cum*
		2	*1.42*	*1.852*	*0.550*	*2.88*	*Cum*
	Section 2-2	*2*	*3.00*	*0.450*	*0.450*	*1.22*	*Cum*
		2	*3.00*	*0.939*	*1.630*	*9.18*	*Cum*
		2	*3.00*	*1.578*	*0.550*	*5.21*	*Cum*
	Section 3-3	*2*	*1.62*	*0.450*	*0.450*	*0.66*	*Cum*
		2	*1.62*	*0.879*	*1.430*	*4.08*	*Cum*
		2	*1.62*	*1.458*	*0.500*	*2.36*	*Cum*
	Section 5-5	*2*	*8.32*	*0.450*	*0.450*	*3.37*	*Cum*
		2	*8.32*	*1.076*	*2.087*	*37.37*	*Cum*
		2	*8.32*	*1.852*	*0.550*	*16.95*	*Cum*
	Section 6-6	*2*	*5.43*	*0.450*	*0.450*	*2.20*	*Cum*
		2	*5.43*	*0.879*	*1.430*	*13.64*	*Cum*
		2	*5.43*	*1.458*	*0.500*	*7.91*	*Cum*
	Floor	*1*	*0.61*	*6.950*	*0.650*	*2.77*	*Cum*
		1	*5.50*	*6.950*	*0.550*	*21.02*	*Cum*
		1	*0.53*	*6.950*	*0.250*	*0.92*	*Cum*
		1	*0.20*	*6.950*	*0.400*	*0.56*	*Cum*
		1	*2.30*	*6.950*	*0.500*	*7.99*	*Cum*
		1	*0.68*	*6.950*	*0.900*	*4.22*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Crest	*1*	*1.45*	*6.950*	*1.246*	*12.55*	*Cum*
	TOTAL					**164.00**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*1.25*	*6.950*	*0.150*	*1.30*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*21.37*	*0.450*	*0.050*	*0.48*	*Cum*
	On Abutment Top (Right Side)	*1*	*21.37*	*0.450*	*0.050*	*0.48*	*Cum*
	TOTAL					**2.26**	**Cum**
12	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.2% of M-20	**164.00**	**0.002**	**0.328**	**7850.000**	**2574.78**	**Kg**
	Total Weight in Metric Tonne					**2.57**	**MT**
5	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.42*		*0.450*	*2.55*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.42*		*2.087*	*11.82*	*Sqm*
		4		*1.076*	*2.087*	*8.98*	*Sqm*
		4	*1.42*		*0.550*	*3.11*	*Sqm*
		4		*1.852*	*0.550*	*4.07*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.450*	*5.40*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.00*		*1.630*	*19.56*	*Sqm*
		4		*0.939*	*1.630*	*6.12*	*Sqm*
		4	*3.00*		*0.550*	*6.60*	*Sqm*
		4		*1.578*	*0.550*	*3.47*	*Sqm*
	Section 3-3	*4*	*1.62*		*0.450*	*2.92*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.62*		*1.430*	*9.27*	*Sqm*
		4		*0.879*	*1.430*	*5.03*	*Sqm*
		4	*1.62*		*0.500*	*3.24*	*Sqm*
		4		*1.458*	*0.500*	*2.92*	*Sqm*
	Section 5-5	*4*	*8.32*		*0.450*	*14.98*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*8.32*		*2.087*	*69.47*	*Sqm*
		4		*1.076*	*2.087*	*8.98*	*Sqm*
		4	*8.32*		*0.550*	*18.31*	*Sqm*
		4		*1.852*	*0.550*	*4.07*	*Sqm*
	Section 6-6	*4*	*5.43*		*0.450*	*9.77*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*5.43*		*1.430*	*31.04*	*Sqm*
		4		*0.879*	*1.430*	*5.03*	*Sqm*
		4	*5.43*		*0.500*	*10.85*	*Sqm*
		4		*1.458*	*0.500*	*2.92*	*Sqm*
	Floor	*2*	*0.61*		*0.650*	*0.80*	*Sqm*
		2		*6.950*	*0.650*	*9.04*	*Sqm*
		2	*5.50*		*0.550*	*6.05*	*Sqm*
		2		*6.950*	*0.550*	*7.65*	*Sqm*
		2	*0.53*		*0.250*	*0.27*	*Sqm*
		2		*6.950*	*0.250*	*3.48*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*6.950*	*0.400*	*5.56*	*Sqm*
		2	*2.30*		*0.500*	*2.30*	*Sqm*
		2		*6.950*	*0.500*	*6.95*	*Sqm*
		2	*0.68*		*0.900*	*1.22*	*Sqm*
		2		*6.950*	*0.900*	*12.51*	*Sqm*
	Crest	*2*	*1.45*		*1.246*	*3.61*	*Sqm*
		2		*6.950*	*1.246*	*17.32*	*Sqm*
	Toe Wall D/S Portion	*2*	*19.56*		*0.300*	*11.74*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*19.26*		*0.600*	*23.11*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*4.50*		*0.150*	*2.70*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*4.50*		*0.600*	*10.80*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**401.84**	**Sqm**
6	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*4.50*	*6.588*		*59.29*	*Sqm*
	TOTAL					**59.29**	**Sqm**
7	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*4.50*	*6.350*	*0.300*	**8.57**	**Cum**
8	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*4.50*	*6.350*	*0.150*	**8.57**	**Cum**
9	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*21.37*	*0.450*		*9.62*	*Sqm*
	On Abutment Top (Right Side)	*1*	*21.37*	*0.450*		*9.62*	*Sqm*
	TOTAL					**19.23**	**Sqm**
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		3.612		3.61	**Cum**
	Abutment						
	Section 1-1	2	*1.64*		*2.613*	*8.573*	*Cum*
	Section 2-2	2	*3.00*		*2.008*	*12.048*	*Cum*
	Section 3-3	2	*2.20*		*1.697*	*7.467*	*Cum*
	Section 5-5	2	*8.36*		*2.613*	*43.713*	*Cum*
	Section 6-6	2	*4.70*		*1.697*	*15.942*	*Cum*
	D/S protection	2					
	Toe wall	2	*19.56*	*0.150*	*0.600*	*5.868*	*Cum*
		2	*4.50*	0.150	*0.600*	*0.810*	*Cum*
	TOTAL					**98.03**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE BRIDGE/FALL OF HEIGHT 1.981 METER AT CH. 1.150 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*2.20*	*2.917*	*4.181*	*53.699*	*Cum*
	Section 2-2	*2*	*7.00*	*2.342*	*4.181*	*137.087*	*Cum*
	Section 3-3	*2*	*5.20*	*2.222*	*3.981*	*91.996*	*Cum*
	below bridge	*2*	*6.50*	*2.222*	*1.550*	*44.773*	*Cum*
	Section 5-5	*2*	*8.18*	*3.067*	*4.181*	*209.684*	*Cum*
	Section 6-6	*2*	*4.33*	*1.608*	*3.981*	*55.398*	*Cum*
	U/S Key Floor	*1*	*0.58*	*6.250*	*0.650*	*2.336*	*Cum*
	U/S Floor	*1*	*4.50*	*6.250*	*3.731*	*104.934*	*Cum*
	D/S Floor	*1*	*7.00*	*6.250*	*1.750*	*76.563*	*Cum*
		1	*3.00*	*6.250*	*1.550*	*29.063*	*Cum*
	D/S Key Floor	*1*	*0.99*	*6.250*	*2.300*	*14.195*	*Cum*
	Toe Wall D/S Portion	*1*	*18.86*	*0.750*	*0.900*	*12.731*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*5.00*	*0.600*	*0.750*	*4.500*	*Cum*
						836.96	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*6.250*	*0.150*	*0.51*	*Cum*
		1	*0.56*	*6.250*	*0.150*	*0.52*	*Cum*
		1	*11.18*	*6.250*	*0.150*	*10.48*	*Cum*
		1	*0.85*	*6.250*	*0.150*	*0.80*	*Cum*
		1	*2.88*	*6.250*	*0.150*	*2.70*	*Cum*
		1	*2.40*	*6.250*	*0.150*	*2.25*	*Cum*
		1	*0.54*	*6.250*	*0.150*	*0.51*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*2.20*	*2.917*	*0.150*	*1.93*	*Cum*
	Section 2-2	*2*	*7.00*	*2.342*	*0.300*	*9.84*	*Cum*
	Section 3-3	*2*	*5.20*	*2.222*	*0.300*	*6.93*	*Cum*
	Section 5-5	*2*	*8.18*	*3.067*	*0.150*	*7.52*	*Cum*
	Section 6-6	*2*	*4.33*	*1.608*	*0.150*	*2.09*	*Cum*
	Toe Wall D/S Portion	*1*	*18.86*	*0.750*	*0.300*	*4.24*	*Cum*
	Toe Wall D/S Portion	*1*	*18.56*	*0.450*	*0.600*	*5.01*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*5.00*	*0.600*	*0.150*	*0.90*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*5.00*	*0.300*	*0.600*	*1.80*	*Cum*
	TOTAL					**58.02**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.98*	*0.450*	*0.450*	*0.80*	*Cum*
		2	*1.98*	*1.534*	*3.611*	*21.89*	*Cum*
		2	*1.98*	*2.767*	*1.400*	*15.31*	*Cum*
	Section 2-2	*2*	*7.00*	*0.820*	*0.500*	*5.74*	*Cum*
		2	*7.00*	*1.356*	*1.786*	*33.91*	*Cum*
		2	*7.00*	*2.042*	*2.800*	*80.05*	*Cum*
	Section 3-3	*2*	*4.62*	*0.820*	*0.500*	*3.79*	*Cum*
		2	*4.62*	*1.296*	*1.586*	*19.00*	*Cum*
		2	*4.62*	*1.922*	*3.000*	*53.29*	*Cum*
	Section 5-5	*2*	*8.13*	*0.450*	*0.450*	*3.29*	*Cum*
		2	*8.13*	*1.534*	*3.611*	*90.06*	*Cum*
		2	*8.13*	*2.767*	*1.400*	*63.00*	*Cum*
	Section 6-6	*2*	*5.24*	*0.450*	*0.450*	*2.12*	*Cum*
		2	*5.24*	*0.879*	*1.430*	*13.18*	*Cum*
		2	*5.24*	*1.458*	*0.850*	*12.99*	*Cum*
	deduction for M 25 grade of concrete	*2*	*0.82*	*6.500*	*0.300*	*-3.20*	*Cum*
	Floor	*1*	*0.58*	*6.250*	*0.500*	*1.80*	*Cum*
		1	*11.50*	*6.250*	*1.400*	*100.63*	*Cum*
		1	*0.71*	*6.250*	*0.600*	*2.65*	*Cum*
		1	*0.20*	*6.250*	*0.900*	*1.13*	*Cum*
		1	*2.80*	*6.250*	*1.000*	*17.50*	*Cum*
		1	*0.15*	*6.250*	*0.925*	*0.87*	*Cum*
		1	*2.35*	*6.250*	*0.850*	*12.48*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.99*	*6.250*	*2.150*	*13.27*	*Cum*
	Crest	*1*	*1.95*	*6.250*	*2.750*	*33.52*	*Cum*
	TOTAL					**599.05**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*1.50*	*6.250*	*0.150*	*1.41*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*22.62*	*0.450*	*0.050*	*0.51*	*Cum*
	On Abutment Top (Right Side)	*1*	*22.62*	*0.450*	*0.050*	*0.51*	*Cum*
	Slab Bridge						
	Slab	*1*	*7.05*	*6.500*	*0.535*	*24.52*	*Cum*
	Wearing coat	*1*	*7.05*	*5.500*	*0.070*	*2.71*	*Cum*
	Dirt wall	*2*	*0.40*	*6.500*	*0.500*	*2.60*	*Cum*
	300 mm thick pedastial	*2*	*0.82*	*6.500*	*0.300*	*3.20*	*Cum*
	TOTAL					**35.45**	**Cum**
12	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*20*	*59*	*7.91*		*2.466*	*1150.8*	*Kg*
a2	*12*	*47*	*7.28*		*0.888*	*303.7*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*31*	*7.83*		*0.616*	*149.6*	*Kg*
a5	*10*	*35*	*7.20*		*0.616*	*155.3*	*Kg*
x1	*12*	*116*	*2.70*		*0.888*	*278.1*	*Kg*
x2	*16*	*116*	*1.32*		*1.578*	*240.7*	*Kg*
x3	*12*	*24*	*6.95*		*0.888*	*148.1*	*Kg*
	Taking Skin reinforcement @0.2% of M-20	**599.05**	**0.002**	**1.198**	**7850.000**	**9405.1**	**Kg**
	Total Reinforcement Steel (in kg)					*11839.5*	*Kg*
	Total Weight in Metric Tonne					**11.84**	**MT**
5	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.98*		*0.450*	*3.56*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.98*		*3.611*	*28.55*	*Sqm*
		4		*1.534*	*3.611*	*22.15*	*Sqm*
		4	*1.98*		*1.400*	*11.07*	*Sqm*
		4		*2.767*	*1.400*	*15.50*	*Sqm*
	Section 2-2	*4*	*7.00*		*0.500*	*14.00*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*7.00*		*1.786*	*50.01*	*Sqm*
		4		*1.356*	*1.786*	*9.69*	*Sqm*
		4	*7.00*		*2.800*	*78.40*	*Sqm*
		4		*2.042*	*2.800*	*22.87*	*Sqm*
	Section 3-3	*4*	*4.62*		*0.500*	*9.24*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*4.62*		*1.586*	*29.32*	*Sqm*
		4		*1.296*	*1.586*	*8.22*	*Sqm*
		4	*4.62*		*3.000*	*55.45*	*Sqm*
		4		*1.922*	*3.000*	*23.06*	*Sqm*
	Section 5-5	*4*	*8.13*		*0.450*	*14.64*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*8.13*		*3.611*	*117.46*	*Sqm*
		4		*1.534*	*3.611*	*22.15*	*Sqm*
		4	*8.13*		*1.400*	*45.54*	*Sqm*
		4		*2.767*	*1.400*	*15.50*	*Sqm*
	Section 6-6	*4*	*5.24*		*0.450*	*9.43*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*5.24*		*1.430*	*29.98*	*Sqm*
		4		*0.879*	*1.430*	*5.03*	*Sqm*
		4	*5.24*		*0.850*	*17.82*	*Sqm*
		4		*1.458*	*0.850*	*4.96*	*Sqm*
	Floor	*2*	*0.58*		*0.500*	*0.58*	*Sqm*
		2		*6.250*	*0.500*	*6.25*	*Sqm*
		2	*11.50*		*1.400*	*32.20*	*Sqm*
		2		*6.250*	*1.400*	*17.50*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	*0.71*		*0.600*	*0.85*	*Sqm*
		2		*6.250*	*0.600*	*7.50*	*Sqm*
		2	*0.20*		*0.900*	*0.36*	*Sqm*
		2		*6.250*	*0.900*	*11.25*	*Sqm*
		2	*2.80*		*1.000*	*5.60*	*Sqm*
		2		*6.250*	*1.000*	*12.50*	*Sqm*
		2	*0.15*		*0.925*	*0.28*	*Sqm*
		2		*6.250*	*0.925*	*11.56*	*Sqm*
		2	*2.35*		*0.850*	*4.00*	*Sqm*
		2		*6.250*	*0.850*	*10.63*	*Sqm*
		2	*0.99*		*2.150*	*4.25*	*Sqm*
		2		*6.250*	*2.150*	*26.88*	*Sqm*
	Crest	*2*	*1.95*		*2.750*	*10.73*	*Sqm*
		2		*6.250*	*2.750*	*34.38*	*Sqm*
	Toe Wall D/S Portion	*2*	*18.86*		*0.300*	*11.32*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*18.56*		*0.600*	*22.27*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*5.00*		*0.150*	*3.00*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*5.00*		*0.600*	*12.00*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**917.21**	**Sqm**
6	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*5.00*	*6.588*		*65.88*	*Sqm*
	TOTAL					**65.88**	**Sqm**
7	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*5.00*	*5.650*	*0.300*	**8.48**	**Cum**
8	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*5.00*	*5.650*	*0.150*	**8.48**	**Cum**
9	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*22.62*	*0.450*		*10.18*	*Sqm*
	On Abutment Top (Right Side)	*1*	*22.62*	*0.450*		*10.18*	*Sqm*
	TOTAL					**20.36**	**Sqm**
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		43.362		43.36	**Cum**
	Abutment						
	Section 1-1	2	*2.20*	*3.077*		*13.548*	*Cum*
	Section 2-2	2	*7.00*	*3.672*		*51.401*	*Cum*
	Section 3-3	2	*5.20*	*3.392*		*35.272*	*Cum*
	Section 5-5	2	*8.18*	*3.077*		*50.315*	*Cum*
	Section 6-6	2	*4.33*	*1.749*		*15.136*	*Cum*
	D/S protection	2					
	Toe wall	2	*18.86*	*0.150*	*0.600*	*5.658*	*Cum*
		2	*5.00*	0.150	*0.600*	*0.900*	*Cum*
	TOTAL					**215.59**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.304 METER AT CH. 3.050						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.11*	*1.911*	*2.330*	*9.880*	*Cum*
	Section 2-2	*2*	*3.00*	*1.728*	*2.330*	*24.157*	*Cum*
	Section 3-3	*2*	*2.20*	*1.608*	*2.130*	*15.070*	*Cum*
	Section 5-5	*2*	*8.36*	*2.061*	*2.330*	*80.335*	*Cum*
	Section 6-6	*2*	*4.70*	*1.608*	*2.130*	*32.175*	*Cum*
	U/S Key Floor	*1*	*0.63*	*6.250*	*0.850*	*3.320*	*Cum*
	U/S Floor	*1*	*2.00*	*6.250*	*1.155*	*14.438*	*Cum*
	D/S Floor	*1*	*3.00*	*6.250*	*0.850*	*15.938*	*Cum*
		1	*2.50*	*6.250*	*0.650*	*10.156*	*Cum*
	D/S Key Floor	*1*	*0.68*	*6.250*	*1.050*	*4.430*	*Cum*
	Toe Wall D/S Portion	*1*	*18.86*	*0.750*	*0.900*	*12.731*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*4.50*	*0.600*	*0.750*	*4.050*	*Cum*
						226.68	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*6.250*	*0.150*	*0.51*	*Cum*
		1	*0.78*	*6.250*	*0.150*	*0.73*	*Cum*
		1	*4.58*	*6.250*	*0.150*	*4.29*	*Cum*
		1	*0.28*	*6.250*	*0.150*	*0.27*	*Cum*
		1	*0.84*	*6.250*	*0.150*	*0.79*	*Cum*
		1	*1.01*	*6.250*	*0.150*	*0.94*	*Cum*
		1	*0.54*	*6.250*	*0.150*	*0.51*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.11*	*1.911*	*0.150*	*0.64*	*Cum*
	Section 2-2	*2*	*3.00*	*1.728*	*0.150*	*1.56*	*Cum*
	Section 3-3	*2*	*2.20*	*1.608*	*0.150*	*1.06*	*Cum*
	Section 5-5	*2*	*8.36*	*2.061*	*0.150*	*5.17*	*Cum*
	Section 6-6	*2*	*4.70*	*1.608*	*0.150*	*2.27*	*Cum*
	Toe Wall D/S Portion	*1*	*18.86*	*0.750*	*0.300*	*4.24*	*Cum*
	Toe Wall D/S Portion	*1*	*18.56*	*0.450*	*0.600*	*5.01*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*4.50*	*0.600*	*0.150*	*0.81*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*4.50*	*0.300*	*0.600*	*1.62*	*Cum*
	TOTAL					**30.41**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.88*	*0.450*	*0.450*	*0.36*	*Cum*
		2	*0.88*	*1.031*	*1.935*	*3.53*	*Cum*
		2	*0.88*	*1.761*	*0.500*	*1.56*	*Cum*
	Section 2-2	*2*	*3.00*	*0.450*	*0.450*	*1.22*	*Cum*
		2	*3.00*	*0.939*	*1.630*	*9.18*	*Cum*
		2	*3.00*	*1.578*	*0.500*	*4.73*	*Cum*
	Section 3-3	*2*	*1.62*	*0.450*	*0.450*	*0.66*	*Cum*
		2	*1.62*	*0.879*	*1.430*	*4.08*	*Cum*
		2	*1.62*	*1.458*	*0.500*	*2.36*	*Cum*
	Section 5-5	*2*	*8.32*	*0.450*	*0.450*	*3.37*	*Cum*
		2	*8.32*	*1.031*	*1.935*	*33.19*	*Cum*
		2	*8.32*	*1.761*	*0.500*	*14.65*	*Cum*
	Section 6-6	*2*	*5.43*	*0.450*	*0.450*	*2.20*	*Cum*
		2	*5.43*	*0.879*	*1.430*	*13.64*	*Cum*
		2	*5.43*	*1.458*	*0.500*	*7.91*	*Cum*
	Floor	*1*	*0.63*	*6.250*	*0.700*	*2.73*	*Cum*
		1	*5.00*	*6.250*	*0.500*	*15.63*	*Cum*
		1	*0.51*	*6.250*	*0.200*	*0.63*	*Cum*
		1	*0.20*	*6.250*	*0.400*	*0.50*	*Cum*
		1	*2.30*	*6.250*	*0.500*	*7.19*	*Cum*
		1	*0.68*	*6.250*	*0.900*	*3.80*	*Cum*
	Crest	*1*	*0.93*	*6.250*	*1.154*	*6.74*	*Cum*
	TOTAL					**139.84**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*6.250*	*0.150*	*0.70*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*20.84*	*0.450*	*0.050*	*0.47*	*Cum*
	On Abutment Top (Right Side)	*1*	*20.84*	*0.450*	*0.050*	*0.47*	*Cum*
	TOTAL					**1.64**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.2% of M-20	**139.84**	**0.002**	**0.280**	**7850.000**	**2195.56**	**Kg**
	Total Weight in Metric Tonne					**2.20**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.88*		*0.450*	*1.59*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.88*		*1.935*	*6.85*	*Sqm*
		4		*1.031*	*1.935*	*7.98*	*Sqm*
		4	*0.88*		*0.500*	*1.77*	*Sqm*
		4		*1.761*	*0.500*	*3.52*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.450*	*5.40*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.00*		*1.630*	*19.56*	*Sqm*
		4		*0.939*	*1.630*	*6.12*	*Sqm*
		4	*3.00*		*0.500*	*6.00*	*Sqm*
		4		*1.578*	*0.500*	*3.16*	*Sqm*
	Section 3-3	*4*	*1.62*		*0.450*	*2.92*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.62*		*1.430*	*9.27*	*Sqm*
		4		*0.879*	*1.430*	*5.03*	*Sqm*
		4	*1.62*		*0.500*	*3.24*	*Sqm*
		4		*1.458*	*0.500*	*2.92*	*Sqm*
	Section 5-5	*4*	*8.32*		*0.450*	*14.98*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*8.32*		*1.935*	*64.41*	*Sqm*
		4		*1.031*	*1.935*	*7.98*	*Sqm*
		4	*8.32*		*0.500*	*16.64*	*Sqm*
		4		*1.761*	*0.500*	*3.52*	*Sqm*
	Section 6-6	*4*	*5.43*		*0.450*	*9.77*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*5.43*		*1.430*	*31.04*	*Sqm*
		4		*0.879*	*1.430*	*5.03*	*Sqm*
		4	*5.43*		*0.500*	*10.85*	*Sqm*
		4		*1.458*	*0.500*	*2.92*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*6.250*	*0.700*	*8.75*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	*5.00*		*0.500*	*5.00*	*Sqm*
		2		*6.250*	*0.500*	*6.25*	*Sqm*
		2	*0.51*		*0.200*	*0.20*	*Sqm*
		2		*6.250*	*0.200*	*2.50*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*6.250*	*0.400*	*5.00*	*Sqm*
		2	*2.30*		*0.500*	*2.30*	*Sqm*
		2		*6.250*	*0.500*	*6.25*	*Sqm*
		2	*0.68*		*0.900*	*1.22*	*Sqm*
		2		*6.250*	*0.900*	*11.25*	*Sqm*
	Crest	*2*	*0.93*		*1.154*	*2.16*	*Sqm*
		2		*6.250*	*1.154*	*14.43*	*Sqm*
	Toe Wall D/S Portion	*2*	*18.86*		*0.300*	*11.32*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*18.56*		*0.600*	*22.27*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*4.50*		*0.150*	*2.70*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*4.50*		*0.600*	*10.80*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**371.99**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*4.50*	*6.588*		*59.29*	*Sqm*
	TOTAL					**59.29**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*4.50*	*5.650*	*0.300*	**7.63**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*4.50*	*5.650*	*0.150*	**7.63**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*20.84*	*0.450*		*9.38*	*Sqm*
	On Abutment Top (Right Side)	*1*	*20.84*	*0.450*		*9.38*	*Sqm*
	TOTAL					**18.76**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		2.282		2.28	**Cum**
	Abutment						
	Section 1-1	*2*	*1.11*	*1.426*		*3.164*	*Cum*
	Section 2-2	*2*	*3.00*	*1.431*		*8.586*	*Cum*
	Section 3-3	*2*	*2.20*	*1.176*		*5.174*	*Cum*
	Section 5-5	*2*	*8.36*	*1.426*		*23.856*	*Cum*
	Section 6-6	*2*	*4.70*	*1.176*		*11.047*	*Cum*
	D/S protection	*2*					
	Toe wall	*2*	*18.86*	*0.150*	*0.600*	*5.658*	*Cum*
		2	*4.50*	0.150	*0.600*	*0.810*	*Cum*
	TOTAL					**60.58**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH. 4.580						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*4.75*	*2.702*	*3.275*	*84.066*	*Cum*
	Section 2-2	*2*	*5.50*	*1.578*	*3.275*	*56.847*	*Cum*
	Section 3-3	*2*	*3.70*	*1.758*	*3.075*	*40.003*	*Cum*
	Section 5-5	*2*	*9.33*	*2.852*	*3.275*	*174.215*	*Cum*
	Section 6-6	*2*	*4.55*	*1.578*	*3.075*	*44.176*	*Cum*
	U/S Key Floor	*1*	*0.74*	*5.370*	*1.300*	*5.148*	*Cum*
	U/S Floor	*1*	*2.76*	*5.370*	*3.125*	*46.283*	*Cum*
	D/S Floor	*1*	*7.34*	*5.370*	*0.950*	*37.450*	*Cum*
		1	*3.90*	*5.370*	*0.750*	*15.707*	*Cum*
	D/S Key Floor	*1*	*0.93*	*5.370*	*1.900*	*9.438*	*Cum*
	Toe Wall D/S Portion	*1*	*17.63*	*0.750*	*0.900*	*11.900*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*4.00*	*0.600*	*0.750*	*3.600*	*Cum*
						528.83	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*5.370*	*0.150*	*0.44*	*Cum*
		1	*1.29*	*5.370*	*0.150*	*1.04*	*Cum*
		1	*1.43*	*5.370*	*0.150*	*1.15*	*Cum*
		1	*0.21*	*5.370*	*0.150*	*0.17*	*Cum*
		1	*7.76*	*5.370*	*0.150*	*6.25*	*Cum*
		1	*0.64*	*5.370*	*0.150*	*0.51*	*Cum*
		1	*1.60*	*5.370*	*0.150*	*1.29*	*Cum*
		1	*2.12*	*5.370*	*0.150*	*1.71*	*Cum*
		1	*0.54*	*5.370*	*0.150*	*0.44*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*4.75*	*2.702*	*0.150*	*3.85*	*Cum*
	Section 2-2	*2*	*5.50*	*1.578*	*0.150*	*2.60*	*Cum*
	Section 3-3	*2*	*3.70*	*1.758*	*0.150*	*1.95*	*Cum*
	Section 5-5	*2*	*9.33*	*2.852*	*0.150*	*7.98*	*Cum*
	Section 6-6	*2*	*4.55*	*1.578*	*0.150*	*2.15*	*Cum*
	Toe Wall D/S Portion	*1*	*17.63*	*0.750*	*0.300*	*3.97*	*Cum*
	Toe Wall D/S Portion	*1*	*17.33*	*0.450*	*0.600*	*4.68*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*4.00*	*0.600*	*0.150*	*0.72*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*4.00*	*0.300*	*0.600*	*1.44*	*Cum*
	TOTAL					**42.34**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*4.68*	*0.450*	*0.450*	*1.89*	*Cum*
		2	*4.68*	*1.426*	*3.254*	*43.39*	*Cum*
		2	*4.68*	*2.552*	*0.750*	*17.90*	*Cum*
	Section 2-2	*2*	*5.50*	*0.450*	*0.450*	*2.23*	*Cum*
		2	*5.50*	*0.864*	*1.380*	*13.12*	*Cum*
		2	*5.50*	*1.428*	*0.600*	*9.42*	*Cum*
	Section 3-3	*2*	*3.21*	*0.450*	*0.450*	*1.30*	*Cum*
		2	*3.21*	*0.954*	*1.680*	*10.29*	*Cum*
		2	*3.21*	*1.608*	*0.750*	*7.74*	*Cum*
	Section 5-5	*2*	*9.23*	*0.450*	*0.450*	*3.74*	*Cum*
		2	*9.23*	*1.426*	*3.254*	*85.69*	*Cum*
		2	*9.23*	*2.552*	*0.600*	*28.28*	*Cum*
	Section 6-6	*2*	*5.25*	*0.450*	*0.450*	*2.13*	*Cum*
		2	*5.25*	*0.864*	*1.380*	*12.52*	*Cum*
		2	*5.25*	*1.428*	*0.600*	*9.00*	*Cum*
	Floor	*1*	*0.74*	*5.370*	*1.150*	*4.55*	*Cum*
		1	*2.61*	*5.370*	*0.600*	*8.40*	*Cum*
		1	*0.68*	*5.370*	*0.150*	*0.54*	*Cum*
		1	*7.24*	*5.370*	*0.750*	*29.16*	*Cum*
		1	*0.62*	*5.370*	*0.450*	*1.51*	*Cum*
		1	0.30	*5.370*	*0.450*	*0.72*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*3.70*	*5.370*	*0.600*	*11.92*	*Cum*
	Crest	*1*	*0.93*	*5.370*	*1.900*	*9.44*	*Cum*
	TOTAL					**314.88**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*1.00*	*5.370*	*0.150*	*0.81*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*22.72*	*0.450*	*0.050*	*0.51*	*Cum*
	On Abutment Top (Right Side)	*1*	*22.72*	*0.450*	*0.050*	*0.51*	*Cum*
	TOTAL					**1.83**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.2% of M-20	**314.88**	**0.002**	**0.630**	**7850.000**	**4943.65**	**Kg**
	Total Weight in Metric Tonne					**4.94**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*4.68*		*0.450*	*8.42*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*4.68*		*3.254*	*60.85*	*Sqm*
		4		*1.426*	*3.254*	*18.56*	*Sqm*
		4	*4.68*		*0.750*	*14.03*	*Sqm*
		4		*2.552*	*0.750*	*7.66*	*Sqm*
	Section 2-2	*4*	*5.50*		*0.450*	*9.90*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*5.50*		*1.380*	*30.36*	*Sqm*
		4		*0.864*	*1.380*	*4.77*	*Sqm*
		4	*5.50*		*0.600*	*13.20*	*Sqm*
		4		*1.428*	*0.600*	*3.43*	*Sqm*
	Section 3-3	*4*	*3.21*		*0.450*	*5.78*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.21*		*1.680*	*21.58*	*Sqm*
		4		*0.954*	*1.680*	*6.41*	*Sqm*
		4	*3.21*		*0.750*	*9.63*	*Sqm*
		4		*1.608*	*0.750*	*4.82*	*Sqm*
	Section 5-5	*4*	*9.23*		*0.450*	*16.62*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*9.23*		*3.254*	*120.18*	*Sqm*
		4		*1.426*	*3.254*	*18.56*	*Sqm*
		4	*9.23*		*0.600*	*22.16*	*Sqm*
		4		*2.552*	*0.600*	*6.12*	*Sqm*
	Section 6-6	*4*	*5.25*		*0.450*	*9.45*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*5.25*		*1.380*	*28.99*	*Sqm*
		4		*0.864*	*1.380*	*4.77*	*Sqm*
		4	*5.25*		*0.600*	*12.60*	*Sqm*
		4		*1.428*	*0.600*	*3.43*	*Sqm*
	Floor	*2*	*0.74*		*1.150*	*1.70*	*Sqm*
		2		*5.370*	*1.150*	*12.35*	*Sqm*
		2	*2.61*		*0.600*	*3.13*	*Sqm*
		2		*5.370*	*0.600*	*6.44*	*Sqm*
		2	*0.68*		*0.150*	*0.20*	*Sqm*
		2		*5.370*	*0.150*	*1.61*	*Sqm*
		2	*7.24*		*0.750*	*10.86*	*Sqm*
		2		*5.370*	*0.750*	*8.06*	*Sqm*
		2	*0.62*		*0.450*	*0.56*	*Sqm*
		2		*5.370*	*0.450*	*4.83*	*Sqm*
		2	*0.30*		*0.450*	*0.27*	*Sqm*
		2		*5.370*	*0.450*	*4.83*	*Sqm*
		2	*3.70*		*0.600*	*4.44*	*Sqm*
		2		*5.370*	*0.600*	*6.44*	*Sqm*
	Crest	*2*	*0.93*		*1.900*	*3.52*	*Sqm*
		2		*5.370*	*1.900*	*20.41*	*Sqm*
	Toe Wall D/S Portion	*2*	*17.63*		*0.300*	*10.58*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*17.33*		*0.600*	*20.80*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*4.00*		*0.150*	*2.40*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*4.00*		*0.600*	*9.60*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**601.41**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*4.00*	*6.407*		*51.26*	*Sqm*
	TOTAL					**51.26**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In U/S Portion	*1*	*9.66*	*5.810*	*0.450*	**25.26**	**Cum**
	In D/S Portion	*1*	*4.00*	*4.770*	*0.300*	**5.72**	**Cum**
	TOTAL					**30.98**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*4.00*	*4.770*	*0.150*	**5.72**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*22.72*	*0.450*		*10.22*	*Sqm*
	On Abutment Top (Right Side)	*1*	*22.72*	*0.450*		*10.22*	*Sqm*
	TOTAL					**20.45**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		27.488		27.49	**Cum**
	Abutment						
	Section 1-1	2	*4.75*	*2.264*		*21.508*	*Cum*
	Section 2-2	2	*5.50*	*1.639*		*18.029*	*Cum*
	Section 3-3	2	*3.70*	*2.051*		*15.177*	*Cum*
	Section 5-5	2	*9.33*	*2.494*		*46.524*	*Cum*
	Section 6-6	2	*4.55*	*2.051*		*18.672*	*Cum*
	D/S protection	2					
	Toe wall	2	*17.63*	*0.150*	*0.600*	*5.289*	*Cum*
		2	*4.00*	0.150	*0.600*	*0.720*	*Cum*
	TOTAL					**153.41**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE BRIDGE/FALL OF HEIGHT 1.828 METER AT CH. 6.100						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*2.17*	*2.795*	*2.408*	*29.196*	*Cum*
	Section 2-2	*2*	*6.00*	*2.218*	*2.408*	*64.091*	*Cum*
	Section 3-3	*2*	*4.70*	*2.098*	*2.208*	*43.544*	*Cum*
	below bridge	*2*	*6.50*	*2.098*	*1.800*	*49.093*	*Cum*
	Section 5-5	*2*	*7.95*	*2.945*	*2.408*	*112.798*	*Cum*
	Section 6-6	*2*	*4.18*	*1.578*	*2.208*	*29.142*	*Cum*
	U/S Key Floor	*1*	*0.58*	*5.370*	*0.650*	*2.007*	*Cum*
	U/S Floor	*1*	*4.00*	*5.370*	*3.328*	*71.485*	*Cum*
	D/S Floor	*1*	*6.00*	*5.370*	*1.500*	*48.330*	*Cum*
		1	*2.00*	*5.370*	*1.300*	*13.962*	*Cum*
	D/S Key Floor	*1*	*0.99*	*5.370*	*2.300*	*12.197*	*Cum*
	Toe Wall D/S Portion	*1*	*17.63*	*0.750*	*0.900*	*11.900*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*4.50*	*0.600*	*0.750*	*4.050*	*Cum*
						491.80	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*5.370*	*0.150*	*0.44*	*Cum*
		1	*0.56*	*5.370*	*0.150*	*0.45*	*Cum*
		1	*9.68*	*5.370*	*0.150*	*7.79*	*Cum*
		1	*0.64*	*5.370*	*0.150*	*0.51*	*Cum*
		1	*2.48*	*5.370*	*0.150*	*2.00*	*Cum*
		1	*2.40*	*5.370*	*0.150*	*1.94*	*Cum*
		1	*0.54*	*5.370*	*0.150*	*0.44*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*2.17*	*2.795*	*0.150*	*1.82*	*Cum*
	Section 2-2	*2*	*6.00*	*2.218*	*0.300*	*7.98*	*Cum*
	Section 3-3	*2*	*4.70*	*2.098*	*0.300*	*5.92*	*Cum*
	Section 5-5	*2*	*7.95*	*2.945*	*0.150*	*7.03*	*Cum*
	Section 6-6	*2*	*4.18*	*1.578*	*0.150*	*1.98*	*Cum*
	Toe Wall D/S Portion	*1*	*17.63*	*0.750*	*0.300*	*3.97*	*Cum*
	Toe Wall D/S Portion	*1*	*17.33*	*0.450*	*0.600*	*4.68*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*4.50*	*0.600*	*0.150*	*0.81*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*4.50*	*0.300*	*0.600*	*1.62*	*Cum*
	TOTAL					**49.37**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.94*	*0.450*	*0.450*	*0.79*	*Cum*
		2	*1.94*	*1.473*	*3.408*	*19.51*	*Cum*
		2	*1.94*	*2.645*	*1.150*	*11.82*	*Cum*
	Section 2-2	*2*	*6.00*	*0.820*	*0.500*	*4.92*	*Cum*
		2	*6.00*	*1.294*	*1.580*	*24.53*	*Cum*
		2	*6.00*	*1.918*	*2.800*	*64.44*	*Cum*
	Section 3-3	*2*	*4.19*	*0.820*	*0.500*	*3.44*	*Cum*
		2	*4.19*	*1.234*	*1.380*	*14.27*	*Cum*
		2	*4.19*	*1.798*	*3.000*	*45.20*	*Cum*
	Section 5-5	*2*	*7.91*	*0.450*	*0.450*	*3.20*	*Cum*
		2	*7.91*	*1.473*	*3.408*	*79.38*	*Cum*
		2	*7.91*	*2.645*	*1.150*	*48.11*	*Cum*
	Section 6-6	*2*	*5.08*	*0.450*	*0.450*	*2.06*	*Cum*
		2	*5.08*	*0.864*	*1.380*	*12.12*	*Cum*
		2	*5.08*	*1.428*	*0.850*	*12.33*	*Cum*
	deduction for M 25 grade of concrete	*2*	*0.82*	*6.500*	*0.300*	*-3.20*	*Cum*
	Floor	*1*	*0.58*	*5.370*	*0.500*	*1.54*	*Cum*
		1	*10.00*	*5.370*	*1.150*	*61.76*	*Cum*
		1	*0.63*	*5.370*	*0.450*	*1.53*	*Cum*
		1	*0.20*	*5.370*	*0.800*	*0.86*	*Cum*
		1	*1.80*	*5.370*	*0.900*	*8.70*	*Cum*
		1	*0.05*	*5.370*	*0.875*	*0.23*	*Cum*
		1	*2.95*	*5.370*	*0.850*	*13.47*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.99*	*5.370*	*2.150*	*11.40*	*Cum*
	Crest	*1*	*1.92*	*5.370*	*2.575*	*26.56*	*Cum*
	TOTAL					**468.98**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*1.50*	*5.370*	*0.150*	*1.21*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*20.64*	*0.450*	*0.050*	*0.46*	*Cum*
	On Abutment Top (Right Side)	*1*	*20.64*	*0.450*	*0.050*	*0.46*	*Cum*
	Slab Bridge						
	Slab	*1*	*6.17*	*6.500*	*0.485*	*19.45*	*Cum*
	Wearing coat	*1*	*6.17*	*5.500*	*0.070*	*2.38*	*Cum*
	Dirt wall	*2*	*0.40*	*6.500*	*0.500*	*2.60*	*Cum*
	300 mm thick pedastial	*2*	*0.82*	*6.500*	*0.300*	*3.20*	*Cum*
	TOTAL					**29.76**	**Cum**
12	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*20*	*51*	*6.93*		*2.466*	*871.5*	*Kg*
a2	*12*	*35*	*7.18*		*0.888*	*223.1*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*29*	*6.85*		*0.616*	*122.5*	*Kg*
a5	*10*	*28*	*7.10*		*0.616*	*122.6*	*Kg*
x1	*12*	*102*	*2.65*		*0.888*	*240.0*	*Kg*
x2	*16*	*102*	*1.32*		*1.578*	*211.7*	*Kg*
x3	*12*	*24*	*6.07*		*0.888*	*129.3*	*Kg*
	Taking Skin reinforcement @0.2% of M-20	**468.98**	**0.002**	**0.938**	**7850.000**	**7363.0**	**Kg**
	Total Reinforcement Steel (in kg)					*9291.5*	*Kg*
	Total Weight in Metric Tonne					**9.29**	**MT**
5	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.94*		*0.450*	*3.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.94*		*3.408*	*26.49*	*Sqm*
		4		*1.473*	*3.408*	*20.07*	*Sqm*
		4	*1.94*		*1.150*	*8.94*	*Sqm*
		4		*2.645*	*1.150*	*12.17*	*Sqm*
	Section 2-2	*4*	*6.00*		*0.500*	*12.00*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*6.00*		*1.580*	*37.92*	*Sqm*
		4		*1.294*	*1.580*	*8.18*	*Sqm*
		4	*6.00*		*2.800*	*67.20*	*Sqm*
		4		*1.918*	*2.800*	*21.48*	*Sqm*
	Section 3-3	*4*	*4.19*		*0.500*	*8.38*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*4.19*		*1.380*	*23.13*	*Sqm*
		4		*1.234*	*1.380*	*6.81*	*Sqm*
		4	*4.19*		*3.000*	*50.28*	*Sqm*
		4		*1.798*	*3.000*	*21.58*	*Sqm*
	Section 5-5	*4*	*7.91*		*0.450*	*14.24*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*7.91*		*3.408*	*107.82*	*Sqm*
		4		*1.473*	*3.408*	*20.07*	*Sqm*
		4	*7.91*		*1.150*	*36.38*	*Sqm*
		4		*2.645*	*1.150*	*12.17*	*Sqm*
	Section 6-6	*4*	*5.08*		*0.450*	*9.15*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*5.08*		*1.380*	*28.05*	*Sqm*
		4		*0.864*	*1.380*	*4.77*	*Sqm*
		4	*5.08*		*0.850*	*17.28*	*Sqm*
		4		*1.428*	*0.850*	*4.86*	*Sqm*
	Floor	*2*	*0.58*		*0.500*	*0.58*	*Sqm*
		2		*5.370*	*0.500*	*5.37*	*Sqm*
		2	*10.00*		*1.150*	*23.00*	*Sqm*
		2		*5.370*	*1.150*	*12.35*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	*0.63*		*0.450*	*0.57*	*Sqm*
		2		*5.370*	*0.450*	*4.83*	*Sqm*
		2	*0.20*		*0.800*	*0.32*	*Sqm*
		2		*5.370*	*0.800*	*8.59*	*Sqm*
		2	*1.80*		*0.900*	*3.24*	*Sqm*
		2		*5.370*	*0.900*	*9.67*	*Sqm*
		2	*0.05*		*0.875*	*0.09*	*Sqm*
		2		*5.370*	*0.875*	*9.40*	*Sqm*
		2	*2.95*		*0.850*	*5.02*	*Sqm*
		2		*5.370*	*0.850*	*9.13*	*Sqm*
		2	*0.99*		*2.150*	*4.25*	*Sqm*
		2		*5.370*	*2.150*	*23.09*	*Sqm*
	Crest	*2*	*1.92*		*2.575*	*9.89*	*Sqm*
		2		*5.370*	*2.575*	*27.66*	*Sqm*
	Toe Wall D/S Portion	*2*	*17.63*		*0.300*	*10.58*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*17.33*		*0.600*	*20.80*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*4.50*		*0.150*	*2.70*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*4.50*		*0.600*	*10.80*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**792.58**	**Sqm**
6	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*4.50*	*6.398*		*57.58*	*Sqm*
	TOTAL					**57.58**	**Sqm**
7	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*4.50*	*4.770*	*0.300*	**6.44**	**Cum**
8	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*4.50*	*4.770*	*0.150*	**6.44**	**Cum**
9	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*20.64*	*0.450*		*9.29*	*Sqm*
	On Abutment Top (Right Side)	*1*	*20.64*	*0.450*		*9.29*	*Sqm*
	TOTAL					**18.58**	**Sqm**
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		27.198		27.20	**Cum**
	Abutment						
	Section 1-1	2	*2.17*	*0.874*		*3.791*	*Cum*
	Section 2-2	2	*6.00*	*3.295*		*39.540*	*Cum*
	Section 3-3	2	*4.70*	*3.158*		*29.681*	*Cum*
	Section 5-5	2	*7.95*	*0.874*		*13.902*	*Cum*
	Section 6-6	2	*4.18*	*0.647*		*5.412*	*Cum*
	D/S protection	2					
	Toe wall	2	*17.63*	*0.150*	*0.600*	*5.289*	*Cum*
		2	*4.50*	0.150	*0.600*	*0.810*	*Cum*
	TOTAL					**125.62**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH. 11.150						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.09*	*2.098*	*2.967*	*13.564*	*Cum*
	Section 2-2	*2*	*4.27*	*1.458*	*2.967*	*36.917*	*Cum*
	Section 3-3	*2*	*3.20*	*1.338*	*2.767*	*23.694*	*Cum*
	Section 5-5	*2*	*6.12*	*2.248*	*2.967*	*81.605*	*Cum*
	Section 6-6	*2*	*3.39*	*1.338*	*2.767*	*25.116*	*Cum*
	U/S Key Floor	*1*	*0.58*	*4.150*	*0.650*	*1.551*	*Cum*
	U/S Floor	*1*	*3.00*	*4.150*	*2.167*	*26.979*	*Cum*
	D/S Floor	*1*	*4.00*	*4.150*	*1.100*	*18.260*	*Cum*
		1	*3.50*	*4.150*	*0.900*	*13.073*	*Cum*
	D/S Key Floor	*1*	*0.75*	*4.150*	*1.350*	*4.202*	*Cum*
	Toe Wall D/S Portion	*1*	*13.61*	*0.750*	*0.900*	*9.187*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*3.25*	*0.600*	*0.750*	*2.925*	*Cum*
						257.07	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*4.150*	*0.150*	*0.34*	*Cum*
		1	*0.56*	*4.150*	*0.150*	*0.35*	*Cum*
		1	*6.68*	*4.150*	*0.150*	*4.16*	*Cum*
		1	*0.57*	*4.150*	*0.150*	*0.35*	*Cum*
		1	*1.49*	*4.150*	*0.150*	*0.93*	*Cum*
		1	*1.34*	*4.150*	*0.150*	*0.83*	*Cum*
		1	*0.54*	*4.150*	*0.150*	*0.34*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.09*	*2.098*	*0.150*	*0.69*	*Cum*
	Section 2-2	*2*	*4.27*	*1.458*	*0.150*	*1.87*	*Cum*
	Section 3-3	*2*	*3.20*	*1.338*	*0.150*	*1.28*	*Cum*
	Section 5-5	*2*	*6.12*	*2.248*	*0.150*	*4.13*	*Cum*
	Section 6-6	*2*	*3.39*	*1.338*	*0.150*	*1.36*	*Cum*
	Toe Wall D/S Portion	*1*	*13.61*	*0.750*	*0.300*	*3.06*	*Cum*
	Toe Wall D/S Portion	*1*	*13.31*	*0.450*	*0.600*	*3.59*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.25*	*0.600*	*0.150*	*0.59*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.25*	*0.300*	*0.600*	*1.17*	*Cum*
	TOTAL					**25.03**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.86*	*0.450*	*0.450*	*0.35*	*Cum*
		2	*0.86*	*1.124*	*2.247*	*4.37*	*Cum*
		2	*0.86*	*1.948*	*0.750*	*2.53*	*Cum*
	Section 2-2	*2*	*4.27*	*0.450*	*0.450*	*1.73*	*Cum*
		2	*4.27*	*0.804*	*1.180*	*8.10*	*Cum*
		2	*4.27*	*1.308*	*0.750*	*8.37*	*Cum*
	Section 3-3	*2*	*2.76*	*0.450*	*0.450*	*1.12*	*Cum*
		2	*2.76*	*0.744*	*0.980*	*4.02*	*Cum*
		2	*2.76*	*1.188*	*0.550*	*3.60*	*Cum*
	Section 5-5	*2*	*6.07*	*0.450*	*0.450*	*2.46*	*Cum*
		2	*6.07*	*1.124*	*2.247*	*30.68*	*Cum*
		2	*6.07*	*1.948*	*0.750*	*17.75*	*Cum*
	Section 6-6	*2*	*3.99*	*0.450*	*0.450*	*1.61*	*Cum*
		2	*3.99*	*0.744*	*0.980*	*5.81*	*Cum*
		2	*3.99*	*1.188*	*0.550*	*5.21*	*Cum*
	Floor	*1*	*0.58*	*4.150*	*0.500*	*1.19*	*Cum*
		1	*7.00*	*4.150*	*0.750*	*21.79*	*Cum*
		1	*0.61*	*4.150*	*0.400*	*1.01*	*Cum*
		1	*0.20*	*4.150*	*0.450*	*0.37*	*Cum*
		1	*3.30*	*4.150*	*0.550*	*7.53*	*Cum*
		1	*0.75*	*4.150*	*1.200*	*3.74*	*Cum*
	Crest	*1*	*1.12*	*4.150*	*1.655*	*7.68*	*Cum*
	TOTAL					**141.00**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.85*	*4.150*	*0.150*	*0.53*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*19.31*	*0.450*	*0.050*	*0.43*	*Cum*
	On Abutment Top (Right Side)	*1*	*19.31*	*0.450*	*0.050*	*0.43*	*Cum*
	TOTAL					**1.40**	**Cum**
12	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.2% of M-20	**141.00**	**0.002**	**0.282**	**7850.000**	**2213.72**	**Kg**
	Total Weight in Metric Tonne					**2.21**	**MT**
5	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.86*		*0.450*	*1.56*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.86*		*2.247*	*7.77*	*Sqm*
		4		*1.124*	*2.247*	*10.10*	*Sqm*
		4	*0.86*		*0.750*	*2.59*	*Sqm*
		4		*1.948*	*0.750*	*5.84*	*Sqm*
	Section 2-2	*4*	*4.27*		*0.450*	*7.68*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*4.27*		*1.180*	*20.14*	*Sqm*
		4		*0.804*	*1.180*	*3.79*	*Sqm*
		4	*4.27*		*0.750*	*12.80*	*Sqm*
		4		*1.308*	*0.750*	*3.92*	*Sqm*
	Section 3-3	*4*	*2.76*		*0.450*	*4.96*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.76*		*0.980*	*10.80*	*Sqm*
		4		*0.744*	*0.980*	*2.92*	*Sqm*
		4	*2.76*		*0.550*	*6.06*	*Sqm*
		4		*1.188*	*0.550*	*2.61*	*Sqm*
	Section 5-5	*4*	*6.07*		*0.450*	*10.93*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*6.07*		*2.247*	*54.59*	*Sqm*
		4		*1.124*	*2.247*	*10.10*	*Sqm*
		4	*6.07*		*0.750*	*18.22*	*Sqm*
		4		*1.948*	*0.750*	*5.84*	*Sqm*
	Section 6-6	*4*	*3.99*		*0.450*	*7.17*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.99*		*0.980*	*15.63*	*Sqm*
		4		*0.744*	*0.980*	*2.92*	*Sqm*
		4	*3.99*		*0.550*	*8.77*	*Sqm*
		4		*1.188*	*0.550*	*2.61*	*Sqm*
	Floor	*2*	*0.58*		*0.500*	*0.58*	*Sqm*
		2		*4.150*	*0.500*	*4.15*	*Sqm*
		2	*7.00*		*0.750*	*10.50*	*Sqm*
		2		*4.150*	*0.750*	*6.23*	*Sqm*
		2	*0.61*		*0.400*	*0.49*	*Sqm*
		2		*4.150*	*0.400*	*3.32*	*Sqm*
		2	*0.20*		*0.450*	*0.18*	*Sqm*
		2		*4.150*	*0.450*	*3.74*	*Sqm*
		2	*3.30*		*0.550*	*3.63*	*Sqm*
		2		*4.150*	*0.550*	*4.57*	*Sqm*
		2	*0.75*		*1.200*	*1.80*	*Sqm*
		2		*4.150*	*1.200*	*9.96*	*Sqm*
	Crest	*2*	*1.12*		*1.655*	*3.70*	*Sqm*
		2		*4.150*	*1.655*	*13.74*	*Sqm*
	Toe Wall D/S Portion	*2*	*13.61*		*0.300*	*8.17*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*13.31*		*0.600*	*15.97*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.25*		*0.150*	*1.95*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.25*		*0.600*	*7.80*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**346.92**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
6	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.25*	*4.877*		*31.70*	*Sqm*
	TOTAL					**31.70**	**Sqm**
7	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*3.25*	*3.550*	*0.300*	**3.46**	**Cum**
8	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*3.25*	*3.550*	*0.150*	**3.46**	**Cum**
9	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*19.31*	*0.450*		*8.69*	*Sqm*
	On Abutment Top (Right Side)	*1*	*19.31*	*0.450*		*8.69*	*Sqm*
	TOTAL					**17.37**	**Sqm**
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		12.329		12.33	**Cum**
	Abutment						
	Section 1-1	2	*1.09*	*2.014*		*4.389*	*Cum*
	Section 2-2	2	*4.27*	*1.391*		*11.871*	*Cum*
	Section 3-3	2	*3.20*	*1.109*		*7.098*	*Cum*
	Section 5-5	2	*6.12*	*2.014*		*24.641*	*Cum*
	Section 6-6	2	*3.39*	*1.109*		*7.523*	*Cum*
	D/S protection	2					
	Toe wall	2	*13.61*	*0.150*	*0.600*	*4.083*	*Cum*
		2	*3.25*	0.150	*0.600*	*0.585*	*Cum*
	TOTAL					**72.52**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.762 METER AT CH. 11.950						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.24*	*1.915*	*2.771*	*13.208*	*Cum*
	Section 2-2	*2*	*3.50*	*1.458*	*2.771*	*28.281*	*Cum*
	Section 3-3	*2*	*2.20*	*1.338*	*2.571*	*15.136*	*Cum*
	Section 5-5	*2*	*6.16*	*2.065*	*2.771*	*70.445*	*Cum*
	Section 6-6	*2*	*3.39*	*1.338*	*2.571*	*23.337*	*Cum*
	U/S Key Floor	*1*	*0.60*	*4.150*	*0.750*	*1.868*	*Cum*
	U/S Floor	*1*	*2.50*	*4.150*	*1.712*	*17.762*	*Cum*
	D/S Floor	*1*	*3.50*	*4.150*	*0.950*	*13.799*	*Cum*
		1	*2.50*	*4.150*	*0.750*	*7.781*	*Cum*
	D/S Key Floor	*1*	*0.70*	*4.150*	*1.150*	*3.341*	*Cum*
	Toe Wall D/S Portion	*1*	*13.61*	*0.750*	*0.900*	*9.187*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*3.25*	*0.600*	*0.750*	*2.925*	*Cum*
						207.07	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*4.150*	*0.150*	*0.34*	*Cum*
		1	*0.67*	*4.150*	*0.150*	*0.42*	*Cum*
		1	*5.63*	*4.150*	*0.150*	*3.50*	*Cum*
		1	*0.43*	*4.150*	*0.150*	*0.26*	*Cum*
		1	*0.69*	*4.150*	*0.150*	*0.43*	*Cum*
		1	*1.12*	*4.150*	*0.150*	*0.70*	*Cum*
		1	*0.54*	*4.150*	*0.150*	*0.34*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.24*	*1.915*	*0.150*	*0.71*	*Cum*
	Section 2-2	*2*	*3.50*	*1.458*	*0.150*	*1.53*	*Cum*
	Section 3-3	*2*	*2.20*	*1.338*	*0.150*	*0.88*	*Cum*
	Section 5-5	*2*	*6.16*	*2.065*	*0.150*	*3.81*	*Cum*
	Section 6-6	*2*	*3.39*	*1.338*	*0.150*	*1.36*	*Cum*
	Toe Wall D/S Portion	*1*	*13.61*	*0.750*	*0.300*	*3.06*	*Cum*
	Toe Wall D/S Portion	*1*	*13.31*	*0.450*	*0.600*	*3.59*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.25*	*0.600*	*0.150*	*0.59*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.25*	*0.300*	*0.600*	*1.17*	*Cum*
	TOTAL					**22.70**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.02*	*0.450*	*0.450*	*0.41*	*Cum*
		2	*1.02*	*1.033*	*1.942*	*4.09*	*Cum*
		2	*1.02*	*1.765*	*0.600*	*2.16*	*Cum*
	Section 2-2	*2*	*3.50*	*0.450*	*0.450*	*1.42*	*Cum*
		2	*3.50*	*0.804*	*1.180*	*6.64*	*Cum*
		2	*3.50*	*1.308*	*0.600*	*5.49*	*Cum*
	Section 3-3	*2*	*1.76*	*0.450*	*0.450*	*0.71*	*Cum*
		2	*1.76*	*0.744*	*0.980*	*2.56*	*Cum*
		2	*1.76*	*1.188*	*0.500*	*2.09*	*Cum*
	Section 5-5	*2*	*6.11*	*0.450*	*0.450*	*2.48*	*Cum*
		2	*6.11*	*1.033*	*1.942*	*24.51*	*Cum*
		2	*6.11*	*1.765*	*0.600*	*12.94*	*Cum*
	Section 6-6	*2*	*3.99*	*0.450*	*0.450*	*1.61*	*Cum*
		2	*3.99*	*0.744*	*0.980*	*5.81*	*Cum*
		2	*3.99*	*1.188*	*0.500*	*4.74*	*Cum*
	Floor	*1*	*0.60*	*4.150*	*0.600*	*1.49*	*Cum*
		1	*6.00*	*4.150*	*0.600*	*14.94*	*Cum*
		1	*0.56*	*4.150*	*0.300*	*0.69*	*Cum*
		1	*0.20*	*4.150*	*0.400*	*0.33*	*Cum*
		1	*2.30*	*4.150*	*0.500*	*4.77*	*Cum*
		1	*0.70*	*4.150*	*1.000*	*2.91*	*Cum*
	Crest	*1*	*1.02*	*4.150*	*1.355*	*5.72*	*Cum*
	TOTAL					**108.52**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.80*	*4.150*	*0.150*	*0.50*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*17.66*	*0.450*	*0.050*	*0.40*	*Cum*
	On Abutment Top (Right Side)	*1*	*17.66*	*0.450*	*0.050*	*0.40*	*Cum*
	TOTAL					**1.29**	**Cum**
12	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**108.52**	**0.00**	**0.326**	**7850.000**	**2555.63**	**Kg**
	Total Weight in Metric Tonne					**2.56**	**MT**
5	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.02*		*0.450*	*1.84*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.02*		*1.942*	*7.92*	*Sqm*
		4		*1.033*	*1.942*	*8.02*	*Sqm*
		4	*1.02*		*0.600*	*2.45*	*Sqm*
		4		*1.765*	*0.600*	*4.24*	*Sqm*
	Section 2-2	*4*	*3.50*		*0.450*	*6.30*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.50*		*1.180*	*16.52*	*Sqm*
		4		*0.804*	*1.180*	*3.79*	*Sqm*
		4	*3.50*		*0.600*	*8.40*	*Sqm*
		4		*1.308*	*0.600*	*3.14*	*Sqm*
	Section 3-3	*4*	*1.76*		*0.450*	*3.16*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.76*		*0.980*	*6.88*	*Sqm*
		4		*0.744*	*0.980*	*2.92*	*Sqm*
		4	*1.76*		*0.500*	*3.51*	*Sqm*
		4		*1.188*	*0.500*	*2.38*	*Sqm*
	Section 5-5	*4*	*6.11*		*0.450*	*11.00*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*6.11*		*1.942*	*47.47*	*Sqm*
		4		*1.033*	*1.942*	*8.02*	*Sqm*
		4	*6.11*		*0.600*	*14.67*	*Sqm*
		4		*1.765*	*0.600*	*4.24*	*Sqm*
	Section 6-6	*4*	*3.99*		*0.450*	*7.17*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.99*		*0.980*	*15.63*	*Sqm*
		4		*0.744*	*0.980*	*2.92*	*Sqm*
		4	*3.99*		*0.500*	*7.97*	*Sqm*
		4		*1.188*	*0.500*	*2.38*	*Sqm*
	Floor	*2*	*0.60*		*0.600*	*0.72*	*Sqm*
		2		*4.150*	*0.600*	*4.98*	*Sqm*
		2	*6.00*		*0.600*	*7.20*	*Sqm*
		2		*4.150*	*0.600*	*4.98*	*Sqm*
		2	*0.56*		*0.300*	*0.33*	*Sqm*
		2		*4.150*	*0.300*	*2.49*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*4.150*	*0.400*	*3.32*	*Sqm*
		2	*2.30*		*0.500*	*2.30*	*Sqm*
		2		*4.150*	*0.500*	*4.15*	*Sqm*
		2	*0.70*		*1.000*	*1.40*	*Sqm*
		2		*4.150*	*1.000*	*8.30*	*Sqm*
	Crest	*2*	*1.02*		*1.355*	*2.76*	*Sqm*
		2		*4.150*	*1.355*	*11.25*	*Sqm*
	Toe Wall D/S Portion	*2*	*13.61*		*0.300*	*8.17*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*13.31*		*0.600*	*15.97*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.25*		*0.150*	*1.95*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.25*		*0.600*	*7.80*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**297.27**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
6	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.25*	*4.877*		*31.70*	*Sqm*
	TOTAL					**31.70**	**Sqm**
7	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*3.25*	*3.550*	*0.300*	**3.46**	**Cum**
8	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*3.25*	*3.550*	*0.150*	**3.46**	**Cum**
9	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*17.66*	*0.450*		*7.94*	*Sqm*
	On Abutment Top (Right Side)	*1*	*17.66*	*0.450*		*7.94*	*Sqm*
	TOTAL					**15.89**	**Sqm**
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		6.493		6.49	**Cum**
	Abutment						
	Section 1-1	2	*1.24*	*1.920*		*4.779*	*Cum*
	Section 2-2	2	*3.50*	*1.368*		*9.576*	*Cum*
	Section 3-3	2	*2.20*	*1.101*		*4.844*	*Cum*
	Section 5-5	2	*6.16*	*1.920*		*23.637*	*Cum*
	Section 6-6	2	*3.39*	*1.101*		*7.469*	*Cum*
	D/S protection	2					
	Toe wall	2	*13.61*	*0.150*	*0.600*	*4.083*	*Cum*
		2	*3.25*	0.150	*0.600*	*0.585*	*Cum*
	TOTAL					**61.47**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 13.800						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*2.55*	*1.915*	*1.486*	*14.513*	*Cum*
	Section 2-2	*2*	*3.55*	*1.458*	*1.486*	*15.396*	*Cum*
	Section 3-3	*2*	*1.65*	*1.338*	*1.286*	*5.668*	*Cum*
	Section 5-5	*2*	*7.20*	*2.065*	*1.486*	*44.166*	*Cum*
	Section 6-6	*2*	*3.39*	*1.338*	*1.286*	*11.673*	*Cum*
	U/S Key Floor	*1*	*0.64*	*3.000*	*0.900*	*1.721*	*Cum*
	U/S Floor	*1*	*2.25*	*3.000*	*1.486*	*10.031*	*Cum*
	D/S Floor	*1*	*3.50*	*3.000*	*0.900*	*9.450*	*Cum*
		1	*2.00*	*3.000*	*0.700*	*4.200*	*Cum*
	D/S Key Floor	*1*	*0.70*	*3.000*	*1.150*	*2.415*	*Cum*
	Toe Wall D/S Portion	*1*	*12.46*	*0.750*	*0.900*	*8.411*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*3.25*	*0.600*	*0.750*	*2.925*	*Cum*
						130.57	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*3.000*	*0.150*	*0.24*	*Cum*
		1	*0.84*	*3.000*	*0.150*	*0.38*	*Cum*
		1	*5.30*	*3.000*	*0.150*	*2.39*	*Cum*
		1	*0.35*	*3.000*	*0.150*	*0.16*	*Cum*
		1	*0.24*	*3.000*	*0.150*	*0.11*	*Cum*
		1	*1.12*	*3.000*	*0.150*	*0.50*	*Cum*
		1	*0.54*	*3.000*	*0.150*	*0.24*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*2.55*	*1.915*	*0.150*	*1.46*	*Cum*
	Section 2-2	*2*	*3.55*	*1.458*	*0.150*	*1.55*	*Cum*
	Section 3-3	*2*	*1.65*	*1.338*	*0.150*	*0.66*	*Cum*
	Section 5-5	*2*	*7.20*	*2.065*	*0.150*	*4.46*	*Cum*
	Section 6-6	*2*	*3.39*	*1.338*	*0.150*	*1.36*	*Cum*
	Toe Wall D/S Portion	*1*	*12.46*	*0.750*	*0.300*	*2.80*	*Cum*
	Toe Wall D/S Portion	*1*	*12.16*	*0.450*	*0.600*	*3.28*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.25*	*0.600*	*0.150*	*0.59*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.25*	*0.300*	*0.600*	*1.17*	*Cum*
	TOTAL					**21.36**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*2.40*	*0.450*	*0.450*	*0.97*	*Cum*
		2	*2.40*	*1.033*	*1.942*	*9.62*	*Cum*
		2	*2.40*	*1.765*	*0.550*	*4.66*	*Cum*
	Section 2-2	*2*	*3.55*	*0.450*	*0.450*	*1.44*	*Cum*
		2	*3.55*	*0.804*	*1.180*	*6.74*	*Cum*
		2	*3.55*	*1.308*	*0.550*	*5.11*	*Cum*
	Section 3-3	*2*	*1.20*	*0.450*	*0.450*	*0.49*	*Cum*
		2	*1.20*	*0.744*	*0.980*	*1.75*	*Cum*
		2	*1.20*	*1.188*	*0.500*	*1.43*	*Cum*
	Section 5-5	*2*	*7.20*	*0.450*	*0.450*	*2.91*	*Cum*
		2	*7.20*	*1.033*	*1.942*	*28.86*	*Cum*
		2	*7.20*	*1.765*	*0.550*	*13.97*	*Cum*
	Section 6-6	*2*	*3.99*	*0.450*	*0.450*	*1.61*	*Cum*
		2	*3.99*	*0.744*	*0.980*	*5.81*	*Cum*
		2	*3.99*	*1.188*	*0.500*	*4.74*	*Cum*
	Floor	*1*	*0.64*	*3.000*	*0.750*	*1.43*	*Cum*
		1	*5.75*	*3.000*	*0.550*	*9.49*	*Cum*
		1	*0.53*	*3.000*	*0.250*	*0.40*	*Cum*
		1	*0.20*	*3.000*	*0.400*	*0.24*	*Cum*
		1	*1.80*	*3.000*	*0.500*	*2.70*	*Cum*
		1	*0.70*	*3.000*	*1.000*	*2.10*	*Cum*
	Crest	*1*	*0.93*	*3.000*	*1.347*	*3.77*	*Cum*
	TOTAL					**110.26**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*3.000*	*0.150*	*0.34*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*17.91*	*0.450*	*0.050*	*0.40*	*Cum*
	On Abutment Top (Right Side)	*1*	*17.91*	*0.450*	*0.050*	*0.40*	*Cum*
	TOTAL					**1.14**	**Cum**
12	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**110.26**	**0.00**	**0.331**	**7850.000**	**2596.61**	**Kg**
	Total Weight in Metric Tonne					**2.60**	**MT**
5	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*2.40*		*0.450*	*4.32*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.40*		*1.942*	*18.64*	*Sqm*
		4		*1.033*	*1.942*	*8.02*	*Sqm*
		4	*2.40*		*0.550*	*5.28*	*Sqm*
		4		*1.765*	*0.550*	*3.88*	*Sqm*
	Section 2-2	*4*	*3.55*		*0.450*	*6.40*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.55*		*1.180*	*16.77*	*Sqm*
		4		*0.804*	*1.180*	*3.79*	*Sqm*
		4	*3.55*		*0.550*	*7.82*	*Sqm*
		4		*1.308*	*0.550*	*2.88*	*Sqm*
	Section 3-3	*4*	*1.20*		*0.450*	*2.17*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.20*		*0.980*	*4.72*	*Sqm*
		4		*0.744*	*0.980*	*2.92*	*Sqm*
		4	*1.20*		*0.500*	*2.41*	*Sqm*
		4		*1.188*	*0.500*	*2.38*	*Sqm*
	Section 5-5	*4*	*7.20*		*0.450*	*12.95*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*7.20*		*1.942*	*55.90*	*Sqm*
		4		*1.033*	*1.942*	*8.02*	*Sqm*
		4	*7.20*		*0.550*	*15.83*	*Sqm*
		4		*1.765*	*0.550*	*3.88*	*Sqm*
	Section 6-6	*4*	*3.99*		*0.450*	*7.17*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.99*		*0.980*	*15.63*	*Sqm*
		4		*0.744*	*0.980*	*2.92*	*Sqm*
		4	*3.99*		*0.500*	*7.97*	*Sqm*
		4		*1.188*	*0.500*	*2.38*	*Sqm*
	Floor	*2*	*0.64*		*0.750*	*0.96*	*Sqm*
		2		*3.000*	*0.750*	*4.50*	*Sqm*
		2	*5.75*		*0.550*	*6.33*	*Sqm*
		2		*3.000*	*0.550*	*3.30*	*Sqm*
		2	*0.53*		*0.250*	*0.26*	*Sqm*
		2		*3.000*	*0.250*	*1.50*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*3.000*	*0.400*	*2.40*	*Sqm*
		2	*1.80*		*0.500*	*1.80*	*Sqm*
		2		*3.000*	*0.500*	*3.00*	*Sqm*
		2	*0.70*		*1.000*	*1.40*	*Sqm*
		2		*3.000*	*1.000*	*6.00*	*Sqm*
	Crest	*2*	*0.93*		*1.347*	*2.52*	*Sqm*
		2		*3.000*	*1.347*	*8.08*	*Sqm*
	Toe Wall D/S Portion	*2*	*12.46*		*0.300*	*7.48*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*12.16*		*0.600*	*14.59*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.25*		*0.150*	*1.95*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.25*		*0.600*	*7.80*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**305.18**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
6	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.25*	*4.876*		*31.69*	*Sqm*
	TOTAL					**31.69**	**Sqm**
7	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In U/S Portion	*1*	*6.63*	*4.150*	*0.450*	**12.39**	**Cum**
	In D/S Portion	*1*	*3.25*	*2.400*	*0.300*	**2.34**	**Cum**
	TOTAL					**14.73**	**Cum**
8	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*3.25*	*2.400*	*0.150*	**2.34**	**Cum**
9	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*17.91*	*0.450*		*8.06*	*Sqm*
	On Abutment Top (Right Side)	*1*	*17.91*	*0.450*		*8.06*	*Sqm*
	TOTAL					**16.12**	**Sqm**
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		2.081		2.08	**Cum**
	Abutment						
	Section 1-1	2	*2.55*	*0.504*		*2.568*	*Cum*
	Section 2-2	2	*3.55*	*0.504*		*3.578*	*Cum*
	Section 3-3	2	*1.65*	*0.504*		*1.659*	*Cum*
	Section 5-5	2	*7.20*	*0.504*		*7.247*	*Cum*
	Section 6-6	2	*3.39*	*0.504*		*3.416*	*Cum*
	D/S protection	2					
	Toe wall	2	*12.46*	*0.150*	*0.600*	*3.738*	*Cum*
		2	*3.25*	0.150	*0.600*	*0.585*	*Cum*
	TOTAL					**24.87**	**Cum**
	SHARDA TYPE FALL OF HEIGHT 0.304 METER AT CH. 13.900 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.27*	*2.006*	*2.113*	*10.779*	*Cum*
	Section 2-2	*2*	*4.00*	*1.978*	*2.113*	*33.436*	*Cum*
	Section 3-3	*2*	*3.70*	*1.858*	*1.913*	*26.302*	*Cum*
	below bridge	*2*	*6.50*	*1.858*	*1.800*	*43.477*	*Cum*
	Section 5-5	*2*	*6.14*	*2.156*	*2.113*	*55.911*	*Cum*
	Section 6-6	*2*	*3.02*	*1.338*	*1.913*	*15.470*	*Cum*
	U/S Key Floor	*1*	*0.63*	*3.000*	*0.850*	*1.594*	*Cum*
	U/S Floor	*1*	*1.22*	*3.000*	*2.113*	*7.727*	*Cum*
	D/S Floor	*1*	*5.28*	*3.000*	*0.850*	*13.464*	*Cum*
		1	*4.00*	*3.000*	*0.650*	*7.800*	*Cum*
	D/S Key Floor	*1*	*0.68*	*3.000*	*1.050*	*2.126*	*Cum*
	Toe Wall D/S Portion	*1*	*12.46*	*0.750*	*0.900*	*8.411*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*3.25*	*0.600*	*0.750*	*2.925*	*Cum*
						229.42	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*3.000*	*0.150*	*0.24*	*Cum*
		1	*0.78*	*3.000*	*0.150*	*0.35*	*Cum*
		1	*0.11*	*3.000*	*0.150*	*0.05*	*Cum*
		1	*0.28*	*3.000*	*0.150*	*0.13*	*Cum*
		1	*5.71*	*3.000*	*0.150*	*2.57*	*Cum*
		1	*0.57*	*3.000*	*0.150*	*0.25*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*2.19*	*3.000*	*0.150*	*0.98*	*Cum*
		1	*1.00*	*3.000*	*0.150*	*0.45*	*Cum*
		1	*0.54*	*3.000*	*0.150*	*0.24*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.27*	*2.006*	*0.150*	*0.77*	*Cum*
	Section 2-2	*2*	*4.00*	*1.978*	*0.300*	*4.75*	*Cum*
	Section 3-3	*2*	*3.70*	*1.858*	*0.300*	*4.12*	*Cum*
	Section 5-5	*2*	*6.14*	*2.156*	*0.150*	*3.97*	*Cum*
	Section 6-6	*2*	*3.02*	*1.338*	*0.150*	*1.21*	*Cum*
	Toe Wall D/S Portion	*1*	*12.46*	*0.750*	*0.300*	*2.80*	*Cum*
	Toe Wall D/S Portion	*1*	*12.16*	*0.450*	*0.600*	*3.28*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.25*	*0.600*	*0.150*	*0.59*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.25*	*0.300*	*0.600*	*1.17*	*Cum*
	TOTAL					**27.94**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.12*	*0.450*	*0.450*	*0.45*	*Cum*
		2	*1.12*	*1.078*	*2.094*	*5.06*	*Cum*
		2	*1.12*	*1.856*	*0.500*	*2.08*	*Cum*
	Section 2-2	*2*	*4.00*	*0.820*	*0.500*	*3.28*	*Cum*
		2	*4.00*	*1.174*	*1.180*	*11.08*	*Cum*
		2	*4.00*	*1.678*	*1.200*	*16.11*	*Cum*
	Section 3-3	*2*	*3.26*	*0.820*	*0.500*	*2.67*	*Cum*
		2	*3.26*	*1.114*	*0.980*	*7.11*	*Cum*
		2	*3.26*	*1.558*	*1.400*	*14.20*	*Cum*
	Section 5-5	*2*	*6.09*	*0.450*	*0.450*	*2.47*	*Cum*
		2	*6.09*	*1.078*	*2.094*	*27.51*	*Cum*
		2	*6.09*	*1.856*	*0.500*	*11.31*	*Cum*
	Section 6-6	*2*	*3.79*	*0.450*	*0.450*	*1.54*	*Cum*
		2	*3.79*	*0.744*	*0.980*	*5.53*	*Cum*
		2	*3.79*	*1.188*	*0.850*	*7.66*	*Cum*
	deduction for M 25 grade of concrete	*2*	*0.82*	*6.500*	*0.300*	*-3.20*	*Cum*
	Floor	*1*	*0.63*	*3.000*	*0.700*	*1.31*	*Cum*
		1	*1.07*	*3.000*	*0.500*	*1.60*	*Cum*
		1	*0.60*	*3.000*	*0.200*	*0.36*	*Cum*
		1	*5.23*	*3.000*	*0.700*	*10.98*	*Cum*
		1	*0.56*	*3.000*	*0.400*	*0.67*	*Cum*
		1	*0.20*	*3.000*	*0.400*	*0.24*	*Cum*
		1	*3.80*	*3.000*	*0.500*	*5.70*	*Cum*
		1	*0.68*	*3.000*	*0.900*	*1.82*	*Cum*
	Crest	*1*	*1.04*	*3.000*	*1.494*	*4.66*	*Cum*
	TOTAL					**142.21**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.80*	*3.000*	*0.150*	*0.36*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.85*	*0.450*	*0.050*	*0.22*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.85*	*0.450*	*0.050*	*0.22*	*Cum*
	Slab Bridge						
	Slab	*1*	*3.80*	*6.500*	*0.458*	*11.30*	*Cum*
	Wearing coat	*1*	*3.80*	*5.500*	*0.070*	*1.46*	*Cum*
	Dirt wall	*2*	*0.40*	*6.500*	*0.500*	*2.60*	*Cum*
	300 mm thick pedastial	*2*	*0.82*	*6.500*	*0.300*	*3.20*	*Cum*
	TOTAL					**19.36**	**Cum**
12	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*45*	*4.36*		*1.578*	*309.6*	*Kg*
a2	*10*	*19*	*6.98*		*0.616*	*81.8*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*16*	*4.28*		*0.616*	*42.2*	*Kg*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
a5	*10*	*16*	*6.90*		*0.616*	*68.1*	*Kg*
x1	*12*	*62*	*2.55*		*0.888*	*140.4*	*Kg*
x2	*16*	*62*	*1.32*		*1.578*	*128.7*	*Kg*
x3	*12*	*24*	*3.70*		*0.888*	*78.8*	*Kg*
	Taking Skin reinforcement @0.2% of M-20	**142.21**	**0.002**	**0.284**	**7850.000**	**2232.7**	**Kg**
	Total Reinforcement Steel (in kg)					*3090.1*	*Kg*
	Total Weight in Metric Tonne					**3.09**	**MT**
5	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.12*		*0.450*	*2.02*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.12*		*2.094*	*9.39*	*Sqm*
		4		*1.078*	*2.094*	*9.03*	*Sqm*
		4	*1.12*		*0.500*	*2.24*	*Sqm*
		4		*1.856*	*0.500*	*3.71*	*Sqm*
	Section 2-2	*4*	*4.00*		*0.500*	*8.00*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*4.00*		*1.180*	*18.88*	*Sqm*
		4		*1.174*	*1.180*	*5.54*	*Sqm*
		4	*4.00*		*1.200*	*19.20*	*Sqm*
		4		*1.678*	*1.200*	*8.05*	*Sqm*
	Section 3-3	*4*	*3.26*		*0.500*	*6.51*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*3.26*		*0.980*	*12.76*	*Sqm*
		4		*1.114*	*0.980*	*4.37*	*Sqm*
		4	*3.26*		*1.400*	*18.23*	*Sqm*
		4		*1.558*	*1.400*	*8.72*	*Sqm*
	Section 5-5	*4*	*6.09*		*0.450*	*10.97*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*6.09*		*2.094*	*51.03*	*Sqm*
		4		*1.078*	*2.094*	*9.03*	*Sqm*
		4	*6.09*		*0.500*	*12.19*	*Sqm*
		4		*1.856*	*0.500*	*3.71*	*Sqm*
	Section 6-6	*4*	*3.79*		*0.450*	*6.82*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.79*		*0.980*	*14.86*	*Sqm*
		4		*0.744*	*0.980*	*2.92*	*Sqm*
		4	*3.79*		*0.850*	*12.89*	*Sqm*
		4		*1.188*	*0.850*	*4.04*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*3.000*	*0.700*	*4.20*	*Sqm*
		2	*1.07*		*0.500*	*1.07*	*Sqm*
		2		*3.000*	*0.500*	*3.00*	*Sqm*
		2	*0.60*		*0.200*	*0.24*	*Sqm*
		2		*3.000*	*0.200*	*1.20*	*Sqm*
		2	*5.23*		*0.700*	*7.32*	*Sqm*
		2		*3.000*	*0.700*	*4.20*	*Sqm*
		2	*0.56*		*0.400*	*0.45*	*Sqm*
		2		*3.000*	*0.400*	*2.40*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*3.000*	*0.400*	*2.40*	*Sqm*
		2	*3.80*		*0.500*	*3.80*	*Sqm*
		2		*3.000*	*0.500*	*3.00*	*Sqm*
		2	*0.68*		*0.900*	*1.22*	*Sqm*
		2		*3.000*	*0.900*	*5.40*	*Sqm*
	Crest	*2*	*1.04*		*1.494*	*3.11*	*Sqm*
		2		*3.000*	*1.494*	*8.96*	*Sqm*
	Toe Wall D/S Portion	*2*	*12.46*		*0.300*	*7.48*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*12.16*		*0.600*	*14.59*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.25*		*0.150*	*1.95*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.25*		*0.600*	*7.80*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**357.72**	**Sqm**
6	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.25*	*4.876*		*31.69*	*Sqm*
	TOTAL					**31.69**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*3.25*	*2.400*	*0.300*	**2.34**	**Cum**
8	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*3.25*	*2.400*	*0.150*	**2.34**	**Cum**
9	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.85*	*0.450*		*4.43*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.85*	*0.450*		*4.43*	*Sqm*
	TOTAL					**8.86**	**Sqm**
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		5.721		5.72	**Cum**
	Abutment						
	Section 1-1	*2*	*1.27*	*1.155*		*2.937*	*Cum*
	Section 2-2	*2*	*4.00*	*1.236*		*9.888*	*Cum*
	Section 3-3	*2*	*3.70*	*1.043*		*7.718*	*Cum*
	Section 5-5	*2*	*6.14*	*1.155*		*14.175*	*Cum*
	Section 6-6	*2*	*3.02*	*1.099*		*6.642*	*Cum*
	D/S protection	*2*					
	Toe wall	*2*	*12.46*	*0.150*	*0.600*	*3.738*	*Cum*
		2	*3.25*	0.150	*0.600*	*0.585*	*Cum*
	TOTAL					**51.41**	**Cum**

	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 14.465						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.73*	*1.712*	*2.445*	*6.069*	*Cum*
	Section 2-2	*2*	*3.67*	*1.958*	*2.445*	*35.120*	*Cum*
	Section 3-3	*2*	*4.20*	*1.838*	*2.245*	*34.661*	*Cum*
	below bridge	*2*	*6.50*	*1.838*	*1.800*	*43.009*	*Cum*
	Section 5-5	*2*	*5.96*	*1.862*	*2.445*	*54.271*	*Cum*
	Section 6-6	*2*	*2.92*	*1.318*	*2.245*	*17.293*	*Cum*
	U/S Key Floor	*1*	*0.63*	*2.800*	*0.850*	*1.488*	*Cum*
	U/S Floor	*1*	*1.02*	*2.800*	*2.245*	*6.399*	*Cum*
	D/S Floor	*1*	*3.98*	*2.800*	*0.850*	*9.472*	*Cum*
		1	*4.50*	*2.800*	*0.650*	*8.190*	*Cum*
	D/S Key Floor	*1*	*0.63*	*2.800*	*0.850*	*1.488*	*Cum*
	Toe Wall D/S Portion	*1*	*12.02*	*0.750*	*0.900*	*8.114*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*3.00*	*0.600*	*0.750*	*2.700*	*Cum*
						228.27	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*2.800*	*0.150*	*0.23*	*Cum*
		1	*0.78*	*2.800*	*0.150*	*0.33*	*Cum*
		1	*4.73*	*2.800*	*0.150*	*1.98*	*Cum*
		1	*0.28*	*2.800*	*0.150*	*0.12*	*Cum*
		1	*2.70*	*2.800*	*0.150*	*1.13*	*Cum*
		1	*0.78*	*2.800*	*0.150*	*0.33*	*Cum*
		1	*0.54*	*2.800*	*0.150*	*0.23*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.73*	*1.712*	*0.150*	*0.37*	*Cum*
	Section 2-2	*2*	*3.67*	*1.958*	*0.300*	*4.31*	*Cum*
	Section 3-3	*2*	*4.20*	*1.838*	*0.300*	*4.63*	*Cum*
	Section 5-5	*2*	*5.96*	*1.862*	*0.150*	*3.33*	*Cum*
	Section 6-6	*2*	*2.92*	*1.318*	*0.150*	*1.16*	*Cum*
	Toe Wall D/S Portion	*1*	*12.02*	*0.750*	*0.300*	*2.70*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall D/S Portion	*1*	*11.72*	*0.450*	*0.600*	*3.16*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.00*	*0.600*	*0.150*	*0.54*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.00*	*0.300*	*0.600*	*1.08*	*Cum*
	TOTAL					**25.64**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.66*	*0.450*	*0.450*	*0.27*	*Cum*
		2	*0.66*	*0.931*	*1.603*	*1.96*	*Cum*
		2	*0.66*	*1.562*	*0.700*	*1.44*	*Cum*
	Section 2-2	*2*	*3.67*	*0.820*	*0.500*	*3.01*	*Cum*
		2	*3.67*	*1.164*	*1.146*	*9.79*	*Cum*
		2	*3.67*	*1.658*	*1.000*	*12.16*	*Cum*
	Section 3-3	*2*	*3.77*	*0.820*	*0.500*	*3.09*	*Cum*
		2	*3.77*	*1.104*	*0.946*	*7.87*	*Cum*
		2	*3.77*	*1.538*	*1.200*	*13.90*	*Cum*
	Section 5-5	*2*	*5.98*	*0.450*	*0.450*	*2.42*	*Cum*
		2	*5.98*	*0.931*	*1.603*	*17.86*	*Cum*
		2	*5.98*	*1.562*	*0.700*	*13.09*	*Cum*
	Section 6-6	*2*	*3.69*	*0.450*	*0.450*	*1.50*	*Cum*
		2	*3.69*	*0.734*	*0.946*	*5.13*	*Cum*
		2	*3.69*	*1.168*	*0.850*	*7.33*	*Cum*
	deduction for M 25 grade of concrete	*2*	*0.82*	*6.500*	*0.300*	*-3.20*	*Cum*
	Floor	*1*	*0.63*	*2.800*	*0.700*	*1.23*	*Cum*
		1	*5.00*	*2.800*	*0.500*	*7.00*	*Cum*
		1	*0.66*	*2.800*	*0.200*	*0.37*	*Cum*
		1	*0.20*	*2.800*	*0.400*	*0.22*	*Cum*
		1	*4.30*	*2.800*	*0.500*	*6.02*	*Cum*
		1	*0.63*	*2.800*	*0.700*	*1.23*	*Cum*
	Crest	*1*	*0.82*	*2.800*	*1.047*	*2.39*	*Cum*
	TOTAL					**116.06**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.65*	*2.800*	*0.150*	*0.27*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*8.88*	*0.450*	*0.050*	*0.20*	*Cum*
	On Abutment Top (Right Side)	*1*	*8.88*	*0.450*	*0.050*	*0.20*	*Cum*
	Slab Bridge						
	Slab	*1*	*3.60*	*6.500*	*0.458*	*10.71*	*Cum*
	Wearing coat	*1*	*3.60*	*5.500*	*0.070*	*1.39*	*Cum*
	Dirt wall	*2*	*0.40*	*6.500*	*0.500*	*2.60*	*Cum*
	300 mm thick pedastial	*2*	*0.82*	*6.500*	*0.300*	*3.20*	*Cum*
	TOTAL					**18.56**	**Cum**
12	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*45*	*4.16*		*1.578*	*295.4*	*Kg*
a2	*10*	*18*	*6.98*		*0.616*	*77.5*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*26*	*4.08*		*0.616*	*65.4*	*Kg*
a5	*10*	*14*	*6.90*		*0.616*	*59.6*	*Kg*
x1	*12*	*60*	*2.55*		*0.888*	*135.9*	*Kg*
x2	*16*	*60*	*1.32*		*1.578*	*124.5*	*Kg*
x3	*12*	*24*	*3.50*		*0.888*	*74.6*	*Kg*
	Taking Skin reinforcement @0.2% of M-20	**116.06**	**0.002**	**0.232**	**7850.000**	**1822.1**	**Kg**
	Total Reinforcement Steel (in kg)					*2662.8*	*Kg*
	Total Weight in Metric Tonne					**2.66**	**MT**
5	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.66*		*0.450*	*1.18*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.66*		*1.603*	*4.22*	*Sqm*
		4		*0.931*	*1.603*	*5.97*	*Sqm*
		4	*0.66*		*0.700*	*1.84*	*Sqm*
		4		*1.562*	*0.700*	*4.37*	*Sqm*
	Section 2-2	*4*	*3.67*		*0.500*	*7.34*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*3.67*		*1.146*	*16.81*	*Sqm*
		4		*1.164*	*1.146*	*5.34*	*Sqm*
		4	*3.67*		*1.000*	*14.67*	*Sqm*
		4		*1.658*	*1.000*	*6.63*	*Sqm*
	Section 3-3	*4*	*3.77*		*0.500*	*7.53*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*3.77*		*0.946*	*14.25*	*Sqm*
		4		*1.104*	*0.946*	*4.18*	*Sqm*
		4	*3.77*		*1.200*	*18.08*	*Sqm*
		4		*1.538*	*1.200*	*7.38*	*Sqm*
	Section 5-5	*4*	*5.98*		*0.450*	*10.77*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*5.98*		*1.603*	*38.37*	*Sqm*
		4		*0.931*	*1.603*	*5.97*	*Sqm*
		4	*5.98*		*0.700*	*16.76*	*Sqm*
		4		*1.562*	*0.700*	*4.37*	*Sqm*
	Section 6-6	*4*	*3.69*		*0.450*	*6.65*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.69*		*0.946*	*13.97*	*Sqm*
		4		*0.734*	*0.946*	*2.78*	*Sqm*
		4	*3.69*		*0.850*	*12.55*	*Sqm*
		4		*1.168*	*0.850*	*3.97*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*2.800*	*0.700*	*3.92*	*Sqm*
		2	*5.00*		*0.500*	*5.00*	*Sqm*
		2		*2.800*	*0.500*	*2.80*	*Sqm*
		2	*0.66*		*0.200*	*0.26*	*Sqm*
		2		*2.800*	*0.200*	*1.12*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*2.800*	*0.400*	*2.24*	*Sqm*
		2	*4.30*		*0.500*	*4.30*	*Sqm*
		2		*2.800*	*0.500*	*2.80*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*2.800*	*0.700*	*3.92*	*Sqm*
	Crest	*2*	*0.82*		*1.047*	*1.71*	*Sqm*
		2		*2.800*	*1.047*	*5.86*	*Sqm*
	Toe Wall D/S Portion	*2*	*12.02*		*0.300*	*7.21*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*11.72*		*0.600*	*14.06*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.00*		*0.150*	*1.80*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.00*		*0.600*	*7.20*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**309.86**	**Sqm**
6	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.00*	*4.747*		*28.48*	*Sqm*
	TOTAL					**28.48**	**Sqm**
7	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*3.00*	*2.200*	*0.300*	**1.98**	**Cum**
8	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*3.00*	*2.200*	*0.150*	**1.98**	**Cum**
9	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*8.88*	*0.450*		*4.00*	*Sqm*
	On Abutment Top (Right Side)	*1*	*8.88*	*0.450*		*4.00*	*Sqm*
	TOTAL					**7.99**	**Sqm**
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	2.00			**2.00**	**No.**
	0.449						
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		2.120		2.12	**Cum**
	Abutment						
	Section 1-1	2	*0.73*	*1.346*		*1.952*	*Cum*
	Section 2-2	2	*3.67*	*1.359*		*9.970*	*Cum*
	Section 3-3	2	*4.20*	*1.122*		*9.426*	*Cum*
	Section 5-5	2	*5.96*	*1.346*		*16.046*	*Cum*
	Section 6-6	2	*2.92*	*1.061*		*6.203*	*Cum*
	D/S protection	2					
	Toe wall	2	*12.02*	*0.150*	*0.600*	*3.606*	*Cum*
		2	*3.00*	0.150	*0.600*	*0.540*	*Cum*
	TOTAL					**49.86**	**Cum**

	SHARDA TYPE CULVERT/FALL OF HEIGHT 0.914 METER AT CH. 15.515						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.38*	*1.986*	*2.219*	*12.168*	*Cum*
	Section 2-2	*2*	*3.80*	*1.958*	*2.219*	*33.020*	*Cum*
	Section 3-3	*2*	*4.20*	*1.838*	*2.019*	*31.172*	*Cum*
	below bridge	*2*	*6.50*	*1.838*	*0.850*	*20.310*	*Cum*
	Section 5-5	*2*	*6.10*	*2.136*	*2.219*	*57.811*	*Cum*
	Section 6-6	*2*	*2.92*	*1.318*	*2.019*	*15.552*	*Cum*
	U/S Key Floor	*1*	*0.58*	*2.800*	*0.650*	*1.047*	*Cum*
	U/S Floor	*1*	*2.50*	*2.800*	*1.964*	*13.748*	*Cum*
	D/S Floor	*1*	*4.00*	*2.800*	*1.050*	*11.760*	*Cum*
		1	*4.50*	*2.800*	*0.850*	*10.710*	*Cum*
	D/S Key Floor	*1*	*0.71*	*2.800*	*1.200*	*2.394*	*Cum*
	Toe Wall D/S Portion	*1*	*12.02*	*0.750*	*0.900*	*8.115*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*3.00*	*0.600*	*0.750*	*2.700*	*Cum*
						220.51	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*2.800*	*0.150*	*0.23*	*Cum*
		1	*0.56*	*2.800*	*0.150*	*0.23*	*Cum*
		1	*6.18*	*2.800*	*0.150*	*2.59*	*Cum*
		1	*0.50*	*2.800*	*0.150*	*0.21*	*Cum*
		1	*2.61*	*2.800*	*0.150*	*1.10*	*Cum*
		1	*1.17*	*2.800*	*0.150*	*0.49*	*Cum*
		1	*0.54*	*2.800*	*0.150*	*0.23*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.38*	*1.986*	*0.150*	*0.82*	*Cum*
	Section 2-2	*2*	*3.80*	*1.958*	*0.300*	*4.46*	*Cum*
	Section 3-3	*2*	*4.20*	*1.838*	*0.300*	*4.63*	*Cum*
	Section 5-5	*2*	*6.10*	*2.136*	*0.150*	*3.91*	*Cum*
	Section 6-6	*2*	*2.92*	*1.318*	*0.150*	*1.16*	*Cum*
	Toe Wall D/S Portion	*1*	*12.02*	*0.750*	*0.300*	*2.70*	*Cum*
	Toe Wall D/S Portion	*1*	*11.72*	*0.450*	*0.600*	*3.16*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.00*	*0.600*	*0.150*	*0.54*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.00*	*0.300*	*0.600*	*1.08*	*Cum*
	TOTAL					**27.55**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.31*	*0.450*	*0.450*	*0.53*	*Cum*
		2	*1.31*	*1.068*	*2.060*	*5.74*	*Cum*
		2	*1.31*	*1.836*	*0.700*	*3.36*	*Cum*
	Section 2-2	*2*	*3.65*	*0.820*	*0.500*	*2.99*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	*3.65*	*1.164*	*1.146*	*9.74*	*Cum*
		2	*3.65*	*1.658*	*1.400*	*16.94*	*Cum*
	Section 3-3	*2*	*3.77*	*0.820*	*0.500*	*3.09*	*Cum*
		2	*3.77*	*1.104*	*0.946*	*7.87*	*Cum*
		2	*3.77*	*1.538*	*1.600*	*18.53*	*Cum*
	Section 5-5	*2*	*6.05*	*0.450*	*0.450*	*2.45*	*Cum*
		2	*6.05*	*1.068*	*2.060*	*26.64*	*Cum*
		2	*6.05*	*1.836*	*0.700*	*15.56*	*Cum*
	Section 6-6	*2*	*3.69*	*0.450*	*0.450*	*1.50*	*Cum*
		2	*3.69*	*0.734*	*0.946*	*5.13*	*Cum*
		2	*3.69*	*1.168*	*0.550*	*4.74*	*Cum*
	deduction for M 25 grade of concrete	*2*	*0.82*	*6.500*	*0.300*	*-3.20*	*Cum*
	Floor	*1*	*0.58*	*2.800*	*0.500*	*0.81*	*Cum*
		1	*6.50*	*2.800*	*0.700*	*12.74*	*Cum*
		1	*0.58*	*2.800*	*0.350*	*0.57*	*Cum*
		1	*0.20*	*2.800*	*0.450*	*0.25*	*Cum*
		1	*4.30*	*2.800*	*0.550*	*6.62*	*Cum*
		1	*0.71*	*2.800*	*1.050*	*2.09*	*Cum*
	Crest	*1*	*1.04*	*2.800*	*1.476*	*4.29*	*Cum*
	TOTAL					**148.98**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.80*	*2.800*	*0.150*	*0.34*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*13.41*	*0.450*	*0.050*	*0.30*	*Cum*
	On Abutment Top (Right Side)	*1*	*13.41*	*0.450*	*0.050*	*0.30*	*Cum*
	Slab Bridge						
	Slab	*1*	*3.60*	*6.500*	*0.385*	*9.01*	*Cum*
	Wearing coat	*1*	*3.60*	*5.500*	*0.070*	*1.39*	*Cum*
	Dirt wall	*2*	*0.40*	*6.500*	*0.350*	*1.82*	*Cum*
	300 mm thick pedastial	*2*	*0.82*	*6.500*	*0.300*	*3.20*	*Cum*
	TOTAL					**16.35**	**Cum**
12	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*45*	*4.16*		*1.578*	*295.4*	*Kg*
a2	*10*	*18*	*6.98*		*0.616*	*77.5*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*16*	*4.08*		*0.616*	*40.2*	*Kg*
a5	*10*	*14*	*7.00*		*0.616*	*60.4*	*Kg*
x1	*12*	*60*	*2.55*		*0.888*	*135.9*	*Kg*
x2	*16*	*60*	*1.32*		*1.578*	*124.5*	*Kg*
x3	*12*	*20*	*3.50*		*0.888*	*62.1*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**148.98**	**0.00**	**0.447**	**7850.000**	**3508.5**	**Kg**
	Total Reinforcement Steel (in kg)					*4312.5*	*Kg*
	Total Weight in Metric Tonne					**4.31**	**MT**
5	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.31*		*0.450*	*2.35*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.31*		*2.060*	*10.76*	*Sqm*
		4		*1.068*	*2.060*	*8.80*	*Sqm*
		4	*1.31*		*0.700*	*3.66*	*Sqm*
		4		*1.836*	*0.700*	*5.14*	*Sqm*
	Section 2-2	*4*	*3.65*		*0.500*	*7.30*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*3.65*		*1.146*	*16.73*	*Sqm*
		4		*1.164*	*1.146*	*5.34*	*Sqm*
		4	*3.65*		*1.400*	*20.44*	*Sqm*
		4		*1.658*	*1.400*	*9.28*	*Sqm*
	Section 3-3	*4*	*3.77*		*0.500*	*7.53*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*3.77*		*0.946*	*14.25*	*Sqm*
		4		*1.104*	*0.946*	*4.18*	*Sqm*
		4	*3.77*		*1.600*	*24.10*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4		*1.538*	*1.600*	*9.84*	*Sqm*
	Section 5-5	*4*	*6.05*		*0.450*	*10.90*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*6.05*		*2.060*	*49.88*	*Sqm*
		4		*1.068*	*2.060*	*8.80*	*Sqm*
		4	*6.05*		*0.700*	*16.95*	*Sqm*
		4		*1.836*	*0.700*	*5.14*	*Sqm*
	Section 6-6	*4*	*3.69*		*0.450*	*6.65*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.69*		*0.946*	*13.97*	*Sqm*
		4		*0.734*	*0.946*	*2.78*	*Sqm*
		4	*3.69*		*0.550*	*8.12*	*Sqm*
		4		*1.168*	*0.550*	*2.57*	*Sqm*
	Floor	*2*	*0.58*		*0.500*	*0.58*	*Sqm*
		2		*2.800*	*0.500*	*2.80*	*Sqm*
		2	*6.50*		*0.700*	*9.10*	*Sqm*
		2		*2.800*	*0.700*	*3.92*	*Sqm*
		2	*0.58*		*0.350*	*0.41*	*Sqm*
		2		*2.800*	*0.350*	*1.96*	*Sqm*
		2	*0.20*		*0.450*	*0.18*	*Sqm*
		2		*2.800*	*0.450*	*2.52*	*Sqm*
		2	*4.30*		*0.550*	*4.73*	*Sqm*
		2		*2.800*	*0.550*	*3.08*	*Sqm*
		2	*0.71*		*1.050*	*1.50*	*Sqm*
		2		*2.800*	*1.050*	*5.88*	*Sqm*
	Crest	*2*	*1.04*		*1.476*	*3.06*	*Sqm*
		2		*2.800*	*1.476*	*8.27*	*Sqm*
	Toe Wall D/S Portion	*2*	*12.02*		*0.300*	*7.21*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*11.72*		*0.600*	*14.07*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.00*		*0.150*	*1.80*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.00*		*0.600*	*7.20*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**361.50**	**Sqm**
6	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.00*	*4.748*		*28.49*	*Sqm*
	TOTAL					**28.49**	**Sqm**
7	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*3.00*	*2.200*	*0.300*	**1.98**	**Cum**
8	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*3.00*	*2.200*	*0.150*	**1.98**	**Cum**
9	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*13.41*	*0.450*		*6.03*	*Sqm*
	On Abutment Top (Right Side)	*1*	*13.41*	*0.450*		*6.03*	*Sqm*
	TOTAL					**12.07**	**Sqm**
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		5.627		5.63	**Cum**
	Abutment						
	Section 1-1	2	*1.38*	*1.056*		*2.916*	*Cum*
	Section 2-2	2	*3.80*	*2.014*		*15.303*	*Cum*
	Section 3-3	2	*4.20*	*1.791*		*15.044*	*Cum*
	Section 5-5	2	*6.10*	*1.056*		*12.880*	*Cum*
	Section 6-6	2	*2.92*	*0.812*		*4.745*	*Cum*
	D/S protection	2					
	Toe wall	2	*12.02*	*0.150*	*0.600*	*3.607*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	*3.00*	0.150	*0.600*	*0.540*	*Cum*
	TOTAL					**60.66**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH. 16.000 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.36*	*2.078*	*1.091*	*6.187*	*Cum*
	Section 2-2	*2*	*4.00*	*1.394*	*1.091*	*12.167*	*Cum*
	Section 3-3	*2*	*2.20*	*1.274*	*0.891*	*4.995*	*Cum*
	Section 5-5	*2*	*6.52*	*2.228*	*1.091*	*31.692*	*Cum*
	Section 6-6	*2*	*3.19*	*1.274*	*0.891*	*7.233*	*Cum*
	U/S Key Floor	*1*	*0.60*	*2.000*	*0.750*	*0.900*	*Cum*
	U/S Floor	*1*	*2.50*	*2.000*	*2.017*	*10.085*	*Cum*
	D/S Floor	*1*	*4.00*	*2.000*	*0.950*	*7.600*	*Cum*
		1	*2.50*	*2.000*	*0.750*	*3.750*	*Cum*
	D/S Key Floor	*1*	*0.73*	*2.000*	*1.050*	*1.523*	*Cum*
	Toe Wall D/S Portion	*1*	*10.92*	*0.750*	*0.900*	*7.370*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*3.00*	*0.600*	*0.750*	*2.700*	*Cum*
						96.20	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*2.000*	*0.150*	*0.16*	*Cum*
		1	*0.67*	*2.000*	*0.150*	*0.20*	*Cum*
		1	*6.13*	*2.000*	*0.150*	*1.84*	*Cum*
		1	*0.42*	*2.000*	*0.150*	*0.13*	*Cum*
		1	*0.64*	*2.000*	*0.150*	*0.19*	*Cum*
		1	*1.23*	*2.000*	*0.150*	*0.37*	*Cum*
		1	*0.54*	*2.000*	*0.150*	*0.16*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.36*	*2.078*	*0.150*	*0.85*	*Cum*
	Section 2-2	*2*	*4.00*	*1.394*	*0.150*	*1.67*	*Cum*
	Section 3-3	*2*	*2.20*	*1.274*	*0.150*	*0.84*	*Cum*
	Section 5-5	*2*	*6.52*	*2.228*	*0.150*	*4.36*	*Cum*
	Section 6-6	*2*	*3.19*	*1.274*	*0.150*	*1.22*	*Cum*
	Toe Wall D/S Portion	*1*	*10.92*	*0.750*	*0.300*	*2.46*	*Cum*
	Toe Wall D/S Portion	*1*	*10.62*	*0.450*	*0.600*	*2.87*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.00*	*0.600*	*0.150*	*0.54*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.00*	*0.300*	*0.600*	*1.08*	*Cum*
	TOTAL					**18.93**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.14*	*0.450*	*0.450*	*0.46*	*Cum*
		2	*1.14*	*1.114*	*2.213*	*5.62*	*Cum*
		2	*1.14*	*1.928*	*0.600*	*2.64*	*Cum*
	Section 2-2	*2*	*4.00*	*0.450*	*0.450*	*1.62*	*Cum*
		2	*4.00*	*0.772*	*1.074*	*6.63*	*Cum*
		2	*4.00*	*1.244*	*0.600*	*5.97*	*Cum*
	Section 3-3	*2*	*1.79*	*0.450*	*0.450*	*0.72*	*Cum*
		2	*1.79*	*0.712*	*0.874*	*2.23*	*Cum*
		2	*1.79*	*1.124*	*0.500*	*2.01*	*Cum*
	Section 5-5	*2*	*6.48*	*0.450*	*0.450*	*2.62*	*Cum*
		2	*6.48*	*1.114*	*2.213*	*31.93*	*Cum*
		2	*6.48*	*1.928*	*0.600*	*14.98*	*Cum*
	Section 6-6	*2*	*3.75*	*0.450*	*0.450*	*1.52*	*Cum*
		2	*3.75*	*0.712*	*0.874*	*4.66*	*Cum*
		2	*3.75*	*1.124*	*0.500*	*4.21*	*Cum*
	Floor	*1*	*0.60*	*2.000*	*0.600*	*0.72*	*Cum*
		1	*6.50*	*2.000*	*0.600*	*7.80*	*Cum*
		1	*0.56*	*2.000*	*0.300*	*0.33*	*Cum*
		1	*0.20*	*2.000*	*0.400*	*0.16*	*Cum*
		1	*2.30*	*2.000*	*0.500*	*2.30*	*Cum*
		1	*0.73*	*2.000*	*0.900*	*1.31*	*Cum*
	Crest	*1*	*1.14*	*2.000*	*1.518*	*3.47*	*Cum*
	TOTAL					**103.92**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.90*	*2.000*	*0.150*	*0.27*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*18.44*	*0.450*	*0.050*	*0.41*	*Cum*
	On Abutment Top (Right Side)	*1*	*18.44*	*0.450*	*0.050*	*0.41*	*Cum*
	TOTAL					**1.10**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**103.92**	**0.00**	**0.312**	**7850.000**	**2447.34**	**Kg**
	Total Weight in Metric Tonne					**2.45**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.14*		*0.450*	*2.05*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.14*		*2.213*	*10.09*	*Sqm*
		4		*1.114*	*2.213*	*9.86*	*Sqm*
		4	*1.14*		*0.600*	*2.73*	*Sqm*
		4		*1.928*	*0.600*	*4.63*	*Sqm*
	Section 2-2	*4*	*4.00*		*0.450*	*7.20*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*4.00*		*1.074*	*17.18*	*Sqm*
		4		*0.772*	*1.074*	*3.32*	*Sqm*
		4	*4.00*		*0.600*	*9.60*	*Sqm*
		4		*1.244*	*0.600*	*2.99*	*Sqm*
	Section 3-3	*4*	*1.79*		*0.450*	*3.22*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.79*		*0.874*	*6.25*	*Sqm*
		4		*0.712*	*0.874*	*2.49*	*Sqm*
		4	*1.79*		*0.500*	*3.58*	*Sqm*
		4		*1.124*	*0.500*	*2.25*	*Sqm*
	Section 5-5	*4*	*6.48*		*0.450*	*11.66*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*6.48*		*2.213*	*57.32*	*Sqm*
		4		*1.114*	*2.213*	*9.86*	*Sqm*
		4	*6.48*		*0.600*	*15.54*	*Sqm*
		4		*1.928*	*0.600*	*4.63*	*Sqm*
	Section 6-6	*4*	*3.75*		*0.450*	*6.74*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.75*		*0.874*	*13.10*	*Sqm*
		4		*0.712*	*0.874*	*2.49*	*Sqm*
		4	*3.75*		*0.500*	*7.49*	*Sqm*
		4		*1.124*	*0.500*	*2.25*	*Sqm*
	Floor	*2*	*0.60*		*0.600*	*0.72*	*Sqm*
		2		*2.000*	*0.600*	*2.40*	*Sqm*
		2	*6.50*		*0.600*	*7.80*	*Sqm*
		2		*2.000*	*0.600*	*2.40*	*Sqm*
		2	*0.56*		*0.300*	*0.33*	*Sqm*
		2		*2.000*	*0.300*	*1.20*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*2.000*	*0.400*	*1.60*	*Sqm*
		2	*2.30*		*0.500*	*2.30*	*Sqm*
		2		*2.000*	*0.500*	*2.00*	*Sqm*
		2	*0.73*		*0.900*	*1.31*	*Sqm*
		2		*2.000*	*0.900*	*3.60*	*Sqm*
	Crest	*2*	*1.14*		*1.518*	*3.47*	*Sqm*
		2		*2.000*	*1.518*	*6.07*	*Sqm*
	Toe Wall D/S Portion	*2*	*10.92*		*0.300*	*6.55*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*10.62*		*0.600*	*12.74*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.00*		*0.150*	*1.80*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.00*		*0.600*	*7.20*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**288.29**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.00*	*4.574*		*27.44*	*Sqm*
	TOTAL					**27.44**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*3.00*	*1.400*	*0.300*	**1.26**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*3.00*	*1.400*	*0.150*	**1.26**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*18.44*	*0.450*		*8.30*	*Sqm*
	On Abutment Top (Right Side)	*1*	*18.44*	*0.450*		*8.30*	*Sqm*
	TOTAL					**16.59**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		4.667		4.67	**Cum**
	Abutment						
	Section 1-1	2	*1.36*	*0.227*		*0.619*	*Cum*
	Section 2-2	2	*4.00*	*0.227*		*1.816*	*Cum*
	Section 3-3	2	*2.20*	*0.124*		*0.546*	*Cum*
	Section 5-5	2	*6.52*	*0.227*		*2.960*	*Cum*
	Section 6-6	2	*3.19*	*0.124*		*0.790*	*Cum*
	D/S protection	2					
	Toe wall	2	*10.92*	*0.150*	*0.600*	*3.275*	*Cum*
		2	*3.00*	0.150	*0.600*	*0.540*	*Cum*
	TOTAL					**15.21**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE BRIDGE/FALL OF HEIGHT 0.762 METER AT CH. 18.040 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.48*	*1.852*	*2.202*	*12.100*	*Cum*
	Section 2-2	*2*	*3.80*	*1.914*	*2.202*	*32.031*	*Cum*
	Section 3-3	*2*	*3.90*	*1.794*	*2.002*	*28.014*	*Cum*
	below bridge	*2*	*6.50*	*1.794*	*0.850*	*19.824*	*Cum*
	Section 5-5	*2*	*5.85*	*2.002*	*2.202*	*51.561*	*Cum*
	Section 6-6	*2*	*2.82*	*1.274*	*2.002*	*14.364*	*Cum*
	U/S Key Floor	*1*	*0.60*	*2.000*	*0.750*	*0.900*	*Cum*
	U/S Floor	*1*	*2.50*	*2.000*	*1.712*	*8.560*	*Cum*
	D/S Floor	*1*	*4.00*	*2.000*	*0.950*	*7.600*	*Cum*
		1	*4.20*	*2.000*	*0.750*	*6.300*	*Cum*
	D/S Key Floor	*1*	*0.73*	*2.000*	*1.250*	*1.813*	*Cum*
	Toe Wall D/S Portion	*1*	*10.92*	*0.750*	*0.900*	*7.370*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*3.00*	*0.600*	*0.750*	*2.700*	*Cum*
						193.14	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*2.000*	*0.150*	*0.16*	*Cum*
		1	*0.67*	*2.000*	*0.150*	*0.20*	*Cum*
		1	*6.13*	*2.000*	*0.150*	*1.84*	*Cum*
		1	*0.42*	*2.000*	*0.150*	*0.13*	*Cum*
		1	*2.34*	*2.000*	*0.150*	*0.70*	*Cum*
		1	*1.23*	*2.000*	*0.150*	*0.37*	*Cum*
		1	*0.54*	*2.000*	*0.150*	*0.16*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.48*	*1.852*	*0.150*	*0.82*	*Cum*
	Section 2-2	*2*	*3.80*	*1.914*	*0.300*	*4.36*	*Cum*
	Section 3-3	*2*	*3.90*	*1.794*	*0.300*	*4.20*	*Cum*
	Section 5-5	*2*	*5.85*	*2.002*	*0.150*	*3.51*	*Cum*
	Section 6-6	*2*	*2.82*	*1.274*	*0.150*	*1.08*	*Cum*
	Toe Wall D/S Portion	*1*	*10.92*	*0.750*	*0.300*	*2.46*	*Cum*
	Toe Wall D/S Portion	*1*	*10.62*	*0.450*	*0.600*	*2.87*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.00*	*0.600*	*0.150*	*0.54*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.00*	*0.300*	*0.600*	*1.08*	*Cum*
	TOTAL					**24.48**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.41*	*0.450*	*0.450*	*0.57*	*Cum*
		2	*1.41*	*1.001*	*1.836*	*5.18*	*Cum*
		2	*1.41*	*1.702*	*0.600*	*2.88*	*Cum*
	Section 2-2	*2*	*3.65*	*0.820*	*0.500*	*2.99*	*Cum*
		2	*3.65*	*1.142*	*1.074*	*8.95*	*Cum*
		2	*3.65*	*1.614*	*1.400*	*16.50*	*Cum*
	Section 3-3	*2*	*3.77*	*0.820*	*0.500*	*3.09*	*Cum*
		2	*3.77*	*1.082*	*0.874*	*7.12*	*Cum*
		2	*3.77*	*1.494*	*1.600*	*18.00*	*Cum*
	Section 5-5	*2*	*5.80*	*0.450*	*0.450*	*2.35*	*Cum*
		2	*5.80*	*1.001*	*1.836*	*21.33*	*Cum*
		2	*5.80*	*1.702*	*0.600*	*11.85*	*Cum*
	Section 6-6	*2*	*3.56*	*0.450*	*0.450*	*1.44*	*Cum*
		2	*3.56*	*0.712*	*0.874*	*4.43*	*Cum*
		2	*3.56*	*1.124*	*0.500*	*4.01*	*Cum*
	deduction for M 25 grade of concrete	*2*	*0.82*	*6.500*	*0.300*	*-3.20*	*Cum*
	Floor	*1*	*0.60*	*2.000*	*0.600*	*0.72*	*Cum*
		1	*6.50*	*2.000*	*0.600*	*7.80*	*Cum*
		1	*0.56*	*2.000*	*0.300*	*0.33*	*Cum*
		1	*0.20*	*2.000*	*0.450*	*0.18*	*Cum*
		1	*4.00*	*2.000*	*0.500*	*4.00*	*Cum*
		1	*0.73*	*2.000*	*1.100*	*1.60*	*Cum*
	Crest	*1*	*1.09*	*2.000*	*1.274*	*2.79*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**124.92**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.80*	*2.000*	*0.150*	*0.24*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*12.67*	*0.450*	*0.050*	*0.29*	*Cum*
	On Abutment Top (Right Side)	*1*	*12.67*	*0.450*	*0.050*	*0.29*	*Cum*
	Slab Bridge						
	Slab	*1*	*2.80*	*6.500*	*0.335*	*6.10*	*Cum*
	Wearing coat	*1*	*2.80*	*5.500*	*0.070*	*1.08*	*Cum*
	Dirt wall	*2*	*0.40*	*6.500*	*0.300*	*1.56*	*Cum*
	300 mm thick pedastial	*2*	*0.82*	*6.500*	*0.300*	*3.20*	*Cum*
	TOTAL					**12.74**	**Cum**
12	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*36*	*3.26*		*1.578*	*185.2*	*Kg*
a2	*10*	*14*	*6.88*		*0.616*	*59.4*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*23*	*3.18*		*0.616*	*45.1*	*Kg*
a5	*10*	*10*	*6.80*		*0.616*	*41.9*	*Kg*
x1	*12*	*46*	*2.50*		*0.888*	*102.1*	*Kg*
x2	*16*	*46*	*1.32*		*1.578*	*95.5*	*Kg*
x3	*12*	*24*	*2.70*		*0.888*	*57.5*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**124.92**	**0.00**	**0.375**	**7850.000**	**2941.8**	**Kg**
	Total Reinforcement Steel (in kg)					*3536.4*	*Kg*
	Total Weight in Metric Tonne					**3.54**	**MT**
5	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.41*		*0.450*	*2.54*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.41*		*1.836*	*10.34*	*Sqm*
		4		*1.001*	*1.836*	*7.35*	*Sqm*
		4	*1.41*		*0.600*	*3.38*	*Sqm*
		4		*1.702*	*0.600*	*4.08*	*Sqm*
	Section 2-2	*4*	*3.65*		*0.500*	*7.30*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*3.65*		*1.074*	*15.68*	*Sqm*
		4		*1.142*	*1.074*	*4.91*	*Sqm*
		4	*3.65*		*1.400*	*20.44*	*Sqm*
		4		*1.614*	*1.400*	*9.04*	*Sqm*
	Section 3-3	*4*	*3.77*		*0.500*	*7.53*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*3.77*		*0.874*	*13.17*	*Sqm*
		4		*1.082*	*0.874*	*3.78*	*Sqm*
		4	*3.77*		*1.600*	*24.10*	*Sqm*
		4		*1.494*	*1.600*	*9.56*	*Sqm*
	Section 5-5	*4*	*5.80*		*0.450*	*10.45*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*5.80*		*1.836*	*42.62*	*Sqm*
		4		*1.001*	*1.836*	*7.35*	*Sqm*
		4	*5.80*		*0.600*	*13.93*	*Sqm*
		4		*1.702*	*0.600*	*4.08*	*Sqm*
	Section 6-6	*4*	*3.56*		*0.450*	*6.41*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.56*		*0.874*	*12.45*	*Sqm*
		4		*0.712*	*0.874*	*2.49*	*Sqm*
		4	*3.56*		*0.500*	*7.12*	*Sqm*
		4		*1.124*	*0.500*	*2.25*	*Sqm*
	Floor	*2*	*0.60*		*0.600*	*0.72*	*Sqm*
		2		*2.000*	*0.600*	*2.40*	*Sqm*
		2	*6.50*		*0.600*	*7.80*	*Sqm*
		2		*2.000*	*0.600*	*2.40*	*Sqm*
		2	*0.56*		*0.300*	*0.33*	*Sqm*
		2		*2.000*	*0.300*	*1.20*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	*0.20*		*0.450*	*0.18*	*Sqm*
		2		*2.000*	*0.450*	*1.80*	*Sqm*
		2	*4.00*		*0.500*	*4.00*	*Sqm*
		2		*2.000*	*0.500*	*2.00*	*Sqm*
		2	*0.73*		*1.100*	*1.60*	*Sqm*
		2		*2.000*	*1.100*	*4.40*	*Sqm*
	Crest	*2*	*1.09*		*1.274*	*2.79*	*Sqm*
		2		*2.000*	*1.274*	*5.10*	*Sqm*
	Toe Wall D/S Portion	*2*	*10.92*		*0.300*	*6.55*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*10.62*		*0.600*	*12.74*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.00*		*0.150*	*1.80*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.00*		*0.600*	*7.20*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**325.15**	**Sqm**
6	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.00*	*4.574*		*27.44*	*Sqm*
	TOTAL					**27.44**	**Sqm**
7	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*3.00*	*1.400*	*0.300*	**1.26**	**Cum**
8	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*3.00*	*1.400*	*0.150*	**1.26**	**Cum**
9	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*12.67*	*0.450*		*5.70*	*Sqm*
	On Abutment Top (Right Side)	*1*	*12.67*	*0.450*		*5.70*	*Sqm*
	TOTAL					**11.41**	**Sqm**
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		3.727		3.73	**Cum**
	Abutment						
	Section 1-1	2	*1.48*	*1.158*		*3.436*	*Cum*
	Section 2-2	2	*3.80*	*1.869*		*14.201*	*Cum*
	Section 3-3	2	*3.90*	*1.653*		*12.890*	*Cum*
	Section 5-5	2	*5.85*	*1.158*		*13.544*	*Cum*
	Section 6-6	2	*2.82*	*0.877*		*4.938*	*Cum*
	D/S protection	2					
	Toe wall	2	*10.92*	*0.150*	*0.600*	*3.275*	*Cum*
		2	*3.00*	0.150	*0.600*	*0.540*	*Cum*
	TOTAL					**56.55**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 19.700 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.38*	*1.686*	*1.894*	*8.801*	*Cum*
	Section 2-2	*2*	*2.62*	*1.320*	*1.894*	*13.090*	*Cum*
	Section 3-3	*2*	*1.70*	*1.200*	*1.694*	*6.912*	*Cum*
	Section 5-5	*2*	*6.52*	*1.836*	*1.894*	*45.338*	*Cum*
	Section 6-6	*2*	*2.73*	*1.200*	*1.694*	*11.079*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.500*	*0.850*	*0.797*	*Cum*
	U/S Floor	*1*	*2.00*	*1.500*	*1.460*	*4.380*	*Cum*
	D/S Floor	*1*	*3.00*	*1.500*	*0.850*	*3.825*	*Cum*
		1	*2.00*	*1.500*	*0.650*	*1.950*	*Cum*
	D/S Key Floor	*1*	*0.63*	*1.500*	*0.850*	*0.797*	*Cum*
	Toe Wall D/S Portion	*1*	*9.35*	*0.750*	*0.900*	*6.311*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.50*	*0.600*	*0.750*	*2.250*	*Cum*
						105.53	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.500*	*0.150*	*0.12*	*Cum*
		1	*0.78*	*1.500*	*0.150*	*0.18*	*Cum*
		1	*4.58*	*1.500*	*0.150*	*1.03*	*Cum*
		1	*0.28*	*1.500*	*0.150*	*0.06*	*Cum*
		1	*0.44*	*1.500*	*0.150*	*0.10*	*Cum*
		1	*0.78*	*1.500*	*0.150*	*0.18*	*Cum*
		1	*0.54*	*1.500*	*0.150*	*0.12*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.38*	*1.686*	*0.150*	*0.70*	*Cum*
	Section 2-2	*2*	*2.62*	*1.320*	*0.150*	*1.04*	*Cum*
	Section 3-3	*2*	*1.70*	*1.200*	*0.150*	*0.61*	*Cum*
	Section 5-5	*2*	*6.52*	*1.836*	*0.150*	*3.59*	*Cum*
	Section 6-6	*2*	*2.73*	*1.200*	*0.150*	*0.98*	*Cum*
	Toe Wall D/S Portion	*1*	*9.35*	*0.750*	*0.300*	*2.10*	*Cum*
	Toe Wall D/S Portion	*1*	*9.05*	*0.450*	*0.600*	*2.44*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.600*	*0.150*	*0.45*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.300*	*0.600*	*0.90*	*Cum*
	TOTAL					**14.60**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.16*	*0.450*	*0.450*	*0.47*	*Cum*
		2	*1.16*	*0.918*	*1.560*	*3.33*	*Cum*
		2	*1.16*	*1.536*	*0.500*	*1.78*	*Cum*
	Section 2-2	*2*	*2.62*	*0.450*	*0.450*	*1.06*	*Cum*
		2	*2.62*	*0.735*	*0.950*	*3.66*	*Cum*
		2	*2.62*	*1.170*	*0.500*	*3.06*	*Cum*
	Section 3-3	*2*	*1.19*	*0.450*	*0.450*	*0.48*	*Cum*
		2	*1.19*	*0.675*	*0.750*	*1.20*	*Cum*
		2	*1.19*	*1.050*	*0.500*	*1.25*	*Cum*
	Section 5-5	*2*	*6.48*	*0.450*	*0.450*	*2.62*	*Cum*
		2	*6.48*	*0.918*	*1.560*	*18.55*	*Cum*
		2	*6.48*	*1.536*	*0.500*	*9.95*	*Cum*
	Section 6-6	*2*	*3.25*	*0.450*	*0.450*	*1.32*	*Cum*
		2	*3.25*	*0.675*	*0.750*	*3.29*	*Cum*
		2	*3.25*	*1.050*	*0.500*	*3.41*	*Cum*
	Floor	*1*	*0.63*	*1.500*	*0.700*	*0.66*	*Cum*
		1	*5.00*	*1.500*	*0.500*	*3.75*	*Cum*
		1	*0.51*	*1.500*	*0.200*	*0.15*	*Cum*
		1	*0.20*	*1.500*	*0.400*	*0.12*	*Cum*
		1	*1.80*	*1.500*	*0.500*	*1.35*	*Cum*
		1	*0.63*	*1.500*	*0.700*	*0.66*	*Cum*
	Crest	*1*	*0.77*	*1.500*	*1.067*	*1.23*	*Cum*
	TOTAL					**63.35**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*1.500*	*0.150*	*0.14*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*14.42*	*0.450*	*0.050*	*0.32*	*Cum*
	On Abutment Top (Right Side)	*1*	*14.42*	*0.450*	*0.050*	*0.32*	*Cum*
	TOTAL					**0.78**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**63.35**	**0.00**	**0.190**	**7850.000**	**1491.91**	**Kg**
	Total Weight in Metric Tonne					**1.49**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.16*		*0.450*	*2.09*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.16*		*1.560*	*7.25*	*Sqm*
		4		*0.918*	*1.560*	*5.73*	*Sqm*
		4	*1.16*		*0.500*	*2.32*	*Sqm*
		4		*1.536*	*0.500*	*3.07*	*Sqm*
	Section 2-2	*4*	*2.62*		*0.450*	*4.71*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.62*		*0.950*	*9.95*	*Sqm*
		4		*0.735*	*0.950*	*2.79*	*Sqm*
		4	*2.62*		*0.500*	*5.24*	*Sqm*
		4		*1.170*	*0.500*	*2.34*	*Sqm*
	Section 3-3	*4*	*1.19*		*0.450*	*2.14*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.19*		*0.750*	*3.57*	*Sqm*
		4		*0.675*	*0.750*	*2.03*	*Sqm*
		4	*1.19*		*0.500*	*2.38*	*Sqm*
		4		*1.050*	*0.500*	*2.10*	*Sqm*
	Section 5-5	*4*	*6.48*		*0.450*	*11.66*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*6.48*		*1.560*	*40.41*	*Sqm*
		4		*0.918*	*1.560*	*5.73*	*Sqm*
		4	*6.48*		*0.500*	*12.95*	*Sqm*
		4		*1.536*	*0.500*	*3.07*	*Sqm*
	Section 6-6	*4*	*3.25*		*0.450*	*5.85*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.25*		*0.750*	*9.75*	*Sqm*
		4		*0.675*	*0.750*	*2.03*	*Sqm*
		4	*3.25*		*0.500*	*6.50*	*Sqm*
		4		*1.050*	*0.500*	*2.10*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.500*	*0.700*	*2.10*	*Sqm*
		2	*5.00*		*0.500*	*5.00*	*Sqm*
		2		*1.500*	*0.500*	*1.50*	*Sqm*
		2	*0.51*		*0.200*	*0.20*	*Sqm*
		2		*1.500*	*0.200*	*0.60*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*1.500*	*0.400*	*1.20*	*Sqm*
		2	*1.80*		*0.500*	*1.80*	*Sqm*
		2		*1.500*	*0.500*	*1.50*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.500*	*0.700*	*2.10*	*Sqm*
	Crest	*2*	*0.77*		*1.067*	*1.64*	*Sqm*
		2		*1.500*	*1.067*	*3.20*	*Sqm*
	Toe Wall D/S Portion	*2*	*9.35*		*0.300*	*5.61*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*9.05*		*0.600*	*10.86*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.150*	*1.50*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.600*	*6.00*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**210.60**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.50*	*4.003*		*20.02*	*Sqm*
	TOTAL					**20.02**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.50*	*0.900*	*0.300*	**0.68**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.50*	*0.900*	*0.150*	**0.68**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*14.42*	*0.450*		*6.49*	*Sqm*
	On Abutment Top (Right Side)	*1*	*14.42*	*0.450*		*6.49*	*Sqm*
	TOTAL					**12.97**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		2.044		2.04	**Cum**
	Abutment						
	Section 1-1	2	*1.38*	*0.913*		*2.515*	*Cum*
	Section 2-2	2	*2.62*	*0.887*		*4.644*	*Cum*
	Section 3-3	2	*1.70*	*0.700*		*2.380*	*Cum*
	Section 5-5	2	*6.52*	*0.913*		*11.897*	*Cum*
	Section 6-6	2	*2.73*	*0.700*		*3.815*	*Cum*
	D/S protection	2					
	Toe wall	2	*9.35*	*0.150*	*0.600*	*2.805*	*Cum*
		2	*2.50*	0.150	*0.600*	*0.450*	*Cum*
	TOTAL					**30.55**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE BRIDGE/FALL OF HEIGHT 1.067 METER AT CH. 20.100 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.31*	*1.960*	*2.434*	*12.518*	*Cum*
	Section 2-2	*2*	*3.12*	*1.863*	*2.434*	*28.296*	*Cum*
	Section 3-3	*2*	*5.40*	*1.743*	*2.234*	*42.054*	*Cum*
	below bridge	*2*	*6.50*	*1.743*	*0.850*	*19.260*	*Cum*
	Section 5-5	*2*	*5.08*	*2.110*	*2.434*	*52.159*	*Cum*
	Section 6-6	*2*	*2.07*	*1.140*	*2.234*	*10.518*	*Cum*
	U/S Key Floor	*1*	*0.59*	*1.400*	*0.700*	*0.576*	*Cum*
	U/S Floor	*1*	*2.50*	*1.400*	*2.067*	*7.235*	*Cum*
	D/S Floor	*1*	*4.00*	*1.400*	*1.000*	*5.600*	*Cum*
		1	*5.90*	*1.400*	*0.800*	*6.608*	*Cum*
	D/S Key Floor	*1*	*0.76*	*1.400*	*1.400*	*1.495*	*Cum*
	Toe Wall D/S Portion	*1*	*8.55*	*0.750*	*0.900*	*5.771*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.25*	*0.600*	*0.750*	*2.025*	*Cum*
						194.11	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.400*	*0.150*	*0.11*	*Cum*
		1	*0.62*	*1.400*	*0.150*	*0.13*	*Cum*
		1	*5.15*	*1.400*	*0.150*	*1.08*	*Cum*
		1	*0.50*	*1.400*	*0.150*	*0.10*	*Cum*
		1	*3.92*	*1.400*	*0.150*	*0.82*	*Cum*
		1	*1.40*	*1.400*	*0.150*	*0.29*	*Cum*
		1	*0.54*	*1.400*	*0.150*	*0.11*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.31*	*1.960*	*0.150*	*0.77*	*Cum*
	Section 2-2	*2*	*3.12*	*1.863*	*0.300*	*3.49*	*Cum*
	Section 3-3	*2*	*5.40*	*1.743*	*0.300*	*5.65*	*Cum*
	Section 5-5	*2*	*5.08*	*2.110*	*0.150*	*3.21*	*Cum*
	Section 6-6	*2*	*2.07*	*1.140*	*0.150*	*0.71*	*Cum*
	Toe Wall D/S Portion	*1*	*8.55*	*0.750*	*0.300*	*1.92*	*Cum*
	Toe Wall D/S Portion	*1*	*8.25*	*0.450*	*0.600*	*2.23*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.25*	*0.600*	*0.150*	*0.41*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.25*	*0.300*	*0.600*	*0.81*	*Cum*
	TOTAL					**21.85**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.09*	*0.450*	*0.450*	*0.44*	*Cum*
		2	*1.09*	*1.055*	*2.017*	*4.63*	*Cum*
		2	*1.09*	*1.810*	*0.650*	*2.56*	*Cum*
	Section 2-2	*2*	*3.12*	*0.820*	*0.500*	*2.56*	*Cum*
		2	*3.12*	*1.117*	*0.989*	*6.89*	*Cum*
		2	*3.12*	*1.563*	*1.550*	*15.12*	*Cum*
	Section 3-3	*2*	*5.06*	*0.820*	*0.500*	*4.15*	*Cum*
		2	*5.06*	*1.057*	*0.789*	*8.43*	*Cum*
		2	*5.06*	*1.443*	*1.750*	*25.53*	*Cum*
	Section 5-5	*2*	*5.03*	*0.450*	*0.450*	*2.04*	*Cum*
		2	*5.03*	*1.055*	*2.017*	*21.43*	*Cum*
		2	*5.03*	*1.810*	*0.650*	*11.85*	*Cum*
	Section 6-6	*2*	*2.75*	*0.450*	*0.450*	*1.11*	*Cum*
		2	*2.75*	*0.645*	*0.650*	*2.30*	*Cum*
		2	*2.75*	*0.990*	*0.500*	*2.72*	*Cum*
	deduction for M 25 grade of concrete	*2*	*0.82*	*6.500*	*0.300*	*-3.20*	*Cum*
	Floor	*1*	*0.59*	*1.400*	*0.550*	*0.45*	*Cum*
		1	*6.50*	*1.400*	*0.650*	*5.92*	*Cum*
		1	*0.58*	*1.400*	*0.350*	*0.28*	*Cum*
		1	*0.20*	*1.400*	*0.425*	*0.12*	*Cum*
		1	*5.70*	*1.400*	*0.500*	*3.99*	*Cum*
		1	*0.76*	*1.400*	*1.250*	*1.33*	*Cum*
	Crest	*1*	*0.99*	*1.400*	*1.494*	*2.07*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**122.70**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*1.400*	*0.150*	*0.16*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*11.83*	*0.450*	*0.050*	*0.27*	*Cum*
	On Abutment Top (Right Side)	*1*	*11.83*	*0.450*	*0.050*	*0.27*	*Cum*
	Slab Bridge						
	Slab	*1*	*2.20*	*6.500*	*0.335*	*4.79*	*Cum*
	Wearing coat	*1*	*2.20*	*5.500*	*0.070*	*0.85*	*Cum*
	Dirt wall	*2*	*0.40*	*6.500*	*0.300*	*1.56*	*Cum*
	300 mm thick pedastial	*2*	*0.82*	*6.500*	*0.300*	*3.20*	*Cum*
	TOTAL					**11.09**	**Cum**
12	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*36*	*2.66*		*1.578*	*151.1*	*Kg*
a2	*10*	*11*	*6.88*		*0.616*	*46.7*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*23*	*2.58*		*0.616*	*36.6*	*Kg*
a5	*10*	*10*	*6.80*		*0.616*	*41.9*	*Kg*
x1	*12*	*36*	*2.50*		*0.888*	*79.9*	*Kg*
x2	*16*	*36*	*1.32*		*1.578*	*74.7*	*Kg*
x3	*12*	*24*	*2.10*		*0.888*	*44.7*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**122.70**	**0.00**	**0.368**	**7850.000**	**2889.7**	**Kg**
	Total Reinforcement Steel (in kg)					*3373.2*	*Kg*
	Total Weight in Metric Tonne					**3.37**	**MT**
5	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.09*		*0.450*	*1.96*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.09*		*2.017*	*8.77*	*Sqm*
		4		*1.055*	*2.017*	*8.51*	*Sqm*
		4	*1.09*		*0.650*	*2.83*	*Sqm*
		4		*1.810*	*0.650*	*4.71*	*Sqm*
	Section 2-2	*4*	*3.12*		*0.500*	*6.24*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*3.12*		*0.989*	*12.34*	*Sqm*
		4		*1.117*	*0.989*	*4.42*	*Sqm*
		4	*3.12*		*1.550*	*19.34*	*Sqm*
		4		*1.563*	*1.550*	*9.69*	*Sqm*
	Section 3-3	*4*	*5.06*		*0.500*	*10.11*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*5.06*		*0.789*	*15.95*	*Sqm*
		4		*1.057*	*0.789*	*3.33*	*Sqm*
		4	*5.06*		*1.750*	*35.39*	*Sqm*
		4		*1.443*	*1.750*	*10.10*	*Sqm*
	Section 5-5	*4*	*5.03*		*0.450*	*9.06*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*5.03*		*2.017*	*40.62*	*Sqm*
		4		*1.055*	*2.017*	*8.51*	*Sqm*
		4	*5.03*		*0.650*	*13.09*	*Sqm*
		4		*1.810*	*0.650*	*4.71*	*Sqm*
	Section 6-6	*4*	*2.75*		*0.450*	*4.94*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.75*		*0.650*	*7.14*	*Sqm*
		4		*0.645*	*0.650*	*1.68*	*Sqm*
		4	*2.75*		*0.500*	*5.49*	*Sqm*
		4		*0.990*	*0.500*	*1.98*	*Sqm*
	Floor	*2*	*0.59*		*0.550*	*0.65*	*Sqm*
		2		*1.400*	*0.550*	*1.54*	*Sqm*
		2	*6.50*		*0.650*	*8.45*	*Sqm*
		2		*1.400*	*0.650*	*1.82*	*Sqm*
		2	*0.58*		*0.350*	*0.41*	*Sqm*
		2		*1.400*	*0.350*	*0.98*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	*0.20*		*0.425*	*0.17*	*Sqm*
		2		*1.400*	*0.425*	*1.19*	*Sqm*
		2	*5.70*		*0.500*	*5.70*	*Sqm*
		2		*1.400*	*0.500*	*1.40*	*Sqm*
		2	*0.76*		*1.250*	*1.91*	*Sqm*
		2		*1.400*	*1.250*	*3.50*	*Sqm*
	Crest	*2*	*0.99*		*1.494*	*2.96*	*Sqm*
		2		*1.400*	*1.494*	*4.18*	*Sqm*
	Toe Wall D/S Portion	*2*	*8.55*		*0.300*	*5.13*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*8.25*		*0.600*	*9.90*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.25*		*0.150*	*1.35*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.25*		*0.600*	*5.40*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**315.31**	**Sqm**
6	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.25*	*3.623*		*16.30*	*Sqm*
	TOTAL					**16.30**	**Sqm**
7	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.25*	*0.800*	*0.300*	**0.54**	**Cum**
8	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.25*	*0.800*	*0.150*	**0.54**	**Cum**
9	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*11.83*	*0.450*		*5.32*	*Sqm*
	On Abutment Top (Right Side)	*1*	*11.83*	*0.450*		*5.32*	*Sqm*
	TOTAL					**10.65**	**Sqm**
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		4.540		4.54	**Cum**
	Abutment						
	Section 1-1	2	*1.31*	*1.388*		*3.642*	*Cum*
	Section 2-2	2	*3.12*	*1.779*		*11.098*	*Cum*
	Section 3-3	2	*5.40*	*1.581*		*17.075*	*Cum*
	Section 5-5	2	*5.08*	*1.388*		*14.097*	*Cum*
	Section 6-6	2	*2.07*	*0.712*		*2.941*	*Cum*
	D/S protection	2					
	Toe wall	2	*8.55*	*0.150*	*0.600*	*2.565*	*Cum*
		2	*2.25*	0.150	*0.600*	*0.405*	*Cum*
	TOTAL					**56.36**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 22.000 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.99*	*1.566*	*2.218*	*6.843*	*Cum*
	Section 2-2	*2*	*2.95*	*1.200*	*2.218*	*15.703*	*Cum*
	Section 3-3	*2*	*1.75*	*1.080*	*2.018*	*7.628*	*Cum*
	Section 5-5	*2*	*4.10*	*1.716*	*2.218*	*31.202*	*Cum*
	Section 6-6	*2*	*2.15*	*1.080*	*2.018*	*9.350*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.150*	*0.850*	*0.611*	*Cum*
	U/S Floor	*1*	*2.00*	*1.150*	*1.460*	*3.358*	*Cum*
	D/S Floor	*1*	*2.75*	*1.150*	*0.850*	*2.688*	*Cum*
		1	*2.25*	*1.150*	*0.650*	*1.682*	*Cum*
	D/S Key Floor	*1*	*0.63*	*1.150*	*0.850*	*0.611*	*Cum*
	Toe Wall D/S Portion	*1*	*7.60*	*0.750*	*0.900*	*5.130*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.50*	*0.600*	*0.750*	*2.250*	*Cum*
						87.06	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.150*	*0.150*	*0.09*	*Cum*
		1	*0.78*	*1.150*	*0.150*	*0.14*	*Cum*
		1	*4.13*	*1.150*	*0.150*	*0.71*	*Cum*
		1	*0.28*	*1.150*	*0.150*	*0.05*	*Cum*
		1	*0.89*	*1.150*	*0.150*	*0.15*	*Cum*
		1	*0.78*	*1.150*	*0.150*	*0.13*	*Cum*
		1	*0.54*	*1.150*	*0.150*	*0.09*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.99*	*1.566*	*0.150*	*0.46*	*Cum*
	Section 2-2	*2*	*2.95*	*1.200*	*0.150*	*1.06*	*Cum*
	Section 3-3	*2*	*1.75*	*1.080*	*0.150*	*0.57*	*Cum*
	Section 5-5	*2*	*4.10*	*1.716*	*0.150*	*2.11*	*Cum*
	Section 6-6	*2*	*2.15*	*1.080*	*0.150*	*0.69*	*Cum*
	Toe Wall D/S Portion	*1*	*7.60*	*0.750*	*0.300*	*1.71*	*Cum*
	Toe Wall D/S Portion	*1*	*7.30*	*0.450*	*0.600*	*1.97*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.600*	*0.150*	*0.45*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.300*	*0.600*	*0.90*	*Cum*
	TOTAL					**11.30**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.76*	*0.450*	*0.450*	*0.31*	*Cum*
		2	*0.76*	*0.858*	*1.360*	*1.77*	*Cum*
		2	*0.76*	*1.416*	*0.500*	*1.08*	*Cum*
	Section 2-2	*2*	*2.95*	*0.450*	*0.450*	*1.19*	*Cum*
		2	*2.95*	*0.675*	*0.750*	*2.99*	*Cum*
		2	*2.95*	*1.050*	*0.500*	*3.10*	*Cum*
	Section 3-3	*2*	*1.44*	*0.450*	*0.450*	*0.58*	*Cum*
		2	*1.44*	*0.615*	*0.550*	*0.97*	*Cum*
		2	*1.44*	*0.930*	*0.500*	*1.33*	*Cum*
	Section 5-5	*2*	*4.06*	*0.450*	*0.450*	*1.64*	*Cum*
		2	*4.06*	*0.858*	*1.360*	*9.46*	*Cum*
		2	*4.06*	*1.416*	*0.500*	*5.74*	*Cum*
	Section 6-6	*2*	*2.61*	*0.450*	*0.450*	*1.06*	*Cum*
		2	*2.61*	*0.615*	*0.550*	*1.77*	*Cum*
		2	*2.61*	*0.930*	*0.500*	*2.43*	*Cum*
	Floor	*1*	*0.63*	*1.150*	*0.700*	*0.50*	*Cum*
		1	*4.75*	*1.150*	*0.500*	*2.73*	*Cum*
		1	*0.31*	*1.150*	*0.200*	*0.07*	*Cum*
		1	*0.20*	*1.150*	*0.400*	*0.09*	*Cum*
		1	*2.05*	*1.150*	*0.500*	*1.18*	*Cum*
		1	*0.63*	*1.150*	*0.700*	*0.50*	*Cum*
	Crest	*1*	*0.75*	*1.150*	*0.958*	*0.83*	*Cum*
	TOTAL					**41.33**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*1.150*	*0.150*	*0.10*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*12.65*	*0.450*	*0.050*	*0.28*	*Cum*
	On Abutment Top (Right Side)	*1*	*12.65*	*0.450*	*0.050*	*0.28*	*Cum*
	TOTAL					**0.67**	**Cum**
12	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**41.33**	**0.00**	**0.124**	**7850.000**	**973.31**	**Kg**
	Total Weight in Metric Tonne					**0.97**	**MT**
5	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.76*		*0.450*	*1.37*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.76*		*1.360*	*4.14*	*Sqm*
		4		*0.858*	*1.360*	*4.67*	*Sqm*
		4	*0.76*		*0.500*	*1.52*	*Sqm*
		4		*1.416*	*0.500*	*2.83*	*Sqm*
	Section 2-2	*4*	*2.95*		*0.450*	*5.31*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.95*		*0.750*	*8.85*	*Sqm*
		4		*0.675*	*0.750*	*2.03*	*Sqm*
		4	*2.95*		*0.500*	*5.90*	*Sqm*
		4		*1.050*	*0.500*	*2.10*	*Sqm*
	Section 3-3	*4*	*1.44*		*0.450*	*2.58*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.44*		*0.550*	*3.16*	*Sqm*
		4		*0.615*	*0.550*	*1.35*	*Sqm*
		4	*1.44*		*0.500*	*2.87*	*Sqm*
		4		*0.930*	*0.500*	*1.86*	*Sqm*
	Section 5-5	*4*	*4.06*		*0.450*	*7.30*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*4.06*		*1.360*	*22.06*	*Sqm*
		4		*0.858*	*1.360*	*4.67*	*Sqm*
		4	*4.06*		*0.500*	*8.11*	*Sqm*
		4		*1.416*	*0.500*	*2.83*	*Sqm*
	Section 6-6	*4*	*2.61*		*0.450*	*4.70*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.61*		*0.550*	*5.74*	*Sqm*
		4		*0.615*	*0.550*	*1.35*	*Sqm*
		4	*2.61*		*0.500*	*5.22*	*Sqm*
		4		*0.930*	*0.500*	*1.86*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.150*	*0.700*	*1.61*	*Sqm*
		2	*4.75*		*0.500*	*4.75*	*Sqm*
		2		*1.150*	*0.500*	*1.15*	*Sqm*
		2	*0.31*		*0.200*	*0.12*	*Sqm*
		2		*1.150*	*0.200*	*0.46*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*1.150*	*0.400*	*0.92*	*Sqm*
		2	*2.05*		*0.500*	*2.05*	*Sqm*
		2		*1.150*	*0.500*	*1.15*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.150*	*0.700*	*1.61*	*Sqm*
	Crest	*2*	*0.75*		*0.958*	*1.44*	*Sqm*
		2		*1.150*	*0.958*	*2.20*	*Sqm*
	Toe Wall D/S Portion	*2*	*7.60*		*0.300*	*4.56*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*7.30*		*0.600*	*8.76*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.150*	*1.50*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.600*	*6.00*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**160.69**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
6	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.50*	*3.242*		*16.21*	*Sqm*
	TOTAL					**16.21**	**Sqm**
7	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.50*	*0.550*	*0.300*	**0.41**	**Cum**
8	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.50*	*0.550*	*0.150*	**0.41**	**Cum**
9	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*12.65*	*0.450*		*5.69*	*Sqm*
	On Abutment Top (Right Side)	*1*	*12.65*	*0.450*		*5.69*	*Sqm*
	TOTAL					**11.39**	**Sqm**
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.887		1.89	**Cum**
	Abutment						
	Section 1-1	2	*0.99*	*1.270*		*2.502*	*Cum*
	Section 2-2	2	*2.95*	*0.844*		*4.980*	*Cum*
	Section 3-3	2	*1.75*	*0.646*		*2.261*	*Cum*
	Section 5-5	2	*4.10*	*1.270*		*10.411*	*Cum*
	Section 6-6	2	*2.15*	*0.646*		*2.771*	*Cum*
	D/S protection	2					
	Toe wall	2	*7.60*	*0.150*	*0.600*	*2.280*	*Cum*
		2	*2.50*	0.150	*0.600*	*0.450*	*Cum*
	TOTAL					**27.54**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR SHANKARPUR MR.						
	SHARDA TYPE FALL OF HEIGHT 1.676 METER AT CH. 2.950 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.23*	*2.116*	*2.920*	*15.255*	*Cum*
	Section 2-2	*2*	*4.41*	*1.110*	*2.920*	*28.561*	*Cum*
	Section 3-3	*2*	*3.20*	*0.990*	*2.720*	*17.234*	*Cum*
	Section 5-5	*2*	*2.21*	*2.266*	*2.920*	*29.200*	*Cum*
	Section 6-6	*2*	*0.91*	*0.990*	*2.720*	*4.901*	*Cum*
	U/S Key Floor	*1*	*0.58*	*0.800*	*0.650*	*0.299*	*Cum*
	U/S Floor	*1*	*3.00*	*0.800*	*2.926*	*7.022*	*Cum*
	D/S Floor	*1*	*4.00*	*0.800*	*1.250*	*4.000*	*Cum*
		1	*3.50*	*0.800*	*1.050*	*2.940*	*Cum*
	D/S Key Floor	*1*	*0.84*	*0.800*	*1.700*	*1.139*	*Cum*
	Toe Wall D/S Portion	*1*	*4.60*	*0.750*	*0.900*	*3.105*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.50*	*0.600*	*0.750*	*1.350*	*Cum*
						115.01	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*0.800*	*0.150*	*0.07*	*Cum*
		1	*0.56*	*0.800*	*0.150*	*0.07*	*Cum*
		1	*6.48*	*0.800*	*0.150*	*0.78*	*Cum*
		1	*0.57*	*0.800*	*0.150*	*0.07*	*Cum*
		1	*1.51*	*0.800*	*0.150*	*0.18*	*Cum*
		1	*1.73*	*0.800*	*0.150*	*0.21*	*Cum*
		1	*0.54*	*0.800*	*0.150*	*0.07*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.23*	*2.116*	*0.150*	*0.78*	*Cum*
	Section 2-2	*2*	*4.41*	*1.110*	*0.150*	*1.47*	*Cum*
	Section 3-3	*2*	*3.20*	*0.990*	*0.150*	*0.95*	*Cum*
	Section 5-5	*2*	*2.21*	*2.266*	*0.150*	*1.50*	*Cum*
	Section 6-6	*2*	*0.91*	*0.990*	*0.150*	*0.27*	*Cum*
	Toe Wall D/S Portion	*1*	*4.60*	*0.750*	*0.300*	*1.04*	*Cum*
	Toe Wall D/S Portion	*1*	*4.30*	*0.450*	*0.600*	*1.16*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.600*	*0.150*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.300*	*0.600*	*0.54*	*Cum*
	TOTAL					**9.41**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.01*	*0.450*	*0.450*	*0.41*	*Cum*
		2	*1.01*	*1.133*	*2.276*	*5.21*	*Cum*
		2	*1.01*	*1.966*	*0.900*	*3.57*	*Cum*
	Section 2-2	*2*	*4.41*	*0.450*	*0.450*	*1.78*	*Cum*
		2	*4.41*	*0.630*	*0.600*	*3.33*	*Cum*
		2	*4.41*	*0.960*	*0.900*	*7.61*	*Cum*
	Section 3-3	*2*	*2.93*	*0.450*	*0.450*	*1.19*	*Cum*
		2	*2.93*	*0.570*	*0.400*	*1.34*	*Cum*
		2	*2.93*	*0.840*	*0.700*	*3.45*	*Cum*
	Section 5-5	*2*	*2.16*	*0.450*	*0.450*	*0.88*	*Cum*
		2	*2.16*	*1.133*	*2.276*	*11.15*	*Cum*
		2	*2.16*	*1.966*	*0.900*	*7.65*	*Cum*
	Section 6-6	*2*	*1.33*	*0.450*	*0.450*	*0.54*	*Cum*
		2	*1.33*	*0.570*	*0.400*	*0.61*	*Cum*
		2	*1.33*	*0.840*	*0.700*	*1.56*	*Cum*
	Floor	*1*	*0.58*	*0.800*	*0.500*	*0.23*	*Cum*
		1	*7.00*	*0.800*	*0.900*	*5.04*	*Cum*
		1	*0.41*	*0.800*	*0.400*	*0.13*	*Cum*
		1	*0.20*	*0.800*	*0.600*	*0.10*	*Cum*
		1	*3.30*	*0.800*	*0.700*	*1.85*	*Cum*
		1	*0.84*	*0.800*	*1.550*	*1.04*	*Cum*
	Crest	*1*	*1.26*	*0.800*	*1.933*	*1.95*	*Cum*
	TOTAL					**60.61**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.95*	*0.800*	*0.150*	*0.11*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*12.67*	*0.450*	*0.050*	*0.28*	*Cum*
	On Abutment Top (Right Side)	*1*	*12.67*	*0.450*	*0.050*	*0.28*	*Cum*
	TOTAL					**0.68**	**Cum**
12	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**60.61**	**0.00**	**0.182**	**7850.000**	**1427.44**	**Kg**
	Total Weight in Metric Tonne					**1.43**	**MT**
5	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.01*		*0.450*	*1.82*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.01*		*2.276*	*9.19*	*Sqm*
		4		*1.133*	*2.276*	*10.31*	*Sqm*
		4	*1.01*		*0.900*	*3.63*	*Sqm*
		4		*1.966*	*0.900*	*7.08*	*Sqm*
	Section 2-2	*4*	*4.41*		*0.450*	*7.93*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*4.41*		*0.600*	*10.57*	*Sqm*
		4		*0.630*	*0.600*	*1.51*	*Sqm*
		4	*4.41*		*0.900*	*15.86*	*Sqm*
		4		*0.960*	*0.900*	*3.46*	*Sqm*
	Section 3-3	*4*	*2.93*		*0.450*	*5.27*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.93*		*0.400*	*4.69*	*Sqm*
		4		*0.570*	*0.400*	*0.91*	*Sqm*
		4	*2.93*		*0.700*	*8.20*	*Sqm*
		4		*0.840*	*0.700*	*2.35*	*Sqm*
	Section 5-5	*4*	*2.16*		*0.450*	*3.89*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.16*		*2.276*	*19.69*	*Sqm*
		4		*1.133*	*2.276*	*10.31*	*Sqm*
		4	*2.16*		*0.900*	*7.79*	*Sqm*
		4		*1.966*	*0.900*	*7.08*	*Sqm*
	Section 6-6	*4*	*1.33*		*0.450*	*2.39*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.33*		*0.400*	*2.13*	*Sqm*
		4		*0.570*	*0.400*	*0.91*	*Sqm*
		4	*1.33*		*0.700*	*3.72*	*Sqm*
		4		*0.840*	*0.700*	*2.35*	*Sqm*
	Floor	*2*	*0.58*		*0.500*	*0.58*	*Sqm*
		2		*0.800*	*0.500*	*0.80*	*Sqm*
		2	*7.00*		*0.900*	*12.60*	*Sqm*
		2		*0.800*	*0.900*	*1.44*	*Sqm*
		2	*0.41*		*0.400*	*0.33*	*Sqm*
		2		*0.800*	*0.400*	*0.64*	*Sqm*
		2	*0.20*		*0.600*	*0.24*	*Sqm*
		2		*0.800*	*0.600*	*0.96*	*Sqm*
		2	*3.30*		*0.700*	*4.62*	*Sqm*
		2		*0.800*	*0.700*	*1.12*	*Sqm*
		2	*0.84*		*1.550*	*2.60*	*Sqm*
		2		*0.800*	*1.550*	*2.48*	*Sqm*
	Crest	*2*	*1.26*		*1.933*	*4.89*	*Sqm*
		2		*0.800*	*1.933*	*3.09*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.60*		*0.300*	*2.76*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.30*		*0.600*	*5.16*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.150*	*0.90*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.600*	*3.60*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**207.98**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
6	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.872*		*5.62*	*Sqm*
	TOTAL					**5.62**	**Sqm**
7	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.200*	*0.300*	**0.09**	**Cum**
8	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.200*	*0.150*	**0.09**	**Cum**
9	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*12.67*	*0.450*		*5.70*	*Sqm*
	On Abutment Top (Right Side)	*1*	*12.67*	*0.450*		*5.70*	*Sqm*
	TOTAL					**11.40**	**Sqm**
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		6.833		6.83	**Cum**
	Abutment						
	Section 1-1	2	*1.23*	*1.750*		*4.321*	*Cum*
	Section 2-2	2	*4.41*	*0.753*		*6.635*	*Cum*
	Section 3-3	2	*3.20*	*0.543*		*3.475*	*Cum*
	Section 5-5	2	*2.21*	*1.750*		*7.723*	*Cum*
	Section 6-6	2	*0.91*	*0.543*		*0.988*	*Cum*
	D/S protection	2					
	Toe wall	2	*4.60*	*0.150*	*0.600*	*1.380*	*Cum*
		2	*1.50*	0.150	*0.600*	*0.270*	*Cum*
	TOTAL					**31.63**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.070 METER AT CH. 4.350 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.23*	*1.692*	*2.191*	*9.134*	*Cum*
	Section 2-2	*2*	*3.00*	*1.050*	*2.191*	*13.803*	*Cum*
	Section 3-3	*2*	*0.77*	*0.930*	*1.991*	*2.852*	*Cum*
	Section 5-5	*2*	*0.57*	*1.842*	*2.191*	*4.629*	*Cum*
	Section 6-6	*2*	*1.08*	*0.930*	*1.991*	*4.000*	*Cum*
	U/S Key Floor	*1*	*0.61*	*0.650*	*0.800*	*0.319*	*Cum*
	U/S Floor	*1*	*2.00*	*0.650*	*1.970*	*2.561*	*Cum*
	D/S Floor	*1*	*3.00*	*0.650*	*0.900*	*1.755*	*Cum*
		1	*2.00*	*0.650*	*0.700*	*0.910*	*Cum*
	D/S Key Floor	*1*	*0.73*	*0.650*	*1.250*	*0.589*	*Cum*
	Toe Wall D/S Portion	*1*	*2.15*	*0.750*	*0.900*	*1.451*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*1.50*	*1.350*	*0.750*	*1.519*	*Cum*
						43.52	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*0.650*	*0.150*	*0.05*	*Cum*
		1	*0.73*	*0.650*	*0.150*	*0.07*	*Cum*
		1	*4.44*	*0.650*	*0.150*	*0.43*	*Cum*
		1	*0.35*	*0.650*	*0.150*	*0.03*	*Cum*
		1	*0.35*	*0.650*	*0.150*	*0.03*	*Cum*
		1	*1.30*	*0.650*	*0.150*	*0.13*	*Cum*
		1	*0.54*	*0.650*	*0.150*	*0.05*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.23*	*1.692*	*0.150*	*0.63*	*Cum*
	Section 2-2	*2*	*3.00*	*1.050*	*0.150*	*0.95*	*Cum*
	Section 3-3	*2*	*0.77*	*0.930*	*0.150*	*0.21*	*Cum*
	Section 5-5	*2*	*0.57*	*1.842*	*0.150*	*0.32*	*Cum*
	Section 6-6	*2*	*1.08*	*0.930*	*0.150*	*0.30*	*Cum*
	Toe Wall D/S Portion	*1*	*2.15*	*0.750*	*0.300*	*0.48*	*Cum*
	Toe Wall D/S Portion	*1*	*1.85*	*0.450*	*0.600*	*0.50*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.50*	*1.350*	*0.150*	*0.30*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.50*	*0.300*	*0.600*	*0.27*	*Cum*
	TOTAL					**4.77**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.01*	*0.450*	*0.450*	*0.41*	*Cum*
		2	*1.01*	*0.921*	*1.570*	*2.91*	*Cum*
		2	*1.01*	*1.542*	*0.550*	*1.71*	*Cum*
	Section 2-2	*2*	*3.00*	*0.450*	*0.450*	*1.22*	*Cum*
		2	*3.00*	*0.600*	*0.500*	*1.80*	*Cum*
		2	*3.00*	*0.900*	*0.550*	*2.97*	*Cum*
	Section 3-3	*2*	*1.46*	*0.450*	*0.450*	*0.59*	*Cum*
		2	*1.46*	*0.540*	*0.300*	*0.47*	*Cum*
		2	*1.46*	*0.780*	*0.500*	*1.14*	*Cum*
	Section 5-5	*2*	*0.53*	*0.450*	*0.450*	*0.21*	*Cum*
		2	*0.53*	*0.921*	*1.570*	*1.53*	*Cum*
		2	*0.53*	*1.542*	*0.550*	*0.90*	*Cum*
	Section 6-6	*2*	*0.54*	*0.450*	*0.450*	*0.22*	*Cum*
		2	*0.54*	*0.540*	*0.300*	*0.17*	*Cum*
		2	*0.54*	*0.780*	*0.500*	*0.42*	*Cum*
	Floor	*1*	*0.61*	*0.650*	*0.650*	*0.26*	*Cum*
		1	*5.00*	*0.650*	*0.550*	*1.79*	*Cum*
		1	*0.37*	*0.650*	*0.250*	*0.06*	*Cum*
		1	*0.20*	*0.650*	*0.400*	*0.05*	*Cum*
		1	*1.80*	*0.650*	*0.500*	*0.59*	*Cum*
		1	*0.73*	*0.650*	*1.100*	*0.52*	*Cum*
	Crest	*1*	*0.96*	*0.650*	*1.329*	*0.83*	*Cum*
	TOTAL					**20.77**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*0.650*	*0.150*	*0.07*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*6.99*	*0.450*	*0.050*	*0.16*	*Cum*
	On Abutment Top (Right Side)	*1*	*6.99*	*0.450*	*0.050*	*0.16*	*Cum*
	TOTAL					**0.39**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**20.77**	**0.00**	**0.062**	**7850.000**	**489.05**	**Kg**
	Total Weight in Metric Tonne					**0.49**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.01*		*0.450*	*1.81*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.01*		*1.570*	*6.32*	*Sqm*
		4		*0.921*	*1.570*	*5.78*	*Sqm*
		4	*1.01*		*0.550*	*2.21*	*Sqm*
		4		*1.542*	*0.550*	*3.39*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.450*	*5.40*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.00*		*0.500*	*6.00*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*3.00*		*0.550*	*6.60*	*Sqm*
		4		*0.900*	*0.550*	*1.98*	*Sqm*
	Section 3-3	*4*	*1.46*		*0.450*	*2.63*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.46*		*0.300*	*1.75*	*Sqm*
		4		*0.540*	*0.300*	*0.65*	*Sqm*
		4	*1.46*		*0.500*	*2.92*	*Sqm*
		4		*0.780*	*0.500*	*1.56*	*Sqm*
	Section 5-5	*4*	*0.53*		*0.450*	*0.95*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.53*		*1.570*	*3.33*	*Sqm*
		4		*0.921*	*1.570*	*5.78*	*Sqm*
		4	*0.53*		*0.550*	*1.16*	*Sqm*
		4		*1.542*	*0.550*	*3.39*	*Sqm*
	Section 6-6	*4*	*0.54*		*0.450*	*0.97*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.54*		*0.300*	*0.65*	*Sqm*
		4		*0.540*	*0.300*	*0.65*	*Sqm*
		4	*0.54*		*0.500*	*1.08*	*Sqm*
		4		*0.780*	*0.500*	*1.56*	*Sqm*
	Floor	*2*	*0.61*		*0.650*	*0.80*	*Sqm*
		2		*0.650*	*0.650*	*0.85*	*Sqm*
		2	*5.00*		*0.550*	*5.50*	*Sqm*
		2		*0.650*	*0.550*	*0.72*	*Sqm*
		2	*0.37*		*0.250*	*0.19*	*Sqm*
		2		*0.650*	*0.250*	*0.33*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*0.650*	*0.400*	*0.52*	*Sqm*
		2	*1.80*		*0.500*	*1.80*	*Sqm*
		2		*0.650*	*0.500*	*0.65*	*Sqm*
		2	*0.73*		*1.100*	*1.60*	*Sqm*
		2		*0.650*	*1.100*	*1.43*	*Sqm*
	Crest	*2*	*0.96*		*1.329*	*2.56*	*Sqm*
		2		*0.650*	*1.329*	*1.73*	*Sqm*
	Toe Wall D/S Portion	*2*	*2.15*		*0.300*	*1.29*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*1.85*		*0.600*	*2.22*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.150*	*0.90*	*Sqm*
		4		*1.350*	*0.150*	*0.81*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.600*	*3.60*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**103.13**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*2.650*		*7.95*	*Sqm*
	TOTAL					**7.95**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.450*	*0.300*	**0.20**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.450*	*0.150*	**0.20**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*6.99*	*0.450*		*3.14*	*Sqm*
	On Abutment Top (Right Side)	*1*	*6.99*	*0.450*		*3.14*	*Sqm*
	TOTAL					**6.29**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		0.969		0.97	**Cum**
	Abutment						
	Section 1-1	2	*1.23*	*1.197*		*2.949*	*Cum*
	Section 2-2	2	*3.00*	*0.608*		*3.645*	*Cum*
	Section 3-3	2	*0.77*	*0.432*		*0.665*	*Cum*
	Section 5-5	2	*0.57*	*1.197*		*1.373*	*Cum*
	Section 6-6	2	*1.08*	*0.432*		*0.933*	*Cum*
	D/S protection	2					
	Toe wall	2	*2.15*	*0.150*	*0.600*	*0.645*	*Cum*
		2	*1.50*	0.150	*0.600*	*0.270*	*Cum*
	TOTAL					**11.45**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR KHAIRA MR.						
	SHARDA TYPE FALL OF HEIGHT .304 METER AT CH. 3.075 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.93*	*1.412*	*2.471*	*6.469*	*Cum*
	Section 2-2	*2*	*2.00*	*1.230*	*2.471*	*12.157*	*Cum*
	Section 3-3	*2*	*2.70*	*1.110*	*2.271*	*13.612*	*Cum*
	Section 5-5	*2*	*2.68*	*1.562*	*2.471*	*20.700*	*Cum*
	Section 6-6	*2*	*1.09*	*1.110*	*2.271*	*5.495*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.750*	*0.850*	*0.930*	*Cum*
	U/S Floor	*1*	*2.00*	*1.750*	*1.154*	*4.039*	*Cum*
	D/S Floor	*1*	*2.00*	*1.750*	*0.850*	*2.975*	*Cum*
		1	*3.00*	*1.750*	*0.650*	*3.413*	*Cum*
	D/S Key Floor	*1*	*0.63*	*1.750*	*0.850*	*0.930*	*Cum*
	Toe Wall D/S Portion	*1*	*6.15*	*0.750*	*0.900*	*4.151*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.00*	*0.600*	*0.750*	*1.800*	*Cum*
						76.67	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.750*	*0.150*	*0.14*	*Cum*
		1	*0.78*	*1.750*	*0.150*	*0.21*	*Cum*
		1	*3.57*	*1.750*	*0.150*	*0.94*	*Cum*
		1	*0.28*	*1.750*	*0.150*	*0.07*	*Cum*
		1	*1.45*	*1.750*	*0.150*	*0.38*	*Cum*
		1	*0.78*	*1.750*	*0.150*	*0.21*	*Cum*
		1	*0.54*	*1.750*	*0.150*	*0.14*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.93*	*1.412*	*0.150*	*0.39*	*Cum*
	Section 2-2	*2*	*2.00*	*1.230*	*0.150*	*0.74*	*Cum*
	Section 3-3	*2*	*2.70*	*1.110*	*0.150*	*0.90*	*Cum*
	Section 5-5	*2*	*2.68*	*1.562*	*0.150*	*1.26*	*Cum*
	Section 6-6	*2*	*1.09*	*1.110*	*0.150*	*0.36*	*Cum*
	Toe Wall D/S Portion	*1*	*6.15*	*0.750*	*0.300*	*1.38*	*Cum*
	Toe Wall D/S Portion	*1*	*5.85*	*0.450*	*0.600*	*1.58*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.600*	*0.150*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.300*	*0.600*	*0.72*	*Cum*
	TOTAL					**9.78**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.70*	*0.450*	*0.450*	*0.28*	*Cum*
		2	*0.70*	*0.781*	*1.104*	*1.21*	*Cum*
		2	*0.70*	*1.262*	*0.500*	*0.89*	*Cum*
	Section 2-2	*2*	*2.00*	*0.450*	*0.450*	*0.81*	*Cum*
		2	*2.00*	*0.690*	*0.800*	*2.21*	*Cum*
		2	*2.00*	*1.080*	*0.500*	*2.16*	*Cum*
	Section 3-3	*2*	*2.37*	*0.450*	*0.450*	*0.96*	*Cum*
		2	*2.37*	*0.630*	*0.600*	*1.79*	*Cum*
		2	*2.37*	*0.960*	*0.500*	*2.28*	*Cum*
	Section 5-5	*2*	*2.63*	*0.450*	*0.450*	*1.07*	*Cum*
		2	*2.63*	*0.781*	*1.104*	*4.54*	*Cum*
		2	*2.63*	*1.262*	*0.500*	*3.32*	*Cum*
	Section 6-6	*2*	*1.57*	*0.450*	*0.450*	*0.64*	*Cum*
		2	*1.57*	*0.630*	*0.600*	*1.19*	*Cum*
		2	*1.57*	*0.960*	*0.500*	*1.51*	*Cum*
	Floor	*1*	*0.63*	*1.750*	*0.700*	*0.77*	*Cum*
		1	*4.00*	*1.750*	*0.500*	*3.50*	*Cum*
		1	*0.50*	*1.750*	*0.200*	*0.17*	*Cum*
		1	*0.20*	*1.750*	*0.400*	*0.14*	*Cum*
		1	*2.80*	*1.750*	*0.500*	*2.45*	*Cum*
		1	*0.63*	*1.750*	*0.700*	*0.77*	*Cum*
	Crest	*1*	*0.71*	*1.750*	*0.688*	*0.85*	*Cum*
	TOTAL					**33.49**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*1.750*	*0.150*	*0.16*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.12*	*0.450*	*0.050*	*0.23*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.12*	*0.450*	*0.050*	*0.23*	*Cum*
	TOTAL					**0.61**	**Cum**
12	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**33.49**	**0.00**	**0.100**	**7850.000**	**788.79**	**Kg**
	Total Weight in Metric Tonne					**0.79**	**MT**
5	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.70*		*0.450*	*1.26*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.70*		*1.104*	*3.10*	*Sqm*
		4		*0.781*	*1.104*	*3.45*	*Sqm*
		4	*0.70*		*0.500*	*1.41*	*Sqm*
		4		*1.262*	*0.500*	*2.52*	*Sqm*
	Section 2-2	*4*	*2.00*		*0.450*	*3.60*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.00*		*0.800*	*6.40*	*Sqm*
		4		*0.690*	*0.800*	*2.21*	*Sqm*
		4	*2.00*		*0.500*	*4.00*	*Sqm*
		4		*1.080*	*0.500*	*2.16*	*Sqm*
	Section 3-3	*4*	*2.37*		*0.450*	*4.27*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.37*		*0.600*	*5.69*	*Sqm*
		4		*0.630*	*0.600*	*1.51*	*Sqm*
		4	*2.37*		*0.500*	*4.74*	*Sqm*
		4		*0.960*	*0.500*	*1.92*	*Sqm*
	Section 5-5	*4*	*2.63*		*0.450*	*4.74*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.63*		*1.104*	*11.63*	*Sqm*
		4		*0.781*	*1.104*	*3.45*	*Sqm*
		4	*2.63*		*0.500*	*5.27*	*Sqm*
		4		*1.262*	*0.500*	*2.52*	*Sqm*
	Section 6-6	*4*	*1.57*		*0.450*	*2.83*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.57*		*0.600*	*3.77*	*Sqm*
		4		*0.630*	*0.600*	*1.51*	*Sqm*
		4	*1.57*		*0.500*	*3.14*	*Sqm*
		4		*0.960*	*0.500*	*1.92*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.750*	*0.700*	*2.45*	*Sqm*
		2	*4.00*		*0.500*	*4.00*	*Sqm*
		2		*1.750*	*0.500*	*1.75*	*Sqm*
		2	*0.50*		*0.200*	*0.20*	*Sqm*
		2		*1.750*	*0.200*	*0.70*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*1.750*	*0.400*	*1.40*	*Sqm*
		2	*2.80*		*0.500*	*2.80*	*Sqm*
		2		*1.750*	*0.500*	*1.75*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.750*	*0.700*	*2.45*	*Sqm*
	Crest	*2*	*0.71*		*0.688*	*0.97*	*Sqm*
		2		*1.750*	*0.688*	*2.41*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.15*		*0.300*	*3.69*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.85*		*0.600*	*7.02*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.150*	*1.20*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.600*	*4.80*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**134.63**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
6	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.232*		*8.93*	*Sqm*
	TOTAL					**8.93**	**Sqm**
7	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*1.150*	*0.300*	**0.69**	**Cum**
8	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*1.150*	*0.150*	**0.69**	**Cum**
9	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.12*	*0.450*		*4.55*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.12*	*0.450*		*4.55*	*Sqm*
	TOTAL					**9.11**	**Sqm**
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.387		1.39	**Cum**
	Abutment						
	Section 1-1	2	*0.93*	*1.291*		*2.394*	*Cum*
	Section 2-2	2	*2.00*	*0.897*		*3.588*	*Cum*
	Section 3-3	2	*2.70*	*0.693*		*3.742*	*Cum*
	Section 5-5	2	*2.68*	*1.291*		*6.924*	*Cum*
	Section 6-6	2	*1.09*	*0.693*		*1.511*	*Cum*
	D/S protection	2					
	Toe wall	2	*6.15*	*0.150*	*0.600*	*1.845*	*Cum*
		2	*2.00*	0.150	*0.600*	*0.360*	*Cum*
	TOTAL					**21.75**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.372 METER AT CH. 3.850 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.39*	*2.053*	*2.864*	*16.393*	*Cum*
	Section 2-2	*2*	*4.00*	*1.230*	*2.864*	*28.182*	*Cum*
	Section 3-3	*2*	*3.70*	*1.110*	*2.664*	*21.882*	*Cum*
	Section 5-5	*2*	*2.55*	*2.203*	*2.864*	*32.165*	*Cum*
	Section 6-6	*2*	*1.09*	*1.110*	*2.664*	*6.446*	*Cum*
	U/S Key Floor	*1*	*0.58*	*1.750*	*0.650*	*0.654*	*Cum*
	U/S Floor	*1*	*2.50*	*1.750*	*2.522*	*11.034*	*Cum*
	D/S Floor	*1*	*4.00*	*1.750*	*1.150*	*8.050*	*Cum*
		1	*4.00*	*1.750*	*0.950*	*6.650*	*Cum*
	D/S Key Floor	*1*	*0.79*	*1.750*	*1.500*	*2.067*	*Cum*
	Toe Wall D/S Portion	*1*	*6.15*	*0.750*	*0.900*	*4.151*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.00*	*0.600*	*0.750*	*1.800*	*Cum*
						139.47	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.750*	*0.150*	*0.14*	*Cum*
		1	*0.56*	*1.750*	*0.150*	*0.15*	*Cum*
		1	*6.17*	*1.750*	*0.150*	*1.62*	*Cum*
		1	*0.50*	*1.750*	*0.150*	*0.13*	*Cum*
		1	*1.97*	*1.750*	*0.150*	*0.52*	*Cum*
		1	*1.51*	*1.750*	*0.150*	*0.40*	*Cum*
		1	*0.54*	*1.750*	*0.150*	*0.14*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.39*	*2.053*	*0.150*	*0.86*	*Cum*
	Section 2-2	*2*	*4.00*	*1.230*	*0.150*	*1.48*	*Cum*
	Section 3-3	*2*	*3.70*	*1.110*	*0.150*	*1.23*	*Cum*
	Section 5-5	*2*	*2.55*	*2.203*	*0.150*	*1.68*	*Cum*
	Section 6-6	*2*	*1.09*	*1.110*	*0.150*	*0.36*	*Cum*
	Toe Wall D/S Portion	*1*	*6.15*	*0.750*	*0.300*	*1.38*	*Cum*
	Toe Wall D/S Portion	*1*	*5.85*	*0.450*	*0.600*	*1.58*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.600*	*0.150*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.300*	*0.600*	*0.72*	*Cum*
	TOTAL					**12.75**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.17*	*0.450*	*0.450*	*0.47*	*Cum*
		2	*1.17*	*1.102*	*2.172*	*5.59*	*Cum*
		2	*1.17*	*1.903*	*0.800*	*3.56*	*Cum*
	Section 2-2	*2*	*4.00*	*0.450*	*0.450*	*1.62*	*Cum*
		2	*4.00*	*0.690*	*0.800*	*4.42*	*Cum*
		2	*4.00*	*1.080*	*0.800*	*6.91*	*Cum*
	Section 3-3	*2*	*3.37*	*0.450*	*0.450*	*1.36*	*Cum*
		2	*3.37*	*0.630*	*0.600*	*2.55*	*Cum*
		2	*3.37*	*0.960*	*0.650*	*4.21*	*Cum*
	Section 5-5	*2*	*2.50*	*0.450*	*0.450*	*1.01*	*Cum*
		2	*2.50*	*1.102*	*2.172*	*11.98*	*Cum*
		2	*2.50*	*1.903*	*0.800*	*7.63*	*Cum*
	Section 6-6	*2*	*1.57*	*0.450*	*0.450*	*0.64*	*Cum*
		2	*1.57*	*0.630*	*0.600*	*1.19*	*Cum*
		2	*1.57*	*0.960*	*0.650*	*1.96*	*Cum*
	Floor	*1*	*0.58*	*1.750*	*0.500*	*0.50*	*Cum*
		1	*6.50*	*1.750*	*0.800*	*9.10*	*Cum*
		1	*0.57*	*1.750*	*0.350*	*0.35*	*Cum*
		1	*0.20*	*1.750*	*0.550*	*0.19*	*Cum*
		1	*3.80*	*1.750*	*0.650*	*4.32*	*Cum*
		1	*0.79*	*1.750*	*1.350*	*1.86*	*Cum*
	Crest	*1*	*1.13*	*1.750*	*1.740*	*3.45*	*Cum*
	TOTAL					**74.87**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.85*	*1.750*	*0.150*	*0.22*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*13.72*	*0.450*	*0.050*	*0.31*	*Cum*
	On Abutment Top (Right Side)	*1*	*13.72*	*0.450*	*0.050*	*0.31*	*Cum*
	TOTAL					**0.84**	**Cum**
12	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**74.87**	**0.00**	**0.225**	**7850.000**	**1763.27**	**Kg**
	Total Weight in Metric Tonne					**1.76**	**MT**
5	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.17*		*0.450*	*2.10*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.17*		*2.172*	*10.16*	*Sqm*
		4		*1.102*	*2.172*	*9.57*	*Sqm*
		4	*1.17*		*0.800*	*3.74*	*Sqm*
		4		*1.903*	*0.800*	*6.09*	*Sqm*
	Section 2-2	*4*	*4.00*		*0.450*	*7.20*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*4.00*		*0.800*	*12.80*	*Sqm*
		4		*0.690*	*0.800*	*2.21*	*Sqm*
		4	*4.00*		*0.800*	*12.80*	*Sqm*
		4		*1.080*	*0.800*	*3.46*	*Sqm*
	Section 3-3	*4*	*3.37*		*0.450*	*6.07*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.37*		*0.600*	*8.09*	*Sqm*
		4		*0.630*	*0.600*	*1.51*	*Sqm*
		4	*3.37*		*0.650*	*8.76*	*Sqm*
		4		*0.960*	*0.650*	*2.50*	*Sqm*
	Section 5-5	*4*	*2.50*		*0.450*	*4.51*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.50*		*2.172*	*21.76*	*Sqm*
		4		*1.102*	*2.172*	*9.57*	*Sqm*
		4	*2.50*		*0.800*	*8.01*	*Sqm*
		4		*1.903*	*0.800*	*6.09*	*Sqm*
	Section 6-6	*4*	*1.57*		*0.450*	*2.83*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.57*		*0.600*	*3.77*	*Sqm*
		4		*0.630*	*0.600*	*1.51*	*Sqm*
		4	*1.57*		*0.650*	*4.08*	*Sqm*
		4		*0.960*	*0.650*	*2.50*	*Sqm*
	Floor	*2*	*0.58*		*0.500*	*0.58*	*Sqm*
		2		*1.750*	*0.500*	*1.75*	*Sqm*
		2	*6.50*		*0.800*	*10.40*	*Sqm*
		2		*1.750*	*0.800*	*2.80*	*Sqm*
		2	*0.57*		*0.350*	*0.40*	*Sqm*
		2		*1.750*	*0.350*	*1.23*	*Sqm*
		2	*0.20*		*0.550*	*0.22*	*Sqm*
		2		*1.750*	*0.550*	*1.93*	*Sqm*
		2	*3.80*		*0.650*	*4.94*	*Sqm*
		2		*1.750*	*0.650*	*2.28*	*Sqm*
		2	*0.79*		*1.350*	*2.13*	*Sqm*
		2		*1.750*	*1.350*	*4.73*	*Sqm*
	Crest	*2*	*1.13*		*1.740*	*3.94*	*Sqm*
		2		*1.750*	*1.740*	*6.09*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.15*		*0.300*	*3.69*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.85*		*0.600*	*7.02*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.150*	*1.20*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.600*	*4.80*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**227.89**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
6	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.232*		*8.93*	*Sqm*
	TOTAL					**8.93**	**Sqm**
7	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*1.150*	*0.300*	**0.69**	**Cum**
8	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*1.150*	*0.150*	**0.69**	**Cum**
9	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*13.72*	*0.450*		*6.18*	*Sqm*
	On Abutment Top (Right Side)	*1*	*13.72*	*0.450*		*6.18*	*Sqm*
	TOTAL					**12.35**	**Sqm**
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		5.513		5.51	**Cum**
	Abutment						
	Section 1-1	2	*1.39*	*1.793*		*4.999*	*Cum*
	Section 2-2	2	*4.00*	*0.942*		*7.536*	*Cum*
	Section 3-3	2	*3.70*	*0.716*		*5.295*	*Cum*
	Section 5-5	2	*2.55*	*1.793*		*9.141*	*Cum*
	Section 6-6	2	*1.09*	*0.716*		*1.560*	*Cum*
	D/S protection	2					
	Toe wall	2	*6.15*	*0.150*	*0.600*	*1.845*	*Cum*
		2	*2.00*	0.150	*0.600*	*0.360*	*Cum*
	TOTAL					**36.25**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE BRIDGE/FALL OF HEIGHT 0.305 METER AT CH. 6.635 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.22*	*1.353*	*1.379*	*4.534*	*Cum*
	Section 2-2	*2*	*2.30*	*1.690*	*1.379*	*10.720*	*Cum*
	Section 3-3	*2*	*4.00*	*1.570*	*1.179*	*14.808*	*Cum*
	below bridge	*2*	*6.50*	*1.570*	*0.850*	*17.349*	*Cum*
	Section 5-5	*2*	*2.42*	*1.503*	*1.379*	*10.023*	*Cum*
	Section 6-6	*2*	*0.63*	*1.050*	*1.179*	*1.560*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.100*	*0.850*	*0.584*	*Cum*
	U/S Floor	*1*	*2.00*	*1.100*	*1.155*	*2.541*	*Cum*
	D/S Floor	*1*	*2.50*	*1.100*	*1.000*	*2.750*	*Cum*
		1	*4.30*	*1.100*	*0.800*	*3.784*	*Cum*
	D/S Key Floor	*1*	*0.63*	*1.100*	*0.850*	*0.584*	*Cum*
	Toe Wall D/S Portion	*1*	*5.20*	*0.750*	*0.900*	*3.510*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*1.75*	*1.400*	*0.750*	*1.838*	*Cum*
						74.59	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.100*	*0.150*	*0.09*	*Cum*
		1	*0.78*	*1.100*	*0.150*	*0.13*	*Cum*
		1	*4.07*	*1.100*	*0.150*	*0.67*	*Cum*
		1	*0.28*	*1.100*	*0.150*	*0.05*	*Cum*
		1	*2.75*	*1.100*	*0.150*	*0.45*	*Cum*
		1	*0.78*	*1.100*	*0.150*	*0.13*	*Cum*
		1	*0.54*	*1.100*	*0.150*	*0.09*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.22*	*1.353*	*0.150*	*0.49*	*Cum*
	Section 2-2	*2*	*2.30*	*1.690*	*0.300*	*2.33*	*Cum*
	Section 3-3	*2*	*4.00*	*1.570*	*0.300*	*3.77*	*Cum*
	Section 5-5	*2*	*2.42*	*1.503*	*0.150*	*1.09*	*Cum*
	Section 6-6	*2*	*0.63*	*1.050*	*0.150*	*0.20*	*Cum*
	Toe Wall D/S Portion	*1*	*5.20*	*0.750*	*0.300*	*1.17*	*Cum*
	Toe Wall D/S Portion	*1*	*4.90*	*0.450*	*0.600*	*1.32*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.75*	*1.400*	*0.150*	*0.37*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.300*	*0.600*	*0.63*	*Cum*
	TOTAL					**12.98**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.14*	*0.450*	*0.450*	*0.46*	*Cum*
		2	*1.14*	*0.752*	*1.005*	*1.72*	*Cum*
		2	*1.14*	*1.203*	*0.500*	*1.37*	*Cum*
	Section 2-2	*2*	*2.15*	*0.820*	*0.500*	*1.76*	*Cum*
		2	*2.15*	*1.030*	*0.700*	*3.10*	*Cum*
		2	*2.15*	*1.390*	*1.000*	*5.98*	*Cum*
	Section 3-3	*2*	*3.70*	*0.820*	*0.500*	*3.03*	*Cum*
		2	*3.70*	*0.970*	*0.500*	*3.59*	*Cum*
		2	*3.70*	*1.270*	*1.200*	*11.28*	*Cum*
	Section 5-5	*2*	*2.37*	*0.450*	*0.450*	*0.96*	*Cum*
		2	*2.37*	*0.752*	*1.005*	*3.59*	*Cum*
		2	*2.37*	*1.203*	*0.500*	*2.86*	*Cum*
	Section 6-6	*2*	*1.27*	*0.450*	*0.450*	*0.51*	*Cum*
		2	*1.27*	*0.600*	*0.500*	*0.76*	*Cum*
		2	*1.27*	*0.900*	*0.500*	*1.14*	*Cum*
	deduction for M 25 grade of concrete	*2*	*0.82*	*5.500*	*0.300*	*-2.71*	*Cum*
	Floor	*1*	*0.63*	*1.100*	*0.700*	*0.48*	*Cum*
		1	*4.50*	*1.100*	*0.650*	*3.22*	*Cum*
		1	*0.50*	*1.100*	*0.200*	*0.11*	*Cum*
		1	*0.20*	*1.100*	*0.400*	*0.09*	*Cum*
		1	*4.10*	*1.100*	*0.500*	*2.26*	*Cum*
		1	*0.63*	*1.100*	*0.700*	*0.48*	*Cum*
	Crest	*1*	*0.70*	*1.100*	*0.632*	*0.48*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**46.52**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*1.100*	*0.150*	*0.10*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*6.12*	*0.450*	*0.050*	*0.14*	*Cum*
	On Abutment Top (Right Side)	*1*	*6.12*	*0.450*	*0.050*	*0.14*	*Cum*
	Slab Bridge						
	Slab	*1*	*1.90*	*5.500*	*0.328*	*3.43*	*Cum*
	Wearing coat	*1*	*1.90*	*4.500*	*0.070*	*0.60*	*Cum*
	Dirt wall	*2*	*0.40*	*5.500*	*0.300*	*1.32*	*Cum*
	300 mm thick pedastial	*2*	*0.82*	*5.500*	*0.300*	*2.71*	*Cum*
	TOTAL					**8.43**	**Cum**
12	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*31*	*2.36*		*1.578*	*115.5*	*Kg*
a2	*10*	*10*	*5.88*		*0.616*	*36.2*	*Kg*
a3	*10*	*2*	*5.40*		*0.616*	*6.7*	*Kg*
a4	*10*	*19*	*2.28*		*0.616*	*26.7*	*Kg*
a5	*10*	*7*	*5.80*		*0.616*	*25.0*	*Kg*
x1	*12*	*32*	*2.50*		*0.888*	*71.0*	*Kg*
x2	*16*	*32*	*1.32*		*1.578*	*66.4*	*Kg*
x3	*12*	*24*	*1.80*		*0.888*	*38.3*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**46.52**	**0.00**	**0.140**	**7850.000**	**1095.4**	**Kg**
	Total Reinforcement Steel (in kg)					*1481.3*	*Kg*
	Total Weight in Metric Tonne					**1.48**	**MT**
5	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.14*		*0.450*	*2.05*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.14*		*1.005*	*4.58*	*Sqm*
		4		*0.752*	*1.005*	*3.02*	*Sqm*
		4	*1.14*		*0.500*	*2.28*	*Sqm*
		4		*1.203*	*0.500*	*2.41*	*Sqm*
	Section 2-2	*4*	*2.15*		*0.500*	*4.30*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*2.15*		*0.700*	*6.02*	*Sqm*
		4		*1.030*	*0.700*	*2.88*	*Sqm*
		4	*2.15*		*1.000*	*8.60*	*Sqm*
		4		*1.390*	*1.000*	*5.56*	*Sqm*
	Section 3-3	*4*	*3.70*		*0.500*	*7.40*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*3.70*		*0.500*	*7.40*	*Sqm*
		4		*0.970*	*0.500*	*1.94*	*Sqm*
		4	*3.70*		*1.200*	*17.76*	*Sqm*
		4		*1.270*	*1.200*	*6.10*	*Sqm*
	Section 5-5	*4*	*2.37*		*0.450*	*4.27*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.37*		*1.005*	*9.54*	*Sqm*
		4		*0.752*	*1.005*	*3.02*	*Sqm*
		4	*2.37*		*0.500*	*4.75*	*Sqm*
		4		*1.203*	*0.500*	*2.41*	*Sqm*
	Section 6-6	*4*	*1.27*		*0.450*	*2.28*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.27*		*0.500*	*2.53*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*1.27*		*0.500*	*2.53*	*Sqm*
		4		*0.900*	*0.500*	*1.80*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.100*	*0.700*	*1.54*	*Sqm*
		2	*4.50*		*0.650*	*5.85*	*Sqm*
		2		*1.100*	*0.650*	*1.43*	*Sqm*
		2	*0.50*		*0.200*	*0.20*	*Sqm*
		2		*1.100*	*0.200*	*0.44*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*1.100*	*0.400*	*0.88*	*Sqm*
		2	*4.10*		*0.500*	*4.10*	*Sqm*
		2		*1.100*	*0.500*	*1.10*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.100*	*0.700*	*1.54*	*Sqm*
	Crest	*2*	*0.70*		*0.632*	*0.88*	*Sqm*
		2		*1.100*	*0.632*	*1.39*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.20*		*0.300*	*3.12*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.90*		*0.600*	*5.88*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.150*	*1.05*	*Sqm*
		4		*1.400*	*0.150*	*0.84*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.600*	*4.20*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**160.39**	**Sqm**
6	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.75*	*2.052*		*7.18*	*Sqm*
	TOTAL					**7.18**	**Sqm**
7	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.75*	*0.500*	*0.300*	**0.26**	**Cum**
8	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.75*	*0.500*	*0.150*	**0.26**	**Cum**
9	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*6.12*	*0.450*		*2.75*	*Sqm*
	On Abutment Top (Right Side)	*1*	*6.12*	*0.450*		*2.75*	*Sqm*
	TOTAL					**5.50**	**Sqm**
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.112		1.11	**Cum**
	Abutment						
	Section 1-1	2	*1.22*	*0.453*		*1.101*	*Cum*
	Section 2-2	2	*2.30*	*1.230*		*5.656*	*Cum*
	Section 3-3	2	*4.00*	*1.046*		*8.369*	*Cum*
	Section 5-5	2	*2.42*	*0.453*		*2.192*	*Cum*
	Section 6-6	2	*0.63*	*0.317*		*0.400*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.20*	*0.150*	*0.600*	*1.560*	*Cum*
		2	*1.75*	0.150	*0.600*	*0.315*	*Cum*
	TOTAL					**20.70**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE BRIDGE/FALL OF HEIGHT 1.372 METER AT CH. 8.450 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.33*	*1.963*	*2.464*	*12.880*	*Cum*
	Section 2-2	*2*	*3.50*	*1.830*	*2.464*	*31.564*	*Cum*
	Section 3-3	*2*	*4.40*	*1.710*	*2.264*	*34.069*	*Cum*
	below bridge	*2*	*6.50*	*1.710*	*0.850*	*18.896*	*Cum*
	Section 5-5	*2*	*2.25*	*2.113*	*2.464*	*23.424*	*Cum*
	Section 6-6	*2*	*0.42*	*1.020*	*2.264*	*1.917*	*Cum*
	U/S Key Floor	*1*	*0.58*	*0.750*	*0.650*	*0.280*	*Cum*
	U/S Floor	*1*	*2.50*	*0.750*	*2.472*	*4.635*	*Cum*
	D/S Floor	*1*	*3.50*	*0.750*	*1.100*	*2.888*	*Cum*
		1	*4.70*	*0.750*	*0.900*	*3.173*	*Cum*
	D/S Key Floor	*1*	*0.73*	*0.750*	*1.250*	*0.680*	*Cum*
	Toe Wall D/S Portion	*1*	*4.70*	*0.750*	*0.900*	*3.173*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*1.50*	*1.400*	*0.750*	*1.575*	*Cum*
						139.15	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*0.750*	*0.150*	*0.06*	*Cum*
		1	*0.56*	*0.750*	*0.150*	*0.06*	*Cum*
		1	*5.62*	*0.750*	*0.150*	*0.63*	*Cum*
		1	*0.50*	*0.750*	*0.150*	*0.06*	*Cum*
		1	*2.70*	*0.750*	*0.150*	*0.30*	*Cum*
		1	*1.57*	*0.750*	*0.150*	*0.18*	*Cum*
		1	*0.54*	*0.750*	*0.150*	*0.06*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.33*	*1.963*	*0.150*	*0.78*	*Cum*
	Section 2-2	*2*	*3.50*	*1.830*	*0.300*	*3.84*	*Cum*
	Section 3-3	*2*	*4.40*	*1.710*	*0.300*	*4.51*	*Cum*
	Section 5-5	*2*	*2.25*	*2.113*	*0.150*	*1.43*	*Cum*
	Section 6-6	*2*	*0.42*	*1.020*	*0.150*	*0.13*	*Cum*
	Toe Wall D/S Portion	*1*	*4.70*	*0.750*	*0.300*	*1.06*	*Cum*
	Toe Wall D/S Portion	*1*	*4.40*	*0.450*	*0.600*	*1.19*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.50*	*1.400*	*0.150*	*0.32*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.300*	*0.600*	*0.54*	*Cum*
	TOTAL					**15.15**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.11*	*0.450*	*0.450*	*0.45*	*Cum*
		2	*1.11*	*1.057*	*2.022*	*4.73*	*Cum*
		2	*1.11*	*1.813*	*0.750*	*3.01*	*Cum*
	Section 2-2	*2*	*3.50*	*0.820*	*0.500*	*2.87*	*Cum*
		2	*3.50*	*1.100*	*0.933*	*7.18*	*Cum*
		2	*3.50*	*1.530*	*1.500*	*16.07*	*Cum*
	Section 3-3	*2*	*4.12*	*0.820*	*0.500*	*3.37*	*Cum*
		2	*4.12*	*1.040*	*0.733*	*6.27*	*Cum*
		2	*4.12*	*1.410*	*1.700*	*19.73*	*Cum*
	Section 5-5	*2*	*2.21*	*0.450*	*0.450*	*0.89*	*Cum*
		2	*2.21*	*1.057*	*2.022*	*9.42*	*Cum*
		2	*2.21*	*1.813*	*0.750*	*6.00*	*Cum*
	Section 6-6	*2*	*1.20*	*0.450*	*0.450*	*0.48*	*Cum*
		2	*1.20*	*0.585*	*0.450*	*0.63*	*Cum*
		2	*1.20*	*0.870*	*0.600*	*1.25*	*Cum*
	deduction for M 25 grade of concrete	*2*	*0.82*	*5.500*	*0.300*	*-2.71*	*Cum*
	Floor	*1*	*0.58*	*0.750*	*0.500*	*0.22*	*Cum*
		1	*6.00*	*0.750*	*0.750*	*3.38*	*Cum*
		1	*0.52*	*0.750*	*0.350*	*0.14*	*Cum*
		1	*0.20*	*0.750*	*0.500*	*0.08*	*Cum*
		1	*4.50*	*0.750*	*0.600*	*2.03*	*Cum*
		1	*0.73*	*0.750*	*1.100*	*0.60*	*Cum*
	Crest	*1*	*0.70*	*0.750*	*0.632*	*0.33*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**86.40**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.80*	*0.750*	*0.150*	*0.09*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*7.80*	*0.450*	*0.050*	*0.18*	*Cum*
	On Abutment Top (Right Side)	*1*	*7.80*	*0.450*	*0.050*	*0.18*	*Cum*
	Slab Bridge						
	Slab	*1*	*1.55*	*5.500*	*0.328*	*2.80*	*Cum*
	Wearing coat	*1*	*1.55*	*4.500*	*0.070*	*0.49*	*Cum*
	Dirt wall	*2*	*0.40*	*5.500*	*0.300*	*1.32*	*Cum*
	300 mm thick pedastial	*2*	*0.82*	*5.500*	*0.300*	*2.71*	*Cum*
	TOTAL					**7.75**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*31*	*2.01*		*1.578*	*98.3*	*Kg*
a2	*10*	*8*	*5.88*		*0.616*	*29.0*	*Kg*
a3	*10*	*2*	*5.40*		*0.616*	*6.7*	*Kg*
a4	*10*	*19*	*1.93*		*0.616*	*22.6*	*Kg*
a5	*10*	*6*	*5.80*		*0.616*	*21.5*	*Kg*
x1	*12*	*32*	*2.50*		*0.888*	*71.0*	*Kg*
x2	*16*	*32*	*1.32*		*1.578*	*66.4*	*Kg*
x3	*12*	*24*	*1.45*		*0.888*	*30.9*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**86.40**	**0.00**	**0.259**	**7850.000**	**2034.8**	**Kg**
	Total Reinforcement Steel (in kg)					*2381.2*	*Kg*
	Total Weight in Metric Tonne					**2.38**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.11*		*0.450*	*1.99*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.11*		*2.022*	*8.95*	*Sqm*
		4		*1.057*	*2.022*	*8.54*	*Sqm*
		4	*1.11*		*0.750*	*3.32*	*Sqm*
		4		*1.813*	*0.750*	*5.44*	*Sqm*
	Section 2-2	*4*	*3.50*		*0.500*	*7.00*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*3.50*		*0.933*	*13.06*	*Sqm*
		4		*1.100*	*0.933*	*4.11*	*Sqm*
		4	*3.50*		*1.500*	*21.00*	*Sqm*
		4		*1.530*	*1.500*	*9.18*	*Sqm*
	Section 3-3	*4*	*4.12*		*0.500*	*8.23*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*4.12*		*0.733*	*12.07*	*Sqm*
		4		*1.040*	*0.733*	*3.05*	*Sqm*
		4	*4.12*		*1.700*	*27.98*	*Sqm*
		4		*1.410*	*1.700*	*9.59*	*Sqm*
	Section 5-5	*4*	*2.21*		*0.450*	*3.97*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.21*		*2.022*	*17.84*	*Sqm*
		4		*1.057*	*2.022*	*8.54*	*Sqm*
		4	*2.21*		*0.750*	*6.62*	*Sqm*
		4		*1.813*	*0.750*	*5.44*	*Sqm*
	Section 6-6	*4*	*1.20*		*0.450*	*2.15*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.20*		*0.450*	*2.15*	*Sqm*
		4		*0.585*	*0.450*	*1.05*	*Sqm*
		4	*1.20*		*0.600*	*2.87*	*Sqm*
		4		*0.870*	*0.600*	*2.09*	*Sqm*
	Floor	*2*	*0.58*		*0.500*	*0.58*	*Sqm*
		2		*0.750*	*0.500*	*0.75*	*Sqm*
		2	*6.00*		*0.750*	*9.00*	*Sqm*
		2		*0.750*	*0.750*	*1.13*	*Sqm*
		2	*0.52*		*0.350*	*0.37*	*Sqm*
		2		*0.750*	*0.350*	*0.53*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	*0.20*		*0.500*	*0.20*	*Sqm*
		2		*0.750*	*0.500*	*0.75*	*Sqm*
		2	*4.50*		*0.600*	*5.40*	*Sqm*
		2		*0.750*	*0.600*	*0.90*	*Sqm*
		2	*0.73*		*1.100*	*1.60*	*Sqm*
		2		*0.750*	*1.100*	*1.65*	*Sqm*
	Crest	*2*	*0.70*		*0.632*	*0.88*	*Sqm*
		2		*0.750*	*0.632*	*0.95*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.70*		*0.300*	*2.82*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.40*		*0.600*	*5.28*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.150*	*0.90*	*Sqm*
		4		*1.400*	*0.150*	*0.84*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.600*	*3.60*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**241.75**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*2.052*		*6.16*	*Sqm*
	TOTAL					**6.16**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.150*	*0.300*	**0.07**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.150*	*0.150*	**0.07**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*7.80*	*0.450*		*3.51*	*Sqm*
	On Abutment Top (Right Side)	*1*	*7.80*	*0.450*		*3.51*	*Sqm*
	TOTAL					**7.02**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		3.973		3.97	**Cum**
	Abutment						
	Section 1-1	2	*1.33*	*1.316*		*3.505*	*Cum*
	Section 2-2	2	*3.50*	*1.657*		*11.599*	*Cum*
	Section 3-3	2	*4.40*	*1.468*		*12.914*	*Cum*
	Section 5-5	2	*2.25*	*1.316*		*5.921*	*Cum*
	Section 6-6	2	*0.42*	*0.572*		*0.475*	*Cum*
	D/S protection	2					
	Toe wall	2	*4.70*	*0.150*	*0.600*	*1.410*	*Cum*
		2	*1.50*	0.150	*0.600*	*0.270*	*Cum*
	TOTAL					**40.07**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR PRITAMPURA SUB DY.						
	SHARDA TYPE FALL OF HEIGHT 1.676 METER AT CH. 2.600 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.57*	*2.446*	*1.649*	*12.669*	*Cum*
	Section 2-2	*2*	*5.00*	*1.440*	*1.649*	*23.746*	*Cum*
	Section 3-3	*2*	*3.20*	*1.320*	*1.449*	*12.241*	*Cum*
	Section 5-5	*2*	*5.90*	*2.596*	*1.649*	*50.488*	*Cum*
	Section 6-6	*2*	*3.31*	*1.320*	*1.449*	*12.643*	*Cum*
	U/S Key Floor	*1*	*0.58*	*3.820*	*0.650*	*1.428*	*Cum*
	U/S Floor	*1*	*3.00*	*3.820*	*2.926*	*33.532*	*Cum*
	D/S Floor	*1*	*5.00*	*3.820*	*1.250*	*23.875*	*Cum*
		1	*3.50*	*3.820*	*1.050*	*14.039*	*Cum*
	D/S Key Floor	*1*	*0.89*	*3.820*	*1.900*	*6.441*	*Cum*
	Toe Wall D/S Portion	*1*	*13.07*	*0.750*	*0.900*	*8.822*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*3.00*	*0.600*	*0.750*	*2.700*	*Cum*
						202.62	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*3.820*	*0.150*	*0.31*	*Cum*
		1	*0.56*	*3.820*	*0.150*	*0.32*	*Cum*
		1	*7.67*	*3.820*	*0.150*	*4.39*	*Cum*
		1	*0.50*	*3.820*	*0.150*	*0.28*	*Cum*
		1	*1.27*	*3.820*	*0.150*	*0.73*	*Cum*
		1	*1.96*	*3.820*	*0.150*	*1.12*	*Cum*
		1	*0.54*	*3.820*	*0.150*	*0.31*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.57*	*2.446*	*0.150*	*1.15*	*Cum*
	Section 2-2	*2*	*5.00*	*1.440*	*0.150*	*2.16*	*Cum*
	Section 3-3	*2*	*3.20*	*1.320*	*0.150*	*1.27*	*Cum*
	Section 5-5	*2*	*5.90*	*2.596*	*0.150*	*4.59*	*Cum*
	Section 6-6	*2*	*3.31*	*1.320*	*0.150*	*1.31*	*Cum*
	Toe Wall D/S Portion	*1*	*13.07*	*0.750*	*0.300*	*2.94*	*Cum*
	Toe Wall D/S Portion	*1*	*12.77*	*0.450*	*0.600*	*3.45*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.00*	*0.600*	*0.150*	*0.54*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.00*	*0.300*	*0.600*	*1.08*	*Cum*
	TOTAL					**25.96**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.35*	*0.450*	*0.450*	*0.54*	*Cum*
		2	*1.35*	*1.298*	*2.826*	*9.87*	*Cum*
		2	*1.35*	*2.296*	*0.900*	*5.56*	*Cum*
	Section 2-2	*2*	*5.00*	*0.450*	*0.450*	*2.03*	*Cum*
		2	*5.00*	*0.795*	*1.150*	*9.14*	*Cum*
		2	*5.00*	*1.290*	*0.900*	*11.61*	*Cum*
	Section 3-3	*2*	*2.77*	*0.450*	*0.450*	*1.12*	*Cum*
		2	*2.77*	*0.735*	*0.950*	*3.86*	*Cum*
		2	*2.77*	*1.170*	*0.750*	*4.85*	*Cum*
	Section 5-5	*2*	*5.85*	*0.450*	*0.450*	*2.37*	*Cum*
		2	*5.85*	*1.298*	*2.826*	*42.94*	*Cum*
		2	*5.85*	*2.296*	*0.900*	*24.19*	*Cum*
	Section 6-6	*2*	*3.89*	*0.450*	*0.450*	*1.58*	*Cum*
		2	*3.89*	*0.735*	*0.950*	*5.43*	*Cum*
		2	*3.89*	*1.170*	*0.750*	*6.83*	*Cum*
	Floor	*1*	*0.58*	*3.820*	*0.500*	*1.10*	*Cum*
		1	*8.00*	*3.820*	*0.900*	*27.50*	*Cum*
		1	*0.57*	*3.820*	*0.350*	*0.77*	*Cum*
		1	*0.20*	*3.820*	*0.650*	*0.50*	*Cum*
		1	*3.30*	*3.820*	*0.750*	*9.45*	*Cum*
		1	*0.89*	*3.820*	*1.750*	*5.93*	*Cum*
	Crest	*1*	*1.31*	*3.820*	*2.212*	*11.07*	*Cum*
	TOTAL					**188.25**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.95*	*3.820*	*0.150*	*0.54*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*20.34*	*0.450*	*0.050*	*0.46*	*Cum*
	On Abutment Top (Right Side)	*1*	*20.34*	*0.450*	*0.050*	*0.46*	*Cum*
	TOTAL					**1.46**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**188.25**	**0.00**	**0.565**	**7850.000**	**4433.37**	**Kg**
	Total Weight in Metric Tonne					**4.43**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.35*		*0.450*	*2.42*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.35*		*2.826*	*15.21*	*Sqm*
		4		*1.298*	*2.826*	*14.67*	*Sqm*
		4	*1.35*		*0.900*	*4.84*	*Sqm*
		4		*2.296*	*0.900*	*8.27*	*Sqm*
	Section 2-2	*4*	*5.00*		*0.450*	*9.00*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*5.00*		*1.150*	*23.00*	*Sqm*
		4		*0.795*	*1.150*	*3.66*	*Sqm*
		4	*5.00*		*0.900*	*18.00*	*Sqm*
		4		*1.290*	*0.900*	*4.64*	*Sqm*
	Section 3-3	*4*	*2.77*		*0.450*	*4.98*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.77*		*0.950*	*10.51*	*Sqm*
		4		*0.735*	*0.950*	*2.79*	*Sqm*
		4	*2.77*		*0.750*	*8.30*	*Sqm*
		4		*1.170*	*0.750*	*3.51*	*Sqm*
	Section 5-5	*4*	*5.85*		*0.450*	*10.54*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*5.85*		*2.826*	*66.17*	*Sqm*
		4		*1.298*	*2.826*	*14.67*	*Sqm*
		4	*5.85*		*0.900*	*21.07*	*Sqm*
		4		*2.296*	*0.900*	*8.27*	*Sqm*
	Section 6-6	*4*	*3.89*		*0.450*	*7.00*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.89*		*0.950*	*14.78*	*Sqm*
		4		*0.735*	*0.950*	*2.79*	*Sqm*
		4	*3.89*		*0.750*	*11.67*	*Sqm*
		4		*1.170*	*0.750*	*3.51*	*Sqm*
	Floor	*2*	*0.58*		*0.500*	*0.58*	*Sqm*
		2		*3.820*	*0.500*	*3.82*	*Sqm*
		2	*8.00*		*0.900*	*14.40*	*Sqm*
		2		*3.820*	*0.900*	*6.88*	*Sqm*
		2	*0.57*		*0.350*	*0.40*	*Sqm*
		2		*3.820*	*0.350*	*2.67*	*Sqm*
		2	*0.20*		*0.650*	*0.26*	*Sqm*
		2		*3.820*	*0.650*	*4.97*	*Sqm*
		2	*3.30*		*0.750*	*4.95*	*Sqm*
		2		*3.820*	*0.750*	*5.73*	*Sqm*
		2	*0.89*		*1.750*	*3.11*	*Sqm*
		2		*3.820*	*1.750*	*13.37*	*Sqm*
	Crest	*2*	*1.31*		*2.212*	*5.80*	*Sqm*
		2		*3.820*	*2.212*	*16.90*	*Sqm*
	Toe Wall D/S Portion	*2*	*13.07*		*0.300*	*7.84*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*12.77*		*0.600*	*15.32*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.00*		*0.150*	*1.80*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.00*		*0.600*	*7.20*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**416.38**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.00*	*4.763*		*28.58*	*Sqm*
	TOTAL					**28.58**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*3.00*	*3.220*	*0.300*	**2.90**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*3.00*	*3.220*	*0.150*	**2.90**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*20.34*	*0.450*		*9.15*	*Sqm*
	On Abutment Top (Right Side)	*1*	*20.34*	*0.450*		*9.15*	*Sqm*
	TOTAL					**18.30**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		14.933		14.93	**Cum**
	Abutment						
	Section 1-1	2	*1.57*	*0.423*		*1.329*	*Cum*
	Section 2-2	2	*5.00*	*0.423*		*4.230*	*Cum*
	Section 3-3	2	*3.20*	*0.280*		*1.792*	*Cum*
	Section 5-5	2	*5.90*	*0.423*		*4.989*	*Cum*
	Section 6-6	2	*3.31*	*0.280*		*1.851*	*Cum*
	D/S protection	2					
	Toe wall	2	*13.07*	*0.150*	*0.600*	*3.921*	*Cum*
		2	*3.00*	0.150	*0.600*	*0.540*	*Cum*
	TOTAL					**33.58**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 10.600 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.01*	*1.594*	*1.934*	*6.252*	*Cum*
	Section 2-2	*2*	*2.50*	*1.320*	*1.934*	*12.764*	*Cum*
	Section 3-3	*2*	*2.45*	*1.200*	*1.734*	*10.196*	*Cum*
	Section 5-5	*2*	*5.08*	*1.744*	*1.934*	*34.292*	*Cum*
	Section 6-6	*2*	*2.73*	*1.200*	*1.734*	*11.340*	*Cum*
	U/S Key Floor	*1*	*0.63*	*2.200*	*0.850*	*1.169*	*Cum*
	U/S Floor	*1*	*1.75*	*2.200*	*1.307*	*5.032*	*Cum*
	D/S Floor	*1*	*2.50*	*2.200*	*0.850*	*4.675*	*Cum*
		1	*2.75*	*2.200*	*0.650*	*3.933*	*Cum*
	D/S Key Floor	*1*	*0.63*	*2.200*	*0.850*	*1.169*	*Cum*
	Toe Wall D/S Portion	*1*	*10.05*	*0.750*	*0.900*	*6.784*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.50*	*0.600*	*0.750*	*2.250*	*Cum*
						99.86	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*2.200*	*0.150*	*0.18*	*Cum*
		1	*0.78*	*2.200*	*0.150*	*0.26*	*Cum*
		1	*3.83*	*2.200*	*0.150*	*1.26*	*Cum*
		1	*0.28*	*2.200*	*0.150*	*0.09*	*Cum*
		1	*1.19*	*2.200*	*0.150*	*0.39*	*Cum*
		1	*0.78*	*2.200*	*0.150*	*0.26*	*Cum*
		1	*0.54*	*2.200*	*0.150*	*0.18*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.01*	*1.594*	*0.150*	*0.48*	*Cum*
	Section 2-2	*2*	*2.50*	*1.320*	*0.150*	*0.99*	*Cum*
	Section 3-3	*2*	*2.45*	*1.200*	*0.150*	*0.88*	*Cum*
	Section 5-5	*2*	*5.08*	*1.744*	*0.150*	*2.66*	*Cum*
	Section 6-6	*2*	*2.73*	*1.200*	*0.150*	*0.98*	*Cum*
	Toe Wall D/S Portion	*1*	*10.05*	*0.750*	*0.300*	*2.26*	*Cum*
	Toe Wall D/S Portion	*1*	*9.75*	*0.450*	*0.600*	*2.63*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.600*	*0.150*	*0.45*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.300*	*0.600*	*0.90*	*Cum*
	TOTAL					**14.86**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.79*	*0.450*	*0.450*	*0.32*	*Cum*
		2	*0.79*	*0.872*	*1.407*	*1.94*	*Cum*
		2	*0.79*	*1.444*	*0.500*	*1.14*	*Cum*
	Section 2-2	*2*	*2.50*	*0.450*	*0.450*	*1.01*	*Cum*
		2	*2.50*	*0.735*	*0.950*	*3.49*	*Cum*
		2	*2.50*	*1.170*	*0.500*	*2.93*	*Cum*
	Section 3-3	*2*	*2.08*	*0.450*	*0.450*	*0.84*	*Cum*
		2	*2.08*	*0.675*	*0.750*	*2.10*	*Cum*
		2	*2.08*	*1.050*	*0.500*	*2.18*	*Cum*
	Section 5-5	*2*	*5.04*	*0.450*	*0.450*	*2.04*	*Cum*
		2	*5.04*	*0.872*	*1.407*	*12.37*	*Cum*
		2	*5.04*	*1.444*	*0.500*	*7.28*	*Cum*
	Section 6-6	*2*	*3.25*	*0.450*	*0.450*	*1.32*	*Cum*
		2	*3.25*	*0.675*	*0.750*	*3.29*	*Cum*
		2	*3.25*	*1.050*	*0.500*	*3.41*	*Cum*
	Floor	*1*	*0.63*	*2.200*	*0.700*	*0.96*	*Cum*
		1	*4.25*	*2.200*	*0.500*	*4.68*	*Cum*
		1	*0.51*	*2.200*	*0.200*	*0.22*	*Cum*
		1	*0.20*	*2.200*	*0.400*	*0.18*	*Cum*
		1	*2.55*	*2.200*	*0.500*	*2.81*	*Cum*
		1	*0.63*	*2.200*	*0.700*	*0.96*	*Cum*
	Crest	*1*	*0.79*	*2.200*	*0.915*	*1.60*	*Cum*
	TOTAL					**57.05**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.65*	*2.200*	*0.150*	*0.21*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*14.67*	*0.450*	*0.050*	*0.33*	*Cum*
	On Abutment Top (Right Side)	*1*	*14.67*	*0.450*	*0.050*	*0.33*	*Cum*
	TOTAL					**0.87**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**57.05**	**0.00**	**0.171**	**7850.000**	**1343.52**	**Kg**
	Total Weight in Metric Tonne					**1.34**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.79*		*0.450*	*1.42*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.79*		*1.407*	*4.44*	*Sqm*
		4		*0.872*	*1.407*	*4.91*	*Sqm*
		4	*0.79*		*0.500*	*1.58*	*Sqm*
		4		*1.444*	*0.500*	*2.89*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.450*	*4.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.50*		*0.950*	*9.50*	*Sqm*
		4		*0.735*	*0.950*	*2.79*	*Sqm*
		4	*2.50*		*0.500*	*5.00*	*Sqm*
		4		*1.170*	*0.500*	*2.34*	*Sqm*
	Section 3-3	*4*	*2.08*		*0.450*	*3.74*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.08*		*0.750*	*6.23*	*Sqm*
		4		*0.675*	*0.750*	*2.03*	*Sqm*
		4	*2.08*		*0.500*	*4.15*	*Sqm*
		4		*1.050*	*0.500*	*2.10*	*Sqm*
	Section 5-5	*4*	*5.04*		*0.450*	*9.07*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*5.04*		*1.407*	*28.36*	*Sqm*
		4		*0.872*	*1.407*	*4.91*	*Sqm*
		4	*5.04*		*0.500*	*10.08*	*Sqm*
		4		*1.444*	*0.500*	*2.89*	*Sqm*
	Section 6-6	*4*	*3.25*		*0.450*	*5.85*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.25*		*0.750*	*9.75*	*Sqm*
		4		*0.675*	*0.750*	*2.03*	*Sqm*
		4	*3.25*		*0.500*	*6.50*	*Sqm*
		4		*1.050*	*0.500*	*2.10*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*2.200*	*0.700*	*3.08*	*Sqm*
		2	*4.25*		*0.500*	*4.25*	*Sqm*
		2		*2.200*	*0.500*	*2.20*	*Sqm*
		2	*0.51*		*0.200*	*0.20*	*Sqm*
		2		*2.200*	*0.200*	*0.88*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*2.200*	*0.400*	*1.76*	*Sqm*
		2	*2.55*		*0.500*	*2.55*	*Sqm*
		2		*2.200*	*0.500*	*2.20*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*2.200*	*0.700*	*3.08*	*Sqm*
	Crest	*2*	*0.79*		*0.915*	*1.45*	*Sqm*
		2		*2.200*	*0.915*	*4.03*	*Sqm*
	Toe Wall D/S Portion	*2*	*10.05*		*0.300*	*6.03*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*9.75*		*0.600*	*11.70*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.150*	*1.50*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.600*	*6.00*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**198.08**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.50*	*4.003*		*20.02*	*Sqm*
	TOTAL					**20.02**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.50*	*1.600*	*0.300*	**1.20**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.50*	*1.600*	*0.150*	**1.20**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*14.67*	*0.450*		*6.60*	*Sqm*
	On Abutment Top (Right Side)	*1*	*14.67*	*0.450*		*6.60*	*Sqm*
	TOTAL					**13.20**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.319		1.32	**Cum**
	Abutment						
	Section 1-1	2	*1.01*	*0.955*		*1.937*	*Cum*
	Section 2-2	2	*2.50*	*0.925*		*4.625*	*Cum*
	Section 3-3	2	*2.45*	*0.719*		*3.523*	*Cum*
	Section 5-5	2	*5.08*	*0.955*		*9.709*	*Cum*
	Section 6-6	2	*2.73*	*0.719*		*3.919*	*Cum*
	D/S protection	2					
	Toe wall	2	*10.05*	*0.150*	*0.600*	*3.015*	*Cum*
		2	*2.50*	0.150	*0.600*	*0.450*	*Cum*
	TOTAL					**28.50**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 12.150 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.05*	*1.644*	*1.658*	*5.713*	*Cum*
	Section 2-2	*2*	*3.00*	*1.278*	*1.658*	*12.714*	*Cum*
	Section 3-3	*2*	*1.70*	*1.158*	*1.458*	*5.740*	*Cum*
	Section 5-5	*2*	*4.73*	*1.794*	*1.658*	*28.117*	*Cum*
	Section 6-6	*2*	*2.52*	*1.158*	*1.458*	*8.516*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.600*	*0.850*	*0.850*	*Cum*
	U/S Floor	*1*	*2.00*	*1.600*	*1.460*	*4.672*	*Cum*
	D/S Floor	*1*	*3.00*	*1.600*	*0.850*	*4.080*	*Cum*
		1	*2.00*	*1.600*	*0.650*	*2.080*	*Cum*
	D/S Key Floor	*1*	*0.63*	*1.600*	*0.850*	*0.850*	*Cum*
	Toe Wall D/S Portion	*1*	*8.96*	*0.750*	*0.900*	*6.048*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.50*	*0.600*	*0.750*	*2.250*	*Cum*
						81.63	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.600*	*0.150*	*0.13*	*Cum*
		1	*0.78*	*1.600*	*0.150*	*0.19*	*Cum*
		1	*4.42*	*1.600*	*0.150*	*1.06*	*Cum*
		1	*0.28*	*1.600*	*0.150*	*0.07*	*Cum*
		1	*0.60*	*1.600*	*0.150*	*0.14*	*Cum*
		1	*0.78*	*1.600*	*0.150*	*0.19*	*Cum*
		1	*0.54*	*1.600*	*0.150*	*0.13*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.05*	*1.644*	*0.150*	*0.52*	*Cum*
	Section 2-2	*2*	*3.00*	*1.278*	*0.150*	*1.15*	*Cum*
	Section 3-3	*2*	*1.70*	*1.158*	*0.150*	*0.59*	*Cum*
	Section 5-5	*2*	*4.73*	*1.794*	*0.150*	*2.54*	*Cum*
	Section 6-6	*2*	*2.52*	*1.158*	*0.150*	*0.88*	*Cum*
	Toe Wall D/S Portion	*1*	*8.96*	*0.750*	*0.300*	*2.02*	*Cum*
	Toe Wall D/S Portion	*1*	*8.66*	*0.450*	*0.600*	*2.34*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.600*	*0.150*	*0.45*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.300*	*0.600*	*0.90*	*Cum*
	TOTAL					**13.29**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.82*	*0.450*	*0.450*	*0.33*	*Cum*
		2	*0.82*	*0.897*	*1.490*	*2.19*	*Cum*
		2	*0.82*	*1.494*	*0.500*	*1.22*	*Cum*
	Section 2-2	*2*	*3.00*	*0.450*	*0.450*	*1.22*	*Cum*
		2	*3.00*	*0.714*	*0.880*	*3.77*	*Cum*
		2	*3.00*	*1.128*	*0.500*	*3.38*	*Cum*
	Section 3-3	*2*	*1.35*	*0.450*	*0.450*	*0.55*	*Cum*
		2	*1.35*	*0.654*	*0.680*	*1.20*	*Cum*
		2	*1.35*	*1.008*	*0.500*	*1.36*	*Cum*
	Section 5-5	*2*	*4.68*	*0.450*	*0.450*	*1.90*	*Cum*
		2	*4.68*	*0.897*	*1.490*	*12.52*	*Cum*
		2	*4.68*	*1.494*	*0.500*	*7.00*	*Cum*
	Section 6-6	*2*	*3.03*	*0.450*	*0.450*	*1.23*	*Cum*
		2	*3.03*	*0.654*	*0.680*	*2.69*	*Cum*
		2	*3.03*	*1.008*	*0.500*	*3.05*	*Cum*
	Floor	*1*	*0.63*	*1.600*	*0.700*	*0.70*	*Cum*
		1	*5.00*	*1.600*	*0.500*	*4.00*	*Cum*
		1	*0.35*	*1.600*	*0.200*	*0.11*	*Cum*
		1	*0.20*	*1.600*	*0.400*	*0.13*	*Cum*
		1	*1.80*	*1.600*	*0.500*	*1.44*	*Cum*
		1	*0.63*	*1.600*	*0.700*	*0.70*	*Cum*
	Crest	*1*	*0.81*	*1.600*	*1.030*	*1.34*	*Cum*
	TOTAL					**52.01**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.65*	*1.600*	*0.150*	*0.16*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*13.86*	*0.450*	*0.050*	*0.31*	*Cum*
	On Abutment Top (Right Side)	*1*	*13.86*	*0.450*	*0.050*	*0.31*	*Cum*
	TOTAL					**0.78**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**52.01**	**0.00**	**0.156**	**7850.000**	**1224.74**	**Kg**
	Total Weight in Metric Tonne					**1.22**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.82*		*0.450*	*1.47*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.82*		*1.490*	*4.88*	*Sqm*
		4		*0.897*	*1.490*	*5.35*	*Sqm*
		4	*0.82*		*0.500*	*1.64*	*Sqm*
		4		*1.494*	*0.500*	*2.99*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.450*	*5.40*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.00*		*0.880*	*10.56*	*Sqm*
		4		*0.714*	*0.880*	*2.51*	*Sqm*
		4	*3.00*		*0.500*	*6.00*	*Sqm*
		4		*1.128*	*0.500*	*2.26*	*Sqm*
	Section 3-3	*4*	*1.35*		*0.450*	*2.42*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.35*		*0.680*	*3.66*	*Sqm*
		4		*0.654*	*0.680*	*1.78*	*Sqm*
		4	*1.35*		*0.500*	*2.69*	*Sqm*
		4		*1.008*	*0.500*	*2.02*	*Sqm*
	Section 5-5	*4*	*4.68*		*0.450*	*8.43*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*4.68*		*1.490*	*27.91*	*Sqm*
		4		*0.897*	*1.490*	*5.35*	*Sqm*
		4	*4.68*		*0.500*	*9.37*	*Sqm*
		4		*1.494*	*0.500*	*2.99*	*Sqm*
	Section 6-6	*4*	*3.03*		*0.450*	*5.45*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.03*		*0.680*	*8.23*	*Sqm*
		4		*0.654*	*0.680*	*1.78*	*Sqm*
		4	*3.03*		*0.500*	*6.05*	*Sqm*
		4		*1.008*	*0.500*	*2.02*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.600*	*0.700*	*2.24*	*Sqm*
		2	*5.00*		*0.500*	*5.00*	*Sqm*
		2		*1.600*	*0.500*	*1.60*	*Sqm*
		2	*0.35*		*0.200*	*0.14*	*Sqm*
		2		*1.600*	*0.200*	*0.64*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*1.600*	*0.400*	*1.28*	*Sqm*
		2	*1.80*		*0.500*	*1.80*	*Sqm*
		2		*1.600*	*0.500*	*1.60*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.600*	*0.700*	*2.24*	*Sqm*
	Crest	*2*	*0.81*		*1.030*	*1.68*	*Sqm*
		2		*1.600*	*1.030*	*3.30*	*Sqm*
	Toe Wall D/S Portion	*2*	*8.96*		*0.300*	*5.38*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*8.66*		*0.600*	*10.39*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.150*	*1.50*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.600*	*6.00*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**185.99**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.50*	*3.736*		*18.68*	*Sqm*
	TOTAL					**18.68**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.50*	*1.000*	*0.300*	**0.75**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.50*	*1.000*	*0.150*	**0.75**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*13.86*	*0.450*		*6.24*	*Sqm*
	On Abutment Top (Right Side)	*1*	*13.86*	*0.450*		*6.24*	*Sqm*
	TOTAL					**12.48**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		2.011		2.01	**Cum**
	Abutment						
	Section 1-1	2	*1.05*	*0.682*		*1.430*	*Cum*
	Section 2-2	2	*3.00*	*0.985*		*5.910*	*Cum*
	Section 3-3	2	*1.70*	*0.516*		*1.754*	*Cum*
	Section 5-5	2	*4.73*	*0.682*		*6.449*	*Cum*
	Section 6-6	2	*2.52*	*0.516*		*2.603*	*Cum*
	D/S protection	2					
	Toe wall	2	*8.96*	*0.150*	*0.600*	*2.688*	*Cum*
		2	*2.50*	0.150	*0.600*	*0.450*	*Cum*
	TOTAL					**23.30**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 13.700 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.99*	*1.476*	*2.023*	*5.909*	*Cum*
	Section 2-2	*2*	*2.50*	*1.110*	*2.023*	*11.228*	*Cum*
	Section 3-3	*2*	*1.95*	*0.990*	*1.823*	*7.039*	*Cum*
	Section 5-5	*2*	*3.38*	*1.626*	*2.023*	*22.207*	*Cum*
	Section 6-6	*2*	*1.71*	*0.990*	*1.823*	*6.172*	*Cum*
	U/S Key Floor	*1*	*0.63*	*0.850*	*0.850*	*0.452*	*Cum*
	U/S Floor	*1*	*1.75*	*0.850*	*1.460*	*2.172*	*Cum*
	D/S Floor	*1*	*2.50*	*0.850*	*0.850*	*1.806*	*Cum*
		1	*2.25*	*0.850*	*0.650*	*1.243*	*Cum*
	D/S Key Floor	*1*	*0.63*	*0.850*	*0.850*	*0.452*	*Cum*
	Toe Wall D/S Portion	*1*	*6.25*	*0.750*	*0.900*	*4.219*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.50*	*0.600*	*0.750*	*1.350*	*Cum*
						64.25	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*0.850*	*0.150*	*0.07*	*Cum*
		1	*0.78*	*0.850*	*0.150*	*0.10*	*Cum*
		1	*3.48*	*0.850*	*0.150*	*0.44*	*Cum*
		1	*0.28*	*0.850*	*0.150*	*0.04*	*Cum*
		1	*1.04*	*0.850*	*0.150*	*0.13*	*Cum*
		1	*0.78*	*0.850*	*0.150*	*0.10*	*Cum*
		1	*0.54*	*0.850*	*0.150*	*0.07*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.99*	*1.476*	*0.150*	*0.44*	*Cum*
	Section 2-2	*2*	*2.50*	*1.110*	*0.150*	*0.83*	*Cum*
	Section 3-3	*2*	*1.95*	*0.990*	*0.150*	*0.58*	*Cum*
	Section 5-5	*2*	*3.38*	*1.626*	*0.150*	*1.65*	*Cum*
	Section 6-6	*2*	*1.71*	*0.990*	*0.150*	*0.51*	*Cum*
	Toe Wall D/S Portion	*1*	*6.25*	*0.750*	*0.300*	*1.41*	*Cum*
	Toe Wall D/S Portion	*1*	*5.95*	*0.450*	*0.600*	*1.61*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.600*	*0.150*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.300*	*0.600*	*0.54*	*Cum*
	TOTAL					**8.78**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.76*	*0.450*	*0.450*	*0.31*	*Cum*
		2	*0.76*	*0.813*	*1.210*	*1.50*	*Cum*
		2	*0.76*	*1.326*	*0.500*	*1.01*	*Cum*
	Section 2-2	*2*	*2.50*	*0.450*	*0.450*	*1.01*	*Cum*
		2	*2.50*	*0.630*	*0.600*	*1.89*	*Cum*
		2	*2.50*	*0.960*	*0.500*	*2.40*	*Cum*
	Section 3-3	*2*	*1.68*	*0.450*	*0.450*	*0.68*	*Cum*
		2	*1.68*	*0.570*	*0.400*	*0.77*	*Cum*
		2	*1.68*	*0.840*	*0.500*	*1.41*	*Cum*
	Section 5-5	*2*	*3.33*	*0.450*	*0.450*	*1.35*	*Cum*
		2	*3.33*	*0.813*	*1.210*	*6.55*	*Cum*
		2	*3.33*	*1.326*	*0.500*	*4.42*	*Cum*
	Section 6-6	*2*	*2.13*	*0.450*	*0.450*	*0.86*	*Cum*
		2	*2.13*	*0.570*	*0.400*	*0.97*	*Cum*
		2	*2.13*	*0.840*	*0.500*	*1.79*	*Cum*
	Floor	*1*	*0.63*	*0.850*	*0.700*	*0.37*	*Cum*
		1	*4.25*	*0.850*	*0.500*	*1.81*	*Cum*
		1	*0.16*	*0.850*	*0.200*	*0.03*	*Cum*
		1	*0.20*	*0.850*	*0.400*	*0.07*	*Cum*
		1	*2.05*	*0.850*	*0.500*	*0.87*	*Cum*
		1	*0.63*	*0.850*	*0.700*	*0.37*	*Cum*
	Crest	*1*	*0.74*	*0.850*	*0.918*	*0.58*	*Cum*
	TOTAL					**31.03**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*0.850*	*0.150*	*0.08*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*11.16*	*0.450*	*0.050*	*0.25*	*Cum*
	On Abutment Top (Right Side)	*1*	*11.16*	*0.450*	*0.050*	*0.25*	*Cum*
	TOTAL					**0.58**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**31.03**	**0.00**	**0.093**	**7850.000**	**730.73**	**Kg**
	Total Weight in Metric Tonne					**0.73**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.76*		*0.450*	*1.38*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.76*		*1.210*	*3.70*	*Sqm*
		4		*0.813*	*1.210*	*3.93*	*Sqm*
		4	*0.76*		*0.500*	*1.53*	*Sqm*
		4		*1.326*	*0.500*	*2.65*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.450*	*4.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.50*		*0.600*	*6.00*	*Sqm*
		4		*0.630*	*0.600*	*1.51*	*Sqm*
		4	*2.50*		*0.500*	*5.00*	*Sqm*
		4		*0.960*	*0.500*	*1.92*	*Sqm*
	Section 3-3	*4*	*1.68*		*0.450*	*3.02*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.68*		*0.400*	*2.69*	*Sqm*
		4		*0.570*	*0.400*	*0.91*	*Sqm*
		4	*1.68*		*0.500*	*3.36*	*Sqm*
		4		*0.840*	*0.500*	*1.68*	*Sqm*
	Section 5-5	*4*	*3.33*		*0.450*	*6.00*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.33*		*1.210*	*16.12*	*Sqm*
		4		*0.813*	*1.210*	*3.93*	*Sqm*
		4	*3.33*		*0.500*	*6.66*	*Sqm*
		4		*1.326*	*0.500*	*2.65*	*Sqm*
	Section 6-6	*4*	*2.13*		*0.450*	*3.83*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.13*		*0.400*	*3.41*	*Sqm*
		4		*0.570*	*0.400*	*0.91*	*Sqm*
		4	*2.13*		*0.500*	*4.26*	*Sqm*
		4		*0.840*	*0.500*	*1.68*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*0.850*	*0.700*	*1.19*	*Sqm*
		2	*4.25*		*0.500*	*4.25*	*Sqm*
		2		*0.850*	*0.500*	*0.85*	*Sqm*
		2	*0.16*		*0.200*	*0.06*	*Sqm*
		2		*0.850*	*0.200*	*0.34*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*0.850*	*0.400*	*0.68*	*Sqm*
		2	*2.05*		*0.500*	*2.05*	*Sqm*
		2		*0.850*	*0.500*	*0.85*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*0.850*	*0.700*	*1.19*	*Sqm*
	Crest	*2*	*0.74*		*0.918*	*1.37*	*Sqm*
		2		*0.850*	*0.918*	*1.56*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.25*		*0.300*	*3.75*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.95*		*0.600*	*7.14*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.150*	*0.90*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.600*	*3.60*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**131.06**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*2.672*		*8.02*	*Sqm*
	TOTAL					**8.02**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.250*	*0.300*	**0.11**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.250*	*0.150*	**0.11**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*11.16*	*0.450*		*5.02*	*Sqm*
	On Abutment Top (Right Side)	*1*	*11.16*	*0.450*		*5.02*	*Sqm*
	TOTAL					**10.04**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.081		1.08	**Cum**
	Abutment						
	Section 1-1	2	*0.99*	*1.045*		*2.068*	*Cum*
	Section 2-2	2	*2.50*	*0.675*		*3.375*	*Cum*
	Section 3-3	2	*1.95*	*0.521*		*2.030*	*Cum*
	Section 5-5	2	*3.38*	*1.045*		*7.055*	*Cum*
	Section 6-6	2	*1.71*	*0.521*		*1.780*	*Cum*
	D/S protection	2					
	Toe wall	2	*6.25*	*0.150*	*0.600*	*1.875*	*Cum*
		2	*1.50*	0.150	*0.600*	*0.270*	*Cum*
	TOTAL					**19.53**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR SIMRA MR.						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 1.650 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.98*	*1.536*	*2.146*	*6.480*	*Cum*
	Section 2-2	*2*	*2.50*	*1.170*	*2.146*	*12.554*	*Cum*
	Section 3-3	*2*	*1.68*	*1.050*	*1.946*	*6.845*	*Cum*
	Section 5-5	*2*	*2.44*	*1.686*	*2.146*	*17.664*	*Cum*
	Section 6-6	*2*	*1.53*	*1.050*	*1.946*	*6.232*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.000*	*0.850*	*0.531*	*Cum*
	U/S Floor	*1*	*2.00*	*1.000*	*1.460*	*2.920*	*Cum*
	D/S Floor	*1*	*2.50*	*1.000*	*0.850*	*2.125*	*Cum*
		1	*2.50*	*1.000*	*0.650*	*1.625*	*Cum*
	D/S Key Floor	*1*	*0.63*	*1.000*	*0.850*	*0.531*	*Cum*
	Toe Wall D/S Portion	*1*	*5.10*	*0.750*	*0.900*	*3.443*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.75*	*0.600*	*0.750*	*1.575*	*Cum*
						62.53	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.000*	*0.150*	*0.08*	*Cum*
		1	*0.78*	*1.000*	*0.150*	*0.12*	*Cum*
		1	*4.07*	*1.000*	*0.150*	*0.61*	*Cum*
		1	*0.28*	*1.000*	*0.150*	*0.04*	*Cum*
		1	*0.95*	*1.000*	*0.150*	*0.14*	*Cum*
		1	*0.78*	*1.000*	*0.150*	*0.12*	*Cum*
		1	*0.54*	*1.000*	*0.150*	*0.08*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.98*	*1.536*	*0.150*	*0.45*	*Cum*
	Section 2-2	*2*	*2.50*	*1.170*	*0.150*	*0.88*	*Cum*
	Section 3-3	*2*	*1.68*	*1.050*	*0.150*	*0.53*	*Cum*
	Section 5-5	*2*	*2.44*	*1.686*	*0.150*	*1.23*	*Cum*
	Section 6-6	*2*	*1.53*	*1.050*	*0.150*	*0.48*	*Cum*
	Toe Wall D/S Portion	*1*	*5.10*	*0.750*	*0.300*	*1.15*	*Cum*
	Toe Wall D/S Portion	*1*	*4.80*	*0.450*	*0.600*	*1.30*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.600*	*0.150*	*0.32*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.300*	*0.600*	*0.63*	*Cum*
	TOTAL					**8.154**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.83*	*0.450*	*0.450*	*0.34*	*Cum*
		2	*0.83*	*0.843*	*1.310*	*1.84*	*Cum*
		2	*0.83*	*1.386*	*0.500*	*1.15*	*Cum*
	Section 2-2	*2*	*2.50*	*0.450*	*0.450*	*1.01*	*Cum*
		2	*2.50*	*0.660*	*0.700*	*2.31*	*Cum*
		2	*2.50*	*1.020*	*0.500*	*2.55*	*Cum*
	Section 3-3	*2*	*1.90*	*0.450*	*0.450*	*0.77*	*Cum*
		2	*1.90*	*0.600*	*0.500*	*1.14*	*Cum*
		2	*1.90*	*0.900*	*0.500*	*1.71*	*Cum*
	Section 5-5	*2*	*2.40*	*0.450*	*0.450*	*0.97*	*Cum*
		2	*2.40*	*0.843*	*1.310*	*5.30*	*Cum*
		2	*2.40*	*1.386*	*0.500*	*3.33*	*Cum*
	Section 6-6	*2*	*1.45*	*0.450*	*0.450*	*0.59*	*Cum*
		2	*1.45*	*0.600*	*0.500*	*0.87*	*Cum*
		2	*1.45*	*0.900*	*0.500*	*1.31*	*Cum*
	Floor	*1*	*0.63*	*1.000*	*0.700*	*0.44*	*Cum*
		1	*4.50*	*1.000*	*0.500*	*2.25*	*Cum*
		1	*0.50*	*1.000*	*0.200*	*0.10*	*Cum*
		1	*0.20*	*1.000*	*0.498*	*0.10*	*Cum*
		1	*2.30*	*1.000*	*0.500*	*1.15*	*Cum*
		1	*0.63*	*1.000*	*0.700*	*0.44*	*Cum*
	Crest	*1*	*0.75*	*1.000*	*0.932*	*0.70*	*Cum*
	TOTAL					**30.35**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*1.000*	*0.150*	*0.09*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.84*	*0.450*	*0.050*	*0.22*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.84*	*0.450*	*0.050*	*0.22*	*Cum*
	TOTAL					**0.53**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**30.35**	**0.00**	**0.091**	**7850.000**	**714.68**	**Kg**
	Total Weight in Metric Tonne					**0.71**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.83*		*0.450*	*1.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.83*		*1.310*	*4.36*	*Sqm*
		4		*0.843*	*1.310*	*4.42*	*Sqm*
		4	*0.83*		*0.500*	*1.66*	*Sqm*
		4		*1.386*	*0.500*	*2.77*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.450*	*4.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.50*		*0.700*	*7.00*	*Sqm*
		4		*0.660*	*0.700*	*1.85*	*Sqm*
		4	*2.50*		*0.500*	*5.00*	*Sqm*
		4		*1.020*	*0.500*	*2.04*	*Sqm*
	Section 3-3	*4*	*1.90*		*0.450*	*3.42*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.90*		*0.500*	*3.80*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*1.90*		*0.500*	*3.80*	*Sqm*
		4		*0.900*	*0.500*	*1.80*	*Sqm*
	Section 5-5	*4*	*2.40*		*0.450*	*4.32*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.40*		*1.310*	*12.57*	*Sqm*
		4		*0.843*	*1.310*	*4.42*	*Sqm*
		4	*2.40*		*0.500*	*4.80*	*Sqm*
		4		*1.386*	*0.500*	*2.77*	*Sqm*
	Section 6-6	*4*	*1.45*		*0.450*	*2.61*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.45*		*0.500*	*2.90*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*1.45*		*0.500*	*2.90*	*Sqm*
		4		*0.900*	*0.500*	*1.80*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.000*	*0.700*	*1.40*	*Sqm*
		2	*4.50*		*0.500*	*4.50*	*Sqm*
		2		*1.000*	*0.500*	*1.00*	*Sqm*
		2	*0.50*		*0.200*	*0.20*	*Sqm*
		2		*1.000*	*0.200*	*0.40*	*Sqm*
		2	*0.20*		*0.498*	*0.20*	*Sqm*
		2		*1.000*	*0.498*	*1.00*	*Sqm*
		2	*2.30*		*0.500*	*2.30*	*Sqm*
		2		*1.000*	*0.500*	*1.00*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.000*	*0.700*	*1.40*	*Sqm*
	Crest	*2*	*0.75*		*0.932*	*1.39*	*Sqm*
		2		*1.000*	*0.932*	*1.86*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.10*		*0.300*	*3.06*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.80*		*0.600*	*5.76*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.150*	*1.05*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.600*	*4.20*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**127.99**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.75*	*2.051*		*7.18*	*Sqm*
	TOTAL					**7.18**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.75*	*0.400*	*0.300*	**0.21**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.75*	*0.400*	*0.150*	**0.21**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.84*	*0.450*		*4.43*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.84*	*0.450*		*4.43*	*Sqm*
	TOTAL					**8.86**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.755		1.76	**Cum**
	Abutment						
	Section 1-1	2	*0.98*	*1.884*		*3.704*	*Cum*
	Section 2-2	2	*2.50*	*0.756*		*3.780*	*Cum*
	Section 3-3	2	*1.68*	*0.570*		*1.910*	*Cum*
	Section 5-5	2	*2.44*	*1.884*		*9.198*	*Cum*
	Section 6-6	2	*1.53*	*0.570*		*1.739*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.10*	*0.150*	*0.600*	*1.530*	*Cum*
		2	*1.75*	0.150	*0.600*	*0.315*	*Cum*
	TOTAL					**23.93**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 2.475 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.98*	*1.536*	*1.651*	*4.986*	*Cum*
	Section 2-2	*2*	*2.50*	*1.170*	*1.651*	*9.658*	*Cum*
	Section 3-3	*2*	*1.68*	*1.050*	*1.451*	*5.104*	*Cum*
	Section 5-5	*2*	*2.40*	*1.686*	*1.651*	*13.345*	*Cum*
	Section 6-6	*2*	*1.53*	*1.050*	*1.451*	*4.647*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.000*	*0.850*	*0.531*	*Cum*
	U/S Floor	*1*	*2.00*	*1.000*	*1.460*	*2.920*	*Cum*
	D/S Floor	*1*	*2.50*	*1.000*	*0.850*	*2.125*	*Cum*
		1	*2.50*	*1.000*	*0.650*	*1.625*	*Cum*
	D/S Key Floor	*1*	*0.63*	*1.000*	*0.850*	*0.531*	*Cum*
	Toe Wall D/S Portion	*1*	*5.10*	*0.750*	*0.900*	*3.443*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.75*	*0.600*	*0.750*	*1.575*	*Cum*
						50.49	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.000*	*0.150*	*0.08*	*Cum*
		1	*0.78*	*1.000*	*0.150*	*0.12*	*Cum*
		1	*4.07*	*1.000*	*0.150*	*0.61*	*Cum*
		1	*0.28*	*1.000*	*0.150*	*0.04*	*Cum*
		1	*0.95*	*1.000*	*0.150*	*0.14*	*Cum*
		1	*0.78*	*1.000*	*0.150*	*0.12*	*Cum*
		1	*0.54*	*1.000*	*0.150*	*0.08*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.98*	*1.536*	*0.150*	*0.45*	*Cum*
	Section 2-2	*2*	*2.50*	*1.170*	*0.150*	*0.88*	*Cum*
	Section 3-3	*2*	*1.68*	*1.050*	*0.150*	*0.53*	*Cum*
	Section 5-5	*2*	*2.40*	*1.686*	*0.150*	*1.21*	*Cum*
	Section 6-6	*2*	*1.53*	*1.050*	*0.150*	*0.48*	*Cum*
	Toe Wall D/S Portion	*1*	*5.10*	*0.750*	*0.300*	*1.15*	*Cum*
	Toe Wall D/S Portion	*1*	*4.80*	*0.450*	*0.600*	*1.30*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.600*	*0.150*	*0.32*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.300*	*0.600*	*0.63*	*Cum*
	TOTAL					**8.13**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.83*	*0.450*	*0.450*	*0.34*	*Cum*
		2	*0.83*	*0.843*	*1.310*	*1.84*	*Cum*
		2	*0.83*	*1.386*	*0.500*	*1.15*	*Cum*
	Section 2-2	*2*	*2.50*	*0.450*	*0.450*	*1.01*	*Cum*
		2	*2.50*	*0.660*	*0.700*	*2.31*	*Cum*
		2	*2.50*	*1.020*	*0.500*	*2.55*	*Cum*
	Section 3-3	*2*	*1.90*	*0.450*	*0.450*	*0.77*	*Cum*
		2	*1.90*	*0.600*	*0.500*	*1.14*	*Cum*
		2	*1.90*	*0.900*	*0.500*	*1.71*	*Cum*
	Section 5-5	*2*	*2.40*	*0.450*	*0.450*	*0.97*	*Cum*
		2	*2.40*	*0.843*	*1.310*	*5.30*	*Cum*
		2	*2.40*	*1.386*	*0.500*	*3.33*	*Cum*
	Section 6-6	*2*	*1.45*	*0.450*	*0.450*	*0.59*	*Cum*
		2	*1.45*	*0.600*	*0.500*	*0.87*	*Cum*
		2	*1.45*	*0.900*	*0.500*	*1.31*	*Cum*
	Floor	*1*	*0.63*	*1.000*	*0.700*	*0.44*	*Cum*
		1	*4.50*	*1.000*	*0.500*	*2.25*	*Cum*
		1	*0.40*	*1.000*	*0.200*	*0.08*	*Cum*
		1	*0.20*	*1.000*	*0.498*	*0.10*	*Cum*
		1	*2.30*	*1.000*	*0.500*	*1.15*	*Cum*
		1	*0.63*	*1.000*	*0.700*	*0.44*	*Cum*
	Crest	*1*	*0.75*	*1.000*	*0.932*	*0.70*	*Cum*
	TOTAL					**30.33**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*1.000*	*0.150*	*0.09*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.84*	*0.450*	*0.050*	*0.22*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.84*	*0.450*	*0.050*	*0.22*	*Cum*
	TOTAL					**0.53**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**30.33**	**0.00**	**0.091**	**7850.000**	**714.22**	**Kg**
	Total Weight in Metric Tonne					**0.71**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.83*		*0.450*	*1.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.83*		*1.310*	*4.36*	*Sqm*
		4		*0.843*	*1.310*	*4.42*	*Sqm*
		4	*0.83*		*0.500*	*1.66*	*Sqm*
		4		*1.386*	*0.500*	*2.77*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.450*	*4.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.50*		*0.700*	*7.00*	*Sqm*
		4		*0.660*	*0.700*	*1.85*	*Sqm*
		4	*2.50*		*0.500*	*5.00*	*Sqm*
		4		*1.020*	*0.500*	*2.04*	*Sqm*
	Section 3-3	*4*	*1.90*		*0.450*	*3.42*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.90*		*0.500*	*3.80*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*1.90*		*0.500*	*3.80*	*Sqm*
		4		*0.900*	*0.500*	*1.80*	*Sqm*
	Section 5-5	*4*	*2.40*		*0.450*	*4.32*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.40*		*1.310*	*12.57*	*Sqm*
		4		*0.843*	*1.310*	*4.42*	*Sqm*
		4	*2.40*		*0.500*	*4.80*	*Sqm*
		4		*1.386*	*0.500*	*2.77*	*Sqm*
	Section 6-6	*4*	*1.45*		*0.450*	*2.61*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.45*		*0.500*	*2.90*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*1.45*		*0.500*	*2.90*	*Sqm*
		4		*0.900*	*0.500*	*1.80*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.000*	*0.700*	*1.40*	*Sqm*
		2	*4.50*		*0.500*	*4.50*	*Sqm*
		2		*1.000*	*0.500*	*1.00*	*Sqm*
		2	*0.40*		*0.200*	*0.16*	*Sqm*
		2		*1.000*	*0.200*	*0.40*	*Sqm*
		2	*0.20*		*0.498*	*0.20*	*Sqm*
		2		*1.000*	*0.498*	*1.00*	*Sqm*
		2	*2.30*		*0.500*	*2.30*	*Sqm*
		2		*1.000*	*0.500*	*1.00*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.000*	*0.700*	*1.40*	*Sqm*
	Crest	*2*	*0.75*		*0.932*	*1.39*	*Sqm*
		2		*1.000*	*0.932*	*1.86*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.10*		*0.300*	*3.06*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.80*		*0.600*	*5.76*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.150*	*1.05*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.600*	*4.20*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**127.96**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.75*	*2.051*		*7.18*	*Sqm*
	TOTAL					**7.18**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.75*	*0.400*	*0.300*	**0.21**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.75*	*0.400*	*0.150*	**0.21**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.84*	*0.450*		*4.43*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.84*	*0.450*		*4.43*	*Sqm*
	TOTAL					**8.86**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.755		1.76	**Cum**
	Abutment						
	Section 1-1	2	*0.98*	*0.676*		*1.329*	*Cum*
	Section 2-2	2	*2.50*	*0.648*		*3.240*	*Cum*
	Section 3-3	2	*1.68*	*0.570*		*1.910*	*Cum*
	Section 5-5	2	*2.40*	*0.676*		*3.240*	*Cum*
	Section 6-6	2	*1.53*	*0.570*		*1.739*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.10*	*0.150*	*0.600*	*1.530*	*Cum*
		2	*1.75*	0.150	*0.600*	*0.315*	*Cum*
	TOTAL					**15.06**	**Cum**

	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 3.460						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.98*	*1.488*	*2.287*	*6.663*	*Cum*
	Section 2-2	*2*	*2.50*	*1.122*	*2.287*	*12.830*	*Cum*
	Section 3-3	*2*	*1.70*	*1.002*	*2.087*	*7.106*	*Cum*
	Section 5-5	*2*	*2.28*	*1.638*	*2.287*	*17.090*	*Cum*
	Section 6-6	*2*	*1.43*	*1.002*	*2.087*	*5.977*	*Cum*
	U/S Key Floor	*1*	*0.63*	*0.850*	*0.850*	*0.452*	*Cum*
	U/S Floor	*1*	*2.00*	*0.850*	*1.460*	*2.482*	*Cum*
	D/S Floor	*1*	*2.50*	*0.850*	*0.850*	*1.806*	*Cum*
		1	*2.50*	*0.850*	*0.650*	*1.381*	*Cum*
	D/S Key Floor	*1*	*0.63*	*0.850*	*0.850*	*0.452*	*Cum*
	Toe Wall D/S Portion	*1*	*4.71*	*0.750*	*0.900*	*3.179*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.50*	*0.600*	*0.750*	*1.350*	*Cum*
						60.77	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*0.850*	*0.150*	*0.07*	*Cum*
		1	*0.78*	*0.850*	*0.150*	*0.10*	*Cum*
		1	*4.07*	*0.850*	*0.150*	*0.52*	*Cum*
		1	*0.28*	*0.850*	*0.150*	*0.04*	*Cum*
		1	*0.95*	*0.850*	*0.150*	*0.12*	*Cum*
		1	*0.78*	*0.850*	*0.150*	*0.10*	*Cum*
		1	*0.54*	*0.850*	*0.150*	*0.07*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.98*	*1.488*	*0.150*	*0.44*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section 2-2	*2*	*2.50*	*1.122*	*0.150*	*0.84*	*Cum*
	Section 3-3	*2*	*1.70*	*1.002*	*0.150*	*0.51*	*Cum*
	Section 5-5	*2*	*2.28*	*1.638*	*0.150*	*1.12*	*Cum*
	Section 6-6	*2*	*1.43*	*1.002*	*0.150*	*0.43*	*Cum*
	Toe Wall D/S Portion	*1*	*4.71*	*0.750*	*0.300*	*1.06*	*Cum*
	Toe Wall D/S Portion	*1*	*4.41*	*0.450*	*0.600*	*1.19*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.600*	*0.150*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.300*	*0.600*	*0.54*	*Cum*
	TOTAL					**7.41**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.83*	*0.450*	*0.450*	*0.34*	*Cum*
		2	*0.83*	*0.819*	*1.230*	*1.67*	*Cum*
		2	*0.83*	*1.338*	*0.500*	*1.11*	*Cum*
	Section 2-2	*2*	*2.50*	*0.450*	*0.450*	*1.01*	*Cum*
		2	*2.50*	*0.636*	*0.620*	*1.97*	*Cum*
		2	*2.50*	*0.972*	*0.500*	*2.43*	*Cum*
	Section 3-3	*2*	*1.92*	*0.450*	*0.450*	*0.78*	*Cum*
		2	*1.92*	*0.576*	*0.420*	*0.93*	*Cum*
		2	*1.92*	*0.852*	*0.500*	*1.64*	*Cum*
	Section 5-5	*2*	*2.24*	*0.450*	*0.450*	*0.91*	*Cum*
		2	*2.24*	*0.819*	*1.230*	*4.51*	*Cum*
		2	*2.24*	*1.338*	*0.500*	*3.00*	*Cum*
	Section 6-6	*2*	*1.35*	*0.450*	*0.450*	*0.55*	*Cum*
		2	*1.35*	*0.576*	*0.420*	*0.66*	*Cum*
		2	*1.35*	*0.852*	*0.500*	*1.15*	*Cum*
	Floor	*1*	*0.63*	*0.850*	*0.700*	*0.37*	*Cum*
		1	*4.50*	*0.850*	*0.500*	*1.91*	*Cum*
		1	*0.40*	*0.850*	*0.200*	*0.07*	*Cum*
		1	*0.20*	*0.850*	*0.498*	*0.08*	*Cum*
		1	*2.30*	*0.850*	*0.500*	*0.98*	*Cum*
		1	*0.63*	*0.850*	*0.700*	*0.37*	*Cum*
	Crest	*1*	*0.74*	*0.850*	*0.890*	*0.56*	*Cum*
	TOTAL					**26.99**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*0.850*	*0.150*	*0.08*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.54*	*0.450*	*0.050*	*0.21*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.54*	*0.450*	*0.050*	*0.21*	*Cum*
	TOTAL					**0.51**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**26.99**	**0.00**	**0.081**	**7850.000**	**635.70**	**Kg**
	Total Weight in Metric Tonne					**0.64**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.83*		*0.450*	*1.49*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.83*		*1.230*	*4.07*	*Sqm*
		4		*0.819*	*1.230*	*4.03*	*Sqm*
		4	*0.83*		*0.500*	*1.66*	*Sqm*
		4		*1.338*	*0.500*	*2.68*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.450*	*4.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.50*		*0.620*	*6.20*	*Sqm*
		4		*0.636*	*0.620*	*1.58*	*Sqm*
		4	*2.50*		*0.500*	*5.00*	*Sqm*
		4		*0.972*	*0.500*	*1.94*	*Sqm*
	Section 3-3	*4*	*1.92*		*0.450*	*3.46*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.92*		*0.420*	*3.23*	*Sqm*
		4		*0.576*	*0.420*	*0.97*	*Sqm*
		4	*1.92*		*0.500*	*3.85*	*Sqm*
		4		*0.852*	*0.500*	*1.70*	*Sqm*
	Section 5-5	*4*	*2.24*		*0.450*	*4.03*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.24*		*1.230*	*11.02*	*Sqm*
		4		*0.819*	*1.230*	*4.03*	*Sqm*
		4	*2.24*		*0.500*	*4.48*	*Sqm*
		4		*1.338*	*0.500*	*2.68*	*Sqm*
	Section 6-6	*4*	*1.35*		*0.450*	*2.44*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.35*		*0.420*	*2.27*	*Sqm*
		4		*0.576*	*0.420*	*0.97*	*Sqm*
		4	*1.35*		*0.500*	*2.71*	*Sqm*
		4		*0.852*	*0.500*	*1.70*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*0.850*	*0.700*	*1.19*	*Sqm*
		2	*4.50*		*0.500*	*4.50*	*Sqm*
		2		*0.850*	*0.500*	*0.85*	*Sqm*
		2	*0.40*		*0.200*	*0.16*	*Sqm*
		2		*0.850*	*0.200*	*0.34*	*Sqm*
		2	*0.20*		*0.498*	*0.20*	*Sqm*
		2		*0.850*	*0.498*	*0.85*	*Sqm*
		2	*2.30*		*0.500*	*2.30*	*Sqm*
		2		*0.850*	*0.500*	*0.85*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*0.850*	*0.700*	*1.19*	*Sqm*
	Crest	*2*	*0.74*		*0.890*	*1.32*	*Sqm*
		2		*0.850*	*0.890*	*1.51*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.71*		*0.300*	*2.83*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.41*		*0.600*	*5.29*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.150*	*0.90*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.600*	*3.60*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**118.43**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*2.051*		*6.15*	*Sqm*
	TOTAL					**6.15**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.250*	*0.300*	**0.11**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.250*	*0.150*	**0.11**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.54*	*0.450*		*4.29*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.54*	*0.450*		*4.29*	*Sqm*
	TOTAL					**8.59**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.662		1.66	**Cum**
	Abutment						
	Section 1-1	*2*	*0.98*	*0.943*		*1.845*	*Cum*
	Section 2-2	*2*	*2.50*	*0.679*		*3.394*	*Cum*
	Section 3-3	*2*	*1.70*	*0.519*		*1.763*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section 5-5	2	*2.28*	*0.943*		*4.300*	*Cum*
	Section 6-6	2	*1.43*	*0.519*		*1.482*	*Cum*
	D/S protection	2					
	Toe wall	2	*4.71*	*0.150*	*0.600*	*1.413*	*Cum*
		2	*1.50*	0.150	*0.600*	*0.270*	*Cum*
	TOTAL					**16.13**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR SALEMPUR MR.						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 0.950 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.96*	*1.504*	*1.453*	*4.187*	*Cum*
	Section 2-2	*2*	*2.50*	*1.230*	*1.453*	*8.936*	*Cum*
	Section 3-3	*2*	*2.20*	*1.110*	*1.253*	*6.120*	*Cum*
	Section 5-5	*2*	*2.66*	*1.654*	*1.453*	*12.797*	*Cum*
	Section 6-6	*2*	*1.09*	*1.110*	*1.253*	*3.032*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.200*	*0.850*	*0.638*	*Cum*
	U/S Floor	*1*	*2.00*	*1.200*	*1.307*	*3.137*	*Cum*
	D/S Floor	*1*	*2.50*	*1.200*	*0.850*	*2.550*	*Cum*
		1	*2.50*	*1.200*	*0.650*	*1.950*	*Cum*
	D/S Key Floor	*1*	*0.63*	*1.200*	*0.850*	*0.638*	*Cum*
	Toe Wall D/S Portion	*1*	*5.60*	*0.750*	*0.900*	*3.780*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.00*	*0.600*	*0.750*	*1.800*	*Cum*
						49.56	**Cum**
2	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	PCC Below Floor	*1*	*0.54*	*1.200*	*0.150*	*0.10*	*Cum*
		1	*0.78*	*1.200*	*0.150*	*0.14*	*Cum*
		1	*4.07*	*1.200*	*0.150*	*0.73*	*Cum*
		1	*0.28*	*1.200*	*0.150*	*0.05*	*Cum*
		1	*0.95*	*1.200*	*0.150*	*0.17*	*Cum*
		1	*0.78*	*1.200*	*0.150*	*0.14*	*Cum*
		1	*0.54*	*1.200*	*0.150*	*0.10*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.96*	*1.504*	*0.150*	*0.43*	*Cum*
	Section 2-2	*2*	*2.50*	*1.230*	*0.150*	*0.92*	*Cum*
	Section 3-3	*2*	*2.20*	*1.110*	*0.150*	*0.73*	*Cum*
	Section 5-5	*2*	*2.66*	*1.654*	*0.150*	*1.32*	*Cum*
	Section 6-6	*2*	*1.09*	*1.110*	*0.150*	*0.36*	*Cum*
	Toe Wall D/S Portion	*1*	*5.60*	*0.750*	*0.300*	*1.26*	*Cum*
	Toe Wall D/S Portion	*1*	*5.30*	*0.450*	*0.600*	*1.43*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.600*	*0.150*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.300*	*0.600*	*0.72*	*Cum*
	TOTAL					**8.97**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.73*	*0.450*	*0.450*	*0.30*	*Cum*
		2	*0.73*	*0.827*	*1.257*	*1.53*	*Cum*
		2	*0.73*	*1.354*	*0.500*	*0.99*	*Cum*
	Section 2-2	*2*	*2.50*	*0.450*	*0.450*	*1.01*	*Cum*
		2	*2.50*	*0.690*	*0.800*	*2.76*	*Cum*
		2	*2.50*	*1.080*	*0.500*	*2.70*	*Cum*
	Section 3-3	*2*	*1.74*	*0.450*	*0.450*	*0.71*	*Cum*
		2	*1.74*	*0.630*	*0.600*	*1.32*	*Cum*
		2	*1.74*	*0.960*	*0.500*	*1.67*	*Cum*
	Section 5-5	*2*	*2.62*	*0.450*	*0.450*	*1.06*	*Cum*
		2	*2.62*	*0.827*	*1.257*	*5.44*	*Cum*
		2	*2.62*	*1.354*	*0.500*	*3.55*	*Cum*
	Section 6-6	*2*	*1.57*	*0.450*	*0.450*	*0.64*	*Cum*
		2	*1.57*	*0.630*	*0.600*	*1.19*	*Cum*
		2	*1.57*	*0.960*	*0.500*	*1.51*	*Cum*
	Floor	*1*	*0.63*	*1.200*	*0.700*	*0.53*	*Cum*
		1	*4.50*	*1.200*	*0.500*	*2.70*	*Cum*
		1	*0.50*	*1.200*	*0.200*	*0.12*	*Cum*
		1	*0.20*	*1.200*	*0.400*	*0.10*	*Cum*
		1	*2.30*	*1.200*	*0.500*	*1.38*	*Cum*
		1	*0.63*	*1.200*	*0.700*	*0.53*	*Cum*
	Crest	*1*	*0.73*	*1.200*	*0.839*	*0.74*	*Cum*
	TOTAL					**32.45**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*1.200*	*0.150*	*0.11*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.17*	*0.450*	*0.050*	*0.23*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.17*	*0.450*	*0.050*	*0.23*	*Cum*
	TOTAL					**0.57**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**32.45**	**0.00**	**0.097**	**7850.000**	**764.19**	**Kg**
	Total Weight in Metric Tonne					**0.76**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.73*		*0.450*	*1.32*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.73*		*1.257*	*3.69*	*Sqm*
		4		*0.827*	*1.257*	*4.16*	*Sqm*
		4	*0.73*		*0.500*	*1.47*	*Sqm*
		4		*1.354*	*0.500*	*2.71*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.450*	*4.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.50*		*0.800*	*8.00*	*Sqm*
		4		*0.690*	*0.800*	*2.21*	*Sqm*
		4	*2.50*		*0.500*	*5.00*	*Sqm*
		4		*1.080*	*0.500*	*2.16*	*Sqm*
	Section 3-3	*4*	*1.74*		*0.450*	*3.14*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.74*		*0.600*	*4.19*	*Sqm*
		4		*0.630*	*0.600*	*1.51*	*Sqm*
		4	*1.74*		*0.500*	*3.49*	*Sqm*
		4		*0.960*	*0.500*	*1.92*	*Sqm*
	Section 5-5	*4*	*2.62*		*0.450*	*4.71*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.62*		*1.257*	*13.17*	*Sqm*
		4		*0.827*	*1.257*	*4.16*	*Sqm*
		4	*2.62*		*0.500*	*5.24*	*Sqm*
		4		*1.354*	*0.500*	*2.71*	*Sqm*
	Section 6-6	*4*	*1.57*		*0.450*	*2.83*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.57*		*0.600*	*3.77*	*Sqm*
		4		*0.630*	*0.600*	*1.51*	*Sqm*
		4	*1.57*		*0.500*	*3.14*	*Sqm*
		4		*0.960*	*0.500*	*1.92*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.200*	*0.700*	*1.68*	*Sqm*
		2	*4.50*		*0.500*	*4.50*	*Sqm*
		2		*1.200*	*0.500*	*1.20*	*Sqm*
		2	*0.50*		*0.200*	*0.20*	*Sqm*
		2		*1.200*	*0.200*	*0.48*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*1.200*	*0.400*	*0.96*	*Sqm*
		2	*2.30*		*0.500*	*2.30*	*Sqm*
		2		*1.200*	*0.500*	*1.20*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.200*	*0.700*	*1.68*	*Sqm*
	Crest	*2*	*0.73*		*0.839*	*1.23*	*Sqm*
		2		*1.200*	*0.839*	*2.01*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.60*		*0.300*	*3.36*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.30*		*0.600*	*6.36*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.150*	*1.20*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.600*	*4.80*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**133.80**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.232*		*8.93*	*Sqm*
	TOTAL					**8.93**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*0.600*	*0.300*	**0.36**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*0.600*	*0.150*	**0.36**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.17*	*0.450*		*4.58*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.17*	*0.450*		*4.58*	*Sqm*
	TOTAL					**9.15**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.517		1.52	**Cum**
	Abutment						
	Section 1-1	2	*0.96*	*0.484*		*0.927*	*Cum*
	Section 2-2	2	*2.50*	*0.484*		*2.420*	*Cum*
	Section 3-3	2	*2.20*	*0.344*		*1.514*	*Cum*
	Section 5-5	2	*2.66*	*0.484*		*2.577*	*Cum*
	Section 6-6	2	*1.09*	*0.344*		*0.750*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.60*	*0.150*	*0.600*	*1.680*	*Cum*
		2	*2.00*	0.150	*0.600*	*0.360*	*Cum*
	TOTAL					**11.75**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH. 2.900 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.22*	*1.810*	*2.239*	*9.921*	*Cum*
	Section 2-2	*2*	*3.00*	*1.170*	*2.239*	*15.718*	*Cum*
	Section 3-3	*2*	*1.68*	*1.050*	*2.039*	*7.172*	*Cum*
	Section 5-5	*2*	*2.39*	*1.960*	*2.239*	*20.950*	*Cum*
	Section 6-6	*2*	*1.53*	*1.050*	*2.039*	*6.530*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.000*	*0.850*	*0.531*	*Cum*
	U/S Floor	*1*	*2.50*	*1.000*	*2.017*	*5.043*	*Cum*
	D/S Floor	*1*	*1.69*	*1.000*	*0.850*	*1.439*	*Cum*
		1	*2.60*	*1.000*	*0.650*	*1.690*	*Cum*
	D/S Key Floor	*1*	*0.68*	*1.000*	*1.050*	*0.709*	*Cum*
	Toe Wall D/S Portion	*1*	*5.10*	*0.750*	*0.900*	*3.443*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.75*	*0.600*	*0.750*	*1.575*	*Cum*
						74.72	**Cum**
2	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	PCC Below Floor	*1*	*0.54*	*1.000*	*0.150*	*0.08*	*Cum*
		1	*0.84*	*1.000*	*0.150*	*0.13*	*Cum*
		1	*0.28*	*1.000*	*0.150*	*0.04*	*Cum*
		1	*0.21*	*1.000*	*0.150*	*0.03*	*Cum*
		1	*4.32*	*1.000*	*0.150*	*0.65*	*Cum*
		1	*0.42*	*1.000*	*0.150*	*0.06*	*Cum*
		1	*1.04*	*1.000*	*0.150*	*0.16*	*Cum*
		1	*1.01*	*1.000*	*0.150*	*0.15*	*Cum*
		1	*0.54*	*1.000*	*0.150*	*0.08*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.22*	*1.810*	*0.150*	*0.66*	*Cum*
	Section 2-2	*2*	*3.00*	*1.170*	*0.150*	*1.05*	*Cum*
	Section 3-3	*2*	*1.68*	*1.050*	*0.150*	*0.53*	*Cum*
	Section 5-5	*2*	*2.39*	*1.960*	*0.150*	*1.40*	*Cum*
	Section 6-6	*2*	*1.53*	*1.050*	*0.150*	*0.48*	*Cum*
	Toe Wall D/S Portion	*1*	*5.10*	*0.750*	*0.300*	*1.15*	*Cum*
	Toe Wall D/S Portion	*1*	*4.80*	*0.450*	*0.600*	*1.30*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.600*	*0.150*	*0.32*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.300*	*0.600*	*0.63*	*Cum*
	TOTAL					**8.90**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.07*	*0.450*	*0.450*	*0.43*	*Cum*
		2	*1.07*	*0.980*	*1.767*	*3.72*	*Cum*
		2	*1.07*	*1.660*	*0.600*	*2.14*	*Cum*
	Section 2-2	*2*	*3.00*	*0.450*	*0.450*	*1.22*	*Cum*
		2	*3.00*	*0.660*	*0.700*	*2.77*	*Cum*
		2	*3.00*	*1.020*	*0.600*	*3.67*	*Cum*
	Section 3-3	*2*	*1.90*	*0.450*	*0.450*	*0.77*	*Cum*
		2	*1.90*	*0.600*	*0.500*	*1.14*	*Cum*
		2	*1.90*	*0.900*	*0.500*	*1.71*	*Cum*
	Section 5-5	*2*	*2.34*	*0.450*	*0.450*	*0.95*	*Cum*
		2	*2.34*	*0.980*	*1.767*	*8.12*	*Cum*
		2	*2.34*	*1.660*	*0.600*	*4.67*	*Cum*
	Section 6-6	*2*	*1.45*	*0.450*	*0.450*	*0.59*	*Cum*
		2	*1.45*	*0.600*	*0.500*	*0.87*	*Cum*
		2	*1.45*	*0.900*	*0.500*	*1.31*	*Cum*
	Floor	*1*	*0.63*	*1.000*	*0.700*	*0.44*	*Cum*
		1	*1.31*	*1.000*	*0.500*	*0.65*	*Cum*
		1	*4.19*	*1.000*	*0.500*	*2.10*	*Cum*
		1	*0.40*	*1.000*	*0.200*	*0.08*	*Cum*
		1	*0.30*	*1.000*	*0.257*	*0.08*	*Cum*
		1	*2.30*	*1.000*	*0.500*	*1.15*	*Cum*
		1	*0.68*	*1.000*	*0.900*	*0.61*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Crest	*1*	*0.97*	*1.000*	*1.330*	*1.29*	*Cum*
	TOTAL					**40.46**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*1.000*	*0.150*	*0.11*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.64*	*0.450*	*0.050*	*0.24*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.64*	*0.450*	*0.050*	*0.24*	*Cum*
	TOTAL					**0.59**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**40.46**	**0.00**	**0.121**	**7850.000**	**952.89**	**Kg**
	Total Weight in Metric Tonne					**0.95**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.07*		*0.450*	*1.93*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.07*		*1.767*	*7.59*	*Sqm*
		4		*0.980*	*1.767*	*6.93*	*Sqm*
		4	*1.07*		*0.600*	*2.58*	*Sqm*
		4		*1.660*	*0.600*	*3.98*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.450*	*5.40*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.00*		*0.700*	*8.40*	*Sqm*
		4		*0.660*	*0.700*	*1.85*	*Sqm*
		4	*3.00*		*0.600*	*7.20*	*Sqm*
		4		*1.020*	*0.600*	*2.45*	*Sqm*
	Section 3-3	*4*	*1.90*		*0.450*	*3.42*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.90*		*0.500*	*3.80*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*1.90*		*0.500*	*3.80*	*Sqm*
		4		*0.900*	*0.500*	*1.80*	*Sqm*
	Section 5-5	*4*	*2.34*		*0.450*	*4.22*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.34*		*1.767*	*16.56*	*Sqm*
		4		*0.980*	*1.767*	*6.93*	*Sqm*
		4	*2.34*		*0.600*	*5.62*	*Sqm*
		4		*1.660*	*0.600*	*3.98*	*Sqm*
	Section 6-6	*4*	*1.45*		*0.450*	*2.61*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.45*		*0.500*	*2.90*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*1.45*		*0.500*	*2.90*	*Sqm*
		4		*0.900*	*0.500*	*1.80*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.000*	*0.700*	*1.40*	*Sqm*
		2	*4.19*		*0.500*	*4.19*	*Sqm*
		2		*1.000*	*0.500*	*1.00*	*Sqm*
		2	*0.40*		*0.200*	*0.16*	*Sqm*
		2		*1.000*	*0.200*	*0.40*	*Sqm*
		2	*0.30*		*0.257*	*0.15*	*Sqm*
		2		*1.000*	*0.257*	*0.51*	*Sqm*
		2	*2.30*		*0.500*	*2.30*	*Sqm*
		2		*1.000*	*0.500*	*1.00*	*Sqm*
		2	*0.68*		*0.900*	*1.22*	*Sqm*
		2		*1.000*	*0.900*	*1.80*	*Sqm*
	Crest	*2*	*0.97*		*1.330*	*2.58*	*Sqm*
		2		*1.000*	*1.330*	*2.66*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.10*		*0.300*	*3.06*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.80*		*0.600*	*5.76*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.150*	*1.05*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.600*	*4.20*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**151.50**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.75*	*2.051*		*7.18*	*Sqm*
	TOTAL					**7.18**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.75*	*0.400*	*0.300*	**0.21**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.75*	*0.400*	*0.150*	**0.21**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.64*	*0.450*		*4.79*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.64*	*0.450*		*4.79*	*Sqm*
	TOTAL					**9.58**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		4.055		4.05	**Cum**
	Abutment						
	Section 1-1	2	*1.22*	*1.200*		*2.938*	*Cum*
	Section 2-2	2	*3.00*	*0.771*		*4.626*	*Cum*
	Section 3-3	2	*1.68*	*0.570*		*1.910*	*Cum*
	Section 5-5	2	*2.39*	*1.200*		*5.729*	*Cum*
	Section 6-6	2	*1.53*	*0.570*		*1.739*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.10*	*0.150*	*0.600*	*1.530*	*Cum*
		2	*1.75*	0.150	*0.600*	*0.315*	*Cum*
	TOTAL					**22.84**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.305 METER AT CH. 4.370 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.91*	*1.293*	*1.366*	*3.225*	*Cum*
	Section 2-2	*2*	*2.00*	*1.110*	*1.366*	*6.065*	*Cum*
	Section 3-3	*2*	*2.21*	*0.990*	*1.166*	*5.091*	*Cum*
	Section 5-5	*2*	*2.28*	*1.443*	*1.366*	*8.994*	*Cum*
	Section 6-6	*2*	*1.41*	*0.990*	*1.166*	*3.244*	*Cum*
	U/S Key Floor	*1*	*0.63*	*0.850*	*0.850*	*0.452*	*Cum*
	U/S Floor	*1*	*1.50*	*0.850*	*1.155*	*1.473*	*Cum*
	D/S Floor	*1*	*2.00*	*0.850*	*0.850*	*1.445*	*Cum*
		1	*3.00*	*0.850*	*0.650*	*1.658*	*Cum*
	D/S Key Floor	*1*	*0.63*	*0.850*	*0.850*	*0.452*	*Cum*
	Toe Wall D/S Portion	*1*	*4.65*	*0.750*	*0.900*	*3.139*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.50*	*0.600*	*0.750*	*1.350*	*Cum*
						36.59	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*0.850*	*0.150*	*0.07*	*Cum*
		1	*0.78*	*0.850*	*0.150*	*0.10*	*Cum*
		1	*2.88*	*0.850*	*0.150*	*0.37*	*Cum*
		1	*0.28*	*0.850*	*0.150*	*0.04*	*Cum*
		1	*1.64*	*0.850*	*0.150*	*0.21*	*Cum*
		1	*0.78*	*0.850*	*0.150*	*0.10*	*Cum*
		1	*0.54*	*0.850*	*0.150*	*0.07*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.91*	*1.293*	*0.150*	*0.35*	*Cum*
	Section 2-2	*2*	*2.00*	*1.110*	*0.150*	*0.67*	*Cum*
	Section 3-3	*2*	*2.21*	*0.990*	*0.150*	*0.65*	*Cum*
	Section 5-5	*2*	*2.28*	*1.443*	*0.150*	*0.99*	*Cum*
	Section 6-6	*2*	*1.41*	*0.990*	*0.150*	*0.42*	*Cum*
	Toe Wall D/S Portion	*1*	*4.65*	*0.750*	*0.300*	*1.05*	*Cum*
	Toe Wall D/S Portion	*1*	*4.35*	*0.450*	*0.600*	*1.17*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.600*	*0.150*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.300*	*0.600*	*0.54*	*Cum*
	TOTAL					**7.06**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.76*	*0.450*	*0.450*	*0.31*	*Cum*
		2	*0.76*	*0.722*	*0.905*	*1.00*	*Cum*
		2	*0.76*	*1.143*	*0.500*	*0.87*	*Cum*
	Section 2-2	*2*	*2.00*	*0.450*	*0.450*	*0.81*	*Cum*
		2	*2.00*	*0.630*	*0.600*	*1.51*	*Cum*
		2	*2.00*	*0.960*	*0.500*	*1.92*	*Cum*
	Section 3-3	*2*	*2.43*	*0.450*	*0.450*	*0.98*	*Cum*
		2	*2.43*	*0.570*	*0.400*	*1.11*	*Cum*
		2	*2.43*	*0.840*	*0.500*	*2.04*	*Cum*
	Section 5-5	*2*	*2.24*	*0.450*	*0.450*	*0.91*	*Cum*
		2	*2.24*	*0.722*	*0.905*	*2.92*	*Cum*
		2	*2.24*	*1.143*	*0.500*	*2.56*	*Cum*
	Section 6-6	*2*	*1.33*	*0.450*	*0.450*	*0.54*	*Cum*
		2	*1.33*	*0.570*	*0.400*	*0.61*	*Cum*
		2	*1.33*	*0.840*	*0.500*	*1.12*	*Cum*
	Floor	*1*	*0.63*	*0.850*	*0.700*	*0.37*	*Cum*
		1	*3.50*	*0.850*	*0.500*	*1.49*	*Cum*
		1	*0.40*	*0.850*	*0.200*	*0.07*	*Cum*
		1	*0.20*	*0.850*	*0.307*	*0.05*	*Cum*
		1	*2.80*	*0.850*	*0.500*	*1.19*	*Cum*
		1	*0.63*	*0.850*	*0.700*	*0.37*	*Cum*
	Crest	*1*	*0.69*	*0.850*	*0.574*	*0.34*	*Cum*
	TOTAL					**23.08**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*0.850*	*0.150*	*0.08*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.36*	*0.450*	*0.050*	*0.21*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.36*	*0.450*	*0.050*	*0.21*	*Cum*
	TOTAL					**0.50**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**23.08**	**0.00**	**0.069**	**7850.000**	**543.48**	**Kg**
	Total Weight in Metric Tonne					**0.54**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.76*		*0.450*	*1.37*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.76*		*0.905*	*2.76*	*Sqm*
		4		*0.722*	*0.905*	*2.61*	*Sqm*
		4	*0.76*		*0.500*	*1.53*	*Sqm*
		4		*1.143*	*0.500*	*2.29*	*Sqm*
	Section 2-2	*4*	*2.00*		*0.450*	*3.60*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.00*		*0.600*	*4.80*	*Sqm*
		4		*0.630*	*0.600*	*1.51*	*Sqm*
		4	*2.00*		*0.500*	*4.00*	*Sqm*
		4		*0.960*	*0.500*	*1.92*	*Sqm*
	Section 3-3	*4*	*2.43*		*0.450*	*4.37*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.43*		*0.400*	*3.89*	*Sqm*
		4		*0.570*	*0.400*	*0.91*	*Sqm*
		4	*2.43*		*0.500*	*4.86*	*Sqm*
		4		*0.840*	*0.500*	*1.68*	*Sqm*
	Section 5-5	*4*	*2.24*		*0.450*	*4.03*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.24*		*0.905*	*8.10*	*Sqm*
		4		*0.722*	*0.905*	*2.61*	*Sqm*
		4	*2.24*		*0.500*	*4.48*	*Sqm*
		4		*1.143*	*0.500*	*2.29*	*Sqm*
	Section 6-6	*4*	*1.33*		*0.450*	*2.39*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.33*		*0.400*	*2.13*	*Sqm*
		4		*0.570*	*0.400*	*0.91*	*Sqm*
		4	*1.33*		*0.500*	*2.66*	*Sqm*
		4		*0.840*	*0.500*	*1.68*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*0.850*	*0.700*	*1.19*	*Sqm*
		2	*3.50*		*0.500*	*3.50*	*Sqm*
		2		*0.850*	*0.500*	*0.85*	*Sqm*
		2	*0.40*		*0.200*	*0.16*	*Sqm*
		2		*0.850*	*0.200*	*0.34*	*Sqm*
		2	*0.20*		*0.307*	*0.12*	*Sqm*
		2		*0.850*	*0.307*	*0.52*	*Sqm*
		2	*2.80*		*0.500*	*2.80*	*Sqm*
		2		*0.850*	*0.500*	*0.85*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*0.850*	*0.700*	*1.19*	*Sqm*
	Crest	*2*	*0.69*		*0.574*	*0.79*	*Sqm*
		2		*0.850*	*0.574*	*0.98*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.65*		*0.300*	*2.79*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.35*		*0.600*	*5.22*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.150*	*0.90*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.600*	*3.60*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**107.05**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.871*		*5.61*	*Sqm*
	TOTAL					**5.61**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.250*	*0.300*	**0.11**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.250*	*0.150*	**0.11**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.36*	*0.450*		*4.21*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.36*	*0.450*		*4.21*	*Sqm*
	TOTAL					**8.43**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		0.416		0.42	**Cum**
	Abutment						
	Section 1-1	2	*0.91*	*0.444*		*0.810*	*Cum*
	Section 2-2	2	*2.00*	*0.440*		*1.758*	*Cum*
	Section 3-3	2	*2.21*	*0.414*		*1.824*	*Cum*
	Section 5-5	2	*2.28*	*0.444*		*2.024*	*Cum*
	Section 6-6	2	*1.41*	*0.414*		*1.162*	*Cum*
	D/S protection	2					
	Toe wall	2	*4.65*	*0.150*	*0.600*	*1.395*	*Cum*
		2	*1.50*	0.150	*0.600*	*0.270*	*Cum*
	TOTAL					**9.66**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 10.060 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*3.30*	*2.055*	*2.310*	*31.331*	*Cum*
	Section 2-2	*2*	*5.00*	*1.488*	*2.310*	*34.373*	*Cum*
	Section 3-3	*2*	*1.70*	*1.338*	*2.110*	*9.599*	*Cum*
	Section 5-5	*2*	*8.66*	*2.205*	*2.310*	*88.251*	*Cum*
	Section 6-6	*2*	*3.39*	*1.338*	*2.110*	*19.152*	*Cum*
	U/S Key Floor	*1*	*0.70*	*4.150*	*0.650*	*1.888*	*Cum*
	U/S Floor	*1*	*1.59*	*4.150*	*2.310*	*15.243*	*Cum*
	D/S Floor	*1*	*6.40*	*4.150*	*0.850*	*22.576*	*Cum*
		1	*2.00*	*4.150*	*0.650*	*5.395*	*Cum*
	D/S Key Floor	*1*	*0.70*	*4.150*	*1.000*	*2.905*	*Cum*
	Toe Wall D/S Portion	*1*	*13.61*	*0.750*	*0.900*	*9.187*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*3.00*	*0.600*	*0.750*	*2.700*	*Cum*
						242.60	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*4.150*	*0.150*	*0.34*	*Cum*
		1	*1.12*	*4.150*	*0.150*	*0.70*	*Cum*
		1	*7.43*	*4.150*	*0.150*	*4.62*	*Cum*
		1	*0.35*	*4.150*	*0.150*	*0.22*	*Cum*
		1	*0.24*	*4.150*	*0.150*	*0.15*	*Cum*
		1	*1.12*	*4.150*	*0.150*	*0.70*	*Cum*
		1	*0.54*	*4.150*	*0.150*	*0.34*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*3.30*	*2.055*	*0.150*	*2.03*	*Cum*
	Section 2-2	*2*	*5.00*	*1.488*	*0.150*	*2.23*	*Cum*
	Section 3-3	*2*	*1.70*	*1.338*	*0.150*	*0.68*	*Cum*
	Section 5-5	*2*	*8.66*	*2.205*	*0.150*	*5.73*	*Cum*
	Section 6-6	*2*	*3.39*	*1.338*	*0.150*	*1.36*	*Cum*
	Toe Wall D/S Portion	*1*	*13.61*	*0.750*	*0.300*	*3.06*	*Cum*
	Toe Wall D/S Portion	*1*	*13.31*	*0.450*	*0.600*	*3.59*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.00*	*0.600*	*0.150*	*0.54*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.00*	*0.300*	*0.600*	*1.08*	*Cum*
	TOTAL					**27.37**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*3.23*	*0.450*	*0.450*	*1.31*	*Cum*
		2	*3.23*	*1.103*	*2.175*	*15.47*	*Cum*
		2	*3.23*	*1.905*	*0.500*	*6.14*	*Cum*
	Section 2-2	*2*	*5.00*	*0.450*	*0.450*	*2.03*	*Cum*
		2	*5.00*	*0.819*	*1.230*	*10.07*	*Cum*
		2	*5.00*	*1.338*	*0.500*	*6.69*	*Cum*
	Section 3-3	*2*	*1.26*	*0.450*	*0.450*	*0.51*	*Cum*
		2	*1.26*	*0.744*	*0.980*	*1.83*	*Cum*
		2	*1.26*	*1.188*	*0.500*	*1.49*	*Cum*
	Section 5-5	*2*	*8.75*	*0.450*	*0.450*	*3.55*	*Cum*
		2	*8.75*	*1.103*	*2.175*	*41.99*	*Cum*
		2	*8.75*	*1.905*	*0.500*	*16.68*	*Cum*
	Section 6-6	*2*	*4.06*	*0.450*	*0.450*	*1.64*	*Cum*
		2	*4.06*	*0.744*	*0.980*	*5.92*	*Cum*
		2	*4.06*	*1.188*	*0.500*	*4.82*	*Cum*
	Floor	*1*	*0.70*	*4.150*	*0.500*	*1.45*	*Cum*
		1	*8.00*	*4.150*	*0.500*	*16.60*	*Cum*
		1	*0.53*	*4.150*	*0.250*	*0.55*	*Cum*
		1	*0.25*	*4.150*	*0.375*	*0.39*	*Cum*
		1	*1.75*	*4.150*	*0.500*	*3.63*	*Cum*
	Crest	*1*	*0.70*	*4.150*	*1.000*	*2.91*	*Cum*
	TOTAL					**145.67**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*1.00*	*4.150*	*0.150*	*0.62*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*17.67*	*0.450*	*0.050*	*0.40*	*Cum*
	On Abutment Top (Right Side)	*1*	*17.67*	*0.450*	*0.050*	*0.40*	*Cum*
	TOTAL					**1.42**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.2% of M-20	**145.67**	**0.002**	**0.291**	**7850.000**	**2287.02**	**Kg**
	Total Weight in Metric Tonne					**2.29**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*3.23*		*0.450*	*5.81*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.23*		*2.175*	*28.06*	*Sqm*
		4		*1.103*	*2.175*	*9.59*	*Sqm*
		4	*3.23*		*0.500*	*6.45*	*Sqm*
		4		*1.905*	*0.500*	*3.81*	*Sqm*
	Section 2-2	*4*	*5.00*		*0.450*	*9.00*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*5.00*		*1.230*	*24.60*	*Sqm*
		4		*0.819*	*1.230*	*4.03*	*Sqm*
		4	*5.00*		*0.500*	*10.00*	*Sqm*
		4		*1.338*	*0.500*	*2.68*	*Sqm*
	Section 3-3	*4*	*1.26*		*0.450*	*2.26*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.26*		*0.980*	*4.92*	*Sqm*
		4		*0.744*	*0.980*	*2.92*	*Sqm*
		4	*1.26*		*0.500*	*2.51*	*Sqm*
		4		*1.188*	*0.500*	*2.38*	*Sqm*
	Section 5-5	*4*	*8.75*		*0.450*	*15.76*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*8.75*		*2.175*	*76.16*	*Sqm*
		4		*1.103*	*2.175*	*9.59*	*Sqm*
		4	*8.75*		*0.500*	*17.51*	*Sqm*
		4		*1.905*	*0.500*	*3.81*	*Sqm*
	Section 6-6	*4*	*4.06*		*0.450*	*7.31*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*4.06*		*0.980*	*15.92*	*Sqm*
		4		*0.744*	*0.980*	*2.92*	*Sqm*
		4	*4.06*		*0.500*	*8.12*	*Sqm*
		4		*1.188*	*0.500*	*2.38*	*Sqm*
	Floor	*2*	*0.70*		*0.500*	*0.70*	*Sqm*
		2		*4.150*	*0.500*	*4.15*	*Sqm*
		2	*8.00*		*0.500*	*8.00*	*Sqm*
		2		*4.150*	*0.500*	*4.15*	*Sqm*
		2	*0.53*		*0.250*	*0.27*	*Sqm*
		2		*4.150*	*0.250*	*2.08*	*Sqm*
		2	*0.25*		*0.375*	*0.19*	*Sqm*
		2		*4.150*	*0.375*	*3.11*	*Sqm*
		2	*1.75*		*0.500*	*1.75*	*Sqm*
		2		*4.150*	*0.500*	*4.15*	*Sqm*
	Crest	*2*	*0.70*		*1.000*	*1.40*	*Sqm*
		2		*4.150*	*1.000*	*8.30*	*Sqm*
	Toe Wall D/S Portion	*2*	*13.61*		*0.300*	*8.17*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*13.31*		*0.600*	*15.97*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.00*		*0.150*	*1.80*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.00*		*0.600*	*7.20*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**355.99**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.00*	*4.876*		*29.26*	*Sqm*
	TOTAL					**29.26**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In U/S Portion	*1*	*9.50*	*4.655*	*0.300*	**13.27**	**Cum**
	In D/S Portion	*1*	*3.00*	*3.550*	*0.300*	**3.20**	**Cum**
	TOTAL					**16.46**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*3.00*	*3.550*	*0.150*	**3.20**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*17.67*	*0.450*		*7.95*	*Sqm*
	On Abutment Top (Right Side)	*1*	*17.67*	*0.450*		*7.95*	*Sqm*
	TOTAL					**15.90**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		3.307		3.31	**Cum**
	Abutment						
	Section 1-1	2	*3.30*	*1.399*		*9.233*	*Cum*
	Section 2-2	2	*5.00*	*1.344*		*13.442*	*Cum*
	Section 3-3	2	*1.70*	*1.101*		*3.743*	*Cum*
	Section 5-5	2	*8.66*	*2.494*		*43.216*	*Cum*
	Section 6-6	2	*3.39*	*1.101*		*7.469*	*Cum*
	D/S protection	2					
	Toe wall	2	*13.61*	*0.150*	*0.600*	*4.083*	*Cum*
		2	*3.00*	0.150	*0.600*	*0.540*	*Cum*
	TOTAL					**85.03**	**Cum**

ABSTRACT OF COST FOR CONSTRUCTION OF SLAB CULVERT FOR KHAIRA MR.								
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT KM 3.255								
S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	70.000	Sqm	**11.80**	826.31			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	97.031	Cum	**195.20**	18940.49			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	7.25	Cum	**6381.70**	46278.05	2.35	3.26	6.53
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	22.62	Cum	**6914.20**	156409.19	9.33	9.73	19.45
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	22.47	Cum	**8151.40**	183148.81	12.74	8.76	17.75
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.62	MT	**73574.90**	193051.16			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	166.61	Sqm	**578.60**	96398.96			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1220.80			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch- 14, Sl.No. 14.17, Pg. 60)	3.20	Sqm	**66.00**	211.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	8.00	RM	**36993.21**	295945.68			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	61.32	Cum	**149.30**	9154.96			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	21.753	Cum	**1159.00**	25211.90			
	Coarse Aggregates (100 Km lead)	43.731	Cum	**1075.00**	47010.80			
	Cement (30 km lead)	24.420	MT	**742.00**	18119.99			
	Boulder (60 Km lead)	3.20	Cum	**1159.00**	3708.80			
	Brick (15 km lead)	480.00	No.	**1838.00**	882240.00			
	Steel (30 Km lead)	2.62	MT	**742.00**	1946.91			
	TOTAL (In Rs.)				**1991001.41**			
	TOTAL (In Rs.)				**1991001.41**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	21.75	Cum	**584.64**	12717.76	1271.78		
	Coarse Aggregate	43.73	Cum	**944.26**	41293.42	4129.34		
	Boulders	3.20	Cum	**694.61**	2222.75	222.28		
	Total					5623.39		
	For 1 nos. fall, Total Seigniorage charges					**5623.39**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CONSTRUCTION OF SLAB CULVERT FOR PRITAMPURA SUB-DY								
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT KM 0.410								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	90.000	Sqm	**11.80**	1062.40			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	84.200	Cum	**195.20**	16435.82			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.29	Cum	**6381.70**	52880.55	2.68	3.73	7.46
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	30.64	Cum	**6914.20**	211861.16	12.64	13.18	26.35
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	37.14	Cum	**8151.40**	302721.10	21.06	14.48	29.34
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.51	MT	**73574.90**	258117.30			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	231.22	Sqm	**578.60**	133781.25			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1220.80			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch- 14, Sl.No. 14.17, Pg. 60)	4.40	Sqm	**66.00**	290.40			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	11.00	RM	**36993.21**	406925.31			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	61.72	Cum	**149.30**	9214.99			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	31.388	Cum	**1159.00**	36378.93			
	Coarse Aggregates (100 Km lead)	63.148	Cum	**1075.00**	67883.87			
	Cement (30 km lead)	36.381	MT	**742.00**	26994.86			
	Boulder (60 Km lead)	4.40	Cum	**1159.00**	5099.60			
	Brick (15 km lead)	480.00	No.	**1838.00**	882240.00			
	Steel (30 Km lead)	3.51	MT	**742.00**	2603.10			
	TOTAL (In Rs.)				**2426888.84**			
	TOTAL (In Rs.)				**2426888.84**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	31.39	Cum	**584.64**	18350.80	1835.08		
	Coarse Aggregate	63.15	Cum	**944.26**	59627.93	5962.79		
	Boulders	4.40	Cum	**694.61**	3056.28	305.63		
	Total					8103.50		
	For 1 nos. fall, Total Seigniorage charges					**8103.50**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT KM 4.965								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	140.000	Sqm	**11.80**	1652.61			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	117.768	Cum	**195.20**	22988.24			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.14	Cum	**6381.70**	58318.53	2.96	4.11	8.22
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	31.92	Cum	**6914.20**	220728.48	13.17	13.73	27.45
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	34.20	Cum	**8151.40**	278796.40	19.39	13.34	27.02
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.43	MT	**73574.90**	252141.15			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	224.90	Sqm	**578.60**	130129.16			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1220.80			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch- 14, Sl.No. 14.17, Pg. 60)	4.40	Sqm	**66.00**	290.40			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	11.00	RM	**36993.21**	406925.31			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	80.93	Cum	**149.30**	12082.31			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	31.178	Cum	**1159.00**	36135.83			
	Coarse Aggregates (100 Km lead)	62.699	Cum	**1075.00**	67401.36			
	Cement (30 km lead)	35.522	MT	**742.00**	26357.44			
	Boulder (60 Km lead)	4.40	Cum	**1159.00**	5099.60			
	Brick (15 km lead)	480.00	No.	**1838.00**	882240.00			
	Steel (30 Km lead)	3.43	MT	**742.00**	2542.83			
	TOTAL (In Rs.)				**2416227.86**			
	TOTAL (In Rs.)				**2416227.86**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	31.18	Cum	**584.64**	18228.17	1822.82		
	Coarse Aggregate	62.70	Cum	**944.26**	59204.10	5920.41		
	Boulders	4.40	Cum	**694.61**	3056.28	305.63		
	Total					8048.86		
	For 1 nos. fall, Total Seigniorage charges					**8048.86**		

ABSTRACT OF COST FOR CONSTRUCTION OF SLAB CULVERT FOR BASDIHA DY.								
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT KM 9.625								
S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.000	Sqm	**11.80**	1180.44			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	196.400	Cum	**195.20**	38337.34			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	11.24	Cum	**6381.70**	71740.52	3.64	5.06	10.12
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	42.69	Cum	**6914.20**	295152.22	17.61	18.36	36.71
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	54.65	Cum	**8151.40**	445485.52	30.99	21.31	43.17
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	5.10	MT	**73574.90**	375343.35			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	299.79	Sqm	**578.60**	173460.61			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1220.80			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch- 14, Sl.No. 14.17, Pg. 60)	5.82	Sqm	**66.00**	384.12			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	14.55	RM	**36993.21**	538251.21			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	126.86	Cum	**149.30**	18939.66			

13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	44.729	Cum	**1159.00**	51840.38			
	Coarse Aggregates (100 Km lead)	90.004	Cum	**1075.00**	96753.86			
	Cement (30 km lead)	52.238	MT	**742.00**	38760.86			
	Boulder (60 Km lead)	5.82	Cum	**1159.00**	6745.38			
	Brick (15 km lead)	480.00	No.	**1838.00**	882240.00			
	Steel (30 Km lead)	5.10	MT	**742.00**	3785.32			
	TOTAL (In Rs.)				**3050799.00**			
	TOTAL (In Rs.)				**3050799.00**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	44.73	Cum	**584.64**	26150.09	2615.01		
	Coarse Aggregate	90.00	Cum	**944.26**	84986.79	8498.68		
	Boulders	5.82	Cum	**694.61**	4042.63	404.26		
	Total					11517.95		
	For 1 nos. fall, Total Seigniorage charges					**11517.95**		

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SLAB BRIDGE FOR KHAIRA MR.						
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT KM 3.255						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*70.00*			**70.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.92*	*1.49*	*2.15*	*12.30*	*Cum*
		1	*3.71*	*1.84*	*2.15*	*14.64*	*Cum*
	Extra for Slope (0.5:1)	*2*	*5.63*	*1.08*	*2.15*	*26.01*	*Cum*
	Left abutment	*2*	*1.92*	*1.49*	*2.15*	*12.30*	*Cum*
		1	*3.71*	*1.84*	*2.15*	*14.64*	*Cum*
	Extra for Slope (0.5:1)	*2*	*3.71*	*1.08*	*2.15*	*17.14*	*Cum*
	TOTAL					**97.03**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.92*	*1.49*	*0.20*	*1.14*	*Cum*
		1	*3.71*	*1.84*	*0.20*	*1.36*	*Cum*
	Left abutment	*2*	*1.92*	*1.49*	*0.20*	*1.14*	*Cum*
		1	*3.71*	*1.84*	*0.20*	*1.36*	*Cum*
	Levelling course	*2*	*4.00*	*3.50*	*0.08*	*2.24*	*Cum*
	TOTAL					**7.25**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*3.71*	*1.64*	*0.20*	*1.21*	*Cum*
		1	*3.71*	*1.44*	*0.80*	*4.26*	*Cum*
		1	*3.71*	*0.93*	*0.75*	*2.58*	*Cum*
		1	*3.71*	*0.82*	*0.45*	*1.37*	*Cum*
	Return wall	*2*	*1.92*	*1.29*	*0.20*	*0.99*	*Cum*
		2	*1.92*	*1.09*	*0.80*	*3.35*	*Cum*
		2	*1.92*	*0.55*	*0.97*	*2.03*	*Cum*
		2	*1.92*	*0.40*	*0.15*	*0.23*	*Cum*
	Left abutment	*1*	*3.71*	*1.64*	*0.20*	*1.21*	*Cum*
		1	*3.71*	*1.44*	*0.80*	*4.26*	*Cum*
		1	*3.71*	*0.93*	*0.75*	*2.58*	*Cum*
		1	*3.71*	*0.82*	*0.45*	*1.37*	*Cum*
	Return wall	*2*	*1.92*	*1.29*	*0.20*	*0.99*	*Cum*
		2	*1.92*	*1.09*	*0.80*	*3.35*	*Cum*
		2	*1.92*	*0.55*	*0.97*	*2.03*	*Cum*
		2	*1.92*	*0.40*	*0.15*	*0.23*	*Cum*
	TOTAL					**22.62**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	3.74	4.00	0.37	*5.51*	*Cum*
	Approch Slab	*2*	*3.50*	*4.00*	*0.30*	*8.40*	*Cum*
	Wearing coat	*1*	*10.74*	*3.00*	*0.08*	*2.42*	*Cum*
	Parapet	*2*	*10.74*	*0.44*	*0.18*	*1.67*	*Cum*
		2	*10.74*	*0.35*	*0.25*	*1.88*	*Cum*
		2	*10.74*	*0.22*	*0.55*	*2.59*	*Cum*
	TOTAL					**22.47**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*28*	*4.31*		*1.578*	*190.4*	*Kg*
a2	*10*	*19*	*4.50*		*0.616*	*52.7*	*Kg*
a3	*10*	*2*	*3.90*		*0.616*	*4.8*	*Kg*
a4	*10*	*16*	*4.23*		*0.616*	*41.7*	*Kg*
a5	*10*	*15*	*4.40*		*0.616*	*40.7*	*Kg*
	APPROACH SLAB						
c1	*12*	*54*	*3.70*		*0.888*	*177.4*	*Kg*
c2	*12*	*46*	*4.20*		*0.888*	*171.5*	*Kg*
c3	*12*	*54*	*3.70*		*0.888*	*177.4*	*Kg*
c4	*12*	*46*	*3.70*		*0.888*	*151.1*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*116*	*2.37*		*0.888*	*244.2*	*Kg*
x2	*16*	*116*	*1.32*		*1.578*	*242.4*	*Kg*
x3	*12*	*24*	*3.65*		*0.888*	*77.8*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.22*		*1.578*	*224.1*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*22.62*	*0.0025*	*0.057*	*7850.00*	*443.946*	*Kg*
	Total Reinforcement Steel (in kg)					*2623.9*	*Kg*
	Total Weight in Metric Tonne					**2.62**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*3.71*		*0.20*	*1.48*	*Sqm*
		2		*1.64*	*0.20*	*0.65*	*Sqm*
		2	*3.71*		*0.80*	*5.93*	*Sqm*
		2		*1.44*	*0.80*	*2.30*	*Sqm*
		2	*3.71*		*0.75*	*5.56*	*Sqm*
		2		*0.93*	*0.75*	*1.39*	*Sqm*
		2	*3.71*		*0.45*	*3.34*	*Sqm*
		2		*0.82*	*0.45*	*0.74*	*Sqm*
	Return wall	*2*	*1.92*		*0.20*	*0.77*	*Sqm*
		2		*1.29*	*0.20*	*0.52*	*Sqm*
		2	*1.92*		*0.80*	*3.07*	*Sqm*
		2		*1.09*	*0.80*	*1.75*	*Sqm*
		2	*1.92*		*0.97*	*3.72*	*Sqm*
		2		*0.55*	*0.97*	*1.06*	*Sqm*
		2	*1.92*		*0.15*	*0.58*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*3.71*		*0.20*	*1.48*	*Sqm*
		2		*1.64*	*0.20*	*0.65*	*Sqm*
		2	*3.71*		*0.80*	*5.93*	*Sqm*
		2		*1.44*	*0.80*	*2.30*	*Sqm*
		2	*3.71*		*0.75*	*5.56*	*Sqm*
		2		*0.93*	*0.75*	*1.39*	*Sqm*
		2	*3.71*		*0.45*	*3.34*	*Sqm*
		2		*0.82*	*0.45*	*0.74*	*Sqm*
	Return wall	*2*	*1.92*		*0.20*	*0.77*	*Sqm*
		2		*1.29*	*0.20*	*0.52*	*Sqm*
		2	*1.92*		*0.80*	*3.07*	*Sqm*
		2		*1.09*	*0.80*	*1.75*	*Sqm*
		2	*1.92*		*0.97*	*3.72*	*Sqm*
		2		*0.55*	*0.97*	*1.06*	*Sqm*
		2	*1.92*		*0.15*	*0.58*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*3.74*		*0.37*	*2.76*	*Sqm*
		1	*3.74*	4.00		*14.94*	*Sqm*
		2		*4.00*	0.37	*2.95*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	4.00		*28.00*	*Sqm*
		4		*4.00*	0.30	*4.80*	*Sqm*
	Parapet	*4*	*10.74*		*0.18*	*7.51*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*10.74*		*0.25*	*10.74*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*10.74*		*0.55*	*23.62*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**166.61**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch- 14, Sl.No. 14.17, Pg. 60)**						
		2	*4.00*	*0.40*		*3.20*	*Sqm*
	TOTAL					**3.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*4.00*			*8.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	3.71	1.18		*8.73*	*Cum*
	Right and left Return wall	4	1.92	1.23		*9.43*	*Cum*
	Extra slope	*2*	*5.627*	*1.075*	*2.15*	*26.01*	*Cum*
		2	*3.709*	*1.075*	*2.15*	*17.14*	*Cum*
	TOTAL					**61.32**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SLAB BRIDGE FOR PRITAMPURA MINOR						
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT KM 0.410						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*90.00*			**90.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.97*	*1.60*	*1.59*	*10.00*	*Cum*
		1	*5.10*	*1.74*	*1.59*	*14.10*	*Cum*
	Extra for Slope (0.5:1)	*2*	*7.07*	*0.80*	*1.59*	*17.92*	*Cum*
	Left abutment	*2*	*1.97*	*1.49*	*1.59*	*9.34*	*Cum*
		1	*5.10*	*1.84*	*1.59*	*14.92*	*Cum*
	Extra for Slope (0.5:1)	*2*	*7.07*	*0.80*	*1.59*	*17.92*	*Cum*
	TOTAL					**84.20**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.97*	*1.60*	*0.20*	*1.26*	*Cum*
		1	*5.10*	*1.74*	*0.20*	*1.77*	*Cum*
	Left abutment	*2*	*1.97*	*1.60*	*0.20*	*1.26*	*Cum*
		1	*5.10*	*1.74*	*0.20*	*1.77*	*Cum*
	Levelling course	*2*	*3.10*	*4.50*	*0.08*	*2.23*	*Cum*
	TOTAL					**8.29**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.10*	*1.64*	*0.20*	*1.67*	*Cum*
		1	*5.10*	*1.49*	*0.80*	*6.06*	*Cum*
		1	*5.10*	*0.98*	*1.05*	*5.24*	*Cum*
		1	*5.10*	*0.82*	*0.50*	*2.09*	*Cum*
	Return wall	*2*	*1.87*	*1.40*	*0.20*	*1.04*	*Cum*
		2	*1.87*	*1.20*	*0.80*	*3.57*	*Cum*
		2	*1.87*	*0.60*	*1.32*	*2.95*	*Cum*
		2	*1.87*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*5.10*	*1.64*	*0.20*	*1.67*	*Cum*
		1	*5.10*	*1.49*	*0.80*	*6.06*	*Cum*
		1	*5.10*	*0.98*	*1.05*	*5.24*	*Cum*
		1	*5.10*	*0.82*	*0.50*	*2.09*	*Cum*
	Return wall	*2*	*1.87*	*1.40*	*0.20*	*1.04*	*Cum*
		2	*1.87*	*1.20*	*0.80*	*3.57*	*Cum*
		2	*1.87*	*0.60*	*1.32*	*2.95*	*Cum*
		2	*1.87*	*0.40*	*0.15*	*0.22*	*Cum*
	TOTAL					**30.64**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	5.57	5.50	0.43	*13.10*	*Cum*
	Approch Slab	*2*	*3.50*	*5.50*	*0.33*	*12.61*	*Cum*
	Wearing coat	*1*	*12.57*	*4.50*	*0.08*	*4.24*	*Cum*
	Parapet	*2*	*12.57*	*0.44*	*0.18*	*1.96*	*Cum*
		2	*12.57*	*0.35*	*0.25*	*2.21*	*Cum*
		2	*12.57*	*0.22*	*0.55*	*3.03*	*Cum*
	TOTAL					**37.14**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*20*	*37*	*6.23*		*2.466*	*568.4*	*Kg*
a2	*12*	*28*	*6.10*		*0.888*	*151.6*	*Kg*
a3	*10*	*2*	*5.40*		*0.616*	*6.7*	*Kg*
a4	*10*	*22*	*6.15*		*0.616*	*83.4*	*Kg*
a5	*10*	*22*	*6.00*		*0.616*	*81.4*	*Kg*
	APPROACH SLAB						
c1	*12*	*74*	*3.70*		*0.888*	*243.1*	*Kg*
c2	*12*	*46*	*5.70*		*0.888*	*232.8*	*Kg*
c3	*12*	*74*	*3.70*		*0.888*	*243.1*	*Kg*
c4	*12*	*46*	*5.70*		*0.888*	*232.8*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*92*	*2.45*		*0.888*	*200.3*	*Kg*
x2	*16*	*92*	*1.45*		*1.578*	*209.8*	*Kg*
x3	*10*	*24*	*5.47*		*0.616*	*80.9*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*30.64*	*0.0025*	*0.077*	*7850.00*	*601.339*	*Kg*
	Total Reinforcement Steel (in kg)					*3508.2*	*Kg*
	Total Weight in Metric Tonne					**3.51**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.10*		*0.20*	*2.04*	*Sqm*
		2		*1.64*	*0.20*	*0.65*	*Sqm*
		2	*5.10*		*0.80*	*8.17*	*Sqm*
		2		*1.49*	*0.80*	*2.38*	*Sqm*
		2	*5.10*		*1.05*	*10.72*	*Sqm*
		2		*0.98*	*1.05*	*2.05*	*Sqm*
		2	*5.10*		*0.50*	*5.10*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.87*		*0.20*	*0.75*	*Sqm*
		2		*1.40*	*0.20*	*0.56*	*Sqm*
		2	*1.87*		*0.80*	*2.99*	*Sqm*
		2		*1.20*	*0.80*	*1.91*	*Sqm*
		2	*1.87*		*1.32*	*4.93*	*Sqm*
		2		*0.60*	*1.32*	*1.58*	*Sqm*
		2	*1.87*		*0.15*	*0.56*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.10*		*0.20*	*2.04*	*Sqm*
		2		*1.64*	*0.20*	*0.65*	*Sqm*
		2	*5.10*		*0.80*	*8.17*	*Sqm*
		2		*1.49*	*0.80*	*2.38*	*Sqm*
		2	*5.10*		*1.05*	*10.72*	*Sqm*
		2		*0.98*	*1.05*	*2.05*	*Sqm*
		2	*5.10*		*0.50*	*5.10*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.87*		*0.20*	*0.75*	*Sqm*
		2		*1.40*	*0.20*	*0.56*	*Sqm*
		2	*1.87*		*0.80*	*2.99*	*Sqm*
		2		*1.20*	*0.80*	*1.91*	*Sqm*
		2	*1.87*		*1.32*	*4.93*	*Sqm*
		2		*0.60*	*1.32*	*1.58*	*Sqm*
		2	*1.87*		*0.15*	*0.56*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*5.57*		*0.43*	*4.76*	*Sqm*
		1	*5.57*	5.50		*30.64*	*Sqm*
		2		*5.50*	0.43	*4.70*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.33*	*4.59*	*Sqm*
		2	*3.50*	5.50		*38.50*	*Sqm*
		4		*5.50*	0.33	*7.21*	*Sqm*
	Parapet	*4*	*12.57*		*0.18*	*8.80*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*12.57*		*0.25*	*12.57*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*12.57*		*0.55*	*27.65*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**231.22**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch- 14, Sl.No. 14.17, Pg. 60)**						
		2	*5.50*	*0.40*		*4.40*	*Sqm*
	TOTAL					**4.40**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.50*			*11.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.10	1.10		*11.27*	*Cum*
	Right and left Return wall	4	1.97	1.86		*14.61*	*Cum*
	Extra slope	*2*	*7.0715*	*0.796*	*1.592*	*17.92*	*Cum*
		2	*7.0715*	*0.796*	*1.592*	*17.92*	*Cum*
	TOTAL					**61.72**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT KM 4.965						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*140.00*			**140.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.96*	*1.58*	*1.98*	*12.30*	*Cum*
		1	*5.12*	*1.92*	*1.98*	*19.50*	*Cum*
	Extra for Slope (0.5:1)	*2*	*7.08*	*0.99*	*1.98*	*27.86*	*Cum*
	Left abutment	*2*	*1.96*	*1.49*	*1.98*	*11.60*	*Cum*
		1	*5.12*	*1.84*	*1.98*	*18.65*	*Cum*
	Extra for Slope (0.5:1)	*2*	*7.08*	*0.99*	*1.98*	*27.86*	*Cum*
	TOTAL					**117.77**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.96*	*1.58*	*0.20*	*1.24*	*Cum*
		1	*5.12*	*1.92*	*0.20*	*1.97*	*Cum*
	Left abutment	*2*	*1.96*	*1.58*	*0.20*	*1.24*	*Cum*
		1	*5.12*	*1.92*	*0.20*	*1.97*	*Cum*
	Levelling course	*2*	*3.10*	*5.50*	*0.08*	*2.73*	*Cum*
	TOTAL					**9.14**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.12*	*1.82*	*0.20*	*1.86*	*Cum*
		1	*5.12*	*1.57*	*0.80*	*6.43*	*Cum*
		1	*5.12*	*1.07*	*1.00*	*5.48*	*Cum*
		1	*5.12*	*0.82*	*0.50*	*2.10*	*Cum*
	Return wall	*2*	*1.86*	*1.38*	*0.20*	*1.03*	*Cum*
		2	*1.86*	*1.18*	*0.80*	*3.51*	*Cum*
		2	*1.86*	*0.69*	*1.27*	*3.26*	*Cum*
		2	*1.86*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*5.12*	*1.82*	*0.20*	*1.86*	*Cum*
		1	*5.12*	*1.57*	*0.80*	*6.43*	*Cum*
		1	*5.12*	*1.07*	*1.00*	*5.48*	*Cum*
		1	*5.12*	*0.82*	*0.50*	*2.10*	*Cum*
	Return wall	*2*	*1.86*	*1.38*	*0.20*	*1.03*	*Cum*
		2	*1.86*	*1.18*	*0.80*	*3.51*	*Cum*
		2	*1.86*	*0.69*	*1.27*	*3.26*	*Cum*
		2	*1.86*	*0.40*	*0.15*	*0.22*	*Cum*
	TOTAL					**31.92**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	5.10	5.50	0.38	*10.59*	*Cum*
	Approch Slab	*2*	*3.50*	*5.50*	*0.33*	*12.61*	*Cum*
	Wearing coat	*1*	*12.10*	*4.50*	*0.08*	*4.08*	*Cum*
	Parapet	*2*	*12.10*	*0.44*	*0.18*	*1.88*	*Cum*
		2	*12.10*	*0.35*	*0.25*	*2.12*	*Cum*
		2	*12.10*	*0.22*	*0.55*	*2.91*	*Cum*
	TOTAL					**34.20**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*20*	*37*	*5.76*		*2.466*	*525.5*	*Kg*
a2	*12*	*26*	*6.10*		*0.888*	*140.8*	*Kg*
a3	*10*	*2*	*5.40*		*0.616*	*6.7*	*Kg*
a4	*10*	*22*	*5.68*		*0.616*	*77.0*	*Kg*
a5	*10*	*21*	*6.00*		*0.616*	*77.7*	*Kg*
	APPROACH SLAB						
c1	*12*	*74*	*3.70*		*0.888*	*243.1*	*Kg*
c2	*12*	*46*	*5.70*		*0.888*	*232.8*	*Kg*
c3	*12*	*74*	*3.70*		*0.888*	*243.1*	*Kg*
c4	*12*	*46*	*5.70*		*0.888*	*232.8*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*84*	*2.45*		*0.888*	*182.8*	*Kg*
x2	*16*	*84*	*1.45*		*1.578*	*191.6*	*Kg*
x3	*10*	*24*	*5.00*		*0.616*	*74.0*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*31.92*	*0.0025*	*0.080*	*7850.00*	*626.507*	*Kg*
	Total Reinforcement Steel (in kg)					*3427.0*	*Kg*
	Total Weight in Metric Tonne					**3.43**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.12*		*0.20*	*2.05*	*Sqm*
		2		*1.82*	*0.20*	*0.73*	*Sqm*
		2	*5.12*		*0.80*	*8.19*	*Sqm*
		2		*1.57*	*0.80*	*2.51*	*Sqm*
		2	*5.12*		*1.00*	*10.24*	*Sqm*
		2		*1.07*	*1.00*	*2.14*	*Sqm*
		2	*5.12*		*0.50*	*5.12*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.86*		*0.20*	*0.74*	*Sqm*
		2		*1.38*	*0.20*	*0.55*	*Sqm*
		2	*1.86*		*0.80*	*2.98*	*Sqm*
		2		*1.18*	*0.80*	*1.89*	*Sqm*
		2	*1.86*		*1.27*	*4.72*	*Sqm*
		2		*0.69*	*1.27*	*1.75*	*Sqm*
		2	*1.86*		*0.15*	*0.56*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.12*		*0.20*	*2.05*	*Sqm*
		2		*1.82*	*0.20*	*0.73*	*Sqm*
		2	*5.12*		*0.80*	*8.19*	*Sqm*
		2		*1.57*	*0.80*	*2.51*	*Sqm*
		2	*5.12*		*1.00*	*10.24*	*Sqm*
		2		*1.07*	*1.00*	*2.14*	*Sqm*
		2	*5.12*		*0.50*	*5.12*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.86*		*0.20*	*0.74*	*Sqm*
		2		*1.38*	*0.20*	*0.55*	*Sqm*
		2	*1.86*		*0.80*	*2.98*	*Sqm*
		2		*1.18*	*0.80*	*1.89*	*Sqm*
		2	*1.86*		*1.27*	*4.72*	*Sqm*
		2		*0.69*	*1.27*	*1.75*	*Sqm*
		2	*1.86*		*0.15*	*0.56*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*5.10*		*0.38*	*3.85*	*Sqm*
		1	*5.10*	5.50		*28.05*	*Sqm*
		2		*5.50*	0.38	*4.15*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.33*	*4.59*	*Sqm*
		2	*3.50*	5.50		*38.50*	*Sqm*
		4		*5.50*	0.33	*7.21*	*Sqm*
	Parapet	*4*	*12.10*		*0.18*	*8.47*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*12.10*		*0.25*	*12.10*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*12.10*		*0.55*	*26.62*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**224.90**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch- 14, Sl.No. 14.17, Pg. 60)**						
		2	*5.50*	*0.40*		*4.40*	*Sqm*
	TOTAL					**4.40**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.50*			*11.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.12	1.07		*10.98*	*Cum*
	Right and left Return wall	4	1.96	1.81		*14.22*	*Cum*
	Extra slope	*2*	*7.079*	*0.992*	*1.984*	*27.86*	*Cum*
		2	*7.079*	*0.992*	*1.984*	*27.86*	*Cum*
	TOTAL					**80.93**	**Cum**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILS OF QUANTITIES OF SLAB BRIDGE FOR BASDIHA DY. AT 9.625 KM							
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*100.00*			**100.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.04*	*1.74*	*2.58*	*18.24*	*Cum*
		1	*5.97*	*2.18*	*2.58*	*33.47*	*Cum*
	Extra for Slope (0.5:1)	*2*	*8.00*	*1.29*	*2.58*	*53.27*	*Cum*
	Left abutment	*2*	*2.04*	*1.74*	*2.58*	*18.24*	*Cum*
		1	*5.97*	*2.18*	*2.58*	*33.47*	*Cum*
	Extra for Slope (0.5:1)	*2*	*5.97*	*1.29*	*2.58*	*39.71*	*Cum*
	TOTAL					**196.40**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*2.04*	*1.74*	*0.20*	*1.41*	*Cum*
		1	*5.97*	*2.18*	*0.20*	*2.59*	*Cum*
	Left abutment	*2*	*2.04*	*1.74*	*0.20*	*1.41*	*Cum*
		1	*5.97*	*2.18*	*0.20*	*2.59*	*Cum*
	Levelling course	*2*	*3.10*	*6.50*	*0.08*	*3.22*	*Cum*
	TOTAL					**11.24**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.97*	*1.98*	*0.20*	*2.36*	*Cum*
		1	*5.97*	*1.63*	*0.80*	*7.75*	*Cum*
		1	*5.97*	*1.05*	*1.52*	*9.47*	*Cum*
		1	*5.97*	*0.82*	*0.50*	*2.45*	*Cum*
	Return wall	*2*	*1.94*	*1.74*	*0.20*	*1.34*	*Cum*
		2	*1.94*	*1.34*	*0.80*	*4.14*	*Cum*
		2	*1.94*	*0.67*	*1.79*	*4.62*	*Cum*
		2	*1.94*	*0.40*	*0.15*	*0.23*	*Cum*
	Left abutment	*1*	*5.97*	*1.98*	*0.20*	*2.36*	*Cum*
		1	*5.97*	*1.63*	*0.80*	*7.75*	*Cum*
		1	*5.97*	*1.05*	*1.52*	*9.47*	*Cum*
		1	*5.97*	*0.82*	*0.50*	*2.45*	*Cum*
	Return wall	*2*	*1.94*	*1.74*	*0.20*	*1.34*	*Cum*
		2	*1.94*	*1.34*	*0.80*	*4.14*	*Cum*
		2	*1.94*	*0.67*	*1.79*	*4.62*	*Cum*
		2	*1.94*	*0.40*	*0.15*	*0.23*	*Cum*
	TOTAL					**42.69**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	6.50	7.28	0.54	*25.30*	*Cum*
	Approch Slab	*2*	*3.50*	*7.28*	*0.30*	*15.28*	*Cum*
	Wearing coat	*1*	*13.50*	*6.28*	*0.08*	*6.35*	*Cum*
	Parapet	*2*	*13.50*	*0.44*	*0.18*	*2.10*	*Cum*
		2	*13.50*	*0.35*	*0.25*	*2.37*	*Cum*
		2	*13.50*	*0.22*	*0.55*	*3.25*	*Cum*
	TOTAL					**54.65**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*20*	*59*	*8.14*		*2.466*	*1183.5*	*Kg*
a2	*12*	*49*	*7.30*		*0.888*	*317.5*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*31*	*8.06*		*0.616*	*153.9*	*Kg*
a5	*10*	*37*	*7.20*		*0.616*	*164.2*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c2	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
c3	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c4	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*122*	*2.55*		*0.888*	*276.4*	*Kg*
x2	*16*	*122*	*1.45*		*1.578*	*278.2*	*Kg*
x3	*12*	*24*	*7.18*		*0.888*	*152.9*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*42.69*	*0.0025*	*0.107*	*7850.00*	*837.749*	*Kg*
	Total Reinforcement Steel (in kg)					*5101.5*	*Kg*
	Total Weight in Metric Tonne					**5.10**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.97*		*0.20*	*2.39*	*Sqm*
		2		*1.98*	*0.20*	*0.79*	*Sqm*
		2	*5.97*		*0.80*	*9.54*	*Sqm*
		2		*1.63*	*0.80*	*2.60*	*Sqm*
		2	*5.97*		*1.52*	*18.07*	*Sqm*
		2		*1.05*	*1.52*	*3.17*	*Sqm*
		2	*5.97*		*0.50*	*5.97*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.94*		*0.20*	*0.78*	*Sqm*
		2		*1.74*	*0.20*	*0.69*	*Sqm*
		2	*1.94*		*0.80*	*3.10*	*Sqm*
		2		*1.34*	*0.80*	*2.14*	*Sqm*
		2	*1.94*		*1.79*	*6.92*	*Sqm*
		2		*0.67*	*1.79*	*2.38*	*Sqm*
		2	*1.94*		*0.15*	*0.58*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.97*		*0.20*	*2.39*	*Sqm*
		2		*1.98*	*0.20*	*0.79*	*Sqm*
		2	*5.97*		*0.80*	*9.54*	*Sqm*
		2		*1.63*	*0.80*	*2.60*	*Sqm*
		2	*5.97*		*1.52*	*18.07*	*Sqm*
		2		*1.05*	*1.52*	*3.17*	*Sqm*
		2	*5.97*		*0.50*	*5.97*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.94*		*0.20*	*0.78*	*Sqm*
		2		*1.74*	*0.20*	*0.69*	*Sqm*
		2	*1.94*		*0.80*	*3.10*	*Sqm*
		2		*1.34*	*0.80*	*2.14*	*Sqm*
		2	*1.94*		*1.79*	*6.92*	*Sqm*
		2		*0.67*	*1.79*	*2.38*	*Sqm*
		2	*1.94*		*0.15*	*0.58*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*6.50*		*0.54*	*6.96*	*Sqm*
		1	*6.50*	*7.28*		*47.29*	*Sqm*
		2		*7.28*	0.54	*7.78*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	7.28		*50.93*	*Sqm*
		4		*7.28*	0.30	*8.73*	*Sqm*
	Parapet	*4*	*13.50*		*0.18*	*9.45*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*13.50*		*0.25*	*13.50*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*13.50*		*0.55*	*29.70*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**299.79**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch- 14, Sl.No. 14.17, Pg. 60)**						
		2	*7.28*	*0.40*		*5.82*	*Sqm*
	TOTAL					**5.82**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*7.28*			*14.55*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.97	1.15		*13.71*	*Cum*
	Right and left Return wall	4	2.04	2.47		*20.17*	*Cum*
	Extra slope	*2*	*8.0025*	*1.29*	*2.58*	*53.27*	*Cum*
		2	*5.965*	*1.29*	*2.58*	*39.71*	*Cum*
	TOTAL					**126.86**	**Cum**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND

DETAILS OF QUANTITIES OF BRICK WORK OF CANAL

S.No.	Name of Canal	Reaches (m)	Length (m)	Area (m2)	Quantity (m3)	Unit	Rates (As per Bihar SOR 2025)	Amount	Cement (MT)	Coarse Sand (Cum)
1	Basdiha Minor	9144-9400	256.000	0.520	133.120	Cum	**5021.30**	₹ 6,68,435.46	15.34	42.60
2	Shankarpur Minor	4150-4950	800.000	0.530	424.000	Cum	**5021.30**	₹ 21,29,031.20	48.84	135.68
3	Gamharia Minor	5550-6150	600.000	0.530	318.000	Cum	**5021.30**	₹ 15,96,773.40	36.63	101.76
4	Simra Minor	3850-5200	1350.000	0.540	729.000	Cum	**5021.30**	₹ 36,60,527.70	83.98	233.28
5	Salempur Minor	4600-6000	1400.000	0.540	756.000	Cum	**5021.30**	₹ 37,96,102.80	87.09	241.92
6	Pritampur Sub DY	14000-14400	400.000	0.550	220.000	Cum	**5021.30**	₹ 11,04,686.00	25.34	70.40
7	Chandauli Minor	1600-3000	1400.000	0.530	742.000	Cum	**5021.30**	₹ 37,25,804.60	85.48	237.44
	Total				***3322.12***			***₹ 1,66,81,361.16***	***382.71***	***1063.08***
8	**Carriage of materials**									
	Coarse Sand (60 Km lead)				1063.078	Cum	**1075.00**	₹ 11,42,809.28		
	Cement (30 km lead)				382.708	MT	**742.00**	₹ 2,83,969.50		
	Brick (15 km lead)				1661060.00	No.	**3.18**	₹ 52,82,170.80		
	Carriage of materials Total (In Rs.)							**₹ 67,08,949.58**		
	SUB TOTAL (In Rs.)							**₹ 2,33,90,310.74**		
	Seigniorage @10%				**Rate**	**Amount in Rs.**	**10%**			
	Coarse Sand	1063.08	Cum		**584.64**	621518.16	62151.82			
	Total						**₹ 62,151.82**			

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND

DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF BASDIHA DISTRIBUTARY

Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
1	HR FOR SHAKARPUR & KHAIRA MR.	0.345	₹ 40,127.43
2	CR + FALL	0.355	₹ 10,800.90
3	BRIDGE / FALL (1.981 M)	1.150	₹ 84,597.60
4	BRIDGE / FALL (1.524 M)	1.950	₹ 3,32,707.52
5	FALL (1.220 M)	2.900	₹ 60,689.73
6	NEW FALL (0.3048 M)	3.050	₹ 0.00
7	BRIDGE	3.305	₹ 26,885.49
8	FALL (1.524 M)	3.800	₹ 63,496.15
9	CR + HR FOR GAMHARIA MR. + FALL 1.524 M	4.580	₹ 52,445.70
10	BRIDGE	5.445	₹ 26,767.44
11	BRIDGE / FALL (1.828 M)	6.100	₹ 31,757.06
12	BRIDGE / FALL (1.220 M)	7.080	₹ 25,587.01
13	BRIDGE	8.070	₹ 8,118.14
14	CROSS DRAINAGE	8.575	₹ 68,251.97
15	BRIDGE	8.985	₹ 27,121.58
16	BRIDGE	9.625	₹ 55,994.74
17	BRIDGE / FALL (0.610 M) / CR + HR FOR PRITAMPURA SUB-DY.	10.060	₹ 51,887.05
18	FALL (0.914 M)	10.600	₹ 6,182.12
19	BRIDGE	10.760	₹ 19,424.62
20	FALL (1.067 M)	11.150	₹ 74,777.40
21	BRIDGE / FALL (1.067 M)	11.800	₹ 23,312.31
22	NEW FALL (0.762 M)	11.950	₹ 0.00
23	FALL (0.762 M) / HR FOR SIMRA MR.	12.685	₹ 11,376.60
24	BRIDGE / FALL (0.610 M)	13.800	₹ 81,355.11
25	NEW FALL (0.305 M)	13.900	₹ 0.00
26	BRIDGE / FALL (0.457 M)	14.465	₹ 57,274.39
27	FALL (0.914 M)	14.950	₹ 72,094.16
28	CULVERT + FALL (0.914 M)	15.515	₹ 0.00
29	HR FOR SALEMPUR MR.	15.950	₹ 10,856.11
30	FALL (1.067 M)	16.000	₹ 0.00
31	FALL (0.610M)	16.640	₹ 76,017.62
32	BRIDGE	17.125	₹ 20,128.62

33	FALL (0.914 M)	17.300	₹ 51,542.17
34	BRIDGE/ FALL (0.762 M)	18.040	₹ 59,003.86
35	FALL (1.372 M)	18.900	₹ 1,534.57
36	BRIDGE	19.170	₹ 45,819.88
37	NEW FALL (0.610 M)	19.700	₹ 0.00
38	BRIDGE / FALL (1.067 M)	20.100	₹ 49,912.64
39	BRIDGE	20.670	₹ 25,354.46
40	BRIDGE / FALL (0.915 M)	21.100	₹ 30,521.37
41	BRIDGE	21.280	₹ 0.00
42	FALL (0.610 M)	22.000	₹ 0.00
43	FALL (1.524 M)	22.600	₹ 22,239.81
44	BRIDGE	22.765	₹ 0.00
45	BRIDGE	23.080	₹ 0.00
Total In Rs.			**₹ 17,05,963.32**
Total In Lakhs.			**₹ 17.06**

DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF SHANKARPUR MR.			
Sl. No.	**Structure Type**	**Chainage In Km**	**Amount (In Rs.)**
1	CULVERT COMBINED WITH HR	0.005	₹ 0.00
2	BRIDGE	0.550	₹ 4,101.97
3	BRIDGE	1.055	₹ 12,416.20
4	BRIDGE / FALL (1.524 M)	1.300	₹ 43,376.72
5	BRIDGE	1.700	₹ 1,703.65
6	BRIDGE	2.250	₹ 8,535.20
7	BRIDGE / FALL (1.524 M)	2.300	₹ 11,078.02
9	FALL (1.676 M)	2.950	₹ 90,276.34
10	FALL (1.220 M)	3.700	₹ 3,719.68
11	FALL (1.070 M)	4.350	₹ 64,357.56
Total In Rs.			**₹ 2,39,565.36**
Total In Lakhs.			**₹ 2.40**

DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF KHAIRA MR.			
Sl. No.	**Structure Type**	**Chainage In Km**	**Amount (In Rs.)**
1	CULVERT COMBINED WITH HR	0.005	₹ 0.00
2	BRIDGE	0.735	₹ 10,449.01
3	BRIDGE	1.125	₹ 92,429.36
4	BRIDGE	1.740	₹ 8,641.72
5	BRIDGE / FALL (1.372 M)	2.050	₹ 98,033.30
6	BRIDGE	2.375	₹ 8,768.95
7	PIPE CULVERT	2.460	₹ 2,48,435.19
8	BRIDGE	2.630	₹ 21,217.10
9	BRIDGE / FALL (1.524 M)	3.025	₹ 4,606.46
10	NEW FALL (0.305 M)	3.075	₹ 0.00
11	BRIDGE	3.255	₹ 9,183.04
12	FALL (1.372 M)	3.850	₹ 58,396.05
13	FALL (1.22 M)	4.350	₹ 97,491.19
14	BRIDGE	4.885	₹ 37,023.96
15	BRIDGE + FALL (0.457 M)	5.450	₹ 1,21,360.28
16	BRIDGE / FALL (0.305 M)	6.635	₹ 47,369.60
17	BRIDGE	7.005	₹ 1,129.15
18	FALL (0.61 M)	7.450	₹ 1,02,472.99
19	FALL (1.067 M)	7.950	₹ 63,172.67
20	CULVERT	8.250	₹ 0.00
21	BRIDGE / FALL (1.372 M)	8.450	₹ 37,277.43
22	PIPE CULVERT	9.220	₹ 2,124.79
Total In Rs.			**₹ 10,69,582.25**
Total In Lakhs.			**₹ 10.70**

DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF GAMHARIA MR.			
Sl. No.	**Structure Type**	**Chainage In Km**	**Amount (In Rs.)**
1	FALL (1.676 M)	0.500	₹ 4,619.21
2	BRIDGE	0.650	₹ 16,633.42
3	BRIDGE	1.050	₹ 21,211.29
4	FALL (1.524 M)	1.600	₹ 19,332.39
5	BRIDGE	1.770	₹ 17,424.34
6	FALL (1.220 M)	2.450	₹ 8,245.52
7	BRIDGE	2.810	₹ 17,129.50
8	FALL (1.220 M)	3.300	₹ 20,523.90
9	FALL (1.524 M)	4.300	₹ 14,753.82
10	FALL (1.220 M)	5.275	₹ 0.00
Total In Rs.			**₹ 1,39,873.38**
Total In Lakhs.			**₹ 1.40**

DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF PRITAMPURA SUB DY			
Sl. No.	**Structure Type**	**Chainage In Km**	**Amount (In Rs.)**
1	BRIDGE COMBINED WITH HR	0.005	₹ 0.00
2	CULVERT + FALL (0.914 M)	0.350	₹ 25,180.00
3	CULVERT	0.410	₹ 0.00
4	CULVERT	0.555	₹ 1,888.70
5	CULVERT / FALL (0.915 M)	1.050	₹ 15,414.14
6	CULVERT / FALL (0.915 M)	1.650	₹ 9,546.95
7	AQUEDUCT	2.280	₹ 19,332.22
8	FALL (1.676 M)	2.600	₹ 54,804.58
9	CULVERT / FALL (1.220 M)	3.200	₹ 79,052.63
10	CULVERT	3.650	₹ 20,369.63
11	CULVERT	4.110	₹ 37,088.46
12	CULVERT / FALL (0.762 M)	4.150	₹ 11,246.10
13	CULVERT	4.260	₹ 7,102.35
14	CULVERT	4.280	₹ 4,803.31
15	CULVERT	4.695	₹ 23,456.70
16	CULVERT	5.255	₹ 0.00
17	FALL (0.762 M)	5.850	₹ 20,568.43
18	BRIDGE	6.285	₹ 18,857.84
19	BRIDGE / FALL (0.762 M)	6.650	₹ 28,602.65
20	BRIDGE	6.735	₹ 8,876.65
21	BRIDGE	7.015	₹ 46,503.93
22	HR FOR CHANDAULI MR.	7.435	₹ 4,178.35
23	BRIDGE / FALL (0.610 M)	7.450	₹ 18,899.35
24	BRIDGE	8.410	₹ 41,200.86
25	CULVERT	8.850	₹ 21,077.83
26	BRIDGE / FALL (1.22 M)	9.250	₹ 4,838.44
27	CULVERT	9.670	₹ 17,052.96
28	PIPE CULVERT	10.075	₹ 7,707.69
29	CULVERT / FALL (0.610 M)	10.110	₹ 15,439.48
30	NEW FALL (0.457 M)	10.600	₹ 0.00
31	CULVERT	10.785	₹ 37,178.98
32	FALL (0.457 M)	11.770	₹ 8,448.28
33	FALL (0.610 M)	12.150	₹ 77,299.01
34	PIPE CULVERT	12.915	₹ 1,975.63
35	FALL (1.220 M)	13.350	₹ 11,029.52
36	BRIDGE / FALL (0.610 M)	13.680	₹ 20,451.43
37	NEW FALL (0.610M)	13.700	₹ 0.00
Total In Rs.			**₹ 7,19,473.09**
Total In Lakhs.			**₹ 7.19**

DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF CHANDAULI MR.			
Sl. No.	**Structure Type**	**Chainage In Km**	**Amount (In Rs.)**
1	FALL 0.914 M	0.100	₹ 13,936.19
2	CULVERT	0.660	₹ 24,865.75
3	CROSS DRAINAGE	0.695	₹ 20,624.33
4	FALL (0.305 M)	0.900	₹ 22,251.45
5	CULVERT + FALL (0.610 M)	1.335	₹ 26,764.50
6	FALL (0.914M)	1.800	₹ 24,091.98
7	CULVERT	2.168	₹ 21,123.00
8	CROSS DRAINAGE	2.470	₹ 22,454.17
9	FALL (0.305 M)	2.795	₹ 24,468.23
Total In Rs.			**₹ 2,00,579.60**
Total In Lakhs.			**₹ 2.01**

DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF SIMRA MR.			
Sl. No.	**Structure Type**	**Chainage In Km**	**Amount (In Rs.)**
1	FALL (0.457 M) COMBINED WITH HR	0.000	₹ 0.00
2	FALL (0.610 M)	0.610	₹ 57,409.44
3	BRIDGE	1.600	₹ 25,930.77
4	FALL (0.610 M)	1.650	₹ 0.00
5	FALL (0.610 M)	2.000	₹ 22,096.03
6	FALL (0.610 M)	2.475	₹ 0.00
7	BRIDGE	3.380	₹ 1,14,676.02
8	FALL (0.610 M)	3.460	₹ 69,050.77
Total In Rs.			**₹ 2,89,163.03**
Total In Lakhs.			**₹ 2.89**

DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF SALEMPUR MR.			
Sl. No.	**Structure Type**	**Chainage In Km**	**Amount (In Rs.)**
1	FALL (0.914 M) COMBINED WITH HR	0.000	₹ 0.00
2	CROSS DRAINAGE	0.020	₹ 7,142.27
3	CULVERT	0.575	₹ 19,793.88
4	FALL (0.457 M)	0.950	₹ 35,405.01
5	FALL (0.610 M)	1.600	₹ 1,18,780.78
6	CULVERT	1.820	₹ 1,185.68
7	CULVERT / FALL (0.610 M)	2.240	₹ 5,773.66
8	FALL (0.762 M)	2.900	₹ 45,572.34
9	FALL (1.524 M)	3.095	₹ 37,613.81
10	CULVERT	3.470	₹ 11,954.02
11	FALL (0.457 M)	3.550	₹ 42,644.81
12	FALL (0.305 M)	4.370	₹ 38,801.69
13	FALL (1.524 M)	4.600	₹ 0.00
14	CULVERT	4.715	₹ 16,368.06
15	ROAD CROSSING	5.200	₹ 1,770.66
Total In Rs.			**₹ 3,81,036.02**
Total In Lakhs.			**₹ 3.81**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND			
DETAILED ESTIMATE FOR C/O OF APPROACH ROAD			
Sl. No.	**APPROACH ROAD**	**NOS.**	**Amount (In Rs.)**
1		36.000	₹ 1,87,56,667.80
Total In Rs.			**₹ 1,87,56,667.80**
Total In Lakhs.			**₹ 187.57**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND									
ABSTRACT OF COST OF REPAIRED STRUCTURES OF BASDIHA DISTRIBUTARY									
S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
AOC FOR HR OF Shankarpur & Khaira Mr.(Ch.-0.345 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	140.000	Sqm	**11.80**	1652.61			
2	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	7.707	Cum	**2492.58**	19210.94			
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	14.000	Sqm	**340.20**	4762.80	0.726	0.204	
4	RCD 8.09	Providing and applying two Coates of ready mix paint of approved brand on steel surface after through cleaning of surface to give an even shade.	21.600	Sqm	**91.70**	1980.72	0.03		
5	5.3.11	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.657	Cum	**8151.40**	5351.39	0.37	0.26	0.52
6	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	8.832	Sqm	**578.60**	5110.20			
7		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.460	Cum	**1075.00**	494.97			
		Coarse Aggregates (100 Km lead)	0.519	Cum	**1398.00**	725.05			
		Cement (30 km lead)	1.130	MT	**742.00**	838.75			
TOTAL (In Rs.)						**40127.43**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.46	Cum	**584.64**	269.19	26.92		
		Coarse Aggregate	0.52	Cum	**944.26**	489.73	48.97		
		Total					**75.89**		
AOC FOR CR + BRIDGE/NEW FALL AT 0.355 KM									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	RCD 8.09	Providing and applying two Coates of ready mix paint of approved brand on steel surface after through cleaning of surface to give an even shade.	9.754	Sqm	**91.70**	894.41	0.01		
3	5.3.11	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.635	Cum	**8151.40**	5174.10	0.36	0.25	0.50
4	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	3.579	Sqm	**578.60**	2070.81			
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.248	Cum	**1075.00**	266.12			
		Coarse Aggregates (100 Km lead)	0.501	Cum	**1398.00**	701.03			
		Cement (30 km lead)	0.375	MT	**742.00**	277.90			
TOTAL (In Rs.)						**10800.90**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.25	Cum	**584.64**	144.73	14.47		
		Coarse Aggregate	0.50	Cum	**944.26**	473.50	47.35		
		Total					**61.82**		
AOC FOR BRIDGE + FALL (Ch.-1.150 Km)									
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	33.940	Cum	**2492.58**	84597.60			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**84597.60**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR BRIDGE + FALL (Ch.-1.950 Km)							
1	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	37.447	Cum	**6914.20**	258914.66	15.45	16.10	32.20
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	16.102	Cum	**1075.00**	17309.78			
		Coarse Aggregates (100 Km lead)	32.204	Cum	**1398.00**	45021.54			
		Cement (30 km lead)	15.447	MT	**742.00**	11461.53			
		TOTAL (In Rs.)				**332707.52**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	16.10	Cum	**584.64**	9413.95	941.39		
		Coarse Aggregate	32.20	Cum	**944.26**	30409.18	3040.92		
		Total					**3982.31**		
		AOC FOR FALL (Ch.-2.900 Km)							
1	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	77.400	Sqm	**340.20**	26331.48	4.012	1.130	
2	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	77.400	Sqm	**63.20**	4891.68	0.12		
3	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	2.835	Cum	**6914.20**	19601.76	1.17	1.22	2.44
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	2.349	Cum	**1075.00**	2525.27			
		Coarse Aggregates (100 Km lead)	2.438	Cum	**1398.00**	3408.46			
		Cement (30 km lead)	5.298	MT	**742.00**	3931.08			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
		TOTAL (In Rs.)				**60689.73**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	2.35	Cum	**584.64**	1373.37	137.34		
		Coarse Aggregate	2.44	Cum	**944.26**	2302.20	230.22		
		Total					**367.56**		
		AOC FOR FOR BRIDGE (Ch.-3.305 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
3	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	2.80	Cum	**5021.30**	14080.53	0.32	0.90	
4	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	12.741	Sqm	**340.20**	4334.37	0.660	0.186	
5	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	12.741	Sqm	**63.20**	805.21	0.02		
7		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.083	Cum	**1075.00**	1164.60			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Cement (30 km lead)	1.003	MT	**742.00**	743.95			
		Brick (15 km lead)	1402.00	No.	3.18	4458.36			
		TOTAL (In Rs.)				**26885.49**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.08	Cum	**584.64**	633.37	63.34		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**63.34**		
		AOC FOR FALL (Ch.-3.800 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	200.000	Sqm	**11.80**	2360.88			
2	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	5.40	Cum	**6381.70**	34461.18	1.75	2.43	4.86
3	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	27.600	Sqm	**578.60**	15969.36			
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	2.430	Cum	**1075.00**	2612.25			
		Coarse Aggregates (100 Km lead)	4.860	Cum	**1398.00**	6794.28			
		Cement (30 km lead)	1.750	MT	**742.00**	1298.20			
		TOTAL (In Rs.)				**63496.15**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	2.43	Cum	**584.64**	1420.68	142.07		
		Coarse Aggregate	4.86	Cum	**944.26**	4589.10	458.91		
		Total					**600.98**		
		AOC FOR HR OF CR + HR OF GAMHARIA MR+ FALL AT 4.580 KM							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	RCD 8.09	Providing and applying two Coates of ready mix paint of approved brand on steel surface after through cleaning of surface to give an even shade.	13.005	Sqm	**91.70**	1192.60			
3	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	5.351	Cum	**6914.20**	36998.36	2.21	2.30	4.60
4	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	5.000	Sqm	**340.20**	1701.00	0.259	0.073	
5	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	5.000	Sqm	**63.20**	316.00	0.01		
6		**Carriage of materials**							
		Coarse Sand (60 Km lead)	2.374	Cum	**1075.00**	2552.01			
		Coarse Aggregates (100 Km lead)	4.602	Cum	**1398.00**	6433.48			
		Cement (30 km lead)	2.474	MT	**742.00**	1835.72			
		TOTAL (In Rs.)				**52445.70**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	2.37	Cum	**584.64**	1387.91	138.79		
		Coarse Aggregate	4.60	Cum	**944.26**	4345.41	434.54		
		Total					**573.33**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
AOC FOR FOR BRIDGE (Ch.-5.445 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.000	Sqm	**11.80**	1180.44			
3	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	2.80	Cum	**5021.30**	14080.53	0.32	0.90	
4	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	12.741	Sqm	**340.20**	4334.37	0.660	0.186	
5	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	12.741	Sqm	**63.20**	805.21	0.02		
7		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.083	Cum	**1075.00**	1164.60			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.003	MT	**742.00**	743.95			
		Brick (15 km lead)	1402.00	No.	3.18	4458.36			
TOTAL (In Rs.)						**26767.44**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.08	Cum	**584.64**	633.37	63.34		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**63.34**		
AOC FOR FOR BRIDGE + FALL (Ch.-6.100 Km)									
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	12.741	Cum	**2492.58**	31757.06			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
TOTAL (In Rs.)						**31757.06**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
AOC FOR BRIDGE+ FALL (Ch.-7.080 Km)									
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	2.80	Cum	**5021.30**	14080.53	0.32	0.90	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	12.741	Sqm	**340.20**	4334.37	0.660	0.186	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	12.741	Sqm	**63.20**	805.21	0.02		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.083	Cum	**1075.00**	1164.60			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.003	MT	**742.00**	743.95			
		Brick (15 km lead)	1402.00	No.	3.18	4458.36			
TOTAL (In Rs.)						**25587.01**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.08	Cum	**584.64**	633.37	63.34		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**63.34**		
AOC FOR BRIDGE (Ch.-8.070 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
2	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.408	Cum	**6914.20**	2823.76	0.17	0.18	0.35
3	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	5.311	Sqm	**578.60**	3073.06			
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.176	Cum	**1075.00**	188.78			
		Coarse Aggregates (100 Km lead)	0.351	Cum	**1398.00**	491.01			
		Cement (30 km lead)	0.168	MT	**742.00**	125.00			
		TOTAL (In Rs.)				**8118.14**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.18	Cum	**584.64**	102.67	10.27		
		Coarse Aggregate	0.35	Cum	**944.26**	331.65	33.16		
		Total					**43.43**		
		AOC FOR CD WORK (Ch.-8.575 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	140.000	Sqm	**11.80**	1652.61			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	145.200	Sqm	**340.20**	49397.04	7.527	2.120	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	145.200	Sqm	**63.20**	9176.64	0.22		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	2.120	Cum	**1075.00**	2278.91			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	7.745	MT	**742.00**	5746.77			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
		TOTAL (In Rs.)				**68251.97**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	2.12	Cum	**584.64**	1239.39	123.94		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**123.94**		
		AOC FOR FOR BRIDGE (Ch.-8.985 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	130.000	Sqm	**11.80**	1534.57			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	2.80	Cum	**5021.30**	14080.53	0.32	0.90	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	12.741	Sqm	**340.20**	4334.37	0.660	0.186	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	12.741	Sqm	**63.20**	805.21	0.02		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.083	Cum	**1075.00**	1164.60			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.003	MT	**742.00**	743.95			
		Brick (15 km lead)	1402.00	No.	3.18	4458.36			
		TOTAL (In Rs.)				**27121.58**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.08	Cum	**584.64**	633.37	63.34		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**63.34**		
		AOC FOR FOR BRIDGE (Ch.-9.625 Km)							

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	21.944	Cum	**2492.58**	54696.26			
6		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
		TOTAL (In Rs.)				**55994.74**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR CR + HR OF PRITAMPURA SUB DY , FALL /BRIDGE (Ch.-10.060 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	135.000	Sqm	**11.80**	1593.59			
2	RCD 8.09	Providing and applying two Coates of ready mix paint of approved brand on steel surface after through cleaning of surface to give an even shade.	9.792	Sqm	**91.70**	897.92			
3	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	5.560	Cum	**6914.20**	38439.85	2.29	2.39	4.78
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	2.391	Cum	**1075.00**	2569.90			
		Coarse Aggregates (100 Km lead)	4.781	Cum	**1398.00**	6684.14			
		Cement (30 km lead)	2.293	MT	**742.00**	1701.64			
		TOTAL (In Rs.)				**51887.05**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	2.39	Cum	**584.64**	1397.64	139.76		
		Coarse Aggregate	4.78	Cum	**944.26**	4514.71	451.47		
		Total					**591.24**		
		AOC FOR FALL (Ch.-10.600 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	74.100	Sqm	**63.20**	4683.12	0.11		
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.111	MT	**742.00**	82.47			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
		TOTAL (In Rs.)				**6182.12**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR FOR BRIDGE(Ch.-10.760 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	85.000	Sqm	**11.80**	1003.37			
3	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	2.02	Cum	**5021.30**	10137.98	0.23	0.65	

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
4	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	9.173	Sqm	**340.20**	3120.74	0.476	0.134	
5	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	9.173	Sqm	**63.20**	579.75	0.01		
6		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.780	Cum	**1075.00**	838.51			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.722	MT	**742.00**	535.64			
		Brick (15 km lead)	1009.00	No.	3.18	3208.62			
		TOTAL (In Rs.)				**19424.62**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.78	Cum	**584.64**	456.02	45.60		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**45.60**		
		AOC FOR FALL (Ch.-11.150 Km)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	30.000	Cum	**2492.58**	74777.40			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**74777.40**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		New fall has been proposed.							
		AOC FOR BRIDGE+ FALL (Ch.-11.800 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
3	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.37	Cum	**5021.30**	6887.22	0.16	0.44	
4	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	6.629	Sqm	**340.20**	2255.32	0.344	0.097	
5	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	6.629	Sqm	**63.20**	418.98	0.01		
6	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	1.10	Cum	**6381.70**	7019.87	0.36	0.50	0.99
7		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.031	Cum	**1075.00**	1108.00			
		Coarse Aggregates (100 Km lead)	0.990	Cum	**1398.00**	1384.02			
		Cement (30 km lead)	0.868	MT	**742.00**	644.07			
		Brick (15 km lead)	685.00	No.	3.18	2178.30			
		TOTAL (In Rs.)				**23312.31**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.03	Cum	**584.64**	602.59	60.26		
		Coarse Aggregate	0.99	Cum	**944.26**	934.82	93.48		
		Total					**153.74**		
		AOC FOR HR OF SIMRA MINOR(Ch.-12.685 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	75.000	Sqm	**11.80**	885.33			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
2	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	4.209	Cum	**2492.58**	10491.27			
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**11376.60**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR FOR CULVERT + FALL (Ch.-13.800 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	170.000	Sqm	**11.80**	2006.75			
2	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	31.834	Cum	**2492.58**	79348.37			
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
		TOTAL (In Rs.)				**81355.11**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR FOR BRIDGE/FALL(Ch.-14.465 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	22.410	Cum	**2492.58**	55857.86			
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
		TOTAL (In Rs.)				**57274.39**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR FALL (Ch.-14.950 Km))							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	200.000	Sqm	**11.80**	2360.88			
2	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	7.849	Cum	**6914.20**	54266.79	3.24	3.37	6.75
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	3.375	Cum	**1075.00**	3628.02			
		Coarse Aggregates (100 Km lead)	6.750	Cum	**1398.00**	9436.21			
		Cement (30 km lead)	3.238	MT	**742.00**	2402.26			
		TOTAL (In Rs.)				**72094.16**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	3.37	Cum	**584.64**	1973.10	197.31		
		Coarse Aggregate	6.75	Cum	**944.26**	6373.56	637.36		
		Total					**834.67**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		AOC FOR CULVERT (Ch.-15.515 Km)							
1	**Structure is in good condition and does not requir any repair works.**								
	No repair required as per Site								
		AOC FOR HR FOR SALEMPUR MR.(Ch.-15.950 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	150.000	Sqm	**11.80**	1770.66			
2	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	3.645	Cum	**2492.58**	9085.45			
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**10856.11**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR FALL (Ch.-16.640Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	170.000	Sqm	**11.80**	2006.75			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	67.500	Sqm	**340.20**	22963.50	3.499	0.986	
3	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	5.334	Cum	**6914.20**	36880.34	2.20	2.29	4.59
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	3.279	Cum	**1075.00**	3525.05			
		Coarse Aggregates (100 Km lead)	4.587	Cum	**1398.00**	6412.96			
		Cement (30 km lead)	5.699	MT	**742.00**	4229.01			
		TOTAL (In Rs.)				**76017.62**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	3.28	Cum	**584.64**	1917.10	191.71		
		Coarse Aggregate	4.59	Cum	**944.26**	4331.55	433.15		
		Total					**624.87**		
		AOC FOR FOR BRIDGE (Ch.-17.125 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	80.000	Sqm	**11.80**	944.35			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.31	Cum	**5021.30**	6588.77	0.15	0.42	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	21.684	Sqm	**340.20**	7376.90	1.124	0.317	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	21.684	Sqm	**63.20**	1370.43	0.03		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.736	Cum	**1075.00**	791.71			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.308	MT	**742.00**	970.38			
		Brick (15 km lead)	656.00	No.	3.18	2086.08			
		TOTAL (In Rs.)				**20128.62**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.74	Cum	**584.64**	430.57	43.06		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**43.06**		
		AOC FOR FALL (Ch.-17.300 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	80.000	Sqm	**11.80**	944.35			
2	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	5.421	Cum	**6914.20**	37484.35	2.24	2.33	4.66
3	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	4.200	Sqm	**578.60**	2430.12			
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	2.331	Cum	**1075.00**	2506.02			
		Coarse Aggregates (100 Km lead)	4.662	Cum	**1398.00**	6517.99			
		Cement (30 km lead)	2.236	MT	**742.00**	1659.34			
		TOTAL (In Rs.)				**51542.17**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	2.33	Cum	**584.64**	1362.90	136.29		
		Coarse Aggregate	4.66	Cum	**944.26**	4402.49	440.25		
		Total					**576.54**		
		AOC FOR FOR BRIDGE+ FALL (Ch.-18.040 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	90.000	Sqm	**11.80**	1062.40			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.26	Cum	**5021.30**	6336.24	0.15	0.40	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	5.733	Sqm	**340.20**	1950.46	0.297	0.084	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	5.733	Sqm	**63.20**	362.34	0.01		
5	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	5.226	Cum	**6914.20**	36132.20	2.16	2.25	4.49
6		**Carriage of materials**							
		Coarse Sand (60 Km lead)	2.735	Cum	**1075.00**	2939.69			
		Coarse Aggregates (100 Km lead)	4.494	Cum	**1398.00**	6282.87			
		Cement (30 km lead)	2.607	MT	**742.00**	1934.26			
		Brick (15 km lead)	630.00	No.	3.18	2003.40			
		TOTAL (In Rs.)				**59003.86**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	2.73	Cum	**584.64**	1598.75	159.88		
		Coarse Aggregate	4.49	Cum	**944.26**	4243.68	424.37		
		Total					**584.24**		
		AOC FORFALL (Ch.-18.900 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	130.000	Sqm	**11.80**	1534.57			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**1534.57**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR FOR BRIDGE (Ch.-19.170 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.47	Cum	**5021.30**	7392.28	0.17	0.47	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	6.689	Sqm	**340.20**	2275.54	0.347	0.098	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	6.689	Sqm	**63.20**	422.73	0.01		
5	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	2.70	Cum	**6381.70**	17230.59	0.87	1.22	2.43
6	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	14.700	Sqm	**578.60**	8505.42			
7		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.784	Cum	**1075.00**	1917.54			
		Coarse Aggregates (100 Km lead)	2.430	Cum	**1398.00**	3397.14			
		Cement (30 km lead)	1.401	MT	**742.00**	1039.67			
		Brick (15 km lead)	736.00	No.	3.18	2340.48			
		TOTAL (In Rs.)				**45819.88**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.78	Cum	**584.64**	1042.86	104.29		
		Coarse Aggregate	2.43	Cum	**944.26**	2294.55	229.46		
		Total					**333.74**		
		AOC FOR BRIDGE/FALL (Ch.-20.100 Km)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	20.024	Cum	**2492.58**	49912.64			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**49912.64**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		New fall has been proposed.							
		AOC FOR FOR BRIDGE (Ch.-20.670 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	61.000	Sqm	**340.20**	20752.20	3.162	0.891	
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.891	Cum	**1075.00**	957.40			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	3.162	MT	**742.00**	2346.38			
		TOTAL (In Rs.)				**25354.46**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.89	Cum	**584.64**	520.68	52.07		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Total					**52.07**		
		AOC FOR FOR BRIDGE + FALL (Ch.-21.100 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	80.000	Sqm	**11.80**	944.35			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	75.000	Sqm	**340.20**	25515.00	3.888	1.095	
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.095	Cum	**1075.00**	1177.13			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	3.888	MT	**742.00**	2884.90			
		TOTAL (In Rs.)				**30521.37**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.10	Cum	**584.64**	640.18	64.02		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**64.02**		
		AOC FOR BRIDGE (Ch.21.280 Km)							
1	**Structure is in good condition and does not requir any repair works.**								
		AOC FOR FALL (Ch.22.600 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	80.000	Sqm	**11.80**	944.35			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	54.000	Sqm	**340.20**	18370.80	2.799	0.788	
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.788	Cum	**1075.00**	847.53			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	2.799	MT	**742.00**	2077.13			
		TOTAL (In Rs.)				**22239.81**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.79	Cum	**584.64**	460.93	46.09		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**46.09**		
		AOC FOR BRIDGE (Ch.-22.765 Km)							
1	**Structure is in good condition and does not requir any repair works.**								
	No required as per site condition								
		AOC FOR BRIDGE(Ch.-23.080 Km)							
1	**Structure is in good condition and does not requir any repair works.**								
	No required as per site condition								

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST OF REPAIRED STRUCTURES OF (SHANKARPUR MINOR)									
AOC FOR CULVERT (Ch.-0.550 Km)									
1		**New HR cum Bridge is Proposed Here and Dismantling Cost is taken in Basdiha Distributary**							
AOC FOR BRIDGE (Ch.-0.550 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.000	Sqm	**11.80**	1180.44			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.25	Cum	**5021.30**	1262.66	0.03	0.08	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	2.515	Sqm	**340.20**	855.47	0.130	0.037	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	2.515	Sqm	**63.20**	158.92	0.00		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.117	Cum	**1075.00**	125.97			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.163	MT	**742.00**	121.02			
		Brick (15 km lead)	125.00	No.	3.18	397.50			
TOTAL (In Rs.)						**4101.97**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.12	Cum	**584.64**	68.51	6.85		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**6.85**		
AOC FOR HR OF BRIDGE (Ch.-1.055 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.21	Cum	**5021.30**	6054.63	0.14	0.39	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	5.478	Sqm	**340.20**	1863.78	0.284	0.080	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	5.478	Sqm	**63.20**	346.24	0.01		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.466	Cum	**1075.00**	500.78			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.431	MT	**742.00**	319.90			
		Brick (15 km lead)	602.00	No.	3.18	1914.36			
TOTAL (In Rs.)						**12416.20**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.47	Cum	**584.64**	272.35	27.23		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**27.23**		
AOC FOR HR OF BRIDGE+ FALL (Ch.-1.300 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	106.700	Sqm	**340.20**	36299.34	5.531	1.558	
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.558	Cum	**1075.00**	1674.66			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	5.531	MT	**742.00**	4104.25			
TOTAL (In Rs.)						**43376.72**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Coarse Sand	1.56	Cum	**584.64**	910.76	91.08		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**91.08**		
		AOC FOR BRIDGE (Ch.-1.700 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	6.300	Sqm	**63.20**	398.16	0.01		
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.009	MT	**742.00**	7.01			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
		TOTAL (In Rs.)				**1703.65**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR HR OF BRIDGE (Ch.-2.250 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	130.000	Sqm	**11.80**	1534.57			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.70	Cum	**5021.30**	3520.13	0.08	0.22	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	4.505	Sqm	**340.20**	1532.67	0.234	0.066	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	4.505	Sqm	**63.20**	284.73	0.01		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.290	Cum	**1075.00**	311.87			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.321	MT	**742.00**	238.23			
		Brick (15 km lead)	350.00	No.	3.18	1113.00			
		TOTAL (In Rs.)				**8535.20**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.29	Cum	**584.64**	169.61	16.96		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**16.96**		
		AOC FOR HR OF BRIDGE+ FALL (Ch.-2.300 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	180.000	Sqm	**11.80**	2124.79			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.98	Cum	**5021.30**	4928.19	0.11	0.31	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	4.459	Sqm	**340.20**	1517.03	0.231	0.065	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	4.459	Sqm	**63.20**	281.82	0.01		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.379	Cum	**1075.00**	407.61			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.351	MT	**742.00**	260.38			
		Brick (15 km lead)	490.00	No.	3.18	1558.20			
		TOTAL (In Rs.)				**11078.02**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Coarse Sand	0.38	Cum	**584.64**	221.68	22.17		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**22.17**		
		AOC FOR FALL (Ch.-2.950 Km)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	36.218	Cum	**2492.58**	90276.34			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**90276.34**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		New fall has been proposed.							
		AOC FOR FALL (Ch.-3.700 Km)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	1.492	Cum	**2492.58**	3719.68			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**3719.68**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR FALL (Ch.-4.350 Km)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	25.820	Cum	**2492.58**	64357.56			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**64357.56**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		New fall has been proposed.							

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST OF REPAIRED STRUCTURES OF (KHAIRA MINOR)									
AOC FOR BRIDGE (Ch.-0.735 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.11	Cum	**5021.30**	5570.99	0.13	0.36	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	2.667	Sqm	**340.20**	907.31	0.138	0.039	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	2.667	Sqm	**63.20**	168.55	0.00		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.394	Cum	**1075.00**	423.52			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.270	MT	**742.00**	200.39			
		Brick (15 km lead)	554.00	No.	3.18	1761.72			
TOTAL (In Rs.)						**10449.01**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.39	Cum	**584.64**	230.33	23.03		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**23.03**		
AOC FOR BRIDGE (Ch.-1.125 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.1.31	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	7.350	Cum	**149.30**	1097.36			
3	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	0.55	Cum	**6381.70**	3517.91	0.18	0.25	0.50
4	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	9.601	Cum	**6914.20**	66384.62	3.96	4.13	8.26
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	4.377	Cum	**1075.00**	4704.82			
		Coarse Aggregates (100 Km lead)	8.753	Cum	**1398.00**	12236.91			
		Cement (30 km lead)	4.139	MT	**742.00**	3071.21			
TOTAL (In Rs.)						**92429.36**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	4.38	Cum	**584.64**	2558.72	255.87		
		Coarse Aggregate	8.75	Cum	**944.26**	8265.26	826.53		
		Total					**1082.40**		
AOC FOR HR OF BRIDGE (Ch.-1.740 Km)									
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.77	Cum	**5021.30**	3872.15	0.09	0.25	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	7.007	Sqm	**340.20**	2383.90	0.363	0.102	

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	7.007	Sqm	**63.20**	442.86	0.01		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.349	Cum	**1075.00**	375.25			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.463	MT	**742.00**	343.26			
		Brick (15 km lead)	385.00	No.	3.18	1224.30			
		TOTAL (In Rs.)				**8641.72**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.35	Cum	**584.64**	204.08	20.41		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**20.41**		
		AOC FOR HR OF BRIDGE/FALL (Ch.-2.050 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.73	Cum	**5021.30**	3660.94	0.08	0.23	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	16.563	Sqm	**340.20**	5634.68	0.859	0.242	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	16.563	Sqm	**63.20**	1046.77	0.02		
4	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	9.601	Cum	**6914.20**	66384.62	3.96	4.13	8.26
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	4.604	Cum	**1075.00**	4948.91			
		Coarse Aggregates (100 Km lead)	8.257	Cum	**1398.00**	11543.33			
		Cement (30 km lead)	4.928	MT	**742.00**	3656.54			
		Brick (15 km lead)	364.00	No.	3.18	1157.52			
		TOTAL (In Rs.)				**98033.30**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	4.60	Cum	**584.64**	2691.47	269.15		
		Coarse Aggregate	8.26	Cum	**944.26**	7796.79	779.68		
		Total					**1048.83**		
		AOC FOR HR OF BRIDGE (Ch.-2.375 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.28	Cum	**5021.30**	1420.30	0.03	0.09	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	14.779	Sqm	**340.20**	5027.86	0.766	0.216	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	14.779	Sqm	**63.20**	934.04	0.02		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.306	Cum	**1075.00**	329.26			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.821	MT	**742.00**	609.11			
		Brick (15 km lead)	141.00	No.	3.18	448.38			
		TOTAL (In Rs.)				**8768.95**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.31	Cum	**584.64**	179.07	17.91		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**17.91**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
AOC FOR HR OF PIPE CULVERT(Ch.-2.460Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	150.000	Sqm	**11.80**	1770.66			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	17.800	Sqm	**340.20**	6055.67	0.923	0.260	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	17.800	Sqm	**63.20**	1124.98	0.03		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.260	Cum	**1075.00**	279.38			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.949	MT	**742.00**	704.51			
		Brick (15 km lead)	75000.00	No.	3.18	238500.00			
TOTAL (In Rs.)						**248435.19**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.26	Cum	**584.64**	151.94	15.19		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**15.19**		
AOC FOR HR OF BRIDGE (Ch.-2.630 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.77	Cum	**5021.30**	8870.73	0.20	0.57	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	16.053	Sqm	**340.20**	5461.30	0.832	0.234	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	16.053	Sqm	**63.20**	1014.56	0.02		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.800	Cum	**1075.00**	859.67			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.060	MT	**742.00**	786.37			
		Brick (15 km lead)	883.00	No.	3.18	2807.94			
TOTAL (In Rs.)						**21217.10**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.80	Cum	**584.64**	467.53	46.75		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**46.75**		
AOC FOR HR OF BRIDGE/FALL (Ch.-3.025 Km)									
1	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.518	Cum	**6914.20**	3584.77	0.21	0.22	0.45
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.223	Cum	**1075.00**	239.66			
		Coarse Aggregates (100 Km lead)	0.446	Cum	**1398.00**	623.34			
		Cement (30 km lead)	0.214	MT	**742.00**	158.69			
TOTAL (In Rs.)						**4606.46**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.22	Cum	**584.64**	130.34	13.03		
		Coarse Aggregate	0.45	Cum	**944.26**	421.03	42.10		
		Total					**55.14**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
AOC FOR BRIDGE (Ch.-3.255 Km)									
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.55	Cum	**5021.30**	2759.78	0.06	0.18	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	11.590	Sqm	**340.20**	3942.82	0.601	0.169	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	11.590	Sqm	**63.20**	732.47	0.02		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.345	Cum	**1075.00**	370.97			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.682	MT	**742.00**	505.68			
		Brick (15 km lead)	274.00	No.	3.18	871.32			
TOTAL (In Rs.)						**9183.04**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.35	Cum	**584.64**	201.75	20.18		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**20.18**		
AOC FOR BRIDGE/FALL (Ch.-3.850 Km)									
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	23.428	Cum	**2492.58**	58396.05			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
TOTAL (In Rs.)						**58396.05**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		New fall has been proposed.							
AOC FOR FALL (Ch.-4.350 Km)									
1	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	10.973	Cum	**6914.20**	75868.13	4.53	4.72	9.44
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	4.718	Cum	**1075.00**	5072.18			
		Coarse Aggregates (100 Km lead)	9.437	Cum	**1398.00**	13192.38			
		Cement (30 km lead)	4.526	MT	**742.00**	3358.50			
TOTAL (In Rs.)						**97491.19**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	4.72	Cum	**584.64**	2758.51	275.85		
		Coarse Aggregate	9.44	Cum	**944.26**	8910.61	891.06		
		Total					**1166.91**		
AOC FOR BRIDGE (Ch.-4.885 Km)									
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.23	Cum	**5021.30**	6160.23	0.14	0.39	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	11.567	Sqm	**340.20**	3935.15	0.600	0.169	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	11.567	Sqm	**63.20**	731.04	0.02		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
4	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	2.03	Cum	**6381.70**	12922.94	0.66	0.91	1.82
5	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	10.620	Sqm	**578.60**	6144.73			
6		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.473	Cum	**1075.00**	1583.17			
		Coarse Aggregates (100 Km lead)	1.823	Cum	**1398.00**	2547.86			
		Cement (30 km lead)	1.414	MT	**742.00**	1049.50			
		Brick (15 km lead)	613.00	No.	3.18	1949.34			
		TOTAL (In Rs.)				**37023.96**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.47	Cum	**584.64**	861.01	86.10		
		Coarse Aggregate	1.82	Cum	**944.26**	1720.91	172.09		
		Total					**258.19**		
		AOC FOR FALL/BRIDGE (Ch.-5.450 Km)							
1	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	13.659	Cum	**6914.20**	94443.18	5.63	5.87	11.75
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	5.874	Cum	**1075.00**	6314.01			
		Coarse Aggregates (100 Km lead)	11.747	Cum	**1398.00**	16422.31			
		Cement (30 km lead)	5.634	MT	**742.00**	4180.77			
		TOTAL (In Rs.)				**121360.28**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	5.87	Cum	**584.64**	3433.88	343.39		
		Coarse Aggregate	11.75	Cum	**944.26**	11092.23	1109.22		
		Total					**1452.61**		
		AOC FOR BRIDGE/FALL (Ch.-6.635 Km)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	19.004	Cum	**2492.58**	47369.60			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**47369.60**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		New fall has been proposed.							
		AOC FOR BRIDGE (Ch.-7.005 Km)							
4	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	0.14	Cum	**6381.70**	861.53	0.04	0.06	0.12
6		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.061	Cum	**1075.00**	65.31			
		Coarse Aggregates (100 Km lead)	0.122	Cum	**1398.00**	169.86			
		Cement (30 km lead)	0.044	MT	**742.00**	32.46			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
		TOTAL (In Rs.)				**1129.15**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.06	Cum	**584.64**	35.52	3.55		
		Coarse Aggregate	0.12	Cum	**944.26**	114.73	11.47		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Total					**15.02**		
		AOC FOR FALL (Ch.-7.450 Km)							
1	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	11.534	Cum	**6914.20**	79745.00	4.76	4.96	9.92
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	4.959	Cum	**1075.00**	5331.37			
		Coarse Aggregates (100 Km lead)	9.919	Cum	**1398.00**	13866.51			
		Cement (30 km lead)	4.758	MT	**742.00**	3530.12			
		TOTAL (In Rs.)				**102472.99**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	4.96	Cum	**584.64**	2899.47	289.95		
		Coarse Aggregate	9.92	Cum	**944.26**	9365.94	936.59		
		Total					**1226.54**		
		AOC FOR FALL (Ch.-7.950Km)							
1	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	2.430	Sqm	**340.20**	826.69	0.126	0.035	
2	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	0.585	Sqm	**63.20**	36.97	0.00		
3	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	5.40	Cum	**6381.70**	34461.18	1.75	2.43	4.86
4	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	29.400	Sqm	**578.60**	17010.84			
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	2.465	Cum	**1075.00**	2650.39			
		Coarse Aggregates (100 Km lead)	4.860	Cum	**1398.00**	6794.28			
		Cement (30 km lead)	1.876	MT	**742.00**	1392.32			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
		TOTAL (In Rs.)				**63172.67**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	2.47	Cum	**584.64**	1441.42	144.14		
		Coarse Aggregate	4.86	Cum	**944.26**	4589.10	458.91		
		Total					**603.05**		
		AOC FOR PIPE CULVERT (Ch.-8.250Km)							
1	**Structure is in good condition and does not requir any repair works.**								
		AOC FOR BRIDGE/FALL (Ch.-8.450 Km)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	14.955	Cum	**2492.58**	37277.43			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**37277.43**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
	New fall has been proposed.								

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
AOC FOR HR OF PIPE CULVERT (Ch.-9.220 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	180.000	Sqm	**11.80**	2124.79			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
TOTAL (In Rs.)						**2124.79**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST OF REPAIRED STRUCTURES OF (GAMHARIA MINOR)									
AOC FOR FALL (Ch.-0.500 Km)									
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	1.853	Cum	**2492.58**	4619.21			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**4619.21**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
AOC FOR BRIDGE (Ch.-0.650Km)									
1	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	42.178	Sqm	**340.20**	14349.03	2.187	0.616	
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.616	Cum	**1075.00**	661.99			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	2.187	MT	**742.00**	1622.40			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
		TOTAL (In Rs.)				**16633.42**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.62	Cum	**584.64**	360.02	36.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**36.00**		
AOC FORBRIDGE (Ch.-1.050 Km)									
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.53	Cum	**5021.30**	7673.89	0.18	0.49	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	13.887	Sqm	**340.20**	4724.46	0.720	0.203	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	13.887	Sqm	**63.20**	877.68	0.02		
4	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.459	Cum	**6914.20**	3176.47	0.19	0.20	0.40
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.889	Cum	**1075.00**	956.05			
		Coarse Aggregates (100 Km lead)	0.395	Cum	**1398.00**	552.34			
		Cement (30 km lead)	1.106	MT	**742.00**	820.88			
		Brick (15 km lead)	764.00	No.	3.18	2429.52			
		TOTAL (In Rs.)				**21211.29**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.89	Cum	**584.64**	519.95	51.99		
		Coarse Aggregate	0.40	Cum	**944.26**	373.07	37.31		
		Total					**89.30**		
AOC FOR FALL (Ch.-1.600 Km)									
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	3.719	Cum	**2492.58**	9268.81			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
2	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.133	Cum	**6914.20**	7831.53	0.47	0.49	0.97
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.487	Cum	**1075.00**	523.58			
		Coarse Aggregates (100 Km lead)	0.974	Cum	**1398.00**	1361.79			
		Cement (30 km lead)	0.467	MT	**742.00**	346.68			
		TOTAL (In Rs.)				**19332.39**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.49	Cum	**584.64**	284.75	28.47		
		Coarse Aggregate	0.97	Cum	**944.26**	919.80	91.98		
		Total					**120.46**		
		AOC FOR BRIDGE (Ch.-1.770Km)							
1	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	44.184	Sqm	**340.20**	15031.33	2.290	0.645	
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.645	Cum	**1075.00**	693.46			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	2.290	MT	**742.00**	1699.54			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
		TOTAL (In Rs.)				**17424.34**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.65	Cum	**584.64**	377.14	37.71		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**37.71**		
		AOC FOR FALL (Ch.-2.450 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	200.000	Sqm	**11.80**	2360.88			
2	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	91.500	Sqm	**63.20**	5782.80	0.14		
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.137	MT	**742.00**	101.84			
		TOTAL (In Rs.)				**8245.52**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR BRIDGE (Ch.-2.810 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.53	Cum	**5021.30**	7673.89	0.18	0.49	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	13.887	Sqm	**340.20**	4724.46	0.720	0.203	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	13.887	Sqm	**63.20**	877.68	0.02		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.692	Cum	**1075.00**	743.69			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.917	MT	**742.00**	680.27			
		Brick (15 km lead)	764.00	No.	3.18	2429.52			
		TOTAL (In Rs.)				**17129.50**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.69	Cum	**584.64**	404.45	40.45		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Total					**40.45**		
		AOC FOR FALL (Ch.-3.300 Km)							
1	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	2.310	Cum	**6914.20**	15971.80	0.95	0.99	1.99
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.993	Cum	**1075.00**	1067.80			
		Coarse Aggregates (100 Km lead)	1.987	Cum	**1398.00**	2777.27			
		Cement (30 km lead)	0.953	MT	**742.00**	707.03			
		TOTAL (In Rs.)				**20523.90**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.99	Cum	**584.64**	580.72	58.07		
		Coarse Aggregate	1.99	Cum	**944.26**	1875.87	187.59		
		Total					**245.66**		
		AOC FOR FALL (Ch.-4.300 Km)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	2.975	Cum	**2492.58**	7415.05			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	16.000	Sqm	**340.20**	5443.20	0.829	0.234	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	16.000	Sqm	**63.20**	1011.20	0.02		
		Coarse Sand (60 Km lead)	0.234	Cum	**1075.00**	251.12			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.853	MT	**742.00**	633.25			
		TOTAL (In Rs.)				**14753.82**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.23	Cum	**584.64**	136.57	13.66		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**13.66**		
		AOC FOR FALL (Ch.-5.275 Km)							
1	**Structure is in good condition and does not requir any repair works.**								

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST OF REPAIRED STRUCTURES OF (PRITAMPURA SUB DY)									
AOC FOR BRIDGE (Ch.-0.005 Km)									
1	**New HR cum Bridge is proposed here and dismantling Quantity is taken in Basdiha Distributary**								
AOC FOR CULVERT/FALL (Ch.-0.350 Km)									
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	2.50	Cum	**5021.30**	12541.72	0.29	0.80	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	16.563	Sqm	**340.20**	5634.68	0.859	0.242	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	16.563	Sqm	**63.20**	1046.77	0.02		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.041	Cum	**1075.00**	1119.16			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.171	MT	**742.00**	869.03			
		Brick (15 km lead)	1248.00	No.	3.18	3968.64			
		TOTAL (In Rs.)				**25180.00**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.04	Cum	**584.64**	608.66	60.87		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**60.87**		
AOC FOR HR OF CULVERT (Ch.-0.555 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	160.000	Sqm	**11.80**	1888.70			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**1888.70**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
AOC FOR CULVERT/FALL (Ch.-1.050 Km)									
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.00	Cum	**5021.30**	5033.79	0.12	0.32	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	18.219	Sqm	**340.20**	6198.14	0.944	0.266	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	18.219	Sqm	**63.20**	1151.45	0.03		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.587	Cum	**1075.00**	630.80			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.087	MT	**742.00**	806.77			
		Brick (15 km lead)	501.00	No.	3.18	1593.18			
		TOTAL (In Rs.)				**15414.14**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.59	Cum	**584.64**	343.06	34.31		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**34.31**		
AOC FOR CULVERT/FALL (Ch.-1.650 Km)									

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.84	Cum	**5021.30**	4217.89	0.10	0.27	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	7.920	Sqm	**340.20**	2694.38	0.411	0.116	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	7.920	Sqm	**63.20**	500.54	0.01		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.384	Cum	**1075.00**	413.26			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.519	MT	**742.00**	385.26			
		Brick (15 km lead)	420.00	No.	3.18	1335.60			
		TOTAL (In Rs.)				**9546.95**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.38	Cum	**584.64**	224.75	22.48		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**22.48**		
		AOC FOR AQUEDUCT (Ch.-2.280 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.25	Cum	**5021.30**	1255.33	0.03	0.08	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	2.500	Sqm	**340.20**	850.50	0.130	0.037	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	2.500	Sqm	**63.20**	158.00	0.00		
4	5.3.11	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.69	Cum	**8151.40**	13740.27	0.31	0.29	0.58
5	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.150	Cum	**6914.20**	1037.13	0.06	0.06	0.13
6		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.470	Cum	**1075.00**	505.24			
		Coarse Aggregates (100 Km lead)	0.707	Cum	**1398.00**	988.36			
		Cement (30 km lead)	0.539	MT	**742.00**	399.90			
		Brick (15 km lead)	125.00	No.	3.18	397.50			
		TOTAL (In Rs.)				**19332.22**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.47	Cum	**584.64**	274.77	27.48		
		Coarse Aggregate	0.71	Cum	**944.26**	667.57	66.76		
		Total					**94.23**		
		AOC FOR HR OF FALL (Ch.-2.600 Km)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	21.987	Cum	**2492.58**	54804.58			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**54804.58**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR CULVERT/FALL (Ch.-3.200 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.81	Cum	**5021.30**	9081.94	0.21	0.58	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	16.435	Sqm	**340.20**	5591.33	0.852	0.240	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	16.435	Sqm	**63.20**	1038.72	0.02		
4	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	6.616	Cum	**6914.20**	45743.43	2.73	2.84	5.69
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	3.664	Cum	**1075.00**	3938.33			
		Coarse Aggregates (100 Km lead)	5.690	Cum	**1398.00**	7954.12			
		Cement (30 km lead)	3.814	MT	**742.00**	2830.04			
		Brick (15 km lead)	904.00	No.	3.18	2874.72			
		TOTAL (In Rs.)				**79052.63**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	3.66	Cum	**584.64**	2141.86	214.19		
		Coarse Aggregate	5.69	Cum	**944.26**	5372.50	537.25		
		Total					**751.44**		
		AOC FOR CULVERT (Ch.-3.650 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	41.579	Sqm	**340.20**	14145.16	2.155	0.607	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	41.579	Sqm	**63.20**	2627.79	0.06		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.607	Cum	**1075.00**	652.58			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	2.218	MT	**742.00**	1645.62			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
		TOTAL (In Rs.)				**20369.63**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.61	Cum	**584.64**	354.91	35.49		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**35.49**		
		AOC FOR FOR CULVERT (Ch.-4.110 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	2.19	Cum	**5021.30**	10982.81	0.25	0.70	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	19.875	Sqm	**340.20**	6761.61	1.030	0.290	

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	19.875	Sqm	**63.20**	1256.13	0.03		
4	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	1.08	Cum	**6381.70**	6892.24	0.35	0.49	0.97
5	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	6.120	Sqm	**578.60**	3541.03			
6		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.476	Cum	**1075.00**	1586.81			
		Coarse Aggregates (100 Km lead)	0.972	Cum	**1398.00**	1358.86			
		Cement (30 km lead)	1.662	MT	**742.00**	1233.24			
		Brick (15 km lead)	1093.00	No.	3.18	3475.74			
		TOTAL (In Rs.)				**37088.46**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.48	Cum	**584.64**	862.99	86.30		
		Coarse Aggregate	0.97	Cum	**944.26**	917.82	91.78		
		Total					**178.08**		
		AOC FOR FOR CULVERT/FALL (Ch.-4.150 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.67	Cum	**5021.30**	3379.33	0.08	0.22	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	14.191	Sqm	**340.20**	4827.94	0.736	0.207	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	14.191	Sqm	**63.20**	896.90	0.02		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.423	Cum	**1075.00**	454.25			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.835	MT	**742.00**	619.20			
		Brick (15 km lead)	336.00	No.	3.18	1068.48			
		TOTAL (In Rs.)				**11246.10**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.42	Cum	**584.64**	247.04	24.70		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**24.70**		
		AOC FOR FOR CULVERT (Ch.-4.260 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.30	Cum	**5021.30**	1530.49	0.04	0.10	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	6.706	Sqm	**340.20**	2281.25	0.348	0.098	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	6.706	Sqm	**63.20**	423.79	0.01		
4	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	0.23	Cum	**6381.70**	1435.88	0.07	0.10	0.20
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.297	Cum	**1075.00**	318.94			
		Coarse Aggregates (100 Km lead)	0.203	Cum	**1398.00**	283.10			
		Cement (30 km lead)	0.466	MT	**742.00**	345.54			
		Brick (15 km lead)	152.00	No.	3.18	483.36			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		TOTAL (In Rs.)				**7102.35**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.30	Cum	**584.64**	173.46	17.35		
		Coarse Aggregate	0.20	Cum	**944.26**	191.21	19.12		
		Total					**36.47**		
		AOC FOR FOR CULVERT (Ch.-4.280 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.28	Cum	**5021.30**	1408.05	0.03	0.09	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	6.169	Sqm	**340.20**	2098.75	0.320	0.090	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	6.169	Sqm	**63.20**	389.89	0.01		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.180	Cum	**1075.00**	193.29			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.361	MT	**742.00**	268.13			
		Brick (15 km lead)	140.00	No.	3.18	445.20			
		TOTAL (In Rs.)				**4803.31**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.18	Cum	**584.64**	105.12	10.51		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**10.51**		
		AOC FOR FOR CULVERT (Ch.-4.695 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	150.000	Sqm	**11.80**	1770.66			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.93	Cum	**5021.30**	9715.56	0.22	0.62	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	17.582	Sqm	**340.20**	5981.42	0.911	0.257	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	17.582	Sqm	**63.20**	1111.19	0.03		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.876	Cum	**1075.00**	941.55			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.161	MT	**742.00**	861.26			
		Brick (15 km lead)	967.00	No.	3.18	3075.06			
		TOTAL (In Rs.)				**23456.70**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.88	Cum	**584.64**	512.06	51.21		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**51.21**		
		AOC FOR FOR CULVERT (Ch.-5.255 Km)							
		New structure at site.							
		AOC FOR FALL (Ch.-5.850 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	41.755	Sqm	**340.20**	14205.05	2.165	0.610	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	41.755	Sqm	**63.20**	2638.92	0.06		
5		**Carriage of materials**							

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Coarse Sand (60 Km lead)	0.610	Cum	**1075.00**	655.34			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	2.227	MT	**742.00**	1652.59			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
		TOTAL (In Rs.)				**20568.43**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.61	Cum	**584.64**	356.41	35.64		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**35.64**		
		AOC FOR FOR BRIDGE (Ch.-6.285 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.68	Cum	**5021.30**	8448.32	0.19	0.54	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	15.289	Sqm	**340.20**	5201.24	0.793	0.223	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	15.289	Sqm	**63.20**	966.25	0.02		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.762	Cum	**1075.00**	818.74			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.009	MT	**742.00**	748.92			
		Brick (15 km lead)	841.00	No.	3.18	2674.38			
		TOTAL (In Rs.)				**18857.84**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.76	Cum	**584.64**	445.27	44.53		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**44.53**		
		AOC FOR FOR BRIDGE/FALL (Ch.-6.650 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	160.000	Sqm	**11.80**	1888.70			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	2.38	Cum	**5021.30**	11968.45	0.27	0.76	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	21.659	Sqm	**340.20**	7368.42	1.123	0.316	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	21.659	Sqm	**63.20**	1368.85	0.03		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.079	Cum	**1075.00**	1159.88			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.430	MT	**742.00**	1060.97			
		Brick (15 km lead)	1191.00	No.	3.18	3787.38			
		TOTAL (In Rs.)				**28602.65**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.08	Cum	**584.64**	630.80	63.08		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**63.08**		
		AOC FOR BRIDGE (Ch.-6.735 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.52	Cum	**5021.30**	2601.84	0.06	0.17	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	11.400	Sqm	**340.20**	3878.12	0.591	0.166	

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	11.400	Sqm	**63.20**	720.45	0.02		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.332	Cum	**1075.00**	357.16			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.668	MT	**742.00**	495.46			
		Brick (15 km lead)	259.00	No.	3.18	823.62			
		TOTAL (In Rs.)				**8876.65**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.33	Cum	**584.64**	194.24	19.42		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**19.42**		
		AOC FOR CULVERT (Ch.-7.015 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.000	Sqm	**11.80**	1180.44			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.82	Cum	**5021.30**	9152.34	0.21	0.58	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	16.563	Sqm	**340.20**	5634.68	0.859	0.242	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	16.563	Sqm	**63.20**	1046.77	0.02		
5	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	2.25	Cum	**6381.70**	14358.83	0.73	1.01	2.03
6	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	10.500	Sqm	**578.60**	6075.30			
7		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.838	Cum	**1075.00**	1975.40			
		Coarse Aggregates (100 Km lead)	2.025	Cum	**1398.00**	2830.95			
		Cement (30 km lead)	1.822	MT	**742.00**	1352.25			
		Brick (15 km lead)	911.00	No.	3.18	2896.98			
		TOTAL (In Rs.)				**46503.93**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.84	Cum	**584.64**	1074.32	107.43		
		Coarse Aggregate	2.03	Cum	**944.26**	1912.13	191.21		
		Total					**298.65**		
		AOC FOR HR OF CHANDAULI MINOR (Ch.-7.435 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	RCD 8.09	Providing and applying two Coates of ready mix paint of approved brand on steel surface after through cleaning of surface to give an even shade.	2.742	Sqm	**91.70**	251.49			
4	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	4.800	Sqm	**340.20**	1632.96	0.249	0.070	
5	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	9.600	Sqm	**63.20**	606.72	0.01		
6		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.070	Cum	**1075.00**	75.34			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.263	MT	**742.00**	195.32			
		TOTAL (In Rs.)				**4178.35**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.07	Cum	**584.64**	40.97	4.10		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Total					**4.10**		
		AOC FOR FOR BRIDGE/FALL (Ch.-7.450 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.57	Cum	**5021.30**	7885.10	0.18	0.50	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	14.270	Sqm	**340.20**	4854.49	0.740	0.208	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	14.270	Sqm	**63.20**	901.83	0.02		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.711	Cum	**1075.00**	764.15			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.942	MT	**742.00**	698.99			
		Brick (15 km lead)	785.00	No.	3.18	2496.30			
		TOTAL (In Rs.)				**18899.35**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.71	Cum	**584.64**	415.59	41.56		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**41.56**		
		AOC FOR FOR BRIDGE (Ch.-8.410 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	90.000	Sqm	**11.80**	1062.40			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.36	Cum	**5021.30**	6829.06	0.16	0.44	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	12.358	Sqm	**340.20**	4204.33	0.641	0.180	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	12.358	Sqm	**63.20**	781.05	0.02		
5	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	2.25	Cum	**6381.70**	14358.83	0.73	1.01	2.03
6	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	10.500	Sqm	**578.60**	6075.30			
7		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.628	Cum	**1075.00**	1750.25			
		Coarse Aggregates (100 Km lead)	2.025	Cum	**1398.00**	2830.95			
		Cement (30 km lead)	1.545	MT	**742.00**	1146.30			
		Brick (15 km lead)	680.00	No.	3.18	2162.40			
		TOTAL (In Rs.)				**41200.86**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.63	Cum	**584.64**	951.87	95.19		
		Coarse Aggregate	2.03	Cum	**944.26**	1912.13	191.21		
		Total					**286.40**		
		AOC FOR FOR CULVERT (Ch.-8.850 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.68	Cum	**5021.30**	8448.32	0.19	0.54	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	15.289	Sqm	**340.20**	5201.24	0.793	0.223	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	15.289	Sqm	**63.20**	966.25	0.02		
5	5.1.31	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	6.17	Cum	**149.30**	921.51			
7		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.762	Cum	**1075.00**	818.74			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.009	MT	**742.00**	748.92			
		Brick (15 km lead)	841.00	No.	3.18	2674.38			
		TOTAL (In Rs.)				**21077.83**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.76	Cum	**584.64**	445.27	44.53		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**44.53**		
		AOC FOR FALL (Ch.-9.250 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	130.000	Sqm	**11.80**	1534.57			
2	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.372	Cum	**6914.20**	2571.09	0.15	0.16	0.32
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.160	Cum	**1075.00**	171.89			
		Coarse Aggregates (100 Km lead)	0.320	Cum	**1398.00**	447.08			
		Cement (30 km lead)	0.153	MT	**742.00**	113.82			
		TOTAL (In Rs.)				**4838.44**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.16	Cum	**584.64**	93.48	9.35		
		Coarse Aggregate	0.32	Cum	**944.26**	301.97	30.20		
		Total					**39.55**		
		AOC FOR FOR CULVERT (Ch.-9.670 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.000	Sqm	**11.80**	1180.44			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.42	Cum	**5021.30**	7110.67	0.16	0.45	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	12.868	Sqm	**340.20**	4377.71	0.667	0.188	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	12.868	Sqm	**63.20**	813.26	0.02		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.641	Cum	**1075.00**	689.10			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.850	MT	**742.00**	630.34			
		Brick (15 km lead)	708.00	No.	3.18	2251.44			
		TOTAL (In Rs.)				**17052.96**			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.64	Cum	**584.64**	374.77	37.48		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**37.48**		
		AOC FOR PIPE CULVERT (Ch.-10.075 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	13.716	Sqm	**340.20**	4666.18	0.711	0.200	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	13.716	Sqm	**63.20**	866.85	0.02		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.200	Cum	**1075.00**	215.27			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.732	MT	**742.00**	542.86			
		TOTAL (In Rs.)				**7707.69**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.20	Cum	**584.64**	117.08	11.71		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**11.71**		
		AOC FOR CULVERT/FALL (Ch.-10.110 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.26	Cum	**5021.30**	6336.24	0.15	0.40	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	11.467	Sqm	**340.20**	3900.93	0.594	0.167	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	11.467	Sqm	**63.20**	724.69	0.02		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.571	Cum	**1075.00**	614.05			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.757	MT	**742.00**	561.69			
		Brick (15 km lead)	630.00	No.	3.18	2003.40			
		TOTAL (In Rs.)				**15439.48**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.57	Cum	**584.64**	333.95	33.40		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**33.40**		
		AOC FOR CULVERT (Ch.-10.785 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.54	Cum	**5021.30**	7744.29	0.18	0.49	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	54.553	Sqm	**340.20**	18558.97	2.828	0.796	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	54.553	Sqm	**63.20**	3447.76	0.08		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.290	Cum	**1075.00**	1386.76			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Cement (30 km lead)	3.088	MT	**742.00**	2290.95			
		Brick (15 km lead)	771.00	No.	3.18	2451.78			
		TOTAL (In Rs.)				**37178.98**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.29	Cum	**584.64**	754.19	75.42		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**75.42**		
		AOC FOR FALL (Ch.-11.770 Km)							
1	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	1.01	Cum	**6381.70**	6445.96	0.33	0.45	0.91
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.455	Cum	**1075.00**	488.62			
		Coarse Aggregates (100 Km lead)	0.909	Cum	**1398.00**	1270.87			
		Cement (30 km lead)	0.327	MT	**742.00**	242.83			
		TOTAL (In Rs.)				**8448.28**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.45	Cum	**584.64**	265.74	26.57		
		Coarse Aggregate	0.91	Cum	**944.26**	858.39	85.84		
		Total					**112.41**		
		AOC FOR FALL (Ch.-12.150 Km)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	31.012	Cum	**2492.58**	77299.01			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**77299.01**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		New fall has been Proposed.							
		AOC FOR PIPE CULVERT (Ch.-12.915 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	130.000	Sqm	**11.80**	1534.57			
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	6.858	Sqm	**63.20**	433.43	0.01		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.010	MT	**742.00**	7.63			
		TOTAL (In Rs.)				**1975.63**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR FALL (Ch.-13.350 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	150.000	Sqm	**11.80**	1770.66			
2	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	1.32	Cum	**6381.70**	8415.42	0.43	0.59	1.19
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.593	Cum	**1075.00**	637.91			
		Coarse Aggregates (100 Km lead)	1.187	Cum	**1398.00**	1659.16			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Cement (30 km lead)	0.427	MT	**742.00**	317.02			
		TOTAL (In Rs.)				**11029.52**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.59	Cum	**584.64**	346.93	34.69		
		Coarse Aggregate	1.19	Cum	**944.26**	1120.66	112.07		
		Total					**146.76**		
		AOC FOR BRIDGE (Ch.-13.680 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	135.000	Sqm	**11.80**	1593.59			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.68	Cum	**5021.30**	8448.32	0.19	0.54	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	15.289	Sqm	**340.20**	5201.24	0.793	0.223	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	15.289	Sqm	**63.20**	966.25	0.02		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.762	Cum	**1075.00**	818.74			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.009	MT	**742.00**	748.92			
		Brick (15 km lead)	841.00	No.	3.18	2674.38			
		TOTAL (In Rs.)				**20451.43**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.76	Cum	**584.64**	445.27	44.53		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**44.53**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST OF REPAIRED STRUCTURES OF (CHANDAULI MR.)									
AOC FOR FALL (Ch.-0.100 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	27.295	Sqm	**340.20**	9285.89	1.415	0.399	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	27.295	Sqm	**63.20**	1725.07	0.04		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.399	Cum	**1075.00**	428.40			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.456	MT	**742.00**	1080.30			
		TOTAL (In Rs.)				**13936.19**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.40	Cum	**584.64**	232.99	23.30		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**23.30**		
AOC FOR BRIDGE (Ch.-0.660 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	90.000	Sqm	**11.80**	1062.40			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.33	Cum	**5021.30**	6688.25	0.15	0.43	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	12.104	Sqm	**340.20**	4117.65	0.627	0.177	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	12.104	Sqm	**63.20**	764.95	0.02		
5	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	0.75	Cum	**6381.70**	4786.28	0.24	0.34	0.68
6	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	4.500	Sqm	**578.60**	2603.70			
7		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.940	Cum	**1075.00**	1010.98			
		Coarse Aggregates (100 Km lead)	0.675	Cum	**1398.00**	943.65			
		Cement (30 km lead)	1.042	MT	**742.00**	773.20			
		Brick (15 km lead)	665.00	No.	3.18	2114.70			
		TOTAL (In Rs.)				**24865.75**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.94	Cum	**584.64**	549.82	54.98		
		Coarse Aggregate	0.68	Cum	**944.26**	637.38	63.74		
		Total					**118.72**		
AOC FOR CROSS DRAINAGE (Ch.-0.695 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.000	Sqm	**11.80**	1180.44			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	42.392	Sqm	**340.20**	14421.62	2.198	0.619	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	42.392	Sqm	**63.20**	2679.15	0.06		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.619	Cum	**1075.00**	665.34			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	2.261	MT	**742.00**	1677.79			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		TOTAL (In Rs.)				**20624.33**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.62	Cum	**584.64**	361.84	36.18		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**36.18**		
		AOC FOR FALL (Ch.-0.900 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	130.000	Sqm	**11.80**	1534.57			
1	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	2.332	Cum	**6914.20**	16121.98	0.96	1.00	2.01
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.003	Cum	**1075.00**	1077.84			
		Coarse Aggregates (100 Km lead)	2.005	Cum	**1398.00**	2803.38			
		Cement (30 km lead)	0.962	MT	**742.00**	713.68			
		TOTAL (In Rs.)				**22251.45**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.00	Cum	**584.64**	586.18	58.62		
		Coarse Aggregate	2.01	Cum	**944.26**	1893.50	189.35		
		Total					**247.97**		
		AOC FOR FALL/CULVERT (Ch.-1.335 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.000	Sqm	**11.80**	1180.44			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	55.778	Sqm	**340.20**	18975.81	2.892	0.814	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	55.778	Sqm	**63.20**	3525.19	0.08		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.814	Cum	**1075.00**	875.44			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	2.975	MT	**742.00**	2207.61			
		TOTAL (In Rs.)				**26764.50**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.81	Cum	**584.64**	476.11	47.61		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**47.61**		
		AOC FOR FALL (Ch.-1.800 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	130.000	Sqm	**11.80**	1534.57			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	57.200	Sqm	**340.20**	19459.44	2.965	0.835	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	0.000	Sqm	**63.20**	0.00	0.00		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.835	Cum	**1075.00**	897.75			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	2.965	MT	**742.00**	2200.21			
		TOTAL (In Rs.)				**24091.98**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.84	Cum	**584.64**	488.24	48.82		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**48.82**		
		AOC FOR CULVERT (Ch.-2.168 Km)							

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	150.000	Sqm	**11.80**	1770.66			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	42.192	Sqm	**340.20**	14353.72	2.187	0.616	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	42.192	Sqm	**63.20**	2666.53	0.06		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.616	Cum	**1075.00**	662.20			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	2.251	MT	**742.00**	1669.89			
		TOTAL (In Rs.)				**21123.00**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.62	Cum	**584.64**	360.14	36.01		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**36.01**		
		AOC FOR CROSS DRAINAGE (Ch.-2.470 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	45.866	Sqm	**340.20**	15603.72	2.378	0.670	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	45.866	Sqm	**63.20**	2898.75	0.07		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.670	Cum	**1075.00**	719.87			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	2.447	MT	**742.00**	1815.31			
		TOTAL (In Rs.)				**22454.17**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.67	Cum	**584.64**	391.50	39.15		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**39.15**		
		AOC FOR FALL (Ch.-2.795 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	130.000	Sqm	**11.80**	1534.57			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	50.000	Sqm	**340.20**	17010.00	2.592	0.730	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	50.000	Sqm	**63.20**	3160.00	0.08		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.730	Cum	**1075.00**	784.75			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	2.667	MT	**742.00**	1978.91			
		TOTAL (In Rs.)				**24468.23**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.73	Cum	**584.64**	426.79	42.68		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**42.68**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST OF REPAIRED STRUCTURES OF (SIMRA MR.)									
AOC FOR FALL (Ch.-0.610 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	150.000	Sqm	**11.80**	1770.66			
2	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	3.731	Cum	**6914.20**	25795.17	1.54	1.60	3.21
3	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	2.03	Cum	**6381.70**	12922.94	0.66	0.91	1.82
4	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	9.600	Sqm	**578.60**	5554.56			
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	2.515	Cum	**1075.00**	2704.13			
		Coarse Aggregates (100 Km lead)	5.031	Cum	**1398.00**	7033.26			
		Cement (30 km lead)	2.195	MT	**742.00**	1628.72			
TOTAL (In Rs.)						**57409.44**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	2.52	Cum	**584.64**	1470.65	147.06		
		Coarse Aggregate	5.03	Cum	**944.26**	4750.52	475.05		
		Total					**622.12**		
AOC FOR BRIDGE (Ch.-1.600 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	2.19	Cum	**5021.30**	10982.81	0.25	0.70	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	19.875	Sqm	**340.20**	6761.61	1.030	0.290	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	19.875	Sqm	**63.20**	1256.13	0.03		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.990	Cum	**1075.00**	1064.36			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.312	MT	**742.00**	973.60			
		Brick (15 km lead)	1093.00	No.	3.18	3475.74			
TOTAL (In Rs.)						**25930.77**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.99	Cum	**584.64**	578.85	57.89		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**57.89**		
AOC FOR FALL (Ch.-2.000 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	2.341	Cum	**6914.20**	16184.76	0.97	1.01	2.01
3		**Carriage of materials**							

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Coarse Sand (60 Km lead)	1.007	Cum	**1075.00**	1082.03			
		Coarse Aggregates (100 Km lead)	2.013	Cum	**1398.00**	2814.30			
		Cement (30 km lead)	0.966	MT	**742.00**	716.46			
		TOTAL (In Rs.)				**22096.03**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.01	Cum	**584.64**	588.47	58.85		
		Coarse Aggregate	2.01	Cum	**944.26**	1900.88	190.09		
		Total					**248.93**		
		AOC FOR BRIDGE (Ch.-3.380 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	1.682	Sqm	**11.80**	19.86			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	15.29	Cum	**5021.30**	76769.49	1.76	4.89	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	15.289	Sqm	**340.20**	5201.24	0.793	0.223	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	15.289	Sqm	**63.20**	966.25	0.02		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	5.116	Cum	**1075.00**	5499.29			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	2.577	MT	**742.00**	1911.96			
		Brick (15 km lead)	7644.00	No.	3.18	24307.92			
		TOTAL (In Rs.)				**114676.02**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	5.12	Cum	**584.64**	2990.80	299.08		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**299.08**		
		AOC FOR FALL (Ch.-3.460 Km)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	27.703	Cum	**2492.58**	69050.77			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**69050.77**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		New fall has been Proposed.							

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST OF REPAIRED STRUCTURES OF (SALEMPUR MR.)									
AOC FOR CROSS DRAINAGE (Ch.-0.020 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	12.741	Sqm	**340.20**	4334.37	0.660	0.186	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	12.741	Sqm	**63.20**	805.21	0.02		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.186	Cum	**1075.00**	199.96			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.680	MT	**742.00**	504.25			
		TOTAL (In Rs.)				**7142.27**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.19	Cum	**584.64**	108.75	10.88		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**10.88**		
AOC FOR BRIDGE (Ch.-0.575 Km)									
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.46	Cum	**5021.30**	2295.74	0.05	0.15	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	36.141	Sqm	**340.20**	12295.05	1.874	0.528	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	36.141	Sqm	**63.20**	2284.09	0.05		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.674	Cum	**1075.00**	724.50			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.980	MT	**742.00**	1469.47			
		Brick (15 km lead)	228.00	No.	3.18	725.04			
		TOTAL (In Rs.)				**19793.88**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.67	Cum	**584.64**	394.02	39.40		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**39.40**		
AOC FOR FALL (Ch.-0.950 Km)									
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	14.204	Cum	**2492.58**	35405.01			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**35405.01**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		New fall has been Proposed.							
AOC FOR FALL (Ch.-1.600 Km)									
1	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	4.670	Cum	**6914.20**	32289.48	1.93	2.01	4.02

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
2	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	6.30	Cum	**6381.70**	40204.71	2.04	2.84	5.67
3	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	26.100	Sqm	**578.60**	15101.46			
4	5.3.22	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.124	Mt	**75929.60**	9387.75			
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	4.843	Cum	**1075.00**	5206.34			
		Coarse Aggregates (100 Km lead)	9.686	Cum	**1398.00**	13541.34			
		Cement (30 km lead)	3.968	MT	**742.00**	2943.95			
		Steel (30 Km lead)	0.12	MT	855.39	105.76			
		TOTAL (In Rs.)				**118780.78**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	4.84	Cum	**584.64**	2831.48	283.15		
		Coarse Aggregate	9.69	Cum	**944.26**	9146.31	914.63		
		Total					**1197.78**		
		AOC FOR CULVERT (Ch.-1.820 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royalty as per specification and direction of E/I.	0.10	Cum	**5021.30**	502.13	0.01	0.03	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	1.050	Sqm	**340.20**	357.21	0.054	0.015	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	1.050	Sqm	**63.20**	66.36	0.00		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.047	Cum	**1075.00**	50.88			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.068	MT	**742.00**	50.11			
		Brick (15 km lead)	50.00	No.	3.18	159.00			
		TOTAL (In Rs.)				**1185.68**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.05	Cum	**584.64**	27.67	2.77		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**2.77**		
		AOC FOR CULVERT/FALL (Ch.-2.240 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royalty as per specification and direction of E/I.	0.17	Cum	**5021.30**	828.51	0.02	0.05	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	10.058	Sqm	**340.20**	3421.87	0.521	0.147	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	10.058	Sqm	**63.20**	635.69	0.02		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.200	Cum	**1075.00**	214.63			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.556	MT	**742.00**	412.20			
		Brick (15 km lead)	82.00	No.	3.18	260.76			
		TOTAL (In Rs.)				**5773.66**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.20	Cum	**584.64**	116.72	11.67		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**11.67**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		AOC FOR FALL (Ch.-2.900 Km)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	18.283	Cum	**2492.58**	45572.34			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**45572.34**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		New fall has been Proposed.							
		AOC FOR FALL (Ch.-3.095 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	130.000	Sqm	**11.80**	1534.57			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	78.660	Sqm	**340.20**	26760.13	4.078	1.148	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	78.660	Sqm	**63.20**	4971.31	0.12		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.148	Cum	**1075.00**	1234.57			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	4.196	MT	**742.00**	3113.23			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
		TOTAL (In Rs.)				**37613.81**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.15	Cum	**584.64**	671.42	67.14		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**67.14**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		AOC FOR CULVERT (Ch.-3.470 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.60	Cum	**5021.30**	2999.76	0.07	0.19	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	10.058	Sqm	**340.20**	3421.87	0.521	0.147	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	10.058	Sqm	**63.20**	635.69	0.02		
4	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	0.38	Cum	**6381.70**	2393.14	0.12	0.17	0.34
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.507	Cum	**1075.00**	544.78			
		Coarse Aggregates (100 Km lead)	0.338	Cum	**1398.00**	471.83			
		Cement (30 km lead)	0.727	MT	**742.00**	539.31			
		Brick (15 km lead)	298.00	No.	3.18	947.64			
		TOTAL (In Rs.)				**11954.02**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.51	Cum	**584.64**	296.28	29.63		
		Coarse Aggregate	0.34	Cum	**944.26**	318.69	31.87		
		Total					**61.50**		
		AOC FOR FALL (Ch.-3.550 Km)							
1	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	4.800	Cum	**6914.20**	33186.41	1.98	2.06	4.13
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	2.064	Cum	**1075.00**	2218.68			
		Coarse Aggregates (100 Km lead)	4.128	Cum	**1398.00**	5770.64			
		Cement (30 km lead)	1.980	MT	**742.00**	1469.08			
		TOTAL (In Rs.)				**42644.81**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	2.06	Cum	**584.64**	1206.63	120.66		
		Coarse Aggregate	4.13	Cum	**944.26**	3897.70	389.77		
		Total					**510.43**		
		AOC FOR FALL (Ch.-4.370 Km)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	15.567	Cum	**2492.58**	38801.69			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**38801.69**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		New fall has been Proposed.							
		AOC FOR FALL (Ch.-4.600 Km)							
1		**Structure is in good condition and does not requir any repair works.**							

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
AOC FOR CULVERT (Ch.-4.715 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	130.000	Sqm	**11.80**	1534.57			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	32.340	Sqm	**340.20**	11002.07	1.677	0.472	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	32.340	Sqm	**63.20**	2043.89	0.05		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.472	Cum	**1075.00**	507.58			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.725	MT	**742.00**	1279.96			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
TOTAL (In Rs.)						**16368.06**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.47	Cum	**584.64**	276.05	27.60		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**27.60**		
AOC FOR CULVERT (Ch.-5.200 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	150.000	Sqm	**11.80**	1770.66			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
TOTAL (In Rs.)						**1770.66**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND

DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF BASDIHA DISTRIBUTARY

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR HR OF Shankarpur & Khaira Mr.(Ch.-0.345 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**140.00**	**Sqm**
2	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		For Shankarpur Mr						
		Hand Rail	*2*	*2.00*	*0.18*	*0.20*	*0.14*	*Cum*
		Post	*2*	*0.28*	*0.25*	*0.86*	*0.12*	*Cum*
		Slab	*1*	*3.05*	*2.00*	*0.15*	*0.92*	*Cum*
		Abutment	*2*	*3.05*	*0.45*	*1.20*	*3.29*	*Cum*
		For Khaira Mr						
		Abutment	*1*	*1.80*	*0.60*	*1.20*	*1.30*	*Cum*
		Side wall	*2*	*1.80*	*0.45*	*1.20*	*1.94*	*Cum*
		TOTAL					***7.71***	***Cum***
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		CR GATE Abutment	*1*	*2*		*7.00*	*14.00*	*Sqm*
		TOTAL					**14.00**	**Sqm**
4	**RCD 8.09**	**Painting on Steel Surfaces (Providing and applying two coats of ready mix paint of approved brand on steel surface after through cleaning of surface to give an even shade)**						
		CR GATE-1	*2*	*3.00*		*1.80*	*10.80*	*Sqm*
		CR GATE-2	*2*	*3.00*		*1.80*	*10.80*	*Sqm*
		TOTAL					**21.60**	**Sqm**
5	**5.3.11**	**Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Quantitiy for 6m Railing						
		Hand Rail (2Nos)	*6*	*2.00*	*0.18*	*0.20*	*0.42*	*Cum*
		Post	*4*	*0.28*	*0.25*	*0.86*	*0.24*	*Cum*
		Total Quantity for 6m Railing with 4 nos. through post					***0.66***	***Cum***
6	**5.3.19**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		Hand Rail (2Nos)	12	2.00		0.20	*4.80*	Sqm
			12		0.18	0.20	*0.42*	Sqm
		Post	8	0.28		0.86	*1.89*	Sqm
			8		0.25	0.86	*1.72*	Sqm
		TOTAL					**8.83**	**Sqm**
QUANTITIES OF REPAIRING WORK FOR CR + BRIDGE AT 0.355 KM								

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**
2	**RCD 8.09**	**Painting on Steel Surfaces (Providing and applying two coats of ready mix paint of approved brand on steel surface after through cleaning of surface to give an even shade).**						
		CR GATE-1	*2*	*2.44*		*2.00*	*9.75*	*Sqm*
		TOTAL					**9.75**	**Sqm**
3	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Quantitiy for 6m Railing						
		Hand Rail (2Nos)	*2*	*2.00*	*0.18*	*0.20*	*0.14*	*Cum*
		Post	*3*	*0.28*	*0.25*	*0.86*	*0.18*	*Cum*
		Total Quantity for 6m Railing with 4 nos. through post					***0.32***	***Cum***
		Total Quantity for 12m Railing with 4 nos. through post					0.63	***Cum***
4	**5.3.19**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		Hand Rail (2Nos)	2	2.00		0.20	*0.80*	Sqm
			2		0.18	0.20	*0.07*	Sqm
		Post	6	0.28		0.86	*1.42*	Sqm
			6		0.25	0.86	*1.29*	Sqm
		TOTAL					**3.58**	**Sqm**
5		**New Fall proposed here.**						
QUANTITIES OF REPAIRING WORK FOR BRIDGE + FALL (Ch.-1.150 Km)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Hand Rail	*2*	*2.00*	*0.18*	*0.20*	*0.14*	*Cum*
		Post	*3*	*0.28*	*0.25*	*0.86*	*0.18*	*Cum*
		Slab	*1*	*6.61*	*4.27*	*0.34*	*9.46*	*Cum*
		Abutment	*2*	*6.00*	*0.45*	*1.80*	*9.72*	*Cum*
		Wing wall	*4*	*3.00*	*0.45*	*1.80*	*9.72*	*Cum*
		Crest	*1*	*3.87*	*1.00*	*1.22*	*4.72*	*Cum*
		TOTAL					***33.94***	***Cum***
2		***New Fall Proposed Here***						

QUANTITIES OF REPAIRING WORK FOR BRIDGE + FALL (Ch.-1.950 Km)		
1	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		D/S Floor	1	6.40	6.40	0.914	*37.45*	*Cum*
		TOTAL					***37.45***	***Cum***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-2.900 Km)								
1	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		U/S Wing wall	2	6.00		2.7	*32.40*	*Sqm*
		Abutment	2	8.00		2.33	*37.20*	*Sqm*
		D/S Wing wall	2	2.00		1.95	*7.80*	*Sqm*
		TOTAL					**77.40**	***Sqm***
2	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		U/S Wing wall	2	6.00		2.7	*32.40*	*Sqm*
		Abutment	2	8.00		2.33	*37.20*	*Sqm*
		D/S Wing wall	2	2.00		1.95	*7.80*	*Sqm*
		TOTAL					**77.40**	***Sqm***
3	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		U/S Wing wall	2	6.00	0.45	0.15	*0.81*	*Cum*
		Abutment	2	8.00	0.45	0.15	*1.08*	*Cum*
		D/S Wing wall	2	2.00	0.45	0.15	*0.27*	*Cum*
		D/S Slope Pitching Top	2	5.00	0.45	0.15	*0.68*	*Cum*
		TOTAL					***2.84***	***Cum***
QUANTITIES OF REPAIRING WORK FOR BRIDGE(Ch.-3.305 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**110.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	6.096	0.25	0.92	*2.80*	*Cum*
		TOTAL					**2.80**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	1	6.10		2.09	*12.74*	*Sqm*
		TOTAL					**12.74**	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	1	6.10		2.09	*12.74*	*Sqm*
		TOTAL					**12.74**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-3.800 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**200.00**	**Sqm**
2	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Wing walls	2	3.00	0.45	2	*5.40*	*Cum*
		TOTAL					***5.40***	***Cum***
3	**5.3.19**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		Wing walls	4	3.00		2	*24.00*	Sqm
			4		0.45	2	*3.60*	Sqm
		TOTAL					**27.60**	**Sqm**
QUANTITIES OF REPAIRING WORK FOR CR + HR OF GAMHARIA MR+ FALL AT 4.580 KM								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**
2	**RCD 8.09**	**Painting on Steel Surfaces (Providing and applying two coats of ready mix paint of approved brand on steel surface after through cleaning of surface to give an even shade).**						
		CR GATE-1	*2*	*2.68*		*1.83*	*9.81*	*Sqm*
		HR GATE	*1*	*1.68*		*1.52*	*2.55*	*Sqm*
		Padestal	*1*	*6.40*		*0.10*	*0.64*	*Sqm*
		TOTAL					**13.01**	**Sqm**
3	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		D/S Floor	1	5.50	6.40	0.152	*5.35*	*Cum*
		TOTAL					***5.35***	***Cum***
4	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Abutment wall For Gamharia Mr	1	4.00		1.25	*5.00*	*Sqm*
		TOTAL					**5.00**	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
5	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Abutment wall For Gamharia Mr	1	4.00		1.25	*5.00*	*Sqm*
		TOTAL					**5.00**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-5.445 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**100.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	6.096	0.25	0.92	*2.80*	*Cum*
		TOTAL					**2.80**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	1	6.10		2.09	*12.74*	*Sqm*
		TOTAL					**12.74**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	1	6.10		2.09	*12.74*	*Sqm*
		TOTAL					**12.74**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE + FALL (Ch.-6.100 Km)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Hand Rail	*8*	*2.00*	*0.18*	*0.20*	*0.56*	*Cum*
		Post	*4*	*0.28*	*0.25*	*0.86*	*0.24*	*Cum*
		Slab	*1*	*6.61*	*4.27*	*0.34*	*9.46*	*Cum*
		Abutment	*2*	*6.00*	*0.45*	*1.80*	*9.72*	*Cum*
		Wing wall	*4*	*3.00*	*0.45*	*1.80*	*9.72*	*Cum*
		Crest	*1*	*3.87*	*1.00*	*1.22*	*4.72*	*Cum*
		TOTAL					***34.42***	***Cum***
2		***New Fall Proposed Here***						
QUANTITIES OF REPAIRING WORK FOR BRIDGE + FALL (Ch.-7.080 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	6.096	0.25	0.92	*2.80*	*Cum*
		TOTAL					**2.80**	**Cum**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	1	6.10		2.09	*12.74*	*Sqm*
		TOTAL					**12.74**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	1	6.10		2.09	*12.74*	*Sqm*
		TOTAL					**12.74**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-8.070 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**
2	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Parapet Post	2	0.25	0.28	0.86	*0.12*	*Cum*
		Parapet hand Rail	4	2.00	0.18	0.20	*0.29*	*Cum*
		TOTAL					***0.41***	***Cum***
3	**5.3.19**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		Parapet	4	0.25		0.86	*0.86*	Sqm
			4		0.28	0.86	*0.96*	Sqm
			8	2.00		0.20	*3.20*	Sqm
			8		0.18	0.20	*0.29*	Sqm
		TOTAL					**5.31**	**Sqm**
QUANTITIES OF REPAIRING WORK FOR CD WORK (Ch.-8.575 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**140.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		U/S & D/S Wing wall	4	10.00		2.25	*90.00*	*Sqm*
		Abutment	2	8.00		3.45	*55.20*	*Sqm*
		TOTAL					**145.20**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		U/S & D/S Wing wall	4	10.00		2.25	*90.00*	*Sqm*
		Abutment	2	8.00		3.45	*55.20*	*Sqm*

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		TOTAL					**145.20**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-8.985 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**130.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	6.096	0.25	0.92	*2.80*	*Cum*
		TOTAL					**2.80**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	1	6.10		2.09	*12.74*	*Sqm*
		TOTAL					**12.74**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	1	6.10		2.09	*12.74*	*Sqm*
		TOTAL					**12.74**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-9.625 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**110.00**	**Sqm**
2	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Parapet Post	8	0.25	0.28	0.86	*0.48*	*Cum*
		Hand Raail	7	2.00	0.18	0.20	*0.50*	*Cum*
		Slab	1	5.18	3.66	0.15	*2.84*	*Cum*
		Abutment	2	3.66	0.50	2.00	*7.32*	*Cum*
		Wing wall	4	3.00	0.45	2.00	*10.80*	*Cum*
		TOTAL					***21.94***	***Cum***
QUANTITIES OF REPAIRING WORK FOR CR + HR OF PRITAMPURA SUB DY , FALL /BRIDGE (Ch.-10.060 Km								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**135.00**	**Sqm**
2	**RCD 8.09**	**Painting on Steel Surfaces (Providing and applying two coats of ready mix paint of approved brand on steel surface after through cleaning of surface to give an even shade).**						
		CR GATE	*1*	*3.66*		*1.40*	*5.13*	*Sqm*
		HR GATE	*1*	*3.51*		*1.22*	*4.27*	*Sqm*
		PADESTAL	*1*	*3.90*		*0.10*	*0.39*	*Sqm*

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		TOTAL					**9.79**	**Sqm**
3	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		D/S Floor	1	5.00	3.66	0.30	*5.56*	*Cum*
		TOTAL					***5.56***	***Cum***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-10.600 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**
2	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		U/S Wing wall	2	2.00		2.25	*9.00*	*Sqm*
		Abutment	2	13.00		2.25	*58.50*	*Sqm*
		D/S wing Wall	2	2.00		1.65	*6.60*	*Sqm*
		TOTAL					**74.10**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-10.760 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**85.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	4.38912	0.25	0.92	*2.02*	*Cum*
		TOTAL					**2.02**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	1	4.39		2.09	*9.17*	*Sqm*
		TOTAL					**9.17**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	1	4.39		2.09	*9.17*	*Sqm*
		TOTAL					**9.17**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-11.150 Km)								
1		**New fall has been proposed.**						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
2	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Wings	2	3.00	0.50	3.00	*9.00*	*Cum*
		Abutment	2	7.00	0.50	3.00	*21.00*	*Cum*
		TOTAL					***30.00***	***Cum***
QUANTITIES OF REPAIRING WORK FOR BRIDGE+ FALL (Ch.-11.800 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	4.572	0.25	0.6	*1.37*	*Cum*
		TOTAL					**1.37**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	1	4.57		1.45	*6.63*	*Sqm*
		TOTAL					**6.63**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	1	4.57		1.45	*6.63*	*Sqm*
		TOTAL					**6.63**	***Sqm***
5	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		D/S Side Slope	1	2.50	2.20	0.2	*1.10*	*Cum*
		TOTAL					***1.10***	***Cum***
QUANTITIES OF REPAIRING WORK FOR HR OF SIMRA MR (Ch.-12.685 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**75.00**	**Sqm**
2	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		For Simra Mr						
		Slab	*1*	*3.05*	*2.00*	*0.15*	*0.92*	*Cum*
		Abutment	*2*	*3.05*	*0.45*	*1.20*	*3.29*	*Cum*
		TOTAL					***4.21***	***Cum***
QUANTITIES OF REPAIRING WORK FOR BRIDGE + FALL (Ch.-13.800 Km)								

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**170.00**	**Sqm**
2	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Parapet	2	4.27	0.25	0.30	*0.66*	*Cum*
		Slab	1	5.18	3.66	0.15	*2.84*	*Cum*
		Abutment	2	3.66	0.45	2.00	*6.58*	*Cum*
		Wing wall	4	5.00	0.30	2.00	*12.00*	*Cum*
		Crest	1	2.90	0.60	0.61	*1.06*	*Cum*
		Floor D/S	1	6.00	2.90	0.50	*8.69*	*Cum*
		TOTAL					***31.83***	***Cum***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-14.465 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**
2	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter**						
		Slab	1	4.27	3.66	0.15	*2.34*	*Cum*
		Abutment	2	3.66	0.45	2.00	*6.58*	*Cum*
		Wing wall	2	5.00	0.30	2.00	*6.00*	*Cum*
		Crest	1	2.74	0.50	0.46	*0.63*	*Cum*
		Floor D/S	1	5.00	2.74	0.50	*6.86*	*Cum*
		TOTAL					***22.41***	***Cum***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-14.950 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				200.00	Sqm
		TOTAL					**200.00**	**Sqm**
2	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		D/S Floor	1	5.00	3.14	0.50	*7.85*	*Cum*
		TOTAL					***7.85***	***Cum***
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-15.515 Km)								
1		**Structure requires no repair work.**						
QUANTITIES OF REPAIRING WORK FOR HR OF SALEMPUR MR (Ch.-15.950 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**150.00**	**Sqm**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
2	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Slab	*1*	*2.70*	*1.80*	*0.15*	*0.73*	*Cum*
		Abutment	*2*	*2.70*	*0.45*	*1.20*	*2.92*	*Cum*
		TOTAL					***3.65***	***Cum***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-16.640Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				170.00	Sqm
		TOTAL					**170.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Abutment	*2*	*8.5*		*2.00*	*34.00*	*Sqm*
		Abutment top	*2*	*8.5*		*0.50*	*8.50*	*Sqm*
		Wings	*4*	*2.5*		*2.00*	*20.00*	*Sqm*
			4	*2.5*		*0.50*	*5.00*	*Sqm*
		TOTAL					**67.50**	**Sqm**
3	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		D/S Floor	1	5.00	2.13	0.50	*5.33*	*Cum*
		TOTAL					***5.33***	***Cum***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-17.125 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**80.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	3.74904	0.25	0.7	*1.31*	*Cum*
		TOTAL					**1.31**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	1	3.75		1.65	*6.19*	*Sqm*
		Abutment	2	3.75		1	*7.50*	*Sqm*
		Wing wall	4	2.00		1	*8.00*	*Sqm*
		TOTAL					**21.68**	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads**						
		Parapet Wall	1	3.75		1.65	*6.19*	*Sqm*
		Abutment	2	3.75		1	*7.50*	*Sqm*
		Wing wall	4	2.00		1	*8.00*	*Sqm*
		TOTAL					**21.68**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR CULVERT + FALL (Ch.-17.300 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**80.00**	**Sqm**
2	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Slab	1	4.00	3.00	0.30	*3.60*	*Cum*
		D/S Floor	1	3.00	1.86	0.33	*1.82*	*Cum*
		TOTAL					***5.42***	***Cum***
3	**5.3.19**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		Slab	2	4.00		0.30	*2.40*	Sqm
			2		3.00	0.30	*1.80*	Sqm
		TOTAL					**4.20**	**Sqm**
QUANTITIES OF REPAIRING WORK FOR BRIDGE + FALL (Ch.-18.040 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**90.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	2.7432	0.25	0.92	*1.26*	*Cum*
		TOTAL					**1.26**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	1	2.74		2.09	*5.73*	*Sqm*
		TOTAL					**5.73**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	1	2.74		2.09	*5.73*	*Sqm*
		TOTAL					**5.73**	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
5	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		D/S Floor	1	3.00	2.29	0.76	*5.23*	*Cum*
		TOTAL					***5.23***	***Cum***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-18.900 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				130.00	Sqm
		TOTAL					**130.00**	**Sqm**
QUANTITIES OF REPAIRING WORK FOR BRIDGE(Ch.-19.170 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and**						
			1				110.00	Sqm
		TOTAL					**110.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	3.2004	0.25	0.92	*1.47*	*Cum*
		TOTAL					**1.47**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	1	3.20		2.09	*6.69*	*Sqm*
		TOTAL					**6.69**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	1	3.20		2.09	*6.69*	*Sqm*
		TOTAL					**6.69**	***Sqm***
5	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Wing wall	2	2.00	0.45	1.5	*2.70*	*Cum*
		TOTAL					***2.70***	***Cum***
6	**5.3.19**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		Wing wall	4	2.00		1.50	*12.00*	Sqm
			4		0.45	1.50	*2.70*	Sqm

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		TOTAL					**14.70**	**Sqm**
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-20.100 Km)								
1		**New fall has been proposed.**						
2	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Slab	1	3.11	4.36	0.30	*4.13*	*Cum*
		Wings	2	3.00	0.50	2.50	*7.50*	*Cum*
		Floor	1	6.00	3.11	0.45	*8.39*	*Cum*
		TOTAL					***20.02***	***Cum***
QUANTITIES OF REPAIRING WORK FOR BRIDGE(Ch.-20.670 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				110.00	Sqm
		TOTAL					**110.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet	*4*	*4.00*		*0.50*	*8.00*	*Sqm*
			4	*4.00*	*0.50*		*8.00*	*Sqm*
		Abutment	*2*	*4.0*		*2.0*	*16.00*	*Sqm*
		Abutment top	*2*	*4.0*		*0.5*	*4.00*	*Sqm*
		Wings	*4*	*2.5*		*2.0*	*20.00*	*Sqm*
			4	*2.5*		*0.5*	*5.00*	*Sqm*
		TOTAL					**61.00**	**Sqm**
QUANTITIES OF REPAIRING WORK FOR BRIDGE + FALL (Ch.-21.100 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				80.00	Sqm
		TOTAL					**80.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Abutment	*2*	*10.0*		*2.0*	*40.00*	*Sqm*
		Abutment top	*2*	*10.0*		*0.5*	*10.00*	*Sqm*
		Wings	*4*	*2.5*		*2.0*	*20.00*	*Sqm*
			4	*2.5*		*0.5*	*5.00*	*Sqm*
		TOTAL					**75.00**	**Sqm**
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.21.280 Km)								
1		**Structure requires no repair work.**						
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.22.600 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
			1				80.00	Sqm
		TOTAL					**80.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Abutment	*2*	*8.0*		*1.8*	*28.80*	*Sqm*
		Abutment top	*2*	*8.0*		*0.5*	*7.20*	*Sqm*
		Wings	*4*	*2.0*		*1.8*	*14.40*	*Sqm*
			4	*2.0*		*0.5*	*3.60*	*Sqm*
		TOTAL					**54.00**	**Sqm**
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-22.765 Km)								
1		**Structure requires no repair work.**						
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-23.080 Km)								
1		**Structure requires no repair work.**						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES (SHANKARPUR MINOR OFFTAKING BASDIHA DY.)								
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-0.005 Km)								
1		**New HR cum Bridge is Proposed Here and Dismentaling Cost is taken in Basdiha Distributary**						
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-0.550 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and**						
			1				100.00	Sqm
		TOTAL					**100.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	1	2.01168	0.25	0.5	*0.25*	*Cum*
		TOTAL					**0.25**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	1	2.01		1.25	*2.51*	*Sqm*
		TOTAL					**2.51**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	1	2.01		1.25	*2.51*	*Sqm*
		TOTAL					**2.51**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE(Ch.-1.055 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and**						
			1				120.00	Sqm
		TOTAL					**120.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	2.62128	0.25	0.92	*1.21*	*Cum*
		TOTAL					**1.21**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	1	2.62		2.09	*5.48*	*Sqm*
		TOTAL					**5.48**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	1	2.62		2.09	*5.48*	*Sqm*

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		TOTAL					**5.48**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE + FALL (Ch.-1.300 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				110.00	Sqm
		TOTAL					**110.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet	*4*	*3.5*		*0.8*	*11.20*	*Sqm*
			2	*3.5*	*0.5*		*3.50*	*Sqm*
		Abutment	*2*	*15.0*		*1.5*	*45.00*	*Sqm*
			2	*15.0*		*0.5*	*15.00*	*Sqm*
		Wings	*4*	*4.0*		*1.5*	*24.00*	*Sqm*
			4	*4.0*	*0.5*		*8.00*	*Sqm*
		TOTAL					**106.70**	**Sqm**
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-1.700 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				110.00	Sqm
		TOTAL					**110.00**	**Sqm**
2	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	1	2.00		0.65	*1.30*	*Sqm*
		Wing wall Top	4	2.50		0.5	*5.00*	*Sqm*
		TOTAL					**6.30**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-2.250 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				130.00	Sqm
		TOTAL					**130.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	2.80416	0.25	0.5	*0.70*	*Cum*
		TOTAL					**0.70**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	1	2.80		1.25	*3.51*	*Sqm*
		Wing wall Top	1	2.00		0.5	*1.00*	*Sqm*
		TOTAL					**4.51**	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	1	2.80		1.25	*3.51*	*Sqm*
		Wing wall Top	1	2.00		0.5	*1.00*	*Sqm*
		TOTAL					**4.51**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE+ FALL (Ch.-2.300 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				180.00	Sqm
		TOTAL					**180.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	2.1336	0.25	0.92	*0.98*	*Cum*
		TOTAL					**0.98**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	1	2.13		2.09	*4.46*	*Sqm*
		TOTAL					**4.46**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	1	2.13		2.09	*4.46*	*Sqm*
		TOTAL					**4.46**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-2.950 Km)								
1		**New fall has been proposed.**						
2	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Wings U/S & D/S	4	3.00	0.50	2.20	*13.20*	*Cum*
		Abutment	2	10.00	0.50	2.20	*22.00*	*Cum*
		Crest	1	1.22	0.50	1.67	*1.02*	*Cum*
		TOTAL					***36.22***	***Cum***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-3.700 Km)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Floor D/S	1	8.00	1.22	0.15	*1.49*	*Cum*
		TOTAL					***1.49***	***Cum***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-4.350 Km)								
1		**New fall has been proposed.**						
2	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Wings U/S & D/S	4	3.00	0.50	1.80	*10.80*	*Cum*
		Abutment	2	8.00	0.50	1.80	*14.40*	*Cum*
		Crest	1	1.16	0.50	1.07	*0.62*	*Cum*
		TOTAL					***25.82***	***Cum***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES (KHAIRA MINOR)								
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-0.735 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				120.00	Sqm
		TOTAL					**120.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	2.1336	0.5	0.52	*1.11*	*Cum*
		TOTAL					**1.11**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	1	2.13		1.25	*2.67*	*Sqm*
		TOTAL					**2.67**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	1	2.13		1.25	*2.67*	*Sqm*
		TOTAL					**2.67**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-1.125 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				120.00	Sqm
		TOTAL					**120.00**	**Sqm**
2	**5.1.31**	**Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I**						
		Side Slope	1	3.00	1.23	2	*7.35*	*Cum*
		TOTAL					**7.35**	***Cum***
3	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Side Slope	1	3.00	1.23	0.15	*0.55*	*Cum*
		TOTAL					**0.55**	***Cum***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
4	5.3.5	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		D/S Floor	1	7.00	2.74	0.50	*9.60*	*Cum*
		TOTAL					***9.60***	***Cum***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-1.740 Km)								
1	5.4.6	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	1	3.3528	0.25	0.92	*0.77*	*Cum*
		TOTAL					**0.77**	**Cum**
2	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	1	3.35		2.09	*7.01*	*Sqm*
		TOTAL					**7.01**	***Sqm***
3	5.5.10	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	1	3.35		2.09	*7.01*	*Sqm*
		TOTAL					**7.01**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.-2.050 Km)								
1	5.4.6	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	3.9624	0.1	0.92	*0.73*	*Cum*
		TOTAL					**0.73**	**Cum**
2	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	3.96		2.09	*16.56*	*Sqm*
		TOTAL					**16.56**	***Sqm***
3	5.5.10	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	3.96		2.09	*16.56*	*Sqm*
		TOTAL					**16.56**	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
4	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		D/S Floor	1	7.00	2.74	0.50	*9.60*	*Cum*
		TOTAL					***9.60***	***Cum***

QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-2.375 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	3.53568	0.1	0.4	*0.28*	*Cum*
		TOTAL					**0.28**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	3.54		2.09	*14.78*	*Sqm*
		TOTAL					**14.78**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads**						
		Parapet Wall	2	3.54		2.09	*14.78*	*Sqm*
		TOTAL					**14.78**	***Sqm***

QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT(Ch.-2.460Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				150.00	Sqm
		TOTAL					**150.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Abutment U/S & D/S	2	4.45		2	*17.80*	*Sqm*
		TOTAL					**17.80**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Abutment U/S & D/S	2	4.45		2	*17.80*	*Sqm*
		TOTAL					**17.80**	***Sqm***

QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-2.630 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				120.00	Sqm

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		TOTAL					**120.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	3.84048	0.25	0.92	*1.77*	*Cum*
		TOTAL					**1.77**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	3.84		2.09	*16.05*	*Sqm*
		TOTAL					**16.05**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	3.84		2.09	*16.05*	*Sqm*
		TOTAL					**16.05**	***Sqm***

		QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.-3.025 Km)						
1	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Crest	1	2.47	0.50	0.42	*0.52*	*Cum*
		TOTAL					***0.52***	***Cum***

		QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-3.255 Km)						
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	2.98704	0.1	0.92	*0.55*	*Cum*
		TOTAL					**0.55**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	2.99		1.94	*11.59*	*Sqm*
		TOTAL					**11.59**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	2.99		1.94	*11.59*	*Sqm*
		TOTAL					**11.59**	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.-3.850 Km)								
1		**New fall has been proposed.**						
2	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Wings U/S & D/S	4	3.00	0.50	1.50	*9.00*	*Cum*
		Abutment	2	6.00	0.50	1.50	*9.00*	*Cum*
		Crest	1	1.16	0.50	0.76	*0.44*	*Cum*
		Slab	1	4.33	3.84	0.30	*4.99*	*Cum*
		TOTAL					***23.43***	***Cum***

QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-4.350 Km)								
1	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per**						
		Floor D/S	1	8.00	2.74	0.50	*10.97*	*Cum*
		TOTAL					***10.97***	***Cum***

QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-4.885 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	3.5052	0.25	0.7	*1.23*	*Cum*
		TOTAL					**1.23**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	3.51		1.65	*11.57*	*Sqm*
		TOTAL					**11.57**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	3.51		1.65	*11.57*	*Sqm*
		TOTAL					**11.57**	***Sqm***
4	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Wing wall	1	2.50	0.45	1.8	*2.03*	*Cum*
		TOTAL					**2.03**	***Cum***
5	**5.3.19**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		Wing wall	2	2.50		1.80	*9.00*	Sqm
			2		0.45	1.80	*1.62*	Sqm
		TOTAL					**10.62**	**Sqm**

		QUANTITIES OF REPAIRING WORK FOR FALL/BRIDGE (Ch.-5.450 Km)						
1	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor D/S	1	6.00	2.13	1.07	*13.66*	*Cum*
		TOTAL					***13.66***	***Cum***

		QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.-6.635 Km)						
1		**New fall has been proposed.**						
2	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Wings U/S & D/S	2	4.15	0.52	1.50	*6.44*	*Cum*
		Abutment	2	4.27	0.52	1.50	*6.63*	*Cum*
		Crest	1	1.22	0.50	0.76	*0.46*	*Cum*
		Slab	1	4.27	4.27	0.30	*5.46*	*Cum*
		TOTAL					***19.00***	***Cum***

		QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-7.005 Km)						
1	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Wing wall Cracks	1	0.30	0.45	1	*0.14*	*Cum*
		TOTAL					**0.14**	***Cum***

		QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-7.450 Km)						
1	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor D/S	1	6.00	2.10	0.91	*11.53*	*Cum*
		TOTAL					***11.53***	***Cum***

		QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-7.950Km)						
1	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		Abutmet	2	0.45		2.7	*2.43*	*Sqm*
		TOTAL					**2.43**	***Sqm***
2	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Abutmet	2	0.45		0.65	*0.59*	*Sqm*
		TOTAL					**0.59**	***Sqm***
3	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Wing wall	4	2.00	0.45	1.5	*5.40*	*Cum*
		TOTAL					**5.40**	***Cum***
4	**5.3.19**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		Wing wall	8	2.00		1.50	*24.00*	Sqm
			8		0.45	1.50	*5.40*	Sqm
		TOTAL					**29.40**	**Sqm**
		QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-8.250Km)						
1		**Structure requires no repair work.**						

		QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.-8.450 Km)						
1		**New fall has been proposed.**						
2	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Wings U/S & D/S	2	2.00	0.43	1.20	*2.05*	*Cum*
		Abutment	2	10.00	0.43	1.20	*10.24*	*Cum*
		Crest	1	0.90	0.50	0.61	*0.27*	*Cum*
		Slab	1	4.36	1.83	0.30	*2.39*	*Cum*
		TOTAL					***14.96***	***Cum***

		QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-9.220 Km)						
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				180.00	Sqm
		TOTAL					**180.00**	**Sqm**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES (GAMHARIA MINOR)								
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.500 Km)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		D/S Floor	1	8.00	1.52	0.15	*1.85*	*Cum*
		TOTAL					***1.85***	***Cum***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-0.650Km)								
1	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	3.35		2.09	*14.01*	*Sqm*
		Abutment	2	3.35		1.2	*8.05*	*Sqm*
		Wing wall	4	3.05		1.65	*20.12*	*Sqm*
		TOTAL					**42.18**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-1.050 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	3.32232	0.25	0.92	*1.53*	*Cum*
		TOTAL					**1.53**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	3.32		2.09	*13.89*	*Sqm*
		TOTAL					**13.89**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	3.32		2.09	*13.89*	*Sqm*
		TOTAL					**13.89**	***Sqm***
4	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Crest	1	1.19	0.49	0.79	*0.46*	*Cum*
		TOTAL					***0.46***	***Cum***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-1.600 Km)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		D/S Floor	1	8.00	1.52	0.31	*3.72*	*Cum*
		TOTAL					***3.72***	***Cum***
2	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Crest	1	1.52	0.49	1.52	*1.13*	*Cum*
		TOTAL					***1.13***	***Cum***

QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-1.770Km)								
1	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	3.66		2.09	*15.29*	*Sqm*
		Abutment	2	3.66		1.2	*8.78*	*Sqm*
		Wing wall	4	3.05		1.65	*20.12*	*Sqm*
		TOTAL					**44.18**	***Sqm***

QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-2.450 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				200.00	Sqm
		TOTAL					**200.00**	**Sqm**
2	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Abutment	2	4.00		3.45	*27.60*	*Sqm*
		U/S Wing wall	2	3.00		3.45	*20.70*	*Sqm*
		D/S Wing wall	2	2.00		3.45	*13.80*	*Sqm*
		D/S Side wall	2	6.00		2.45	*29.40*	*Sqm*
		TOTAL					**91.50**	***Sqm***

QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-2.810 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	3.32232	0.25	0.92	*1.53*	*Cum*
		TOTAL					**1.53**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	3.32		2.09	*13.89*	*Sqm*
		TOTAL					**13.89**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		Parapet Wall	2	3.32		2.09	*13.89*	*Sqm*
		TOTAL					**13.89**	***Sqm***

QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-3.300 Km)								
1	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Crest	1	3.50	0.55	1.20	*2.31*	*Cum*
		TOTAL					***2.31***	***Cum***

QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-4.300 Km)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		D/S Floor	1	8.00	1.22	0.31	*2.97*	*Cum*
		TOTAL					***2.97***	***Cum***
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Abutment	2	8.00		1	*16.00*	*Sqm*
		TOTAL					**16.00**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	8.00		1	*16.00*	*Sqm*
		TOTAL					**16.00**	***Sqm***

QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-5.275 Km)		
1		**Structure requires no repair work.**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES (PRITAMPURA SUB DY.)								
QUANTITIES OF REPAIRING WORK FOR CULVERT/FALL (Ch.-0.305Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	3.9624	0.25	0.92	*1.82*	*Cum*
		Wing wall Extended Portion	2	1	0.45	0.75	*0.68*	*Cum*
		TOTAL					**2.50**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	3.96		2.09	*16.56*	*Sqm*
		TOTAL					**16.56**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	3.96		2.09	*16.56*	*Sqm*
		TOTAL					**16.56**	***Sqm***

QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-0.555 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				160.00	Sqm
		TOTAL					**160.00**	**Sqm**
QUANTITIES OF REPAIRING WORK FOR CULVERT/FALL (Ch.-1.050 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	1	4.35864	0.25	0.92	*1.00*	*Cum*
		TOTAL					**1.00**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	4.36		2.09	*18.22*	*Sqm*
		TOTAL					**18.22**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	4.36		2.09	*18.22*	*Sqm*
		TOTAL					**18.22**	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR CULVERT/FALL (Ch.-1.650 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	2.4	0.25	0.7	*0.84*	*Cum*
		TOTAL					**0.84**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	2.40		1.65	*7.92*	*Sqm*
		TOTAL					**7.92**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	2.40		1.65	*7.92*	*Sqm*
		TOTAL					**7.92**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR AQUEDUCT (Ch.-2.280 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	1	0.25	0.5	*0.25*	*Cum*
		TOTAL					**0.25**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	1.00		1.25	*2.50*	*Sqm*
		TOTAL					**2.50**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	1.00		1.25	*2.50*	*Sqm*
		TOTAL					**2.50**	***Sqm***
4	**5.3.11**	**Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Wearing Coat on Slab	1	5.12064	4.3891	0.075	*1.69*	*Cum*
		TOTAL					**1.69**	**Cum**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
5	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor path Hole Filling	1	0.50	1.00	0.30	*0.15*	*Cum*
		TOTAL					***0.15***	***Cum***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-2.600 Km)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter**						
		Abutment	2	10.00	0.50	1.20	*12.00*	*Cum*
		Wing wall	4	3.00	0.50	1.20	*7.20*	*Cum*
		Crest	1	3.05	0.50	1.83	*2.79*	*Cum*
		TOTAL					***21.99***	***Cum***
QUANTITIES OF REPAIRING WORK FOR CULVERT/FALL (Ch.-3.200 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	3.93192	0.25	0.92	*1.81*	*Cum*
		TOTAL					**1.81**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	3.93		2.09	*16.44*	*Sqm*
		TOTAL					**16.44**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	3.93		2.09	*16.44*	*Sqm*
		TOTAL					**16.44**	***Sqm***
4	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		D/S Floor	1	7.00	3.11	0.30	*6.62*	*Cum*
		TOTAL					***6.62***	***Cum***
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-3.650 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				110.00	Sqm
		TOTAL					**110.00**	**Sqm**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	3.35		2.09	*14.01*	*Sqm*
		Wing wall	4	2.50		1.65	*16.50*	*Sqm*
		Abutment	2	3.35		1.65	*11.06*	*Sqm*
		TOTAL					**41.58**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	*3.35*		*2.09*	*14.0*	*Sqm*
		Wing wall	*4*	*2.50*		*1.65*	*16.5*	*Sqm*
		Abutment	*2*	*3.35*		*1.65*	*11.1*	*Sqm*
		TOTAL					**41.58**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-4.110 Km)						
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	4.75488	0.25	0.92	*2.19*	*Cum*
		TOTAL					**2.19**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	4.75		2.09	*19.88*	*Sqm*
		TOTAL					**19.88**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	4.75		2.09	*19.88*	*Sqm*
		TOTAL					**19.88**	***Sqm***
4	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Wing wall	1	1.20	0.50	1.8	*1.08*	*Cum*
		TOTAL					**1.08**	***Cum***
5	**5.3.19**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		Wing wall	2	1.20		1.80	*4.32*	Sqm
			2		0.50	1.80	*1.80*	Sqm
		TOTAL					**6.12**	**Sqm**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR CULVERT/FALL (Ch.-4.150 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	3.6576	0.1	0.92	*0.67*	*Cum*
		TOTAL					**0.67**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	3.66		1.94	*14.19*	*Sqm*
		TOTAL					**14.19**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	3.66		1.94	*14.19*	*Sqm*
		TOTAL					**14.19**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-4.260 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	3.048	0.1	0.5	*0.30*	*Cum*
		TOTAL					**0.30**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	3.05		1.1	*6.71*	*Sqm*
		TOTAL					**6.71**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	3.05		1.1	*6.71*	*Sqm*
		TOTAL					**6.71**	***Sqm***
4	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Wing wall top	4	1.50	0.25	0.15	*0.23*	*Cum*
		TOTAL					**0.23**	***Cum***
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-4.280 Km)								

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
1	5.4.6	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	2.80416	0.1	0.5	*0.28*	*Cum*
		TOTAL					**0.28**	**Cum**
2	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	2.80		1.1	*6.17*	*Sqm*
		TOTAL					**6.17**	***Sqm***
3	5.5.10	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	2.80		1.1	*6.17*	*Sqm*
		TOTAL					**6.17**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-4.695 Km)								
1	5.1.3	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				150.00	Sqm
		TOTAL					**150.00**	**Sqm**
2	5.4.6	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	4.20624	0.25	0.92	*1.93*	*Cum*
		TOTAL					**1.93**	**Cum**
3	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	4.21		2.09	*17.58*	*Sqm*

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		TOTAL					**17.58**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	4.21		2.09	*17.58*	*Sqm*
		TOTAL					**17.58**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-5.255 Km)								
	New Structure at site.							
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-5.850 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				120.00	Sqm
		TOTAL					**120.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		U/S Wing wall	2	2.50		1.65	*8.25*	*Sqm*
		Abutment	2	3.50		1.655	*11.59*	*Sqm*
		Side wall	2	6.00		1.37	*16.44*	*Sqm*
		U/S Wing wall	2	2.00		1.37	*5.48*	*Sqm*
		TOTAL					**41.76**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		U/S Wing wall	2	2.50		1.65	*8.25*	*Sqm*
		Abutment	2	3.50		1.655	*11.59*	*Sqm*
		Side wall	2	6.00		1.37	*16.44*	*Sqm*
		U/S Wing wall	2	2.00		1.37	*5.48*	*Sqm*
		TOTAL					**41.76**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-6.285 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	3.6576	0.25	0.92	*1.68*	*Cum*
		TOTAL					**1.68**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	3.66		2.09	*15.29*	*Sqm*
		TOTAL					**15.29**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	3.66		2.09	*15.29*	*Sqm*
		TOTAL					**15.29**	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR CULVERT/FALL (Ch.-6.650 Km)								
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
			1				160.00	Sqm
		TOTAL					**160.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	5.1816	0.25	0.92	*2.38*	*Cum*
		TOTAL					**2.38**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	5.18		2.09	*21.66*	*Sqm*
		TOTAL					**21.66**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	5.18		2.09	*21.66*	*Sqm*
		TOTAL					**21.66**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-6.735 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	5.1816	0.1	0.5	*0.52*	*Cum*
		TOTAL					**0.52**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	5.18		1.1	*11.40*	*Sqm*
		TOTAL					**11.40**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	5.18		1.1	*11.40*	*Sqm*
		TOTAL					**11.40**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-7.015 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				100.00	Sqm
		TOTAL					**100.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	3.9624	0.25	0.92	*1.82*	*Cum*
		TOTAL					**1.82**	**Cum**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	3.96		2.09	*16.56*	*Sqm*
		TOTAL					**16.56**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	3.96		2.09	*16.56*	*Sqm*
		TOTAL					**16.56**	***Sqm***
5	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Wing wall	1	3.00	0.50	1.5	*2.25*	*Cum*
		TOTAL					**2.25**	***Cum***
6	**5.3.19**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		Wing wall	2	3.00		1.50	*9.00*	Sqm
			2		0.50	1.50	*1.50*	Sqm
		TOTAL					**10.50**	**Sqm**
QUANTITIES OF REPAIRING WORK FOR HR OF CHANDAULI MINOR (Ch.-7.435 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**
2	**RCD 8.09**	**Painting on Steel Surfaces (Providing and applying two coats of ready mix paint of approved brand on steel surface after through cleaning of surface to give an even shade).**						
		HR GATE-1	*2*	*0.91*		*1.50*	*2.74*	*Sqm*
		TOTAL					**2.74**	**Sqm**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Gate Abutment Surface	1	4.00		1.2	*4.80*	*Sqm*
		TOTAL					**4.80**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Gate Abutment Surface	2	4.00		1.2	*9.60*	*Sqm*
		TOTAL					**9.60**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR CULVERT/FALL (Ch.-7.450 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				110.00	Sqm
		TOTAL					**110.00**	**Sqm**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	3.41376	0.25	0.92	*1.57*	*Cum*
		TOTAL					**1.57**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	3.41		2.09	*14.27*	*Sqm*
		TOTAL					**14.27**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	3.41		2.09	*14.27*	*Sqm*
		TOTAL					**14.27**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-8.410 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				90.00	Sqm
		TOTAL					**90.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	2.95656	0.25	0.92	*1.36*	*Cum*
		TOTAL					**1.36**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	2.96		2.09	*12.36*	*Sqm*
		TOTAL					**12.36**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	2.96		2.09	*12.36*	*Sqm*
		TOTAL					**12.36**	***Sqm***
5	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Wing wall	1	3.00	0.50	1.5	*2.25*	*Cum*
		TOTAL					**2.25**	***Cum***
6	**5.3.19**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		Wing wall	2	3.00		1.50	*9.00*	Sqm

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
			2		0.50	1.50	*1.50*	Sqm
		TOTAL					**10.50**	**Sqm**
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-8.850 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				110.00	Sqm
		TOTAL					**110.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	3.6576	0.25	0.92	*1.68*	*Cum*
		TOTAL					**1.68**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	3.66		2.09	*15.29*	*Sqm*
		TOTAL					**15.29**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	3.66		2.09	*15.29*	*Sqm*
		TOTAL					**15.29**	***Sqm***
5	**5.1.31**	**Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I**						
		Ramp U/S & D/S	2	3	4.1148	0.25	*6.17*	*Cum*
		TOTAL					**6.17**	**Cum**
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-9.250 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				130.00	Sqm
		TOTAL					**130.00**	**Sqm**
2	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Crest	1	0.61	0.50	1.22	*0.37*	*Cum*
		TOTAL					***0.37***	***Cum***
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-9.670 Km)								

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
1	5.1.3	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				100.00	Sqm
		TOTAL					**100.00**	**Sqm**
2	5.4.6	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	3.07848	0.25	0.92	*1.42*	*Cum*
		TOTAL					**1.42**	**Cum**
3	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	3.08		2.09	*12.87*	*Sqm*
		TOTAL					**12.87**	***Sqm***
4	5.5.10	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	3.08		2.09	*12.87*	*Sqm*
		TOTAL					**12.87**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-10.075 Km)								
1	5.1.3	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				120.00	Sqm
		TOTAL					**120.00**	**Sqm**
2	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	4.57		1.5	*13.72*	*Sqm*
		TOTAL					**13.72**	***Sqm***
3	5.5.10	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	4.57		1.5	*13.72*	*Sqm*
		TOTAL					**13.72**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT/FALL (Ch.-10.110 Km)								
1	5.1.3	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				110.00	Sqm
		TOTAL					**110.00**	**Sqm**
2	5.4.6	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	2.7432	0.25	0.92	*1.26*	*Cum*
		TOTAL					**1.26**	**Cum**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	2.74		2.09	*11.47*	*Sqm*
		TOTAL					**11.47**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	2.74		2.09	*11.47*	*Sqm*
		TOTAL					**11.47**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-10.785 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				110.00	Sqm
		TOTAL					**110.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	3.3528	0.25	0.92	*1.54*	*Cum*
		TOTAL					**1.54**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	3.35		2.09	*14.01*	*Sqm*
		Abutment	2	3.35		1.5	*10.06*	*Sqm*
		Wing wall	4	3.05		2.5	*30.48*	*Sqm*
		TOTAL					**54.55**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	3.35		2.09	*14.01*	*Sqm*
		Abutment	2	3.35		1.5	*10.06*	*Sqm*
		Wing wall	4	3.05		2.5	*30.48*	*Sqm*
		TOTAL					**54.55**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-11.770 Km)								
1	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Wing wall U/S Top	1	3.00	0.50	0.15	*0.23*	*Cum*
		Wing wall D/S Top	1	3.00	0.50	0.15	*0.23*	*Cum*
		Abutment Top	1	7.47	0.50	0.15	*0.56*	*Cum*
		TOTAL					**1.01**	***Cum***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-12.150 Km)								

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Abutment	2	10.06	0.50	1.80	*18.11*	*Cum*
		Wing wall	4	3.00	0.50	1.50	*9.00*	*Cum*
		Crest	1	2.32	0.50	0.61	*0.71*	*Cum*
		Slab	1	4.00	3.20	0.25	*3.20*	*Cum*
		TOTAL					***31.01***	***Cum***
2		**New fall has been Proposed.**						
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-12.915 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				130.00	Sqm
		TOTAL					**130.00**	**Sqm**
2	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	2.29		1.5	*6.86*	*Sqm*
		TOTAL					**6.86**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-13.350 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				150.00	Sqm
		TOTAL					**150.00**	**Sqm**
2	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Wing wall U/S Top	1	3.00	0.50	0.15	*0.23*	*Cum*
		Wing wall D/S Top	1	3.00	0.50	0.15	*0.23*	*Cum*
		Abutment Top	1	11.58	0.50	0.15	*0.87*	*Cum*
		TOTAL					**1.32**	***Cum***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-13.680 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				135.00	Sqm
		TOTAL					**135.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	3.6576	0.25	0.92	*1.68*	*Cum*
		TOTAL					**1.68**	**Cum**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	3.66		2.09	*15.29*	*Sqm*
		TOTAL					**15.29**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	3.66		2.09	*15.29*	*Sqm*
		TOTAL					**15.29**	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES (CHANDAULI MR.)								
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.100 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				120.00	Sqm
		TOTAL					**120.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	3.05		1.9	*5.79*	*Sqm*
		Abutment	2	8.23		1.2	*19.75*	*Sqm*
		Well	1	1.46		1.2	*1.75*	*Sqm*
		TOTAL					**27.30**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	1	3.05		1.9	*5.79*	*Sqm*
		Abutment	2	8.23		1.2	*19.75*	*Sqm*
		Well	1	1.46		1.2	*1.75*	*Sqm*
		TOTAL					**27.30**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-0.660 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				90.00	Sqm
		TOTAL					**90.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	2.8956	0.25	0.92	*1.33*	*Cum*
		TOTAL					**1.33**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	2.90		2.09	*12.10*	*Sqm*
		TOTAL					**12.10**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	2.90		2.09	*12.10*	*Sqm*
		TOTAL					**12.10**	***Sqm***
5	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Wing wall	1	1.00	0.50	1.5	*0.75*	*Cum*
		TOTAL					**0.75**	***Cum***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
6	5.3.19	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		Wing wall	2	1.00		1.50	*3.00*	Sqm
			2		0.50	1.50	*1.50*	Sqm
		TOTAL					**4.50**	**Sqm**
QUANTITIES OF REPAIRING WORK FOR CROSS DRAINAGE (Ch.-0.695 Km)								
1	5.1.3	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				100.00	Sqm
		TOTAL					**100.00**	**Sqm**
2	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	2	2.44		1.9	*9.27*	*Sqm*
		Abutment	2	3.05		1.9	*11.58*	*Sqm*
		Wing Wall	4	2.83		1.9	*21.54*	*Sqm*
		TOTAL					**42.39**	***Sqm***
3	5.5.10	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	2	2.44		1.9	*9.27*	*Sqm*
		Abutment	2	3.05		1.9	*11.58*	*Sqm*
		Wing Wall	4	2.83		1.9	*21.54*	*Sqm*
		TOTAL					**42.39**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.900 Km)								
1	5.1.3	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				130.00	Sqm
		TOTAL					**130.00**	**Sqm**
2	5.3.5	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		D/S Floor	1	5.00	1.55	0.30	*2.33*	*Cum*
		TOTAL					***2.33***	***Cum***
QUANTITIES OF REPAIRING WORK FOR FALL/CULVERT (Ch.-1.335 Km)								
1	5.1.3	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				100.00	Sqm
		TOTAL					**100.00**	**Sqm**
2	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		Parapet Wall U/S	2	2.44		2.5	*12.19*	*Sqm*
		Abutment	2	3.05		2.5	*15.24*	*Sqm*
		Wing Wall	4	2.83		2.5	*28.35*	*Sqm*
		TOTAL					**55.78**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	2	2.44		2.5	*12.19*	*Sqm*
		Abutment	2	3.05		2.5	*15.24*	*Sqm*
		Wing Wall	4	2.83		2.5	*28.35*	*Sqm*
		TOTAL					**55.78**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-1.800 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				130.00	Sqm
		TOTAL					**130.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Abutment	2	7.00		2.2	*30.80*	*Sqm*
		Wing Wall	4	3.00		2.2	*26.40*	*Sqm*
		TOTAL					**57.20**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Abutment	2	7.00		2.2	*30.80*	*Sqm*
		Wing Wall	4	3.00		2.2	*26.40*	*Sqm*
		TOTAL					**57.20**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-2.168 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				150.00	Sqm
		TOTAL					**150.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	2	2.44		2.5	*12.19*	*Sqm*
		Wing Wall	4	3.00		2.5	*30.00*	*Sqm*
		TOTAL					**42.19**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	2	2.44		2.5	*12.19*	*Sqm*
		Wing Wall	4	3.00		2.5	*30.00*	*Sqm*
		TOTAL					**42.19**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR CROSS DRAINAGE (Ch.-2.470 Km)								

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				120.00	Sqm
		TOTAL					**120.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	2	3.35		1.9	*12.74*	*Sqm*
		Abutment	2	3.05		1.9	*11.58*	*Sqm*
		Wing Wall	4	2.83		1.9	*21.54*	*Sqm*
		TOTAL					**45.87**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	2	3.35		1.9	*12.74*	*Sqm*
		Abutment	2	3.05		1.9	*11.58*	*Sqm*
		Wing Wall	4	2.83		1.9	*21.54*	*Sqm*
		TOTAL					**45.87**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-2.795 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				130.00	Sqm
		TOTAL					**130.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Abutment	2	6.50		2	*26.00*	*Sqm*
		Wing Wall	4	3.00		2	*24.00*	*Sqm*
		TOTAL					**50.00**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Abutment	2	6.50		2	*26.00*	*Sqm*
		Wing Wall	4	3.00		2	*24.00*	*Sqm*
		TOTAL					**50.00**	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES (SIMRA MR.)								
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.610 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				150.00	Sqm
		TOTAL					**150.00**	**Sqm**
2	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		D/S Floor	1	8.00	1.55	0.30	*3.73*	*Cum*
		TOTAL					***3.73***	***Cum***
3	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Abutment	1	2.70	0.50	1.5	*2.03*	*Cum*
		TOTAL					**2.03**	***Cum***
4	**5.3.18**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		Wing wall	2	2.70		1.50	*8.10*	Sqm
			2		0.50	1.50	*1.50*	Sqm
		TOTAL					**9.60**	**Sqm**
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-1.600 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				120.00	Sqm
		TOTAL					**120.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	4.75488	0.25	0.92	*2.19*	*Cum*
		TOTAL					**2.19**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	4.75		2.09	*19.88*	*Sqm*
		TOTAL					**19.88**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	4.75		2.09	*19.88*	*Sqm*

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		TOTAL					**19.88**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-2.000 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				110.00	Sqm
		TOTAL					**110.00**	**Sqm**
2	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		D/S Floor	1	7.00	1.10	0.30	*2.34*	*Cum*
		TOTAL					***2.34***	***Cum***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-3.380 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	3.6576	0.25	0.92	*1.68*	*Cum*
		TOTAL					**1.68**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	3.66		2.09	*15.29*	*Sqm*
		TOTAL					**15.29**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	3.66		2.09	*15.29*	*Sqm*
		TOTAL					**15.29**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-3.460 Km)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Abutment	2	10.06	0.50	1.80	*18.11*	*Cum*
		Wing wall	4	3.00	0.50	1.50	*9.00*	*Cum*
		Crest	1	2.00	0.70	0.43	*0.60*	*Cum*
		TOTAL					***27.70***	***Cum***
2		**New fall has been Proposed.**						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES (SALEMPUR MR.)								
QUANTITIES OF REPAIRING WORK FOR CROSS DRAINAGE (Ch.-0.020 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				110.00	Sqm
		TOTAL					**110.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	2	3.35		1.9	*12.74*	*Sqm*
		TOTAL					**12.74**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	2	3.35		1.9	*12.74*	*Sqm*
		TOTAL					**12.74**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-0.575 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including**						
		Parapet Wall	2	3.048	0.25	0.3	*0.46*	*Cum*
		TOTAL					**0.46**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	3.05		2.09	*12.74*	*Sqm*
		Wing wall	4	3.00		1.95	*23.40*	*Sqm*
		TOTAL					**36.14**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	3.05		2.09	*12.74*	*Sqm*
		Wing wall	4	3.00		1.95	*23.40*	*Sqm*
		TOTAL					**36.14**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.950 Km)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Abutment	2	5.79	0.50	1.80	*10.42*	*Cum*
		Wing wall	2	2.10	0.50	1.50	*3.15*	*Cum*
		Crest	1	1.80	0.70	0.50	*0.63*	*Cum*
		TOTAL					***14.20***	***Cum***
2		**New fall has been Proposed.**						
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-1.600 Km)								

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
1	5.3.4	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Abutment	2	7.00	0.25	1.8	*6.30*	*Cum*
		TOTAL					**6.30**	***Cum***
2	5.3.18	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		Abutment	2	7.00		1.8	*25.20*	Sqm
			2		0.25	1.8	*0.90*	Sqm
		TOTAL					**26.10**	**Sqm**
3	WRD 5.3.22	**Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.**						
		0.25% skin Reinforcement for Abutment Walls	6.30	0.0025	0.016	7850	*123.64*	kg
		TOTAL Weight of Steel (in Kg)					**123.64**	**kg**
		TOTAL Weight of Steel (in Tonne)					**0.12**	**MT**
4	5.3.5	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		D/S Floor	1	7.00	2.19	0.30	*4.67*	*Cum*
		TOTAL					***4.67***	***Cum***
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-1.820 Km)								
1	5.4.6	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	1	1	0.25	0.4	*0.10*	*Cum*
		TOTAL					**0.10**	**Cum**
2	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	1	1.00		1.05	*1.05*	*Sqm*
		TOTAL					**1.05**	***Sqm***
3	5.5.10	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	1	1.00		1.05	*1.05*	*Sqm*
		TOTAL					**1.05**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR CULVERT/FALL (Ch.-2.240 Km)								

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
1	5.4.6	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	1	2.2	0.25	0.3	*0.17*	*Cum*
		TOTAL					**0.17**	**Cum**
2	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	3.05		1.65	*10.06*	*Sqm*
		TOTAL					**10.06**	***Sqm***
3	5.5.10	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	3.05		1.65	*10.06*	*Sqm*
		TOTAL					**10.06**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-2.900 Km)								
1	5.8.9	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Abutment	2	5.18	0.50	2.00	*10.36*	*Cum*
		Wing wall U/S	2	3.00	0.50	1.80	*5.40*	*Cum*
		Wing wall D/S	2	2.10	0.50	1.20	*2.52*	*Cum*
		TOTAL					***18.28***	***Cum***
2		**New fall has been Proposed.**						
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-3.095 Km)								
1	5.1.3	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				130.00	Sqm
		TOTAL					**130.00**	**Sqm**
2	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		U/S Wing wall	2	2.50		3.15	*15.75*	*Sqm*
		Abutment	2	4.50		3.15	*28.35*	*Sqm*
		Side wall	2	6.00		2.25	*27.00*	*Sqm*
		D/S wing wall	2	2.00		1.89	*7.56*	*Sqm*
		TOTAL					**78.66**	***Sqm***
3	5.5.10	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		U/S Wing wall	2	2.50		3.15	*15.75*	*Sqm*
		Abutment	2	4.50		3.15	*28.35*	*Sqm*
		Side wall	2	6.00		2.25	*27.00*	*Sqm*
		D/S wing wall	2	2.00		1.89	*7.56*	*Sqm*
		TOTAL					**78.66**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-3.470 Km)								

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
1	5.4.6	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	1	3.41376	0.25	0.7	*0.60*	*Cum*
		TOTAL					**0.60**	**Cum**
2	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	3.05		1.65	*10.06*	*Sqm*
		TOTAL					**10.06**	***Sqm***
3	5.5.10	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	3.05		1.65	*10.06*	*Sqm*
		TOTAL					**10.06**	***Sqm***
4	5.3.4	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Wing wall Top	4	2.50	0.25	0.15	*0.38*	*Cum*
		TOTAL					**0.38**	***Cum***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-3.550 Km)								
1	5.3.5	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		D/S Floor	1	7.00	2.26	0.30	*4.80*	*Cum*
		TOTAL					***4.80***	***Cum***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-4.370 Km)								
1	5.8.9	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Abutment	2	5.18	0.50	1.80	*9.33*	*Cum*
		Wing wall U/S	2	3.00	0.50	1.80	*5.40*	*Cum*
		Wing wall D/S	2	1.20	0.50	0.70	*0.84*	*Cum*
		TOTAL					***15.57***	***Cum***
2		**New fall has been Proposed.**						
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-4.600 Km)								
1		**Structure requires no repair work.**						
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-4.715 Km)								

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				130.00	Sqm
		TOTAL					**130.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet wall	2	3.00		2.14	*12.84*	*Sqm*
		Wing wall	4	2.50		1.95	*19.50*	*Sqm*
		TOTAL					**32.34**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet wall	2	3.00		2.14	*12.84*	*Sqm*
		Wing wall	4	2.50		1.95	*19.50*	*Sqm*
		TOTAL					**32.34**	***Sqm***

QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-5.200 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				150.00	Sqm
		TOTAL					**150.00**	**Sqm**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND ABSTRACT OF COST FOR CONSTRUCTION OF OUTLET										
Sl. No.	Reference	Name of Item	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount in Rs.	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)	Boulders (cum)
1	**WRD 5.3.9**	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.	7.61	Cum	**6381.70**	48564.42	2.47	3.42	6.85	
2	**WRD 5.4.10**	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.	8.60	Cum	**3391.40**	29172.74	1.24	3.44		8.60
3	**M-1701**	Providing 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	RM	**220.00**	1650.00				
4	**WRD 5.6.1**	Labour Charges for Laying of 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	RM	**238.00**	1785.03				

5	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.								
a.		TMT Grade Fe-500 - 16 mm	0.03	M.T.	**73574.90**	2254.92				
6	**M-181**	Structural Steel (Average rate of Angle, Joint and Channel) etc.	0.08	MT	**160035.11**	12687.05				
7	**WRD 5.1.37**	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .	0.89	Cum	**339.90**	302.80				
8		**Carriage of materials(As per Bihar SOR 2025)**								
		Coarse Sand (30 Km lead)	7.76	Cum	**1075.00**	**8337.83**				
		Coarse Aggregates (60 Km lead)	6.85	Cum	**1398.00**	**9574.84**				
		Cement (30 km lead)	3.70	MT	**742.00**	**2748.60**				
		Boulders (60 km lead)	8.60	Cum	**1159.00**	**9969.69**				
		Steel (30 Km lead)	0.11	M.T.	**742.00**	**81.56**				
		Hume Pipe (30 Km)	7.50	RM	**82.00**	**615.00**				
		TOTAL (In Rs.)				**127744.47**				
		Seigniorage @10%			Rate	Amount in Rs.	10%			
		Coarse Sand	7.76	Cum	584.64	4534.54	453.45			
		Coarse Aggregate	6.85	Cum	944.26	6467.19	646.72			
		Total					1100.17			
		For 184 nos. outlet, Total Seigniorage charges					**202431.85**			

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
BILL OF QUANTITIES FOR CONSTRUCTION OF OUTLET							
Sl. No.	**Name of Item**	**No.**	**Length (m)**	**Width (m)**	**Height (m)**	**Qty.**	**Unit**
1	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification &						
	Toe Wall Base in Canal Portion	*1*	*1.5*	*0.75*	*0.15*	*0.17*	*Cum*
	Coping on Stem of Toe Wall	*1*	*1.50*	*0.45*	*0.075*	*0.05*	*Cum*
	Gate Structure (Section A-B)	*1*	*1.80*	*0.75*	*0.15*	*0.20*	*Cum*
	Coping (Section A-B)	*1*	*1.5*	*0.45*	*0.075*	*0.05*	*Cum*
	Water Course (Section C-D)	*1*	*15.00*	*1.50*	*0.15*	*3.38*	*Cum*
	Water Course Floor (Section C-D)	*1*	*15.00*	*0.40*	*0.075*	*0.45*	*Cum*
	Coping above Walls(Section C-D)	*2*	*15*	*0.40*	*0.075*	*0.90*	*Cum*
	Below transition walls	*1*	*1.5*	*1.2*	*0.15*	*0.27*	*Cum*
		1	*1.5*	*0.75*	*0.15*	*0.17*	*Cum*
	Gate Structure (Section A-B)	*2*	*1.50*	*0.45*	*1.21*	*1.63*	*Cum*
	Toe Wall stem	*1*	*1.50*	*0.45*	*0.51*	*0.35*	*Cum*
	TOTAL					***7.61***	*Cum*
2	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.						
	Transition Walls in U/S	*2*	*1.50*	*0.45*	*1.04*	*1.40*	*Cum*
	Water Course (Section C-D)	*2*	*15.00*	*0.40*	*0.60*	*7.20*	*Cum*
	2					**8.60**	Cum
3	Providing 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .						
	150 mm Dia R.C.C. Pipe	1			7.5	**7.5**	**RM**
4	Structural Steel (Average rate of Angle, Joint and Channel) etc.						
	Spindle 25 mm dia	*1*	*0.000491*	*7850.00*	*1.29*	*4.97*	*Kg*
		1	*0.000491*	*7850.00*	*0.24*	*0.92*	*Kg*
	300 X300 MM MS GATE	*1*		*60.00*		*60.00*	*Kg*
	I.M.C. Grove (100 x 50) 9.56 kg/m	*2*		*9.56*	*0.70*	*13.38*	*Kg*
	TOTAL (In Kg)					**79.28**	**Kg**
	TOTAL					**0.08**	**MT**
5	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .						
	Toe Wall Base in Canal Portion	*1*	*1.50*	*0.75*	*0.10*	*0.11*	*Cum*
	Water Course Floor (Section C-D)	*1*	*15.00*	*0.40*	*0.10*	*0.60*	*Cum*
	Below transition walls	*1*	*1.50*	*1.19*	*0.10*	*0.18*	*Cum*
	TOTAL					**0.89**	**Cum**
6	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-15 (Providing Reinforcement @ 0.24%)	*1.63*	*0.0024*	*0.004*	*7850.00*	*30.648*	*Kg*
	TOTAL					**30.65**	**Kg**

ABSTRACT OF QUANTITIES FOR CONSTRUCTION OF APPROACH ROAD								
S. No.	**Item of Works**	**Qty.**	**Unit**	**Rate (As per RCD 2025)**	**Amount (Rs)**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**
1	Excavation for road work in soil with hydraulic excavator including cutting and loading in tipper, trimming bottom and side slopes in accordance with requirements of lines grades and cross sections, and tranporting to the embankment location within all lifts and lead upto 1000m. (RCD SSR Item no. 301)	60.00	Cum	**78.40**	4704.00			
2	Construction of granular sub-base by providing closegraded material, spreading in uniform layers with motorgrader on prepared surface, mixing by mix in placemethod with front end loader at OMC, and compactingwith vibratory roller to achieve the desired density,complete as per clause 401.	60.00	Cum	**1044.90**	62694.00			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools	15.00	Cum	**6381.70**	95725.50	4.86	6.75	13.50
4	RCC Grade M-30 using Batching plant, Transit Mixer and Concrete Pump	30.00	Cum	**6217.20**	186516.00	20.94	10.80	21.90
5	**Carriage of materials**							
	Grading Material (26.5 mm & below)(40 Km lead)	60.000	Cum	**1398.00**	83880.00			
	Coarse Sand (60 Km lead)	17.550	Cum	**1075.00**	18866.25			
	Coarse Aggregates (100 Km lead)	35.400	Cum	**1398.00**	49489.20			
	Cement (30 km lead)	25.800	MT	**742.00**	19143.60			
TOTAL (In Rs.)					**521018.55**			
TOTAL (In Rs.)					**₹ 5,21,018.55**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	26.50 mm to 9.50 mm	21.00	Cum	**913.48**	19183.08	1918.31		
	9.50 mm TO 4.75 mm	7.50	Cum	**602.28**	4517.10	451.71		
	4.75 mm below	31.50	Cum	**266.62**	8398.53	839.85		
	Coarse Sand	17.55	Cum	**584.64**	10260.43	1026.04		
	Coarse Aggregate	35.40	Cum	**944.26**	33426.80	3342.68		
	Total					**7578.59**		
	For 36 no., Total Seigniorage charges					**272829.41**		

QUANTITIES OF CONSTRUCTION OF GSB ROAD FOR APPROACH ROAD								
S.No.	**Reference Clause**	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
1	RCD SSR Item no. 301	Excavation for road work in soil with hydraulic excavator including cutting and loading in tipper, trimming bottom and side slopes in accordance with requirements of lines grades and cross sections, and tranporting to the embankment location within all lifts and lead upto 1000m.						
		For Making RAMP						
		U/S	1	20.00	5.00	0.30	30.00	Cum
		D/S	1	20.00	5.00	0.30	30.00	Cum
		Total					**60.00**	**Cum**
2	RCD 4.01 B-II	Construction of granular sub-base by providing closegraded material, spreading in uniform layers with motorgrader on prepared surface, mixing by mix in placemethod with front end loader at OMC, and compactingwith vibratory roller to achieve the desired density,complete as per clause 401.						
		U/S	1	20.00	5.00	0.30	30.00	Cum
		D/S	1	20.00	5.00	0.30	30.00	Cum
		Total					**60.00**	**Cum**
3	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools						
		U/S	1	20.00	5.00	0.08	7.50	Cum
		D/S	1	20.00	5.00	0.08	7.50	Cum
		Total					**15.00**	**Cum**
4	RCD 14.01 C	RCC Grade M-30 using Batching plant, Transit Mixer and Concrete Pump						
		U/S	1	20.00	5.00	0.15	15.00	Cum
		D/S	1	20.00	5.00	0.15	15.00	Cum
		Total					**30.00**	**Cum**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
ANALYSIS OF RATES							
Sl. No.	**Refrences SOR No.**	**Description**	**Quantity**	**Unit**	**Rate**	**Amount**	**Ref**
1	**5.1.3**	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 92.94 Sqm					
		Unskilled mazdoor for cutting shrubs, weed	1.50	nos	424.00	₹ 636.00	
		Unskilled mazdoor for removing grass roots and leveling	0.75	nos	424.00	₹ 318.00	
						₹ 954.00	
		Add Overhead charge &c.P @ 15 %				₹ 143.10	
					Total	₹ 1,097.10	
		Rate per Sqm			**Say, Rs**	**₹ 11.80**	**Per M^2**
2	**5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting ,carrying	9.09	nos	424.00	₹ 3,854.16	Sl-1
					Total	₹ 3,854.16	
		Add Overhead charge &c.P @ 15 %				₹ 578.12	
						₹ 4,432.28	
		Rate per Cum			**Say, Rs**	**₹ 156.50**	**Per M^3**
	NOTE:-	Add royalty of earth Rs. 33.00 where needed without overhead charges & C.P.					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
3	**5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	4.50	nos	424.00	₹ 1,908.00	SI-1
		Unskilled mazdoor for carrying	4.00	nos	424.00	₹ 1,696.00	
		Head Mason	0.13	nos	569.00	₹ 71.13	
					Total	₹ 3,675.13	
		Add Overhead charge & C.P @ 15 %				₹ 551.27	
						₹ 4,226.39	
		Rate per Cum			**Say, Rs**	**₹ 149.30**	**Per M^3**
4	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	4.00	nos	424.00	₹ 1,696.00	SI-1
		Unskilled mazdoor for carrying	4.00	nos	424.00	₹ 1,696.00	SI-1
		Unskilled mazdoor for controlling Slope and fine dressing	2.00	nos	424.00	₹ 848.00	SI-2
		Skilled Mazdoor	0.25	nos	536.00	₹ 134.00	SII-70
		Mate	1.00	nos	455.00	₹ 455.00	SII-2
					Total	₹ 4,829.00	
		Add Overhead charge &c.P @ 15 %				₹ 724.35	
						₹ 5,553.35	
		Rate per Cum			**Say, Rs**	**₹ 196.10**	**Per M^3**
5	**5.1.22**	Extra for wet earth all complete as per specifications and direction of E/I.					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Unit: per Cum					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	1.00	nos	424.00	₹ 424.00	Sl-1
		Add Overhead charge &C.P @ 15 %				₹ 63.60	
						₹ 487.60	
		Rate per Cum			**Say, Rs**	**₹ 17.22**	**Per M^3**
6	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.					
		As per Labour rate (19.06.2024)					
		Unit: per Cum					
		Taking Output :- 28.32 cum					
		Labour					
		Unskilled mazdoor for cutting, carrying	9.09	nos	424.00	₹ 3,854.16	Sl-1
		Add extra wages of 1/2 no. unskilled labour per 28.32 m3	0.50	nos	424.00	₹ 212.00	Sl-1
						₹ 4,066.16	
		Add Overhead charge &C.P @ 15 %				₹ 609.92	
						₹ 4,676.08	
					Say, Rs	**₹ 165.12**	**Per M^3**
7	**5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.					
		As per Labour rate (19.06.2024)					
		Unit: per Cum					
		Taking Output :- 28.32 cum					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Cost of water	LS			15.00	
		Bhisti for carriage of water and sprinkling	3.00	nos	417.00	₹ 1,251.00	S II-13
		Hire charges of sheep foot roller assuming 1450 cum to be rolled in 8 hr vide item no. 3.16	0.16	hr	1612.00	₹ 257.92	PM8001
						₹ 1,523.92	
		Add Overhead charge &C.P @ 15 %				₹ 228.59	
						₹ 1,752.51	
					Say, Rs	**₹ 61.88**	**Per M^3**
8	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)					
	5.1.46.1	Beyond 150m but upto 1/2 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				0.65	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				3.9	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes CoI =T				12.7	
	9	Number of trip per hour taken as 50 minutes N=50/T				3.937	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				17.323	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				83.184	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 16.29	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 152.08	
	16	Add overhead charges and CP 15%				₹ 22.81	
	17	**Rate per cubic metre**				**₹ 174.89**	
	5.1.46.2	Beyond 1/2 km but upto 1 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				1.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				9	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				17.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				2.809	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				12.36	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				116.59	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 20.30	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 189.50	
	16	Add overhead charges and CP 15%				₹ 28.42	
	17	**Rate per cubic metre**				**₹ 217.92**	
	5.1.46.3	Beyond 1.00 km but upto 1.50 km					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				2.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				15	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				23.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				2.101	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				9.244	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				155.88	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 25.02	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 233.50	
	16	Add overhead charges and CP 15%				₹ 35.03	
	17	**Rate per cubic metre**				**₹ 268.53**	
	5.1.46.4	Beyond 1.50 km but upto 2.00 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				3.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				21	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				29.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				1.678	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				7.383	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				195.18	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 29.73	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 277.52	
	16	Add overhead charges and CP 15%				₹ 41.63	
	17	**Rate per cubic metre**				**₹ 319.14**	
	5.1.46.5	Beyond 2.00 km but upto 2.50 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				4.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				27	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				35.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				1.397	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				6.147	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				234.50	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 34.45	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 321.56	
	16	Add overhead charges and CP 15%				₹ 48.24	
	17	**Rate per cubic metre**				**₹ 369.80**	
	5.1.46.6	Beyond 2.50 km but upto 3.00 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				5.5	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				33	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				41.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				1.196	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				5.263	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				273.80	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 39.17	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 365.57	
	16	Add overhead charges and CP 15%				₹ 54.84	
	17	**Rate per cubic metre**				**₹ 420.41**	
9	**5.1.24**	Earthwork in filling in flood embankment, canals banks (Canal Discharge Above 28 Cumecs) as well as special repair of embankments and canal banks in ordinary soil in proper profile obtain from borrow area or any other source free from logs, roots or any other ingredients etc. with intial lead of 30m and initial lift of 1.5m including breaking the clods to maximum 60 mm cube, placing the earth in layers not exceeding 225 mm thicka ll complete as per specification and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	9.00	nos	424.00	₹ 3,816.00	SI-1
		Skilled Mazdoor	1.00	nos	536.00	₹ 536.00	SI-3
		Mate	0.25	nos	455.00	₹ 113.75	SII-2
					Total	₹ 4,465.75	
		Add Overhead charge & C.P @ 15 %				₹ 669.86	
						₹ 5,135.61	
		Rate per Cum			**Say, Rs**	**₹ 181.30**	**Per M^3**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
10	**5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting and carrying	11.00	nos	424.00	₹ 4,664.00	SI-1
		Head Mason	0.25	nos	569.00	₹ 142.25	SII -3
					Total	₹ 4,806.25	
		Add Overhead charge & C.P @ 15 %				₹ 720.94	
						₹ 5,527.19	
		Rate per Cum			**Say, Rs**	**₹ 195.20**	**Per M^3**
11	**5.3.8**	Providing & laying **P.C.C. M-100** with nominal mix of (1:3:6) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A.	**MATERIALS**					
		Coarse aggregates Gr IV **(Rate of approved quality of aggregate as per Design)**	2.66	M^3	1115.24	₹ 2,966.54	M047
		Sand	1.330	M^3	584.64	₹ 777.57	M-004
		Cement	0.443	M^3	8264.70	₹ 3,661.26	M-1P
		Total				₹ 7,405.37	
	B.	**LABOUR**					
		Head mason	0.5	nos	569.00	₹ 284.50	S II -3
		Mason Gr II	1	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor	12	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	C.	**HIRE CHARGES OF MACHINE**					
		(i)Concrete mixer (10 H.P) for 2.832 cum consists	**1.43**	hr	351	₹ 501.93	
		on the basic of mixer production capacity 1.98 m3					
		per hour. Used rate per hourx2.832/1.98					
		(ii) Vibrator 1no. To vibrate 2.832 cum on the	**1.43**	hr	405	₹ 579.15	
		basic of vibrator capacity 1.98 cum per hour.					
		Used rate per hourx2.832/1.98					
		Total				₹ 14,783.95	
		Add Overhead charge & C.P	15	%		₹ 2,217.59	
						₹ 17,001.55	**Per M^3**
					Say, Rs	**₹ 6,003.37**	**Per M^3**
12	**5.3.4**	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		Course Aggregate (20mm & 10mm) **(Taking Rate of approved quality as per design)**	2.55	m^3	913.48	₹ 2,327.55	M044
		Sand	1.27	m^3	584.64	₹ 744.83	M-004
		Cement	0.64	m^3	8264.70	₹ 5,264.62	M-1P
		Total				₹ 8,337.00	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor for controlling Slope and fine dressing	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					Total	₹ 15,715.58	
		Add Overhead charge &c.P @ 15 %				₹ 2,357.34	
						₹ 18,072.92	
		Rate per Cum			**Say, Rs**	**₹ 6,381.70**	**Per M^3**
13	**5.3.5**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		Course Aggregate (20mm & 10mm) **(Taking Rate of approved quality as per design)**	2.44	m^3	913.48	₹ 2,225.24	M044
		Sand	1.22	m^3	584.64	₹ 712.09	M-004
		Cement	0.81	m^3	8264.70	₹ 6,710.94	M-1P
		Total				₹ 9,648.27	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor for controlling Slope and fine dressing	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					Total	₹ 17,026.85	
		Add Overhead charge &c.P @ 15 %				₹ 2,554.03	
						₹ 19,580.88	
		Rate per Cum			**Say, Rs**	**₹ 6,914.20**	**Per M^3**
14	**5.3.5**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		Course Aggregate (20mm & 10mm) **(Taking Rate of approved quality as per design)**	2.436	m^3	913.48	₹ 2,225.24	M044
		Sand	1.218	m^3	584.64	₹ 712.09	M-004
		Cement	0.812	m^3	8264.70	₹ 6,710.94	M-1P
		Total				₹ 9,648.27	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					Total	₹ 17,026.85	
		Add Overhead charge &c.P @ 15 %				₹ 2,554.03	
						₹ 19,580.88	
		Rate per Cum			**Say, Rs**	**₹ 6,914.20**	**Per M^3**
15	**5.3.11**	Providing & laying P.C.C. or R.C.C. **M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		coarse Aggregate (20mm & 10mm) (Cost of coarse aggregates as per design)	2.38	m^3	913.48	₹ 2,173.17	M044
		Sand	1.19	m^4	584.64	₹ 695.14	M-004
		Cement	1.19	m^5	8264.70	₹ 9,826.73	M-1P
		Total				₹ 12,695.04	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor for controlling Slope and fine dressing	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					total	₹ 20,073.62	
		Add Overhead charge &c.P @ 15 %				₹ 3,011.04	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
						₹ 23,084.66	
		Rate per Cum			**Say, Rs**	**₹ 8,151.40**	**Per M^3**
16	**5.3.22**	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.					
		Unit :- **Per M.T**					
		Taking Output :- 1 M.T					
	(a)	TMT grade Fe-500 ***8 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	52450	₹ 55,072.50	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 66,025.70	
		Add Overhead charge &c.P @ 15 %				₹ 9,903.86	
						₹ 75,929.56	
		Rate per M.T			**Say, Rs**	**₹ 75,929.60**	**Per M.T**
	(B)	TMT grade Fe-500 ***10 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	51094	₹ 53,648.70	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 64,601.90	
		Add Overhead charge &c.P @ 15 %				₹ 9,690.29	
						₹ 74,292.19	
		Rate per M.T			**Say, Rs**	**₹ 74,292.20**	**Per M.T**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	(C)	TMT grade Fe-500 ***12 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
	(C)	TMT grade Fe-500 ***16 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
	(C)	TMT grade Fe-500 ***20 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
	(C)	TMT grade Fe-500 ***25 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
17	**5.3.18**	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 Sqm					
	A	**Material**					
		Local wood planks. 38 mm thick =9.3x38x1000	0.35	m^3			
		Add 5% wastage	0.02	m^3			
		Cost of 0.37 cum local wood planks.	0.37	m^3	26000.00	₹ 9,620.00	code no 1198 (RCD)
		Add cost for shattering and propping @ 10% of above				₹ 962.00	
					Total	₹ 10,582.00	
		Assuming 4 uses to calculate	4.00	use			
		Cost of shattering for 2.832 cum total cost /4				₹ 2,645.50	
		Add 1% for cost of nails and spikes on total cost of wood				₹ 105.82	
					Total	₹ 2,751.32	A
	B	**Labour**					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Carpenter Gr-II	1.50	nos	508.00	₹ 762.00	S II-17
		Unskilled mazdoor	2.50	nos	424.00	₹ 1,060.00	S I-1
					Total	₹ 1,822.00	B
	C	**Carriage of materials**					
		Cost of carriage of material from godown and back to godown after use, including loading, unloading and stacking @ 1% of total cost of food materials				₹ 105.82	C
		Total cost for 9.3 sqm=A+B+C				₹ 4,679.14	
		Add Overhead charge &c.P @ 15 %				₹ 701.87	
						₹ 5,381.01	
		Rate per Sqm			**Say, Rs**	**₹ 578.60**	**Per M2**
18	**5.3.20**	Providing centering including strutting, proping etc. and its removal after use indeck slab as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 22.326 Sqm					
		(Assuming size in slab 7.32 x 3.05 =22.326 sqm)					
	A	**MATERIALS**					
		a. 40 mm thick local wood planks (22.326x 40)/1000 = 0.893					
		Add 5% wastages = 0.045					
		0.938	0.94	m^3	**26000.00**	**₹ 24,440.00**	**Code no. 1197 (BCD)**
		Assuming 4 uses to calculate	4.00	use			
		Cost of planks per use = 0.89 x rate of local wood/4				**₹ 6,110.00**	
		b. Assuming avg. height of slab from GL = 3.66 m					
		150 mm sal bullah required = 78 nos.					
		Length of sal bullah = 78X3.66 =285.48	285.48	M	**75.00**	**₹ 21,411.00**	**M SL No. 223**
		(Assuming sal bullah to be used 10 times for centering					
		= 285.48 x Rate per mtr/10				**₹ 2,141.10**	
		c. Salwood scanting required (75 mm * 63 mmsize) = 0.311 cum	0.31	m^3	**60000.00**	**₹ 18,660.00**	**Code no. 1199 (BCD)**
		(Assuming 10 uses)					
		Cost per use = 0.311 x Rate per mtr/10				**₹ 1,866.00**	
		Total				**₹ 10,117.10**	
		Add 1% for cost of nails and spikes				**₹ 101.17**	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
						₹ 10,218.27	**(A)**
	B	**LABOUR**					
		Carpenter Gr-II	4.00	nos	508.00	₹ 2,032.00	S I-17
		Unskilled Majdoor	7.00	nos	424.00	₹ 2,968.00	S I-1
					Total	₹ 5,000.00	**(B)**
	C	Carriage of Materials					
		Cost of carriage of material from godown and back to godown after use, including loading, unloading and stacking @ 1% of total cost of food materials				₹ 101.17	
		Total cost for 22.326 sqm=A+B+C				₹ 15,319.44	
		Add Overhead charge & C.P @ 15 %				₹ 2,297.92	
		Total				₹ 17,617.36	
		Rate per Sqm			**Say, Rs**	**₹ 789.10**	**Per M2**
17	**5.5.10**	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 Sqm					
		Material					
		Cement	0.01	m^4	8264.70	₹ 115.71	M-1P
					Total	₹ 115.71	
	B	**Labour**					
		Head mason	0.06	nos	569.00	₹ 35.56	S II-3
		Mason Gr-II	0.50	nos	508.00	₹ 254.00	S II-4
		Unskilled mazdoor	0.25	nos	424.00	₹ 106.00	S II-1
					Total	₹ 395.56	
		Total				₹ 511.27	
		Add Overhead charge &c.P @ 15 %				₹ 76.69	
						₹ 587.96	
		Rate per Cum			**Say, Rs**	**₹ 63.20**	**Per M^3**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
18	**5.2.2**	Providing filter of stone chips 20 mm and down well graded as per design for lined canal, drains including hand packing etc all complete as per specification and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Material					
		Sone chips (M-040 +M -045)/2	2.83	nos	673.97	₹ 1,908.68	M-004
		Labour					
		Unskilled mazdoor for Screening and grading Filter	2.00	nos	424.00	₹ 848.00	Sl-1
		Unskilled mazdoor for laying and hand packing	1.50	nos	424.00	₹ 636.00	Sl-1
					Total	₹ 3,392.68	
		Add Overhead charge &c.P @ 15 %				₹ 508.90	
						₹ 3,901.59	
		Rate per Cum			**Say, Rs**	**₹ 1,377.70**	**Per M^3**
19	**5.7.13**	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Unskilled Mazdoor	3	nos.	424.00	1272.00	
						1272.00	
		Add Overhead charge & C.P. @15%				190.80	
						1462.80	
					Say, Rs	**₹ 516.50**	**Per M^3**
20	**5.7.18.1**	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Unskilled Mazdoor	6	nos.	424.00	2544.00	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Mason Gr II	0.5	nos.	508.00	254.00	
		Mate	0.25	nos.	455.00	113.75	
		Stone Dresser	0.25	nos.	538.00	134.50	
						3046.25	
		Add Overhead charge & C.P. @15%				456.94	
						3503.19	
					Say, Rs	**₹ 1,237.00**	**Per M^3**
21	**5.1.37**	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Unskilled Mazdoor for cutting	1	nos.	424.00	424.00	
		Local Sand	2.832	nos.	145.87	413.10	
						837.10	
		Add Overhead charge & C.P. @15%				125.57	
						962.67	
					Say, Rs	**₹ 339.90**	**Per M^3**
20	**5.5.5**	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.				**Page -261**	
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 cum					
		Materials					
		Cement	0.07	m^3	8264.70	₹ 562.00	M-1 P
		Sand	0.27	m^3	584.64	₹ 159.02	M044
		Total				₹ 721.02	
		Labour					
		Mason Gr II	1.50	nos	508.00	₹ 762.00	SII-4
		Unskilled Mazdoor	2.50	nos	424.00	₹ 1,060.00	SII-1
		Bhisti	0.50	nos	417.00	₹ 208.50	SI-13
					total	₹ 2,030.50	
		Add Overhead charge &c.P @ 15 %				₹ 412.73	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
						₹ 3,164.25	
		Rate per Cum			**Say, Rs**	**₹ 340.20**	**Per M^3**
21	**5.6.1**	Labour Charges for Laying of 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .					
	5.6.1.1	**150 mm dia NP2 H.P.**					
		Unit: per m					
		Taking Output =	**8**	**m**			
		(Assuming 4 pipes of 2m length and three collars)					
		Materials					
		Cement	0.011	cum	8264.70	90.91	**M-1 P**
		Sand	0.011	cum	584.64	6.43	**M-004**
		Jute	1.5	Kg	20.89	31.34	**M Sl. No. 257**
		Total				128.68	
		Labour					
		Head Mason	0.50	nos	569.00	284.50	
		Unskilled Mazdoor	2.25	nos	424.00	954.00	
		Fitter Gr I	0.50	nos	577.00	288.50	
		Total				1527.00	
						1655.68	
		Add Overhead charge & C.P @ 15 %				₹ 248.35	
						₹ 1,904.03	
					Say, Rs	**₹ 238.00**	**Per M**
	5.6.2	Labour Charges for Laying, fitting and fixing NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .					
	5.6.2.2	**600 mm dia NP3 H.P.**					
		Unit: per m					
		Taking Output =	**7.5**	**m**			
		(Assuming 3 pipes of 2.5 m length and two collars)					
		Materials					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Cement	0.034	cum	8264.70	281.00	**M-1 P**
		Sand	0.034	cum	584.64	19.88	**M-004**
		Jute	4	Kg	20.89	83.56	**M Sl. No. 257**
		Total				384.44	
		Labour					
		Head Mason	1.5	nos	569.00	853.50	
		Unskilled Mazdoor	7	nos	424.00	2968.00	
		Fitter Gr I	0.75	nos	577.00	432.75	
		Total				4254.25	
						4638.69	
		Add Overhead charge & C.P @ 15 %				₹ 695.80	
						₹ 5,334.49	
					Say, Rs	**₹ 711.27**	**Per M**
	5.6.2.4	**1000 mm dia NP3 H.P.**					
		Unit: per m					
		Taking Output =	**7.5**	**m**			
		(Assuming 3 pipes of 2.5 m length and two collars)					
		Materials					
		Cement	0.045	cum	8264.70	371.91	**M-1 P**
		Sand	0.045	cum	584.64	26.31	**M-004**
		Jute	7.5	Kg	20.89	156.68	**M Sl. No. 257**
		Total				554.90	
		Labour					
		Head Mason	2	nos	569.00	1138.00	
		Unskilled Mazdoor	21	nos	424.00	8904.00	
		Fitter Gr I	1	nos	577.00	577.00	
		Total				10619.00	
						11173.90	
		Add Overhead charge & C.P @ 15 %				₹ 1,676.08	
						₹ 12,849.98	
					Say, Rs	**₹ 1,713.33**	**Per M**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	5.6.2.5	**Labour Charges for Laying of 1200 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .**					
		Unit: per m					
		Taking Output =	**7.5**	**m**			
		(Assuming 3 pipes of 2.5 m length and two collars)					
		Materials					
		Cement	0.057	cum	8264.70	471.09	**M-1 P**
		Sand	0.057	cum	584.64	33.32	**M-004**
		Jute	12	Kg	20.89	250.68	**M Sl. No. 257**
		Total				755.09	
		Labour					
		Head Mason	2.5	nos	569.00	1422.50	
		Unskilled Mazdoor	25	nos	424.00	10600.00	
		Fitter Gr I	1	nos	577.00	577.00	
		Total				12599.50	
						13354.59	
		Add Overhead charge & C.P @ 15 %				₹ 2,003.19	
						₹ 15,357.78	
					Say, Rs	**₹ 2,047.70**	**Per M**
22	**5.4.10**	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 2.832 cum					
		Materials					
		Stone Boulder	2.832	cum	694.61	1967.14	
		Sand	1.12	cum	584.64	654.80	
		Cement	0.28	cum	8264.70	2314.12	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Labour				4936.05	
		Head Mason	0.125	nos	569.00	71.13	
		Mason Gr II	2	nos	508.00	1016.00	
		Unskilled Mazdoor	5	nos	424.00	2120.00	
		Bhisti	0.5	nos	417.00	208.50	
						3415.63	
						8351.67	
		Add Overhead charge & C.P @ 15 %				₹ 1,252.75	
						₹ 9,604.43	
					Say, Rs	**₹ 3,391.40**	**Per M^3**
23	**5.7.16**	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 cum					
		Materials					
		Bricks	800	per 1000 nos	4891.00	3912.80	
		Local Sand	0.425	cum	145.87	61.99	
		Total				3974.79	
		Labour					
		Mason Gr II	1.125	nos	508.00	571.50	
		Unskilled Mazdoor	2.25	nos	424.00	954.00	
						1525.50	
						5500.29	
		Add Overhead charge & C.P @ 15 %				₹ 825.04	
						₹ 6,325.34	
					Say, Rs	**₹ 680.10**	**Per M^3**
24	**5.8.9**	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Unit :- **Per Sqm**					
		Taking Output :- 2.832 cum					
		Hammer man	2.25	nos	445.00	₹ 1,001.25	SII-17
		Skilled Mazdoor	2.25	nos	536.00	₹ 1,206.00	SII-18
		Unskilled mazdoor	7.00	nos	424.00	₹ 2,968.00	SI-1
		Blacksmith GR II	1.00	nos	508.00	₹ 508.00	SII-10
		Mate	1.00	nos	455.00	₹ 455.00	SII-2
					total	₹ 6,138.25	
		Add Overhead charge & C.P @ 15 %				₹ 920.74	
						₹ 7,058.99	
		Rate per Cum			**Say, Rs**	**₹ 2,492.58**	**Per M^3**
25	**5.4.6**	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 2.832 cum					
		Materials					
		Bricks	1150	per 1000 nos	4891.00	5624.65	
		Sand	0.92	cum	584.64	537.87	
		Cement	0.23	cum	8264.70	1900.88	
		Total				8063.40	
		Labour					
		Head Mason	0.125	nos	569.00	71.13	
		Mason Gr II	2.5	nos	508.00	1270.00	
		Unskilled Mazdoor	6	nos	424.00	2544.00	
		Bhisti	1	nos	417.00	417.00	
						4302.13	
						12365.52	
		Add Overhead charge & C.P @ 15 %				₹ 1,854.83	
						₹ 14,220.35	
					Say, Rs	**₹ 5,021.30**	**Per M^3**

ITEM RATES					
Sl. No.	Reference		Particular	Unit	Rate (in Rs.)
1	WRD SOR 2023 & PL JUNE 2024	WRD 5.1.3	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	Sqm	11.80
2	WRD SOR 2023 & PL JUNE 2024	WRD 5.1.8	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.	Cum	156.50
3	WRD SOR 2023 & PL JUNE 2024	WRD 5.1.31	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	Cum	149.30
4	WRD SOR 2023 & PL JUNE 2024	5.1.21	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.	Cum	196.10
5	WRD SOR 2023 & PL JUNE 2024	5.1.22	Extra for wet earth all complete as per specifications and direction of E/I.	Cum	17.22
6	WRD SOR 2023 & PL JUNE 2024	5.1.25	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	Cum	165.12
7	WRD SOR 2023 & PL JUNE 2024	WRD 5.1.39	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	Cum	61.88

8	**WRD SOR 2023 & PL JUNE 2025**	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)		
		5.1.46.1	Beyond 150m but upto 1/2 km	**174.89**	**Cum**
		5.1.46.2	Beyond 1/2 km but upto 1 km	**217.92**	**Cum**
		5.1.46.3	Beyond 1 km but upto 1.50 km	**268.53**	**Cum**
		5.1.46.4	Beyond 1.50 km but upto 2.00 km	**319.14**	**Cum**
		5.1.46.5	Beyond 2.00 km but upto 2.50 km	**369.80**	**Cum**
		5.1.46.6	Beyond 2.50 km but upto 3.00 km	**420.41**	**Cum**
9	**WRD SOR 2023 & PL JUNE 2024**	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	**195.20**	**Cum**
10	**WRD SOR 2025 & PL 2025**	**WRD 5.5.10**	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	**Sqm**	**63.20**
11	**WRD SOR 2023 & PL JUNE 2025**	**5.5.5**	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of D/I.	**Cum**	**340.20**
12	**WRD SOR 2025 & PL 2025**	**5.3.8**	Providing & laying **P.C.C. M-100** with nominal mix of (1:3:6) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.	**Cum**	**6003.37**
13	**WRD SOR 2025 & PL 2025**	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	**Cum**	**6381.70**

14	**WRD SOR 2025 & PL 2025**	**5.3.5**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	**Cum**	**6914.20**
15	**WRD SOR 2025 & PL 2025**	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	**Cum**	**6914.20**
16	**WRD SOR 2025 & PL 2025**	**5.3.11**	Providing & laying **P.C.C. or R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	**Cum**	**8151.40**
17	**RCD 2025**	**RCD 14.09**	Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	**NO.**	5588.70
18	**WRD SOR 2025 & PL 2025**	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.		
			TMT Grade FE-500 - 8 mm	**MT**	**75929.60**
			TMT Grade FE-500 - 10 mm	**MT**	**74292.20**
			TMT Grade FE-500 - 12 mm	**MT**	**73574.90**
			TMT Grade FE-500 - 16 mm	**MT**	**73574.90**
			TMT Grade FE-500 - 20 mm	**MT**	**73574.90**
			TMT Grade FE-500 - 25mm	**MT**	**73574.90**
19	**WRD SOR 2025 & PL 2025**	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	**Cum**	**578.60**
20	**WRD SOR 2025 & PL 2025**	**WRD 5.3.20**	Providing centering including strutting, propping etc. and its removal after use in deck slab as per specifications and direction of E/I.	**Cum**	**789.10**
21	**WRD SOR 2025 & PL 2025**	**WRD 5.2.2**	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	**Cum**	**1377.70**
22	**WRD SOR 2025 & PL 2025**	**WRD 5.7.13**	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	**Cum**	**516.50**
23	**WRD SOR 2025 & PL 2025**	**WRD M-002**	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	**Cum**	694.61

24	**WRD SOR 2025 & PL 2025**	**WRD 5.7.18.1**	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	**Cum**	**1237.00**
25	**WRD SOR 2025 & PL 2025**	**WRD 5.1.37**	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .	**Cum**	**339.90**
26	**WRD SOR 2025 & PL 2025**	**WRD 5.5.5**	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	**Cum**	**340.20**
27	**WRD SOR 2025 & PL 2025**	**M-1701**	Providing 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**RM**	220.00
28	**WRD SOR 2025 & PL 2025**	**WRD 5.6.1.1**	Labour Charges for Laying of 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**RM**	**238.00**
29	**RCD 2025**	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	**R.M.**	6002.82
30	**WRD SOR 2025 & PL 2025**	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**R.M.**	**1713.33**
31	**RCD 2025**	**RCD M-149**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1200 mm dia with spigot	**R.M.**	7015.86
32	**WRD SOR 2025 & PL 2025**	**WRD 5.6.2.5**	Labour for laying 1200mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**R.M.**	**2047.70**
33	**WRD SOR 2025 & PL 2025**	**5.4.10**	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.	**Cum**	**3391.40**
34	**WRD SOR 2025 & PL 2025**	**M-181**	Structural Steel (Average rate of Angle, Joint and Channel) etc.	**MT**	**160035.11**
35	**WRD SOR 2025 & PL 2025**	**5.7.16**	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	**Sqm**	**680.10**
36	**RCD 2025**	**RCD 15.22**	Providing and fixing in position 20 mm thick compressible fibre board in expansion joint complete as per drawing & Technical specification.	**RM**	499.80
37	**RCD 2025**	**RCD M-151**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 600 mm dia with spigot	**RM**	2532.61

38	**WRD SOR 2025 & PL 2025**	**5.6.2.2**	Labour Charges for Laying, fitting and fixing NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**RM**	**711.27**
39	**WRD SOR 2025**	**M-126**	Modular Strip/box seal expansion joint	**RM**	36993.21
40	**PWD NH SOR CHHATISGARH 2025**	**3.18 PWD NH SOR CHHATISGARH 2025**	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (3.18 PWD NH SOR CHHATISGARH 2025)	**RM**	66.00
41	**RCD 2025**	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 900 mm dia with spigot	**R.M.**	4849.67
42	**RCD 2025**	**13.08**	Weepholes	**No.**	152.60
43	**RCD 2025**	**3.06 - 301**	Excavation for road work in soil with hydraulic excavator including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and tranporting to the embankment location within all lifts and lead upto 1000 m	**Cum**	78.40
44	**RCD 2025**	**4.01 B - 401**	Construction of granular sub-base by providing closegraded material, spreading in uniform layers with motorgrader on prepared surface, mixing by mix in placemethod with front end loader at OMC, and compactingwith vibratory roller to achieve the desired density,complete as per clause 401.	**Cum**	1044.90
45	**RCD 2025**	**14.01 C**	RCC Grade M-30 using Batching plant, Transit Mixer and Concrete Pump	**Cum**	6217.20
46	**RCD 2025**	**8.14**	Kilometer Stone M-15	**Nos.**	3853.40

	MATERIAL RATE:				
1	**WRD SOR 2025**	**M-004**	Coarse Sand	**Cum**	584.64
2	**WRD SOR 2025**	**M-012**	Coarse Aggregate	**Cum**	944.26
3	**WRD SOR 2025**	**M-001**	Boulder	**Cum**	694.61
4	**WRD SOR 2025**	**M-11 9(ii)**	Brick	**Cum**	4891
5	**WRD SOR 2025**	**M-006**	Fine Sand	**Cum**	145.87
6	**WRD SOR 2025**	**M1**	Cement (Gaya)	**per bag of 50 Kg**	281.00
7	**WRD SOR 2025**	**M-025**	Aggregate 26.5 mm to 4.75 mm	**Cum**	913.48
8	**WRD SOR 2025**	**M-015**	Aggregate 9.5 mm to 4.75 mm	**Cum**	602.28
9	**WRD SOR 2025**	**M-017**	Aggregate 4.75 mm and below	**Cum**	266.62
10	**WRD SOR 2025**	**M-181**	Structural Steel	**MT**	55116.67

Amba Division – Amba Minor
(Total Cost – Rs. 1.10 Crores)

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND
ABSTRACT OF COST (AMBA MINOR)

S. No.	Items	Qty.	Unit	Rate	Seigniorage Charges	Amount (Rs.) including Seigniorage Charges	Reference for Rate	Page No.
1	Earthwork							
	AMBA MINOR	1	Job	6567379.08	0.00	₹ 65,67,379.08	AOC Earthwork Amba Minor	7
2	Falls							
	AMBA MINOR :							
	0.610 m Fall at Ch. 1.925 Km	1	No.	487499.05	4070.69	₹ 4,91,569.74	Fall (AOC) Amba Minor	11
	1.220 m Fall at Ch. 2.250 Km	1	No.	1063904.90	9164.85	₹ 10,73,069.74		13
	0.762 m Fall at Ch. 2.970 Km	1	No.	898839.25	7701.43	₹ 9,06,540.68		15
3	Pipe Culvert							
	2.495 Km	1	No.	471282.07	4071.56	₹ 4,75,353.63	Pipe Culvert AOC	26
	2.710 Km	1	No.	471045.98	4071.56	₹ 4,75,117.54		28
4	*Repair of Structures*							
	Amba Minor	3	No.	69108.6672	15275.94	₹ 84,384.60	Abstract (Repair St.) Amba Minor	37
5	Outlets							
	Amba Minor	7	No.	127744.47	1100.17	₹ 9,01,912.48	Outlet-AOC	46
6	Kilometer Stone	4	No.	3853.40	0.00	₹ 15,413.60	'Rates '!F61	79
	TOTAL (In Rs.)					**10990741.10**		
	TOTAL (In Lacs)					**109.91**		

	Carriage of Materials Abstract		
1	Steel & Cement (30 Km)	M.T.	**742.00**
2	RCC Hume Pipe (30 Km)	Per Meter	
	150 mm dia	Per Meter	**82.00**
	600 mm dia	Per Meter	**919.00**
	1000 mm dia	Per Meter	**1470.00**
	1200 mm dia	Per Meter	**1838.00**
3	Bricks (15 Km)	Per 1000 no	**3.18**
4	Boulder (60 Km)	Cumecs	**1159.0**
5	Coarse Sand (60 Km)	Cumecs	**1075.00**
6	Stone Chips/Aggregate (100 Km)	Cumecs	**1398.0**

CARRIAGE OF MATERIAL BY TIPPER OF 18 CUM CAPACITY INCLUDING OVER HEAD CHARGES & C.P

Sr No	Name Of Materials	Unit	Gross Tipper Capacity Per Trip	(For Void) Multiplying Factor	Net Tipper capacity (Payable Quantity) Per Trip	Cost of Loading,Unloading & Stacking Per Trip of Tipper (Tipperr capacity 18 cum x Xa_1)	Cost of Haulage Per cum			Cost of Haulage Per Tipper of 18 cum capacity (Tipper capacity 18 Cum x H)			Lead in KM			Carriage Cost =[(18Hsa.Ls+18Hua.Lu+18Hka.Lk)+18 X_a	Per Unit Rate =(col 17 / Net Payable capacity)
							For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed		
						$18X_a$	H_{Sa}	H_{ua}	H_{ka}	$18H_{Sa}$	$18H_{Ua}$	$18H_{Ka}$	L_S	L_U	L_K		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Boulder (60 Kms)	M^3	18	0.80	14.4	6507.00	9.10	11.10	22.20	163.80	199.80	399.60	50	10	0	16695	1159.00
2	Stone Aggregate (100 Kms)	M^3	18	0.924	16.63	6507.00	9.10	11.10	22.20	163.80	199.80	399.60	90	10	0	23247	1398.00
3	Sand (60 Kms)	M^3	18	0.924	16.63	6507.00	9.10	11.10	22.20	163.80	199.80	399.60	45	10	5	17874	1075.00

CARRIAGE OF MATERIAL BY TIPPER OF 25 TONNES CAPACITY INCLUDING OVER HEAD CHARGES & C.P																	
Sr No	Name Of Materials	Unit	Gross Tipper Capacity Per Trip	(For Void) Multiplying Factor	Net Tipper capacity (Payable Quantity) Per Trip	Cost of Loading,Unloading & Stacking Per Trip of Tipper (Tipperr capacity 25 t x X_b)	Cost of Haulage Per cum			Cost of Haulage Per Tipper of 8 tonne capacity (Tipper capacity 8x H)			Lead in KM			Carriage of Cost =[(25Hsa.Ls+25Hua.Lu+25Hka.Lk)+25 X_a	Per Unit Rate =(col 17 / Net Payable capacity)
							For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed		
						$25X_b$	H_{Sb}	Hub	H_{Kb}	$25H_{Sb}$	$25H_{Ub}$	$25H_{Kb}$	L_S	L_U	L_K		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	**Cement & Steel (30 Kms)**	M.T	25	1	25	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	20	10	0	18550	742.00
2	**Brick ($9^{3/4}$x$4^{3/4}$x$2^{3/4}$) (15 Kms)**	Per % 0	5000	1	5000	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	10	5	0	15900	3180.00
3	**R.C.C hume, A.C. pipe (30 Km)**																
a	**150 mm dia**	mtr	225	1	225	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	82.00
b	**500 mm & 600 mm dia**	mtr	20	1	20	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	919.00
c	**900mm & 1000 mm dia**	mtr	12.5	1	12.5	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	1470.00
d	**1100 & 1200 m dia**	mtr	10	1	10	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	1838.00

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

CONCRETE MIX RATIO TABLE

Sl. No.	Mixes	Unit by Volume (Cum)	Crushed Aggregate			
			Cement (bags of 50 kg)	Sand (Cum)	Coarse Aggregate (Cum)	Boulder (Cum)
1	M -10 (1:3:6)	1.00	4.49	0.47	0.94	
2	M -15 (1:2:4)	1.00	6.48	0.45	0.90	
3	M -20 (1:1.5:3)	1.00	8.25	0.43	0.86	
4	M -25 (1:1:2)	1.00	11.34	0.39	0.79	
5	M-30 (1:0.75:1.5)	1.00	13.96	0.36	0.73	
6	RR Masonary (1:4)	1.00	2.880	0.40		1.00
7	Brick Work (1:4)	1.00	2.304	0.320		
8	Cement Plaster (1:4)	1.00	1.037	0.015		
9	Cement Punning	1.00	0.0015			

DETAIL QUANTITIES OF EARTHWORK

AMBA MINOR - KM 0.000 TO KM 3.400

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
0		0.000	0	0	0.000	0	0.000
100	100	0.318	0.159	15.900	5.322	2.661	266.100
200	100	0.316	0.317	31.700	1.095	3.209	320.850
300	100	0.492	0.404	40.400	2.993	2.044	204.400
400	100	0.159	0.326	32.550	2.868	2.931	293.050
500	100	0.431	0.295	29.500	2.182	2.525	252.500
600	100	1.006	0.719	71.850	3.610	2.896	289.600
700	100	0.328	0.667	66.700	2.840	3.225	322.500
800	100	0.243	0.286	28.550	2.105	2.473	247.250
900	100	0.000	0.122	12.150	4.632	3.369	336.850
1000	100	2.380	1.190	119.000	3.275	3.954	395.350
1100	100	0.812	1.596	159.600	1.780	2.528	252.750
1200	100	0.000	0.406	40.600	3.852	2.816	281.600
1300	100	0.099	0.050	4.950	3.629	3.741	374.050
1400	100	0.251	0.175	17.500	2.033	2.831	283.100
1500	100	0.013	0.132	13.200	3.592	2.813	281.250
1600	100	0.000	0.007	0.650	5.274	4.433	443.300
1700	100	0.000	0.000	0.000	7.195	6.235	623.450
1800	100	1.380	0.690	69.000	2.211	4.703	470.300
1900	100	0.404	0.892	89.200	1.710	1.961	196.050
2000	100	0.559	0.482	48.150	1.596	1.653	165.300
2100	100	0.000	0.280	27.950	5.223	3.410	340.950
2200	100	0.000	0.000	0.000	5.846	5.535	553.450
2300	100	1.855	0.928	92.750	6.878	6.362	636.200
2400	100	1.118	1.487	148.650	7.087	6.983	698.250
2500	100	2.056	1.587	158.700	7.251	7.169	716.900
2600	100	2.030	2.043	204.300	5.872	6.562	656.150
2700	100	1.884	1.957	195.700	4.818	5.345	534.500
2800	100	0.116	1.000	100.000	14.638	9.728	972.800
2900	100	0.614	0.365	36.500	6.352	10.495	1049.500
3000	100	1.849	1.232	123.150	4.701	5.527	552.650
3100	100	1.021	1.435	143.500	4.126	4.414	441.350
3200	100	0.393	0.707	70.700	3.438	3.782	378.200
3300	100	0.262	0.328	32.750	2.953	3.196	319.550
3400	100	0.000	0.131	13.100	5.047	4.000	400.000
Total				**2238.900**			**14550.050**
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							**2238.900**
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							**14550.050**
NET QUANTITY OF EARTHWORK IN FILLING							**12311.15**

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND				
AMBA MINOR				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Quantity**	
0.00 - 1.000	1000	2.67	2670.00	Sqm
1.000 - 1.925	925	2.39	2210.75	Sqm
1.925 -2.830	905	2.02	1828.10	Sqm
2.830 - 3.450	620	1.79	1109.80	Sqm
	TOTAL		**7818.65**	**Sqm**

LIP CUTTING QUANTITY					
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Thickness (m)**	**Quantity**	
0.00 - 1.000	1000	2.670	0.15	400.50	Cum
1.000 - 1.925	925	2.390	0.15	331.61	Cum
1.925 -2.830	905	2.020	0.15	274.22	Cum
2.830 - 3.450	620	1.790	0.15	166.47	Cum
	TOTAL			**1172.80**	**Cum**

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND						
ABSTRACT OF QUANTITY OF EARTHWORK FOR AMBA MINOR						
Sl. No.	**Reference Clause no.**	**Particular**	**Quantity**	**Unit**	**Rate (in Rs.)**	**Amount in Rs.**
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	7818.65	Sqm	**11.80**	92294.39332
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	2238.90	Cum	**156.50**	350387.85
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	895.56	Cum	**17.22**	15419.31695
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	12311.15	Cum	**165.12**	2032767.36
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	3693.35	Cum	**174.89**	645929.11
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (25% of net filling)	3077.79	Cum	**217.92**	670711.45
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	5540.02	Cum	**319.14**	1768041.18
6	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.				
			1172.80	Cum	**196.10**	229985.59
7	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	12311.15	Cum	**61.88**	761842.83
TOTAL COST OF EARTHWORK (in Rs.)						**6567379.08**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**65.674**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND				
DETAILS OF QUANTITIES FOR EARTH WORK FOR AMBA MINOR				
S.No.	**Items**	**No.**	**Quantity**	**Unit**
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***7818.65***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	2238.900	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	895.56	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
		1	12311.150	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	3693.35	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	3077.79	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	5540.02	Cum
6	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.	1	1172.80	Cum

7	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	14550.05	Cum

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR AMBA MINOR								
S. No.	**Item of Works**	**Qty.**	**Unit**	**Rate (As per WRD SOR 2025 & PL MARCH 2025)**	**Amount (Rs)**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**
SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 1.925 KM								
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	68.648	Cum	**195.20**	13400.03			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.10	Cum	**6381.70**	51677.51	2.62	3.64	7.29
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	29.10	Cum	**6914.20**	201181.89	12.00	12.51	25.02
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.57	Cum	**8151.40**	4613.90	0.32	0.22	0.45
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.69	MT	**73574.90**	50415.90			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	121.66	Sqm	**578.60**	70393.27			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.35	Sqm	**680.10**	3635.81			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.29	Cum	**694.61**	200.05			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.29	Cum	**1237.00**	356.26			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.29	Cum	**1377.70**	396.78			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.29	Cum	**516.50**	148.75			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.72	Sqm	**63.20**	550.88			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	20.09	Cum	**149.30**	2999.02			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	16.376	Cum	**1075.00**	17604.65			
	Coarse Aggregates (100 Km lead)	32.758	Cum	**1398.00**	45796.38			
	Cement (30 km lead)	14.947	MT	**742.00**	11090.74			
	Boulder (60 Km lead)	0.29	Cum	**1159.00**	333.79			
	Brick (15 km lead)	320.00	No.	**3.18**	1017.60			
	Steel (30 Km lead)	0.69	MT	**742.00**	508.44			
	TOTAL (In Rs.)				**487499.05**			
	TOTAL (In Rs.)				**487499.05**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	16.38	Cum	**584.64**	9574.31	957.43		
	Coarse Aggregate	32.76	Cum	**944.26**	30932.54	3093.25		
	Boulders	0.29	Cum	**694.61**	200.05	20.00		
	Total					4070.69		
	For 1 nos. fall, Total Seigniorage charges					**4070.69**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC OF SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH. 2.250 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	98.348	Cum	**195.20**	19197.55			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	10.79	Cum	**6381.70**	68836.24	3.49	4.85	9.71
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	65.87	Cum	**6914.20**	455417.52	27.17	28.32	56.65
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	9.65	Cum	**8151.40**	78645.85	5.47	3.76	7.62
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.95	MT	**73574.90**	143141.00			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	183.66	Sqm	**578.60**	106264.36			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.34	Sqm	**680.10**	3633.77			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.29	Cum	**694.61**	200.05			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.29	Cum	**1237.00**	356.26			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.29	Cum	**1377.70**	396.78			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.29	Cum	**516.50**	148.75			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	11.27	Sqm	**63.20**	712.48			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	20.37	Cum	**149.30**	3041.71			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	36.940	Cum	**1075.00**	39709.97			
	Coarse Aggregates (100 Km lead)	73.975	Cum	**1398.00**	103417.74			
	Cement (30 km lead)	36.135	MT	**742.00**	26812.51			
	Boulder (60 Km lead)	0.29	Cum	**1159.00**	333.79			
	Brick (15 km lead)	320.00	No.	**3.18**	1017.60			
	Steel (30 Km lead)	1.95	MT	**742.00**	1443.57			
	TOTAL (In Rs.)				**1063904.90**			
	TOTAL (In Rs.)				**1063904.90**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	36.94	Cum	**584.64**	21596.31	2159.63		
	Coarse Aggregate	73.98	Cum	**944.26**	69852.10	6985.21		
	Boulders	0.29	Cum	**694.61**	200.05	20.00		
	Total					9164.85		
	For 1 nos. fall, Total Seigniorage charges					**9164.85**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC OF SHARDA TYPE FALL OF HEIGHT 0.762 METER AT CH. 2.970 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	65.363	Cum	**195.20**	12758.77			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.53	Cum	**6381.70**	60831.99	3.09	4.29	8.58
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	53.74	Cum	**6914.20**	371546.54	22.17	23.11	46.21
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	9.30	Cum	**8151.40**	75814.66	5.27	3.63	7.35
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.64	MT	**73574.90**	120462.56			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	163.07	Sqm	**578.60**	94352.16			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.13	Sqm	**680.10**	3486.87			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.29	Cum	**694.61**	200.05			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.29	Cum	**1237.00**	356.26			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.29	Cum	**1377.70**	396.78			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.29	Cum	**516.50**	148.75			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	10.64	Sqm	**63.20**	672.44			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	8.27	Cum	**149.30**	1234.54			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	31.024	Cum	**1075.00**	33350.40			
	Coarse Aggregates (100 Km lead)	62.140	Cum	**1398.00**	86872.09			
	Cement (30 km lead)	30.528	MT	**742.00**	22652.08			
	Boulder (60 Km lead)	0.29	Cum	**1159.00**	333.79			
	Brick (15 km lead)	307.00	No.	**3.18**	976.26			
	Steel (30 Km lead)	1.64	MT	**742.00**	1214.86			
	TOTAL (In Rs.)				**898839.25**			
	TOTAL (In Rs.)				**898839.25**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	31.02	Cum	**584.64**	18137.65	1813.77		
	Coarse Aggregate	62.14	Cum	**944.26**	58676.57	5867.66		
	Boulders	0.29	Cum	**694.61**	200.05	20.00		
	Total					7701.43		
	For 1 nos. fall, Total Seigniorage charges					**7701.43**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR AMBA MINOR							
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 1.925 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.07*	*1.49*	*2.065*	*6.611*	*Cum*
	Section 2-2	*2*	*3.00*	*1.08*	*2.065*	*13.381*	*Cum*
	Section 3-3	*2*	*1.70*	*0.96*	*1.865*	*6.087*	*Cum*
	Section 5-5	*2*	*2.44*	*1.64*	*2.065*	*16.553*	*Cum*
	Section 6-6	*2*	*0.87*	*0.96*	*1.865*	*3.097*	*Cum*
	U/S Key Floor	*1*	*0.625*	*1.240*	*0.850*	*0.659*	*Cum*
	U/S Floor	*1*	*2.000*	*1.240*	*1.309*	*3.246*	*Cum*
	D/S Floor	*1*	*3.000*	*1.240*	*1.696*	*6.309*	*Cum*
		1	*2.000*	*1.240*	*1.496*	*3.710*	*Cum*
	D/S Key Floor	*1*	*0.625*	*1.240*	*0.850*	*0.659*	*Cum*
	Toe Wall D/S Portion	*1*	*4.890*	*0.750*	*0.900*	*6.602*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*1.500*	*1.540*	*0.750*	*1.733*	*Cum*
						68.65	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.24*	*0.15*	*0.10*	*Cum*
		1	*0.783*	*1.24*	*0.15*	*0.15*	*Cum*
		1	*4.568*	*1.24*	*0.15*	*0.85*	*Cum*
		1	*0.283*	*1.24*	*0.15*	*0.05*	*Cum*
		1	*0.447*	*1.24*	*0.15*	*0.08*	*Cum*
		1	*0.783*	*1.24*	*0.15*	*0.15*	*Cum*
		1	*0.542*	*1.24*	*0.15*	*0.10*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.07*	*1.49*	*0.15*	*0.48*	*Cum*
	Section 2-2	*2*	*3.00*	*1.08*	*0.15*	*0.97*	*Cum*
	Section 3-3	*2*	*1.70*	*0.96*	*0.15*	*0.49*	*Cum*
	Section 5-5	*2*	*2.44*	*1.64*	*0.15*	*1.20*	*Cum*
	Section 6-6	*2*	*0.87*	*0.96*	*0.15*	*0.25*	*Cum*
	Toe Wall D/S Portion	*1*	*4.89*	*0.75*	*0.30*	*1.10*	*Cum*
	Toe Wall D/S Portion	*1*	*4.59*	*0.45*	*0.60*	*1.24*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.50*	*1.54*	*0.15*	*0.35*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**8.10**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.85*	*0.45*	*0.45*	*0.34*	*Cum*
		2	*0.85*	*0.82*	*1.24*	*1.73*	*Cum*
		2	*0.85*	*1.34*	*0.50*	*1.14*	*Cum*
	Section 2-2	*2*	*3.00*	*0.45*	*0.45*	*1.22*	*Cum*
		2	*3.00*	*0.62*	*0.55*	*2.03*	*Cum*
		2	*3.00*	*0.93*	*0.50*	*2.79*	*Cum*
	Section 3-3	*2*	*1.45*	*0.45*	*0.45*	*0.59*	*Cum*
		2	*1.45*	*0.56*	*0.35*	*0.56*	*Cum*
		2	*1.45*	*0.81*	*0.50*	*1.17*	*Cum*
	Section 5-5	*2*	*2.39*	*0.45*	*0.45*	*0.97*	*Cum*
		2	*2.39*	*0.82*	*1.24*	*4.88*	*Cum*
		2	*2.39*	*1.34*	*0.50*	*3.22*	*Cum*
	Section 6-6	*2*	*1.27*	*0.45*	*0.45*	*0.51*	*Cum*
		2	*1.27*	*0.56*	*0.35*	*0.49*	*Cum*
		2	*1.27*	*0.81*	*0.50*	*1.03*	*Cum*
	Floor	*1*	*0.63*	*1.24*	*0.70*	*0.54*	*Cum*
		1	*5.00*	*1.24*	*0.50*	*3.10*	*Cum*
		1	*0.50*	*1.24*	*0.20*	*0.12*	*Cum*
		1	*0.20*	*1.24*	*0.40*	*0.10*	*Cum*
		1	*1.80*	*1.24*	*0.50*	*1.12*	*Cum*
		1	*0.63*	*1.24*	*0.70*	*0.54*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Crest	*1*	*0.84*	*1.24*	*0.88*	*0.91*	*Cum*
	TOTAL					**29.10**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*1.24*	*0.15*	*0.13*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.69*	*0.45*	*0.05*	*0.22*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.69*	*0.45*	*0.05*	*0.22*	*Cum*
	TOTAL					**0.57**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**29.10**	**0.30%**	**0.09**	**7850**	**685.23**	**Kg**
	Total Weight in Metric Tonne					**0.69**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.85*		*0.45*	*1.52*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.85*		*1.24*	*4.20*	*Sqm*
		4		*0.82*	*1.24*	*4.08*	*Sqm*
		4	*0.85*		*0.50*	*1.69*	*Sqm*
		4		*1.34*	*0.50*	*2.69*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.45*	*5.40*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.00*		*0.55*	*6.60*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*3.00*		*0.50*	*6.00*	*Sqm*
		4		*0.93*	*0.50*	*1.86*	*Sqm*
	Section 3-3	*4*	*1.45*		*0.45*	*2.60*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.45*		*0.35*	*2.02*	*Sqm*
		4		*0.56*	*0.35*	*0.78*	*Sqm*
		4	*1.45*		*0.50*	*2.89*	*Sqm*
		4		*0.81*	*0.50*	*1.62*	*Sqm*
	Section 5-5	*4*	*2.39*		*0.45*	*4.31*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.39*		*1.24*	*11.88*	*Sqm*
		4		*0.82*	*1.24*	*4.08*	*Sqm*
		4	*2.39*		*0.50*	*4.79*	*Sqm*
		4		*1.34*	*0.50*	*2.69*	*Sqm*
	Section 6-6	*4*	*1.27*		*0.45*	*2.29*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.27*		*0.35*	*1.78*	*Sqm*
		4		*0.56*	*0.35*	*0.78*	*Sqm*
		4	*1.27*		*0.50*	*2.54*	*Sqm*
		4		*0.81*	*0.50*	*1.62*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.24*	*0.70*	*1.74*	*Sqm*
		2	*5.00*		*0.50*	*5.00*	*Sqm*
		2		*1.24*	*0.50*	*1.24*	*Sqm*
		2	*0.50*		*0.20*	*0.20*	*Sqm*
		2		*1.24*	*0.20*	*0.50*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*1.24*	*0.40*	*0.99*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*1.24*	*0.50*	*1.24*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.24*	*0.70*	*1.74*	*Sqm*
	Crest	*2*	*0.8375*		*0.876*	*1.47*	*Sqm*
		2		*1.24*	*0.876*	*2.17*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.89*		*0.30*	*2.93*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.59*		*0.60*	*5.51*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*1.54*	*0.15*	*0.92*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**121.66**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.78*		*5.35*	*Sqm*
	TOTAL					**5.35**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.64*	*0.30*	**0.29**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.64*	*0.15*	**0.29**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.69*	*0.45*		*4.36*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.69*	*0.45*		*4.36*	*Sqm*
	TOTAL					**8.72**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		4.26		4.26	**Cum**
	Abutment						
	Section 1-1	2	*1.07*	*1.43*		*3.065*	*Cum*
	Section 2-2	2	*3.00*	*0.65*		*3.876*	*Cum*
	Section 3-3	2	*1.70*	*0.47*		*1.605*	*Cum*
	Section 5-5	2	*2.44*	*1.09*		*5.315*	*Cum*
	Section 6-6	2	*0.87*	*0.45*		*0.784*	*Cum*
	D/S protection	2	0.11				
	Toe wall	2	*1.24*	*0.09*		*0.223*	*Cum*
		2	0.60	0.80		*0.960*	*Cum*
	TOTAL					**20.09**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH. 2.250 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.35*	*1.81*	*1.632*	*7.967*	*Cum*
	Section 2-2	*2*	*3.20*	*1.78*	*1.632*	*18.592*	*Cum*
	Section 3-3	*2*	*4.00*	*1.81*	*1.432*	*20.735*	*Cum*
	Section 5-5	*2*	*2.37*	*1.96*	*1.632*	*15.187*	*Cum*
	Section 6-6	*2*	*0.32*	*0.96*	*1.432*	*0.866*	*Cum*
	U/S Key Floor	*1*	*0.625*	*1.240*	*0.850*	*0.659*	*Cum*
	U/S Floor	*1*	*1.183*	*1.240*	*1.980*	*2.905*	*Cum*
		1	*4.516*	*1.240*	*2.330*	*13.048*	*Cum*
	D/S Floor	*1*	*4.300*	*1.240*	*1.980*	*10.557*	*Cum*
	D/S Key Floor	*1*	*4.300*	*1.240*	*0.700*	*3.732*	*Cum*
	Toe Wall D/S Portion	*1*	*4.890*	*0.750*	*0.750*	*2.751*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*0.600*	*0.750*	*1.350*	*Cum*
						98.35	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.24*	*0.15*	*0.10*	*Cum*
		1	*0.782*	*1.24*	*0.15*	*0.15*	*Cum*
		1	*0.028*	*1.24*	*0.15*	*0.01*	*Cum*
		1	*0.282*	*1.24*	*0.15*	*0.05*	*Cum*
		1	*4.690*	*1.24*	*0.15*	*0.87*	*Cum*
		1	*0.494*	*1.24*	*0.15*	*0.09*	*Cum*
		1	*2.970*	*1.24*	*0.15*	*0.55*	*Cum*
		1	*0.726*	*1.24*	*0.15*	*0.14*	*Cum*
		1	*0.542*	*1.24*	*0.15*	*0.10*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.35*	*1.81*	*0.15*	*0.73*	*Cum*
	Section 2-2	*2*	*3.20*	*1.78*	*0.15*	*1.71*	*Cum*
	Section 3-3	*2*	*4.00*	*1.81*	*0.15*	*2.17*	*Cum*
	Section 5-5	*2*	*2.37*	*1.96*	*0.15*	*1.40*	*Cum*
	Section 6-6	*2*	*0.32*	*0.96*	*0.15*	*0.09*	*Cum*
	Toe Wall D/S Portion	*1*	*4.89*	*0.75*	*0.30*	*1.10*	*Cum*
	Toe Wall D/S Portion	*1*	*4.89*	*0.45*	*0.45*	*0.99*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.60*	*0.15*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.50*	*0.30*	*0.60*	*0.27*	*Cum*
	TOTAL					**10.79**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.20*	*0.45*	*0.45*	*0.48*	*Cum*
		2	*1.20*	*0.96*	*1.27*	*2.93*	*Cum*
		2	*1.20*	*1.62*	*0.50*	*1.94*	*Cum*
	Section 2-2	*2*	*3.20*	*0.82*	*0.50*	*2.62*	*Cum*
		2	*3.20*	*1.06*	*0.51*	*3.46*	*Cum*
		2	*3.20*	*1.63*	*1.00*	*10.43*	*Cum*
	Section 3-3	*2*	*3.93*	*0.82*	*0.50*	*3.22*	*Cum*
		2	*3.93*	*0.97*	*0.31*	*2.36*	*Cum*
		2	*3.93*	*1.66*	*1.20*	*15.64*	*Cum*
	Section 5-5	*2*	*2.33*	*0.45*	*0.45*	*0.94*	*Cum*
		2	*2.33*	*0.96*	*1.27*	*5.69*	*Cum*
		2	*2.33*	*1.62*	*0.50*	*3.77*	*Cum*
	Section 6-6	*2*	*1.00*	*0.45*	*0.45*	*0.40*	*Cum*
		2	*1.00*	*0.54*	*0.31*	*0.33*	*Cum*
		2	*1.00*	*0.81*	*0.55*	*0.89*	*Cum*
	Floor	*1*	*0.63*	*1.24*	*0.70*	*0.54*	*Cum*
		1	*0.98*	*1.24*	*0.50*	*0.61*	*Cum*
		1	*0.20*	*1.24*	*0.60*	*0.15*	*Cum*
		1	*4.32*	*1.24*	*0.70*	*3.75*	*Cum*
		1	*0.20*	*1.24*	*0.45*	*0.11*	*Cum*
		1	*0.50*	*1.24*	*0.35*	*0.22*	*Cum*
		1	*4.30*	*1.24*	*0.55*	*2.93*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.61*	*1.24*	*0.65*	*0.49*	*Cum*
	Crest	*1*	*1.08*	*1.24*	*1.45*	*1.95*	*Cum*
	TOTAL					**65.87**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.85*	*1.24*	*0.15*	*0.16*	*Cum*
	Coping over Abutment Top	*2*	*12.53*	*0.45*	*0.05*	*0.56*	*Cum*
	Slab Bridge						
	Slab	*1*	*2.04*	*5.5*	*0.33*	*3.69*	*Cum*
	Wearing coat	*1*	*2.04*	*4.50*	*0.07*	*0.64*	*Cum*
	Dirt wall	*2*	*0.40*	*5.5*	*0.43*	*1.89*	*Cum*
	300 mm thick pedastial	*2*	*0.82*	*5.5*	*0.30*	*2.71*	*Cum*
	TOTAL					**9.65**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*31*	*2.50*		*1.578*	*122.3*	*Kg*
a2	*10*	*10*	*5.90*		*0.616*	*36.4*	*Kg*
a3	*10*	*2*	*5.40*		*0.616*	*6.7*	*Kg*
a4	*10*	*19*	*2.42*		*0.616*	*28.3*	*Kg*
a5	*10*	*8*	*5.80*		*0.616*	*28.6*	*Kg*
x1	*12*	*34*	*2.50*		*0.888*	*75.5*	*Kg*
x2	*16*	*34*	*1.27*		*1.578*	*67.9*	*Kg*
x3	*10*	*24*	*1.94*		*0.616*	*28.7*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**65.87**	**0.30%**	**0.20**	**7850**	**1551.17**	**Kg**
	TOTAL REINFORCEMENT STEEL (in kg)					**1945.51**	**Kg'**
	TOTAL REINFORCEMENT STEEL (in MT)					**1.95**	**MT**

6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.20*		*0.45*	*2.16*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.20*		*1.27*	*6.09*	*Sqm*
		4		*0.96*	*1.27*	*4.89*	*Sqm*
		4	*1.20*		*0.50*	*2.40*	*Sqm*
		4		*1.62*	*0.50*	*3.24*	*Sqm*
	Section 2-2	*4*	*3.20*		*0.50*	*6.40*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*3.20*		*0.51*	*6.53*	*Sqm*
		4		*1.06*	*0.51*	*2.16*	*Sqm*
		4	*3.20*		*1.00*	*12.80*	*Sqm*
		4		*1.63*	*1.00*	*6.52*	*Sqm*
	Section 3-3	*4*	*3.93*		*0.50*	*7.85*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*3.93*		*0.31*	*4.87*	*Sqm*
		4		*0.97*	*0.31*	*1.20*	*Sqm*
		4	*3.93*		*1.20*	*18.84*	*Sqm*
		4		*1.66*	*1.20*	*7.97*	*Sqm*
	Section 5-5	*4*	*2.33*		*0.45*	*4.19*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.33*		*1.27*	*11.84*	*Sqm*
		4		*0.96*	*1.27*	*4.89*	*Sqm*
		4	*2.33*		*0.50*	*4.65*	*Sqm*
		4		*1.62*	*0.50*	*3.24*	*Sqm*
	Section 6-6	*4*	*1.00*		*0.45*	*1.79*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.00*		*0.31*	*1.23*	*Sqm*
		4		*0.54*	*0.31*	*0.67*	*Sqm*
		4	*1.00*		*0.55*	*2.19*	*Sqm*
		4		*0.81*	*0.55*	*1.78*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.24*	*0.70*	*1.74*	*Sqm*
		2	*0.98*		*0.50*	*0.98*	*Sqm*
		2		*1.24*	*0.50*	*1.24*	*Sqm*
		2	*0.20*		*0.60*	*0.24*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*1.24*	*0.60*	*1.49*	*Sqm*
		2	*4.32*		*0.70*	*6.04*	*Sqm*
		2		*1.24*	*0.70*	*1.74*	*Sqm*
		2	*0.20*		*0.45*	*0.18*	*Sqm*
		2		*1.24*	*0.45*	*1.12*	*Sqm*
		2	*0.50*		*0.35*	*0.35*	*Sqm*
		2		*1.24*	*0.35*	*0.87*	*Sqm*
		2	*4.32*		*0.70*	*6.04*	*Sqm*
		2		*1.24*	*0.70*	*1.74*	*Sqm*
		2	*0.61*		*0.65*	*0.80*	*Sqm*
		2		*1.24*	*0.65*	*1.61*	*Sqm*
	Crest	*2*	*1.0835*		*1.45*	*3.14*	*Sqm*
		2		*1.24*	*1.45*	*3.60*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.89*		*0.30*	*2.93*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.89*		*0.45*	*4.40*	*Sqm*
		2		*0.45*	*0.45*	*0.41*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**183.66**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.78*		*5.34*	*Sqm*
	TOTAL					**5.34**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.64*	*0.30*	**0.29**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.64*	*0.15*	**0.29**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*12.53*	*0.45*		*5.64*	*Sqm*
	On Abutment Top (Right Side)	*1*	*12.53*	*0.45*		*5.64*	*Sqm*
	TOTAL					**11.27**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		4.26		4.26	**Cum**
	Abutment						
	Section 1-1	2	*1.35*	*0.98*		*2.643*	*Cum*
	Section 2-2	2	*3.20*	*0.63*		*4.022*	*Cum*
	Section 3-3	2	*4.00*	*0.56*		*4.510*	*Cum*
	Section 5-5	2	*2.37*	*0.98*		*4.653*	*Cum*
	Section 6-6	2	*0.32*	*0.45*		*0.286*	*Cum*
	D/S protection						
	Toe wall	2	*4.89*	*0.09*		*0.000*	*Cum*
	TOTAL					**20.37**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.762 METER AT CH. 2.970 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.15*	*1.51*	*1.312*	*4.570*	*Cum*
	Section 2-2	*2*	*2.50*	*1.58*	*1.312*	*10.339*	*Cum*
	Section 3-3	*2*	*4.70*	*1.46*	*1.112*	*15.219*	*Cum*
	Section 5-5	*2*	*2.05*	*1.66*	*1.312*	*8.926*	*Cum*
	Section 6-6	*2*	*0.83*	*0.94*	*1.112*	*1.726*	*Cum*
	U/S Key Floor	*1*	*0.625*	*1.240*	*0.850*	*0.659*	*Cum*
	U/S Floor	*1*	*4.500*	*1.240*	*1.312*	*7.321*	*Cum*
	D/S Floor	*1*	*4.800*	*1.240*	*1.462*	*8.702*	*Cum*
	D/S Key Floor	*1*	*4.800*	*1.240*	*0.650*	*3.869*	*Cum*
	Toe Wall D/S Portion	*1*	*4.770*	*0.750*	*0.750*	*2.683*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*0.600*	*0.750*	*1.350*	*Cum*
						65.36	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.24*	*0.15*	*0.10*	*Cum*
		1	*0.782*	*1.24*	*0.15*	*0.15*	*Cum*
		1	*4.117*	*1.24*	*0.15*	*0.77*	*Cum*
		1	*0.282*	*1.24*	*0.15*	*0.05*	*Cum*
		1	*3.396*	*1.24*	*0.15*	*0.63*	*Cum*
		1	*0.782*	*1.24*	*0.15*	*0.15*	*Cum*
		1	*0.542*	*1.24*	*0.15*	*0.10*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.15*	*1.51*	*0.15*	*0.52*	*Cum*
	Section 2-2	*2*	*2.50*	*1.58*	*0.15*	*1.18*	*Cum*
	Section 3-3	*2*	*4.70*	*1.46*	*0.15*	*2.05*	*Cum*
	Section 5-5	*2*	*2.05*	*1.66*	*0.15*	*1.02*	*Cum*
	Section 6-6	*2*	*0.83*	*0.94*	*0.15*	*0.23*	*Cum*
	Toe Wall D/S Portion	*1*	*4.77*	*0.75*	*0.30*	*1.07*	*Cum*
	Toe Wall D/S Portion	*1*	*4.77*	*0.45*	*0.45*	*0.97*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.60*	*0.15*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.50*	*0.30*	*0.60*	*0.27*	*Cum*
	TOTAL					**9.53**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.00*	*0.45*	*0.45*	*0.41*	*Cum*
		2	*1.00*	*0.83*	*1.27*	*2.12*	*Cum*
		2	*1.00*	*1.51*	*0.50*	*1.52*	*Cum*
	Section 2-2	*2*	*2.50*	*0.82*	*0.50*	*2.05*	*Cum*
		2	*2.50*	*1.12*	*0.51*	*2.86*	*Cum*
		2	*2.50*	*1.58*	*1.00*	*7.88*	*Cum*
	Section 3-3	*2*	*4.46*	*0.82*	*0.50*	*3.65*	*Cum*
		2	*4.46*	*0.99*	*0.31*	*2.73*	*Cum*
		2	*4.46*	*1.16*	*1.20*	*12.37*	*Cum*
	Section 5-5	*2*	*2.00*	*0.45*	*0.45*	*0.81*	*Cum*
		2	*2.00*	*0.83*	*1.27*	*4.23*	*Cum*
		2	*2.00*	*1.51*	*0.50*	*3.03*	*Cum*
	Section 6-6	*2*	*1.24*	*0.45*	*0.45*	*0.50*	*Cum*
		2	*1.24*	*0.54*	*0.31*	*0.42*	*Cum*
		2	*1.24*	*0.79*	*0.50*	*0.97*	*Cum*
	Floor	*1*	*0.63*	*1.24*	*0.70*	*0.54*	*Cum*
		1	*4.50*	*1.24*	*0.50*	*2.79*	*Cum*
		1	*0.20*	*1.24*	*0.40*	*0.10*	*Cum*
		1	*0.55*	*1.24*	*0.20*	*0.14*	*Cum*
		1	*4.80*	*1.24*	*0.50*	*2.98*	*Cum*
		1	*0.63*	*1.24*	*0.70*	*0.54*	*Cum*
	Crest	*1*	*0.91*	*1.24*	*0.98*	*1.10*	*Cum*
	TOTAL					**53.74**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*1.24*	*0.15*	*0.14*	*Cum*
	Coping over Abutment Top	*2*	*11.82*	*0.45*	*0.05*	*0.53*	*Cum*
	Slab Bridge						
	Slab	*1*	*1.90*	*5.5*	*0.33*	*3.43*	*Cum*
	Wearing coat	*1*	*1.90*	*4.50*	*0.07*	*0.60*	*Cum*
	Dirt wall	*2*	*0.40*	*5.5*	*0.43*	*1.89*	*Cum*
	300 mm thick pedastial	*2*	*0.82*	*5.5*	*0.30*	*2.71*	*Cum*
	TOTAL					**9.30**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*31*	*2.36*		*1.578*	*115.5*	*Kg*
a2	*10*	*10*	*5.90*		*0.616*	*36.4*	*Kg*
a3	*10*	*2*	*5.40*		*0.616*	*6.7*	*Kg*
a4	*10*	*19*	*2.28*		*0.616*	*26.7*	*Kg*
a5	*10*	*7*	*5.80*		*0.616*	*25.0*	*Kg*
x1	*12*	*32*	*2.50*		*0.888*	*71.0*	*Kg*
x2	*16*	*32*	*1.27*		*1.578*	*63.9*	*Kg*
x3	*10*	*24*	*1.80*		*0.616*	*26.6*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**53.74**	**0.30%**	**0.16**	**7850**	**1265.50**	**Kg**
	TOTAL REINFORCEMENT STEEL (in kg)					**1637.28**	**Kg'**
	TOTAL REINFORCEMENT STEEL (in MT)					**1.64**	**MT**

6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.00*		*0.45*	*1.80*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.00*		*1.27*	*5.10*	*Sqm*
		4		*0.83*	*1.27*	*4.23*	*Sqm*
		4	*1.00*		*0.50*	*2.00*	*Sqm*
		4		*1.51*	*0.50*	*3.03*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.50*	*5.00*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*2.50*		*0.51*	*5.10*	*Sqm*
		4		*1.12*	*0.51*	*2.29*	*Sqm*
		4	*2.50*		*1.00*	*10.00*	*Sqm*
		4		*1.58*	*1.00*	*6.30*	*Sqm*
	Section 3-3	*4*	*4.46*		*0.50*	*8.91*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*4.46*		*0.31*	*5.53*	*Sqm*
		4		*0.99*	*0.31*	*1.23*	*Sqm*
		4	*4.46*		*1.20*	*21.39*	*Sqm*
		4		*1.16*	*1.20*	*5.55*	*Sqm*
	Section 5-5	*4*	*2.00*		*0.45*	*3.60*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.00*		*1.27*	*10.19*	*Sqm*
		4		*0.83*	*1.27*	*4.23*	*Sqm*
		4	*2.00*		*0.50*	*4.00*	*Sqm*
		4		*1.51*	*0.50*	*3.03*	*Sqm*
	Section 6-6	*4*	*1.24*		*0.45*	*2.23*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.24*		*0.31*	*1.54*	*Sqm*
		4		*0.54*	*0.31*	*0.67*	*Sqm*
		4	*1.24*		*0.50*	*2.48*	*Sqm*
		4		*0.79*	*0.50*	*1.57*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.24*	*0.70*	*1.74*	*Sqm*
		2	*4.50*		*0.50*	*4.50*	*Sqm*
		2		*1.24*	*0.50*	*1.24*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*1.24*	*0.40*	*0.99*	*Sqm*
		2	*0.55*		*0.20*	*0.22*	*Sqm*
		2		*1.24*	*0.20*	*0.50*	*Sqm*
		2	*4.50*		*0.50*	*4.50*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*1.24*	*0.50*	*1.24*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.24*	*0.70*	*1.74*	*Sqm*
	Crest	*2*	*0.905*		*0.977*	*1.77*	*Sqm*
		2		*1.24*	*0.977*	*2.42*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.77*		*0.30*	*2.86*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.77*		*0.45*	*4.29*	*Sqm*
		2		*0.45*	*0.45*	*0.41*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**163.07**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.71*		*5.13*	*Sqm*
	TOTAL					**5.13**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.64*	*0.30*	**0.29**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.64*	*0.15*	**0.29**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*11.82*	*0.45*		*5.32*	*Sqm*
	On Abutment Top (Right Side)	*1*	*11.82*	*0.45*		*5.32*	*Sqm*
	TOTAL					**10.64**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.84		1.84	**Cum**
	Abutment						
	Section 1-1	2	*1.15*	*0.41*		*0.933*	*Cum*
	Section 2-2	2	*2.50*	*0.21*		*1.031*	*Cum*
	Section 3-3	2	*4.70*	*0.23*		*2.202*	*Cum*
	Section 5-5	2	*2.05*	*0.41*		*1.658*	*Cum*
	Section 6-6	2	*0.83*	*0.37*		*0.608*	*Cum*
	D/S protection						
	Toe wall	2	*4.77*	*0.07*		*0.000*	*Cum*
	TOTAL					**8.27**	**Cum**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND									
ABSTRACT OF COST OF PIPE CULVERT OF 2.495 OF AMBA MR.									
S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	130.000	Sqm	**11.80**	1534.57			
2	5.1.8	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.	49.607	Cum	**156.50**	7763.54			
3	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	16.00	Cum	**6381.70**	102109.65	5.18	7.20	14.40
4	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	19.489	Cum	**6914.20**	134750.75	8.04	8.38	16.76
5	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	115.463	Sqm	**578.60**	66806.63			
6	5.3.22	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.38	MT	**73574.90**	28140.29			
7	WRD M-002	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	2.88	Cum	**788.59**	2271.14			
8	WRD 5.7.18.1	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	2.88	Cum	**1237.00**	3562.56			
9	M-151	Providing 600 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP3 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	Rm	**2532.61**	18994.58			
10	5.6.2.2	Labour for laying 600 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP3 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	Rm	**711.27**	5334.49			
11	13.08 RCD	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	Rm	**152.60**	1220.80			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
12	5.7.16	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	7.08	Sqm	**680.10**	4812.39			
13	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.77	Cum	**5021.30**	3886.49	0.09	0.25	
14	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	4.386	Sqm	**340.20**	1492.12	4.547	0.064	
15	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	1.806	Sqm	**63.20**	114.14	0.003		
16	5.1.31	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	27.28	Cum	**149.30**	4072.70			
17		**Carriage of materials**							
		Coarse Sand (60 Km lead)	15.892	Cum	**1075.00**	17084.06			
		Coarse Aggregates (100 Km lead)	31.161	Cum	**1398.00**	43562.90			
		Cement (30 km lead)	17.863	MT	**742.00**	13254.06			
		Steel (30 km lead)	0.382	MT	**742.00**	283.79			
		Boulder (60 km lead)	2.880	Cum	**1159.00**	3337.92			
		Hume Pipe (30 Km Lead)	7.500	Rm	**919.00**	6892.50			
TOTAL (In Rs.)						**471282.07**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	15.89	Cum	**584.64**	9291.19	929.12		
		Coarse Aggregate	31.16	Cum	**944.26**	29423.97	2942.40		
		Boulder (60 km lead)	2.88	Cum	**694.61**	2000.48	200.05		
		Total					**4071.56**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST OF PIPE CULVERT OF 2.710 OF AMBA MR.									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	5.1.8	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.	49.607	Cum	**156.50**	7763.54			
3	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	16.00	Cum	**6381.70**	102109.65	5.18	7.20	14.40
4	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	19.489	Cum	**6914.20**	134750.75	8.04	8.38	16.76
5	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	115.463	Sqm	**578.60**	66806.63			
6	5.3.22	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.38	MT	**73574.90**	28140.29			
7	WRD M-002	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	2.88	Cum	**788.59**	2271.14			
8	WRD 5.7.18.1	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	2.88	Cum	**1237.00**	3562.56			
9	M-151	Providing 600 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP3 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	Rm	**2532.61**	18994.58			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
10	5.6.2.2	Labour for laying 600 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP3 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	Rm	**711.27**	5334.49			
11	13.08 RCD	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	Rm	**152.60**	1220.80			
12	5.7.16	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	7.08	Sqm	**680.10**	4812.39			
13	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.77	Cum	**5021.30**	3886.49	0.09	0.25	
14	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	4.386	Sqm	**340.20**	1492.12	4.547	0.064	
15	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	1.806	Sqm	**63.20**	114.14	0.003		
16	5.1.31	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	27.28	Cum	**149.30**	4072.70			
17		**Carriage of materials**							
		Coarse Sand (60 Km lead)	15.892	Cum	**1075.00**	17084.06			
		Coarse Aggregates (100 Km lead)	31.161	Cum	**1398.00**	43562.90			
		Cement (30 km lead)	17.863	MT	**742.00**	13254.06			
		Steel (30 km lead)	0.382	MT	**742.00**	283.79			
		Boulder (60 km lead)	2.880	Cum	**1159.00**	3337.92			
		Hume Pipe (30 Km Lead)	7.500	Rm	**919.00**	6892.50			
		TOTAL (In Rs.)				**471045.98**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	15.89	Cum	**584.64**	9291.19	929.12		
		Coarse Aggregate	31.16	Cum	**944.26**	29423.97	2942.40		
		Boulder (60 km lead)	2.88	Cum	**694.61**	2000.48	200.05		
		Total					**4071.56**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILS OF QUANTITIES OF PIPE CULVERT AT KM 2.495 OF AMBA MR.							
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*130.00*			**130.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	U/S Toe Wall	*1*	*1.17*	*0.85*	*1.20*	*1.19*	*Cum*
	D/S Toe Wall	*1*	*1.17*	*0.85*	*1.20*	*1.19*	*Cum*
	U/S Toe Wall Base (For Resting Brick Pitching)	*2*	*2.00*	*0.45*	*0.90*	*1.62*	*Cum*
	D/S Toe Wall Base (For Resting Brick Pitching)	*2*	*2.00*	*0.45*	*0.90*	*1.62*	*Cum*
	U/S Transitions Floor (Left & Right)	*2*	*0.61*	*1.00*	*1.20*	*1.45*	*Cum*
		2	*2.17*	*1.80*	*1.20*	*9.37*	*Cum*
	Extra for Slope (.5:1)	*2*	*2.17*	*1.03*	*2.05*	*9.14*	*Cum*
	D/S Transitions Floor (Left & Right)	*2*	*0.61*	*1.00*	*1.20*	*1.45*	*Cum*
		2	*2.17*	*1.80*	*1.20*	*9.37*	*Cum*
	Extra for Slope (.5:1)	*2*	*2.17*	*1.03*	*2.05*	*9.14*	*Cum*
	C.C Floor Apron in (U/S Portion)	*1*	*1.55*	*0.85*	*0.45*	*0.59*	*Cum*
	C.C Floor Apron in (D/S Portion)	*1*	*1.55*	*0.85*	*0.45*	*0.59*	*Cum*
	Launching Apron in U/S Portion	*1*	*2.00*	*1.20*	*0.60*	*1.44*	*Cum*
	Launching Apron in D/S Portion	*1*	*2.00*	*1.20*	*0.60*	*1.44*	*Cum*
	TOTAL					**49.61**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below U/S Curtain Wall	*1*	*1.17*	*0.85*	*0.30*	*0.30*	*Cum*
	U/S Curtain Wall Stem	*1*	*1.17*	*0.45*	*0.90*	*0.47*	*Cum*
	PCC Below D/S Curtain Wall	*1*	*1.17*	*0.85*	*0.30*	*0.30*	*Cum*
	D/S Curtain Wall Stem	*1*	*1.17*	*0.45*	*0.90*	*0.47*	*Cum*
	U/S Toe Wall Base (For Resting Brick Pitching)	*2*	*2.00*	*0.45*	*0.30*	*0.54*	*Cum*
	U/S Toe Wall Stem (For Resting Brick Pitching)	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	D/S Toe Wall Base (For Resting Brick Pitching)	*2*	*2.00*	*0.45*	*0.30*	*0.54*	*Cum*
	D/S Toe Wall Stem (For Resting Brick Pitching)	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	Floor Apron (U/S Portion)	*1*	*1.55*	*0.85*	*0.45*	*0.59*	*Cum*
	Floor Apron (D/S Portion)	*1*	*1.55*	*0.85*	*0.45*	*0.59*	*Cum*
	U/S Transitions Floor (Left & Right)	*2*	*0.61*	*1.00*	*0.30*	*0.36*	*Cum*
		2	*2.17*	*1.80*	*0.30*	*2.34*	*Cum*
	D/S Transitions Floor (Left & Right)	*2*	*0.61*	*1.00*	*0.30*	*0.36*	*Cum*
		2	*2.17*	*1.80*	*0.30*	*2.34*	*Cum*
	PCC Below Hume Pipe	*1*	*7.50*	*1.29*	*0.41*	*3.92*	*Cum*
	PCC Below Hume Pipe in (Curve Portion)	*2*	*7.50*	*0.49*	*0.20*	*1.43*	*Cum*
	TOTAL					**16.00**	**Cum**

4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Transition Walls (Left & Right)						
	Section D-D	*2*	*0.61*	*0.60*	*0.90*	*0.65*	*Cum*
		2	*0.61*	*0.45*	*0.35*	*0.19*	*Cum*
		2	*0.61*	*0.30*	*0.50*	*0.18*	*Cum*
	Average of Section A-A & Section C-C	*2*	*2.17*	*1.40*	*0.90*	*5.46*	*Cum*
		2	*2.17*	*1.17*	*0.35*	*1.78*	*Cum*
		2	*2.17*	*0.75*	*0.50*	*1.64*	*Cum*
	D/S Transition Walls (Left & Right)						
	Section H-H	*2*	*0.61*	*0.60*	*0.90*	*0.65*	*Cum*
		2	*0.61*	*0.45*	*0.35*	*0.19*	*Cum*
		2	*0.61*	*0.30*	*0.50*	*0.18*	*Cum*
	Average of Section E-E & Section G-G	*2*	*2.17*	*1.40*	*0.90*	*5.46*	*Cum*
		2	*2.17*	*1.17*	*0.35*	*1.78*	*Cum*
		2	*2.17*	*0.75*	*0.50*	*1.64*	*Cum*
	Collar Joint	*2*	*1.19*	*0.30*	*1.20*	*0.86*	*Cum*
	Deduct Hume Pipe Area	*1*		*1.19*		*-1.19*	*Cum*
	TOTAL					**19.49**	**Cum**
5	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	U/S Curtain Wall Stem	*2*	*1.17*		*0.90*	*2.10*	*Sqm*
		2		*0.45*	*0.90*	*0.81*	*Sqm*
	D/S Curtain Wall Stem	*2*	*1.17*		*0.90*	*2.10*	*Sqm*
		2		*0.45*	*0.90*	*0.81*	*Sqm*
	U/S Toe Wall Stem (For Resting Brick Pitching)	*4*	*2.00*		*0.90*	*7.20*	*Sqm*
		4		*0.30*	*0.90*	*1.08*	*Sqm*
	D/S Toe Wall Stem (For Resting Brick Pitching)	*4*	*2.00*		*0.90*	*7.20*	*Sqm*
		4		*0.30*	*0.90*	*1.08*	*Sqm*
	Floor Apron (U/S Portion)	*2*	*1.55*		*0.45*	*1.40*	*Sqm*
		2		*0.85*	*0.45*	*0.76*	*Sqm*
	Floor Apron (D/S Portion)	*2*	*1.55*		*0.45*	*1.40*	*Sqm*
		2		*0.85*	*0.45*	*0.76*	*Sqm*
	U/S Transitions Floor (Left & Right)	*4*	*0.61*		*0.30*	*0.73*	*Sqm*
		4		*1.00*	*0.30*	*1.20*	*Sqm*
		4	*2.17*		*0.30*	*2.61*	*Sqm*
		4		*1.80*	*0.30*	*2.16*	*Sqm*
	D/S Transitions Floor (Left & Right)	*4*	*0.61*		*0.30*	*0.73*	*Sqm*
		4		*1.00*	*0.30*	*1.20*	*Sqm*
		4	*2.17*		*0.30*	*2.61*	*Sqm*
		4		*1.80*	*0.30*	*2.16*	*Sqm*
	U/S Transition Walls (Left & Right)						
	Section D-D	*4*	*0.61*		*0.90*	*2.18*	*Sqm*
		4		*0.60*	*0.90*	*2.16*	*Sqm*
		4	*0.61*		*0.35*	*0.85*	*Sqm*
		4		*0.45*	*0.35*	*0.63*	*Sqm*
		4	*0.61*		*0.50*	*1.21*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*

	Average of Section A-A & Section C-C	*4*	*2.17*		*0.90*	*7.83*	*Sqm*
		4		*1.40*	*0.90*	*5.03*	*Sqm*
		4	*2.17*		*0.35*	*3.04*	*Sqm*
		4		*1.17*	*0.35*	*1.64*	*Sqm*
		4	*2.17*		*0.50*	*4.35*	*Sqm*
		4		*0.75*	*0.50*	*1.51*	*Sqm*
	D/S Transition Walls (Left & Right)						
	Section H-H	*4*	*0.61*		*0.90*	*2.18*	*Sqm*
		4		*0.60*	*0.90*	*2.16*	*Sqm*
		4	*0.61*		*0.35*	*0.85*	*Sqm*
		4		*0.45*	*0.35*	*0.63*	*Sqm*
		4	*0.61*		*0.50*	*1.21*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
	Average of Section E-E & Section G-G	*4*	*2.17*		*0.90*	*7.83*	*Sqm*
		4		*1.40*	*0.90*	*5.03*	*Sqm*
		4	*2.17*		*0.35*	*3.04*	*Sqm*
		4		*1.17*	*0.35*	*1.64*	*Sqm*
		4	*2.17*		*0.50*	*4.35*	*Sqm*
		4		*0.75*	*0.50*	*1.51*	*Sqm*
	PCC Below Hume Pipe	*2*	*7.50*		*0.41*	*6.08*	*Sqm*
		2		*1.29*	*0.41*	*1.04*	*Sqm*
	Deduct Hume Pipe Area	*4*	*7.50*		*0.20*	*5.85*	*Sqm*
		4		*0.49*	*0.20*	*0.38*	*Sqm*
	TOTAL					**115.46**	**Sqm**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
		Quantity	Percent		Density		
	0.25 % Skin Reinforcement for Transition walls	*19.49*	*0.25%*	*0.05*	*7850*	*382.47*	*Kg*
	TOTAL Weight of steel (in kg)					382.47	Kg
	TOTAL Weight of Steel (in Tonne)					**0.38**	**MT**
7	Launching Apron i/c cost of all material, labour and T&P etc. Complete.						
	Launching Apron in U/S Portion	*1*	*2.00*	*1.20*	*0.60*	*1.44*	*Cum*
	Launching Apron in D/S Portion	*1*	*2.00*	*1.20*	*0.60*	*1.44*	*Cum*
	TOTAL					**2.88**	**Cum**
8	Providing 600 mm RCC NP3 pipe	3		2.50		7.5	Rm
	TOTAL					**7.50**	**Rm**
9	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
10	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	On Slopes in U/S Portion	*1*	*1.77*	*2.00*		*3.54*	*Sqm*
	On Slopes in D/S Portion	*1*	*1.77*	*2.00*		*3.54*	*Sqm*
	TOTAL					**7.08**	**Sqm**

11	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.						
	Parapet	2	1.29	0.5	0.6	*0.77*	*Cum*
	TOTAL					**0.77**	**Cum**
12	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.						
	Parapet	2	1.29		1.7	**4.39**	*Sqm*
	TOTAL					**4.39**	***Sqm***
13	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.						
	Parapet top	2	1.29		0.7	**1.81**	*Sqm*
	TOTAL					**1.81**	***Sqm***
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*2*	*2.17*	*1.03*	*2.05*	*9.14*	*Cum*
	D/S Transitions Walls	*2*	*2.17*	*1.03*	*2.05*	*9.14*	*Cum*
	U/S Toe Wall	*1*	*1.17*	*0.15*		*0.18*	*Cum*
	D/S Toe Wall	*1*	*1.17*	*0.15*		*0.18*	*Cum*
	Above Hume Pipe	1	1.29	*6.71*		*8.656*	*Cum*
	TOTAL					**27.28**	**Cum**

DETAILS OF QUANTITIES OF PIPE CULVERT AT KM 2.710 OF AMBA MR.							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*110.00*			**110.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	U/S Toe Wall	*1*	*1.17*	*0.85*	*1.20*	*1.19*	*Cum*
	D/S Toe Wall	*1*	*1.17*	*0.85*	*1.20*	*1.19*	*Cum*
	U/S Toe Wall Base (For Resting Brick Pitching)	*2*	*2.00*	*0.45*	*0.90*	*1.62*	*Cum*
	D/S Toe Wall Base (For Resting Brick Pitching)	*2*	*2.00*	*0.45*	*0.90*	*1.62*	*Cum*
	U/S Transitions Floor (Left & Right)	*2*	*0.61*	*1.00*	*1.20*	*1.45*	*Cum*
		2	*2.17*	*1.80*	*1.20*	*9.37*	*Cum*
	Extra for Slope (.5:1)	*2*	*2.17*	*1.03*	*2.05*	*9.14*	*Cum*
	D/S Transitions Floor (Left & Right)	*2*	*0.61*	*1.00*	*1.20*	*1.45*	*Cum*
		2	*2.17*	*1.80*	*1.20*	*9.37*	*Cum*
	Extra for Slope (.5:1)	*2*	*2.17*	*1.03*	*2.05*	*9.14*	*Cum*
	C.C Floor Apron in (U/S Portion)	*1*	*1.55*	*0.85*	*0.45*	*0.59*	*Cum*
	C.C Floor Apron in (D/S Portion)	*1*	*1.55*	*0.85*	*0.45*	*0.59*	*Cum*
	Launching Apron in U/S Portion	*1*	*2.00*	*1.20*	*0.60*	*1.44*	*Cum*
	Launching Apron in D/S Portion	*1*	*2.00*	*1.20*	*0.60*	*1.44*	*Cum*
	TOTAL					**49.61**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below U/S Curtain Wall	*1*	*1.17*	*0.85*	*0.30*	*0.30*	*Cum*
	U/S Curtain Wall Stem	*1*	*1.17*	*0.45*	*0.90*	*0.47*	*Cum*
	PCC Below D/S Curtain Wall	*1*	*1.17*	*0.85*	*0.30*	*0.30*	*Cum*
	D/S Curtain Wall Stem	*1*	*1.17*	*0.45*	*0.90*	*0.47*	*Cum*
	U/S Toe Wall Base (For Resting Brick Pitching)	*2*	*2.00*	*0.45*	*0.30*	*0.54*	*Cum*
	U/S Toe Wall Stem (For Resting Brick Pitching)	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	D/S Toe Wall Base (For Resting Brick Pitching)	*2*	*2.00*	*0.45*	*0.30*	*0.54*	*Cum*
	D/S Toe Wall Stem (For Resting Brick Pitching)	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	Floor Apron (U/S Portion)	*1*	*1.55*	*0.85*	*0.45*	*0.59*	*Cum*
	Floor Apron (D/S Portion)	*1*	*1.55*	*0.85*	*0.45*	*0.59*	*Cum*
	U/S Transitions Floor (Left & Right)	*2*	*0.61*	*1.00*	*0.30*	*0.36*	*Cum*
		2	*2.17*	*1.80*	*0.30*	*2.34*	*Cum*
	D/S Transitions Floor (Left & Right)	*2*	*0.61*	*1.00*	*0.30*	*0.36*	*Cum*
		2	*2.17*	*1.80*	*0.30*	*2.34*	*Cum*
	PCC Below Hume Pipe	*1*	*7.50*	*1.29*	*0.41*	*3.92*	*Cum*
	PCC Below Hume Pipe in (Curve Portion)	*2*	*7.50*	*0.49*	*0.20*	*1.43*	*Cum*
	TOTAL					**16.00**	**Cum**

4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Transition Walls (Left & Right)						
	Section D-D	*2*	*0.61*	*0.60*	*0.90*	*0.65*	*Cum*
		2	*0.61*	*0.45*	*0.35*	*0.19*	*Cum*
		2	*0.61*	*0.30*	*0.50*	*0.18*	*Cum*
	Average of Section A-A & Section C-C	*2*	*2.17*	*1.40*	*0.90*	*5.46*	*Cum*
		2	*2.17*	*1.17*	*0.35*	*1.78*	*Cum*
		2	*2.17*	*0.75*	*0.50*	*1.64*	*Cum*
	D/S Transition Walls (Left & Right)						
	Section H-H	*2*	*0.61*	*0.60*	*0.90*	*0.65*	*Cum*
		2	*0.61*	*0.45*	*0.35*	*0.19*	*Cum*
		2	*0.61*	*0.30*	*0.50*	*0.18*	*Cum*
	Average of Section E-E & Section G-G	*2*	*2.17*	*1.40*	*0.90*	*5.46*	*Cum*
		2	*2.17*	*1.17*	*0.35*	*1.78*	*Cum*
		2	*2.17*	*0.75*	*0.50*	*1.64*	*Cum*
	Collar Joint	*2*	*1.19*	*0.30*	*1.20*	*0.86*	*Cum*
	Deduct Hume Pipe Area	*1*		*1.19*		*-1.19*	*Cum*
	TOTAL					**19.49**	**Cum**
5	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	U/S Curtain Wall Stem	*2*	*1.17*		*0.90*	*2.10*	*Sqm*
		2		*0.45*	*0.90*	*0.81*	*Sqm*
	D/S Curtain Wall Stem	*2*	*1.17*		*0.90*	*2.10*	*Sqm*
		2		*0.45*	*0.90*	*0.81*	*Sqm*
	U/S Toe Wall Stem (For Resting Brick Pitching)	*4*	*2.00*		*0.90*	*7.20*	*Sqm*
		4		*0.30*	*0.90*	*1.08*	*Sqm*
	D/S Toe Wall Stem (For Resting Brick Pitching)	*4*	*2.00*		*0.90*	*7.20*	*Sqm*
		4		*0.30*	*0.90*	*1.08*	*Sqm*
	Floor Apron (U/S Portion)	*2*	*1.55*		*0.45*	*1.40*	*Sqm*
		2		*0.85*	*0.45*	*0.76*	*Sqm*
	Floor Apron (D/S Portion)	*2*	*1.55*		*0.45*	*1.40*	*Sqm*
		2		*0.85*	*0.45*	*0.76*	*Sqm*
	U/S Transitions Floor (Left & Right)	*4*	*0.61*		*0.30*	*0.73*	*Sqm*
		4		*1.00*	*0.30*	*1.20*	*Sqm*
		4	*2.17*		*0.30*	*2.61*	*Sqm*
		4		*1.80*	*0.30*	*2.16*	*Sqm*
	D/S Transitions Floor (Left & Right)	*4*	*0.61*		*0.30*	*0.73*	*Sqm*
		4		*1.00*	*0.30*	*1.20*	*Sqm*
		4	*2.17*		*0.30*	*2.61*	*Sqm*
		4		*1.80*	*0.30*	*2.16*	*Sqm*
	U/S Transition Walls (Left & Right)						
	Section D-D	*4*	*0.61*		*0.90*	*2.18*	*Sqm*
		4		*0.60*	*0.90*	*2.16*	*Sqm*
		4	*0.61*		*0.35*	*0.85*	*Sqm*
		4		*0.45*	*0.35*	*0.63*	*Sqm*
		4	*0.61*		*0.50*	*1.21*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
	Average of Section A-A & Section C-C	*4*	*2.17*		*0.90*	*7.83*	*Sqm*

		4		*1.40*	*0.90*	*5.03*	*Sqm*
		4	*2.17*		*0.35*	*3.04*	*Sqm*
		4		*1.17*	*0.35*	*1.64*	*Sqm*
		4	*2.17*		*0.50*	*4.35*	*Sqm*
		4		*0.75*	*0.50*	*1.51*	*Sqm*
	D/S Transition Walls (Left & Right)						
	Section H-H	*4*	*0.61*		*0.90*	*2.18*	*Sqm*
		4		*0.60*	*0.90*	*2.16*	*Sqm*
		4	*0.61*		*0.35*	*0.85*	*Sqm*
		4		*0.45*	*0.35*	*0.63*	*Sqm*
		4	*0.61*		*0.50*	*1.21*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
	Average of Section E-E & Section G-G	*4*	*2.17*		*0.90*	*7.83*	*Sqm*
		4		*1.40*	*0.90*	*5.03*	*Sqm*
		4	*2.17*		*0.35*	*3.04*	*Sqm*
		4		*1.17*	*0.35*	*1.64*	*Sqm*
		4	*2.17*		*0.50*	*4.35*	*Sqm*
		4		*0.75*	*0.50*	*1.51*	*Sqm*
	PCC Below Hume Pipe	*2*	*7.50*		*0.41*	*6.08*	*Sqm*
		2		*1.29*	*0.41*	*1.04*	*Sqm*
	Deduct Hume Pipe Area	*4*	*7.50*		*0.20*	*5.85*	*Sqm*
		4		*0.49*	*0.20*	*0.38*	*Sqm*
	TOTAL					**115.46**	**Sqm**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
		Quantity	Percent		Density		
	0.25 % Skin Reinforcement for Transition walls	*19.49*	*0.25%*	*0.05*	*7850*	*382.47*	*Kg*
	TOTAL Weight of steel (in kg)					382.47	Kg
	TOTAL Weight of Steel (in Tonne)					**0.38**	**MT**
7	Launching Apron i/c cost of all material, labour and T&P etc. Complete.						
	Launching Apron in U/S Portion	*1*	*2.00*	*1.20*	*0.60*	*1.44*	*Cum*
	Launching Apron in D/S Portion	*1*	*2.00*	*1.20*	*0.60*	*1.44*	*Cum*
	TOTAL					**2.88**	**Cum**
8	Providing 600 mm RCC NP3 pipe	3		2.50		7.5	Rm
	TOTAL					**7.50**	**Rm**
9	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
10	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	On Slopes in U/S Portion	*1*	*1.77*	*2.00*		*3.54*	*Sqm*
	On Slopes in D/S Portion	*1*	*1.77*	*2.00*		*3.54*	*Sqm*
	TOTAL					**7.08**	**Sqm**

11	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.						
	Parapet	2	1.29	0.5	0.6	*0.77*	*Cum*
	TOTAL					**0.77**	**Cum**
12	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.						
	Parapet	2	1.29		1.7	**4.39**	*Sqm*
	TOTAL					**4.39**	***Sqm***
13	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.						
	Parapet top	2	1.29		0.7	**1.81**	*Sqm*
	TOTAL					**1.81**	***Sqm***
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*2*	*2.17*	*1.03*	*2.05*	*9.14*	*Cum*
	D/S Transitions Walls	*2*	*2.17*	*1.03*	*2.05*	*9.14*	*Cum*
	U/S Toe Wall	*1*	*1.17*	*0.15*		*0.18*	*Cum*
	D/S Toe Wall	*1*	*1.17*	*0.15*		*0.18*	*Cum*
	Above Hume Pipe	1	1.29	*6.71*		*8.656*	*Cum*
	TOTAL					**27.28**	**Cum**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND			
DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF AMBA MINOR			
Sl. No.	**Structure Type**	**Chainage In Km**	**Amount (In Rs.)**
1	ROAD CROSSING / FALL (1.220 M)	1.000	₹ 10,353.04
2	FALL (0.915 M) / BRIDGE	1.730	₹ 22,543.23
3	NEW FALL (0.610 M) / BRIDGE	1.925	₹ 0.00
4	PIPE CULVERT	2.180	₹ 27,255.31
5	FALL (1.220 M) / BRIDGE	2.250	₹ 0.00
6	PIPE CULVERT	2.495	₹ 2,826.99
7	PIPE CULVERT	2.550	₹ 0.00
8	PIPE CULVERT	2.710	₹ 2,544.29
9	PIPE CULVERT / FALL (0.762 M)	2.970	₹ 3,585.81
Total In Rs.			**₹ 69,108.67**
Total In Lakhs.			**₹ 0.69**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND									
ABSTRACT OF COST OF REPAIRED STRUCTURES OF AMBA MINOR									
S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
AOC FOR ROAD CROSSING / FALL AT (CH. 1.000 KM)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.30	Cum	**5021.30**	1530.49	0.04	0.10	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	7.620	Sqm	**340.20**	2592.32	7.900	0.111	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	1.829	Sqm	**63.20**	115.58	0.003		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.209	Cum	**1075.00**	224.45			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	7.938	MT	**742.00**	5890.20			
TOTAL (In Rs.)						**10353.04**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.21	Cum	**584.64**	122.07	12.21		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**12.21**		
AOC FOR FALL (0.915 M) / BRIDGE AT (CH. 1.730 KM)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	150.000	Sqm	**11.80**	1770.66			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.40	Cum	**5021.30**	7040.26	0.16	0.45	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	12.741	Sqm	**340.20**	4334.37	13.209	0.186	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	1.829	Sqm	**63.20**	115.58	0.003		
5	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	0.05	Cum	**6381.70**	341.37	0.02	0.02	0.05
6		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.659	Cum	**1075.00**	708.16			
		Coarse Aggregates (100 Km lead)	0.048	Cum	**1398.00**	67.30			
		Cement (30 km lead)	13.391	MT	**742.00**	9936.19			
TOTAL (In Rs.)						**22543.23**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.66	Cum	**584.64**	385.13	38.51		
		Coarse Aggregate	0.05	Cum	**944.26**	45.46	4.55		
		Total					**43.06**		
AOC FOR PIPE CULVERT AT CH. 2.180 KM									
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.13	Cum	**5021.30**	635.15	0.01	0.04	

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	5.060	Sqm	**340.20**	1721.30	5.246	0.074	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	3.036	Sqm	**63.20**	191.86	0.00		
4	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	3.04	Cum	**6381.70**	19373.62	0.35	0.97	
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.086	Cum	**1075.00**	1167.24			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	5.615	MT	**742.00**	4166.13			
		TOTAL (In Rs.)				**27255.31**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.09	Cum	**584.64**	634.81	63.48		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**63.48**		
		AOC FOR FALL / BRIDGE AT (CH. 2.250 KM)							
1	**Structure is in good condition and does not requir any repair works.**								
		AOC FOR PIPE CULVERT AT CH. 2.495 KM							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	1.13	Cum	**2492.58**	2826.99			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**2826.99**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR PIPE CULVERT AT CH. 2.550 KM							
1	**Structure is in good condition and does not requir any repair works.**								
		AOC FOR PIPE CULVERT AT CH. 2.710 KM							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	1.02	Cum	**2492.58**	2544.29			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**2544.29**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR PIPE CULVERT AT CH. 2.970 KM							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	1.44	Cum	**2492.58**	3585.81			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**3585.81**			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF AMBA MINOR								
S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR ROAD CROSSING / FALL AT (CH. 1.000 KM)								
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.						
			1				120.00	Sqm
		TOTAL					120.00	Sqm
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.						
		Parapet Wall D/S	1	3.048	0.25	0.4	*0.30*	*Cum*
		TOTAL					0.30	Cum
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.						
		Parapet Wall U/S	1	3.05		1.25	*3.81*	*Sqm*
		Parapet Wall D/S	1	3.05		1.25	*3.81*	*Sqm*
		TOTAL					7.62	***Sqm***
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.						
		Parapet Wall U/S	1	3.05		0.3	*0.91*	*Sqm*
		Parapet Wall D/S	1	3.05		0.3	*0.91*	*Sqm*
		TOTAL					1.83	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL (0.915 M) / BRIDGE AT (CH. 1.730 KM)								
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.						
			1				150.00	Sqm
		TOTAL					150.00	Sqm
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.						
		Parapet Wall U/S & D/S	2	3.05	0.25	0.92	*1.40*	*Cum*
		TOTAL					1.40	Cum
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.						
		Parapet Wall U/S	1	3.05		2.09	*6.37*	*Sqm*
		Parapet Wall D/S	1	3.05		2.09	*6.37*	*Sqm*
		TOTAL					12.74	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	1	3.05		0.3	*0.91*	*Sqm*
		Parapet Wall D/S	1	3.05		0.3	*0.91*	*Sqm*
		TOTAL					**1.83**	***Sqm***
5	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Crest	1	0.79	0.45	0.15	*0.05*	*Cum*
		TOTAL					**0.05**	***Cum***
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT AT CH. 2.180 KM								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S & D/S	1	5.06	0.25	0.1	*0.13*	*Cum*
		TOTAL					**0.13**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	5.06		0.5	*2.53*	*Sqm*
		Parapet Wall D/S	1	5.06		0.5	*2.53*	*Sqm*
		TOTAL					**5.06**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	1	5.06		0.3	*1.52*	*Sqm*
		Parapet Wall D/S	1	5.06		0.3	*1.52*	*Sqm*
		TOTAL					**3.04**	***Sqm***
4	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Floor D/S	1	0.91	0.50	0.25	*0.11*	*Cum*
		TOTAL					**0.11**	***Cum***
QUANTITIES OF REPAIRING WORK FOR FALL / BRIDGE AT (CH. 2.250 KM)								
	New Fall is proposed at this location.							

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT AT CH. 2.495 KM								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Abutment	2	3.05	0.305	0.61	*1.13*	*Cum*
		TOTAL					**1.13**	**Cum**
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT AT CH. 2.550 KM								
1		**Structure requires no repair work.**						
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT AT CH. 2.710 KM								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Abutment	2	2.74	0.305	0.61	*1.02*	*Cum*
		TOTAL					**1.02**	**Cum**
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT AT CH. 2.970 KM								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Abutment	2	2.74	0.305	0.61	*1.02*	*Cum*
		Parapet	1	2.74	0.305	0.5	*0.42*	*Cum*
		TOTAL					**1.44**	**Cum**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND ANALYSIS OF RATE OF OUTLET GATE			
1	Cost of material **(A)** (Structural Steel WRD M-181)	Rs.	55116.67
2	Wastage **5%** =	Rs.	2755.83
3	Cost of miscellaneous material like electrodes,oxygen, acetylene nut bolt, rope as per site conditions, etc **65 % of (A)**	Rs.	35825.84
	Total 1+2+3= ***(B)*** =	Rs.	93698.34
4	Labour charge 30%(B) =	Rs.	28109.50
5	Overhead charge + Contractor profit **@15% A**	Rs.	8267.50
6	Workshop and energy charge ,**12 % of (B)**	Rs.	11243.80
7	Transportation and erection charge ,**15 % of B**	Rs.	14054.75
	Total = B+4+5+6+7 = ***C***	Rs.	155373.89
8	Other incidental charge , **3 % = of C**	Rs.	4661.22
	Total C+8 = D	Rs.	**160035.1095**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND ABSTRACT OF COST FOR CONSTRUCTION OF OUTLET										
Sl. No.	**Reference**	**Name of Item**	**Qty.**	**Unit**	**Rate (As per WRD SOR 2025)**	**Amount in Rs.**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**	**Boulders (cum)**
1	**WRD 5.3.9**	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.	7.61	Cum	**6381.70**	48564.42	2.47	3.42	6.85	
2	**WRD 5.4.10**	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.	8.60	Cum	**3391.40**	29172.74	1.24	3.44		8.60
3	**M-1701**	Providing 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	RM	**220.00**	1650.00				

Sl. No.	Reference	Name of Item	Qty.	Unit	Rate (As per WRD SOR 2025)	Amount in Rs.	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)	Boulders (cum)
4	**WRD 5.6.1**	Labour Charges for Laying of 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	RM	**238.00**	1785.03				
5	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.								
a.		TMT Grade Fe-500 - 16 mm	0.03	M.T.	**73574.90**	2254.92				
6	**M-181**	Structural Steel (Average rate of Angle, Joint and Channel) etc.	0.08	MT	**160035.11**	12687.05				
7	**WRD 5.1.37**	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .	0.89	Cum	**339.90**	302.80				
8		**Carriage of materials**								
		Coarse Sand (60 Km lead)	7.76	Cum	**1075.00**	**8337.83**				
		Coarse Aggregates (100 Km lead)	6.85	Cum	**1398.00**	**9574.84**				
		Cement (30 km lead)	3.70	MT	**742.00**	**2748.60**				
		Boulders (60 km lead)	8.60	Cum	**1159.00**	**9969.69**				
		Steel (30 Km lead)	0.11	M.T.	**742.00**	**81.56**				
		Hume Pipe (30 Km)	7.50	RM	**82.00**	**615.00**				
TOTAL (In Rs.)						**127744.47**				

Sl. No.	Reference	Name of Item	Qty.	Unit	Rate (As per WRD SOR 2025)	Amount in Rs.	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)	Boulders (cum)
		Seigniorage @10%			Rate	Amount in Rs.	10%			
		Coarse Sand	7.76	Cum	**584.64**	4534.54	453.45			
		Coarse Aggregate	6.85	Cum	**944.26**	6467.19	646.72			
		Total					1100.17			
		For 7 nos. outlet, Total Seigniorage charges					**7701.21**			

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
BILL OF QUANTITIES FOR CONSTRUCTION OF OUTLET							
Sl. No.	**Name of Item**	**No.**	**Length (m)**	**Width (m)**	**Height (m)**	**Qty.**	**Unit**
1	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per						
	Toe Wall Base in Canal Portion	*1*	*1.5*	*0.75*	*0.15*	*0.17*	*Cum*
	Coping on Stem of Toe Wall	*1*	*1.50*	*0.45*	*0.075*	*0.05*	*Cum*
	Gate Structure (Section A-B)	*1*	*1.80*	*0.75*	*0.15*	*0.20*	*Cum*
	Coping (Section A-B)	*1*	*1.5*	*0.45*	*0.075*	*0.05*	*Cum*
	Water Course (Section C-D)	*1*	*15.00*	*1.50*	*0.15*	*3.38*	*Cum*
	Water Course Floor (Section C-D)	*1*	*15.00*	*0.40*	*0.075*	*0.45*	*Cum*
	Coping above Walls(Section C-D)	*2*	*15*	*0.40*	*0.075*	*0.90*	*Cum*
	Below transition walls	*1*	*1.5*	*1.2*	*0.15*	*0.27*	*Cum*
		1	*1.5*	*0.75*	*0.15*	*0.17*	*Cum*
	Gate Structure (Section A-B)	*2*	*1.50*	*0.45*	*1.21*	*1.63*	*Cum*
	Toe Wall stem	*1*	*1.50*	*0.45*	*0.51*	*0.35*	*Cum*
	TOTAL					***7.61***	*Cum*
2	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.						
	Transition Walls in U/S	*2*	*1.50*	*0.45*	*1.04*	*1.40*	*Cum*
	Water Course (Section C-D)	*2*	*15.00*	*0.40*	*0.60*	*7.20*	*Cum*
	2					**8.60**	Cum
3	Providing 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .						
	150 mm Dia R.C.C. Pipe	1			7.5	**7.5**	**RM**
4	Structural Steel (Average rate of Angle, Joint and Channel) etc.						
	Spindle 25 mm dia	*1*	*0.000491*	*7850.00*	*1.29*	*4.97*	*Kg*
		1	*0.000491*	*7850.00*	*0.24*	*0.92*	*Kg*
	300 X300 MM MS GATE	*1*		*60.00*		*60.00*	*Kg*
	I.M.C. Grove (100 x 50) 9.56 kg/m	*2*	*9.56*		*0.70*	*13.38*	*Kg*
	TOTAL (In Kg)					**79.28**	**Kg**
	TOTAL					**0.08**	**MT**
5	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .						
	Toe Wall Base in Canal Portion	*1*	*1.50*	*0.75*	*0.10*	*0.11*	*Cum*
	Water Course Floor (Section C-D)	*1*	*15.00*	*0.40*	*0.10*	*0.60*	*Cum*
	Below transition walls	*1*	*1.50*	*1.19*	*0.10*	*0.18*	*Cum*
	TOTAL					**0.89**	**Cum**
6	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-15 (Providing Reinforcement @ 0.24%)	*1.63*	*0.0024*	*0.004*	*7850.00*	*30.648*	*Kg*
	TOTAL					**30.65**	**Kg**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
ANALYSIS OF RATES							
Sl. No.	**Refrences SOR No.**	**Description**	**Quantity**	**Unit**	**Rate**	**Amount**	**Ref**
1	**5.1.3**	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 92.94 Sqm					
		Unskilled mazdoor for cutting shrubs, weed	1.50	nos	424.00	₹ 636.00	
		Unskilled mazdoor for removing grass roots and leveling	0.75	nos	424.00	₹ 318.00	
						₹ 954.00	
		Add Overhead charge &c.P @ 15 %				₹ 143.10	
					Total	₹ 1,097.10	
		Rate per Sqm			**Say, Rs**	**₹ 11.80**	**Per M^2**
2	**5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting ,carrying	9.09	nos	424.00	₹ 3,854.16	Sl-1
					Total	₹ 3,854.16	
		Add Overhead charge &c.P @ 15 %				₹ 578.12	
						₹ 4,432.28	
		Rate per Cum			**Say, Rs**	**₹ 156.50**	**Per M^3**
	NOTE:-	Add royalty of earth Rs. 33.00 where needed without overhead charges & C.P.					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
3	**5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	4.50	nos	424.00	₹ 1,908.00	SI-1
		Unskilled mazdoor for carrying	4.00	nos	424.00	₹ 1,696.00	
		Head Mason	0.13	nos	569.00	₹ 71.13	
					Total	₹ 3,675.13	
		Add Overhead charge & C.P @ 15 %				₹ 551.27	
						₹ 4,226.39	
		Rate per Cum			**Say, Rs**	**₹ 149.30**	**Per M^3**
4	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	4.00	nos	424.00	₹ 1,696.00	SI-1
		Unskilled mazdoor for carrying	4.00	nos	424.00	₹ 1,696.00	SI-1
		Unskilled mazdoor for controlling Slope and fine dressing	2.00	nos	424.00	₹ 848.00	SI-2
		Skilled Mazdoor	0.25	nos	536.00	₹ 134.00	SII-70
		Mate	1.00	nos	455.00	₹ 455.00	SII-2
					Total	₹ 4,829.00	
		Add Overhead charge &c.P @ 15 %				₹ 724.35	
						₹ 5,553.35	
		Rate per Cum			**Say, Rs**	**₹ 196.10**	**Per M^3**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
5	**5.1.22**	Extra for wet earth all complete as per specifications and direction of E/I.					
		Unit: per Cum					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	1.00	nos	424.00	₹ 424.00	Sl-1
		Add Overhead charge &C.P @ 15 %				₹ 63.60	
						₹ 487.60	
		Rate per Cum			**Say, Rs**	**₹ 17.22**	**Per M^3**
6	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.					
		As per Labour rate (19.06.2024)					
		Unit: per Cum					
		Taking Output :- 28.32 cum					
		Labour					
		Unskilled mazdoor for cutting, carrying	9.09	nos	424.00	₹ 3,854.16	Sl-1
		Add extra wages of 1/2 no. unskilled labour per 28.32 m3	0.50	nos	424.00	₹ 212.00	Sl-1
						₹ 4,066.16	
		Add Overhead charge &C.P @ 15 %				₹ 609.92	
						₹ 4,676.08	
					Say, Rs	**₹ 165.12**	**Per M^3**
7	**5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.					
		As per Labour rate (19.06.2024)					
		Unit: per Cum					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Taking Output :- 28.32 cum					
		Cost of water	LS			15.00	
		Bhisti for carriage of water and sprinkling	3.00	nos	417.00	₹ 1,251.00	S II-13
		Hire charges of sheep foot roller assuming 1450 cum to be rolled in 8 hr vide item no. 3.16	0.16	hr	1612.00	₹ 257.92	PM8001
						₹ 1,523.92	
		Add Overhead charge &C.P @ 15 %				₹ 228.59	
						₹ 1,752.51	
					Say, Rs	**₹ 61.88**	**Per M^3**
8	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)					
	5.1.46.1	Beyond 150m but upto 1/2 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				0.65	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				3.9	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				12.7	
	9	Number of trip per hour taken as 50 minutes N=50/T				3.937	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				17.323	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				83.18	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 16.29	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 152.08	
	16	Add overhead charges and CP 15% I like the coffee				₹ 22.81	
	17	**Rate per cubic metre**				**₹ 174.89**	
	5.1.46.2	Beyond 1/2 km but upto 1 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				1.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				9	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				17.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				2.809	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				12.36	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				116.59	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 20.30	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 189.50	
	16	Add overhead charges and CP 15% I like the coffee				₹ 28.42	
	17	**Rate per cubic metre**				**₹ 217.92**	
	5.1.46.3	Beyond 1.00 km but upto 1.50 km					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				2.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				15	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				23.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				2.101	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				9.244	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				155.88	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 25.02	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 233.50	
	16	Add overhead charges and CP 15% I like the coffee				₹ 35.03	
	17	**Rate per cubic metre**				**₹ 268.53**	
	5.1.46.4	Beyond 1.50 km but upto 2.00 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				3.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				21	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				29.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				1.678	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				7.383	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				195.18	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 29.73	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 277.52	
	16	Add overhead charges and CP 15% I like the coffee				₹ 41.63	
	17	**Rate per cubic metre**				**₹ 319.14**	
	5.1.46.5	Beyond 2.00 km but upto 2.50 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				4.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				27	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				35.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				1.397	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				6.15	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				234.50	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 34.45	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 321.56	
	16	Add overhead charges and CP 15% I like the coffee				₹ 48.24	
	17	**Rate per cubic metre**				**₹ 369.80**	
	5.1.46.6	Beyond 2.50 km but upto 3.00 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				5.5	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				33	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				41.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				1.196	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				5.263	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				273.80	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.473	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 39.17	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 365.57	
	16	Add overhead charges and CP 15%				₹ 54.84	
	17	**Rate per cubic metre**				**₹ 420.40**	
9	**5.1.24**	Earthwork in filling in flood embankment, canals banks (Canal Discharge Above 28 Cumecs) as well as special repair of embankments and canal banks in ordinary soil in proper profile obtain from borrow area or any other source free from logs, roots or any other ingredients etc. with intial lead of 30m and initial lift of 1.5m including breaking the clods to maximum 60 mm cube, placing the earth in layers not exceeding 225 mm thicka ll complete as per specification and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	9.00	nos	424.00	₹ 3,816.00	SI-1
		Skilled Mazdoor	1.00	nos	536.00	₹ 536.00	SI-3
		Mate	0.25	nos	455.00	₹ 113.75	SII-2
					Total	₹ 4,465.75	
		Add Overhead charge & C.P @ 15 %				₹ 669.86	
						₹ 5,135.61	
		Rate per Cum			**Say, Rs**	**₹ 181.30**	**Per M^3**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
10	**5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting and carrying	11.00	nos	424.00	₹ 4,664.00	SI-1
		Head Mason	0.25	nos	569.00	₹ 142.25	SII -3
					Total	₹ 4,806.25	
		Add Overhead charge & C.P @ 15 %				₹ 720.94	
						₹ 5,527.19	
		Rate per Cum			**Say, Rs**	**₹ 195.20**	**Per M^3**
11	**5.3.8**	Providing & laying **P.C.C. M-100** with nominal mix of (1:3:6) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A.	**MATERIALS**					
		Coarse aggregates Gr IV **(Rate of approved quality of aggregate as per Design)**	2.66	M^3	1115.24	₹ 2,966.54	M047
		Sand	1.330	M^3	584.64	₹ 777.57	M-004
		Cement	0.443	M^3	8264.70	₹ 3,661.26	M-1P
		Total				₹ 7,405.37	
	B.	**LABOUR**					
		Head mason	0.5	nos	569.00	₹ 284.50	S II -3
		Mason Gr II	1	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor	12	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	C.	**HIRE CHARGES OF MACHINE**					
		(i)Concrete mixer (10 H.P) for 2.832 cum consists	**1.43**	hr	351	₹ 501.93	
		on the basic of mixer production capacity 1.98 m3					
		per hour. Used rate per hourx2.832/1.98					
		(ii) Vibrator 1no. To vibrate 2.832 cum on the	**1.43**	hr	405	₹ 579.15	
		basic of vibrator capacity 1.98 cum per hour.					
		Used rate per hourx2.832/1.98					
		Total				₹ 14,783.95	
		Add Overhead charge & C.P	15	%		₹ 2,217.59	
						₹ 17,001.55	**Per M^3**
					Say, Rs	**₹ 6,003.37**	**Per M^3**
12	**5.3.4**	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		Course Aggregate (20mm & 10mm) **(Taking Rate of approved quality as per design)**	2.55	m^3	913.48	₹ 2,327.55	M044
		Sand	1.27	m^3	584.64	₹ 744.83	M-004
		Cement	0.64	m^3	8264.70	₹ 5,264.62	M-1P
		Total				₹ 8,337.00	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor for controlling Slope and fine dressing	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					Total	₹ 15,715.58	
		Add Overhead charge &c.P @ 15 %				₹ 2,357.34	
						₹ 18,072.92	
		Rate per Cum			**Say, Rs**	**₹ 6,381.70**	**Per M^3**
13	**5.3.5**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		Course Aggregate (20mm & 10mm) **(Taking Rate of approved quality as per design)**	2.44	m^3	913.48	₹ 2,225.24	M044
		Sand	1.22	m^3	584.64	₹ 712.09	M-004
		Cement	0.81	m^3	8264.70	₹ 6,710.94	M-1P
		Total				₹ 9,648.27	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor for controlling Slope and fine dressing	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					Total	₹ 17,026.85	
		Add Overhead charge &c.P @ 15 %				₹ 2,554.03	
						₹ 19,580.88	
		Rate per Cum			**Say, Rs**	**₹ 6,914.20**	**Per M^3**
14	**5.3.5**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		Course Aggregate (20mm & 10mm) **(Taking Rate of approved quality as per design)**	2.436	m^3	913.48	₹ 2,225.24	M044
		Sand	1.218	m^3	584.64	₹ 712.09	M-004
		Cement	0.812	m^3	8264.70	₹ 6,710.94	M-1P
		Total				₹ 9,648.27	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					Total	₹ 17,026.85	
		Add Overhead charge &c.P @ 15 %				₹ 2,554.03	
						₹ 19,580.88	
		Rate per Cum			**Say, Rs**	**₹ 6,914.20**	**Per M^3**
15	**5.3.11**	Providing & laying P.C.C. or R.C.C. **M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		coarse Aggregate (20mm & 10mm) (Cost of coarse aggregates as per design)	2.38	m^3	913.48	₹ 2,173.17	M044
		Sand	1.19	m^4	584.64	₹ 695.14	M-004
		Cement	1.19	m^5	8264.70	₹ 9,826.73	M-1P
		Total				₹ 12,695.04	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor for controlling Slope and fine dressing	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					total	₹ 20,073.62	
		Add Overhead charge &c.P @ 15 %				₹ 3,011.04	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
						₹ 23,084.66	
		Rate per Cum			**Say, Rs**	**₹ 8,151.40**	**Per M^3**
16	**5.3.22**	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.					
		Unit :- **Per M.T**					
		Taking Output :- 1 M.T					
	(a)	TMT grade Fe-500 ***8 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	52450	₹ 55,072.50	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 66,025.70	
		Add Overhead charge &c.P @ 15 %				₹ 9,903.86	
						₹ 75,929.56	
		Rate per M.T			**Say, Rs**	**₹ 75,929.60**	**Per M.T**
	(B)	TMT grade Fe-500 ***10 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	51094	₹ 53,648.70	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 64,601.90	
		Add Overhead charge &c.P @ 15 %				₹ 9,690.29	
						₹ 74,292.19	
		Rate per M.T			**Say, Rs**	**₹ 74,292.20**	**Per M.T**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	(C)	TMT grade Fe-500 ***12 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
	(C)	TMT grade Fe-500 ***16 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
	(C)	TMT grade Fe-500 ***20 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
	(C)	TMT grade Fe-500 ***25 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
17	**5.3.18**	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 Sqm					
	A	**Material**					
		Local wood planks. 38 mm thick =9.3x38x1000	0.35	m^3			
		Add 5% wastage	0.02	m^3			
		Cost of 0.37 cum local wood planks.	0.37	m^3	26000.00	₹ 9,620.00	code no 1198 (RCD)
		Add cost for shattering and propping @ 10% of above				₹ 962.00	
					Total	₹ 10,582.00	
		Assuming 4 uses to calculate	4.00	use			
		Cost of shattering for 2.832 cum total cost /4				₹ 2,645.50	
		Add 1% for cost of nails and spikes on total cost of wood				₹ 105.82	
					Total	₹ 2,751.32	A
	B	**Labour**					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Carpenter Gr-II	1.50	nos	508.00	₹ 762.00	S II-17
		Unskilled mazdoor	2.50	nos	424.00	₹ 1,060.00	S I-1
					Total	₹ 1,822.00	B
	C	**Carriage of materials**					
		Cost of carriage of material from godown and back to godown after use, including loading, unloading and stacking @ 1% of total cost of food materials				₹ 105.82	C
		Total cost for 9.3 sqm=A+B+C				₹ 4,679.14	
		Add Overhead charge &c.P @ 15 %				₹ 701.87	
						₹ 5,381.01	
		Rate per Sqm			**Say, Rs**	**₹ 578.60**	**Per M2**
18	**5.3.20**	Providing centering including strutting, proping etc. and its removal after use indeck slab as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 22.326 Sqm					
		(Assuming size in slab 7.32 x 3.05 =22.326 sqm)					
	A	**MATERIALS**					
		a. 40 mm thick local wood planks (22.326x 40)/1000 = 0.893					
		Add 5% wastages = 0.045					
		0.938	0.94	m^3	**26000.00**	**₹ 24,440.00**	**Code no. 1197 (BCD)**
		Assuming 4 uses to calculate	4.00	use			
		Cost of planks per use = 0.89 x rate of local wood/4				**₹ 6,110.00**	
		b. Assuming avg. height of slab from GL = 3.66 m					
		150 mm sal bullah required = 78 nos.					
		Length of sal bullah = 78X3.66 =285.48	285.48	M	**75.00**	**₹ 21,411.00**	**M SL No. 223**
		(Assuming sal bullah to be used 10 times for centering					
		= 285.48 x Rate per mtr/10				**₹ 2,141.10**	
		c. Salwood scanting required (75 mm * 63 mmsize) = 0.311 cum	0.31	m^3	**60000.00**	**₹ 18,660.00**	**Code no. 1199 (BCD)**
		(Assuming 10 uses)					
		Cost per use = 0.311 x Rate per mtr/10				**₹ 1,866.00**	
		Total				**₹ 10,117.10**	
		Add 1% for cost of nails and spikes				**₹ 101.17**	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
						₹ 10,218.27	**(A)**
	B	**LABOUR**					
		Carpenter Gr-II	4.00	nos	508.00	₹ 2,032.00	S I-17
		Unskilled Majdoor	7.00	nos	424.00	₹ 2,968.00	S I-1
					Total	₹ 5,000.00	**(B)**
	C	Carriage of Materials					
		Cost of carriage of material from godown and back to godown after use, including loading, unloading and stacking @ 1% of total cost of food materials				₹ 101.17	
		Total cost for 22.326 sqm=A+B+C				₹ 15,319.44	
		Add Overhead charge & C.P @ 15 %				₹ 2,297.92	
		Total				₹ 17,617.36	
		Rate per Sqm			**Say, Rs**	**₹ 789.10**	**Per M2**
17	**5.5.10**	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 Sqm					
		Material					
		Cement	0.01	m^4	8264.70	₹ 115.71	M-1P
					Total	₹ 115.71	
	B	**Labour**					
		Head mason	0.06	nos	569.00	₹ 35.56	S II-3
		Mason Gr-II	0.50	nos	508.00	₹ 254.00	S II-4
		Unskilled mazdoor	0.25	nos	424.00	₹ 106.00	S II-1
					Total	₹ 395.56	
		Total				₹ 511.27	
		Add Overhead charge &c.P @ 15 %				₹ 76.69	
						₹ 587.96	
		Rate per Cum			**Say, Rs**	**₹ 63.20**	**Per M^3**
18	**5.2.2**	Providing filter of stone chips 20 mm and down well graded as per design for lined canal, drains including hand packing etc all complete as per specification and direction of E/I.					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Material					
		Sone chips (M-040 +M -045)/2	2.83	nos	673.97	₹ 1,908.68	M-004
		Labour					
		Unskilled mazdoor for Screening and grading Filter	2.00	nos	424.00	₹ 848.00	SI-1
		Unskilled mazdoor for laying and hand packing	1.50	nos	424.00	₹ 636.00	SI-1
					Total	₹ 3,392.68	
		Add Overhead charge &c.P @ 15 %				₹ 508.90	
						₹ 3,901.59	
		Rate per Cum			**Say, Rs**	**₹ 1,377.70**	**Per M^3**
19	**5.7.13**	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Unskilled Mazdoor	3	nos.	424.00	1272.00	
						1272.00	
		Add Overhead charge & C.P. @15%				190.80	
						1462.80	
					Say, Rs	**₹ 516.50**	**Per M^3**
20	**5.7.18.1**	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Unskilled Mazdoor	6	nos.	424.00	2544.00	
		Mason Gr II	0.5	nos.	508.00	254.00	
		Mate	0.25	nos.	455.00	113.75	
		Stone Dresser	0.25	nos.	538.00	134.50	
						3046.25	
		Add Overhead charge & C.P. @15%				456.94	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
						3503.19	
					Say, Rs	**₹ 1,237.00**	**Per M^3**
21	**5.1.37**	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Unskilled Mazdoor for cutting	1	nos.	424.00	424.00	
		Local Sand	2.832	nos.	145.87	413.10	
						837.10	
		Add Overhead charge & C.P. @15%				125.57	
						962.67	
					Say, Rs	**₹ 339.90**	**Per M^3**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
20	**5.5.5**	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.				**Page -261**	
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 cum					
		Materials					
		Cement	0.07	m^3	8264.70	₹ 562.00	M-1 P
		Sand	0.27	m^3	584.64	₹ 159.02	M044
		Total				₹ 721.02	
		Labour					
		Mason Gr II	1.50	nos	508.00	₹ 762.00	SII-4
		Unskilled Mazdoor	2.50	nos	424.00	₹ 1,060.00	SII-1
		Bhisti	0.50	nos	417.00	₹ 208.50	SI-13
					total	₹ 2,030.50	
		Add Overhead charge &c.P @ 15 %				₹ 412.73	
						₹ 3,164.25	
		Rate per Cum			**Say, Rs**	**₹ 340.20**	**Per M^3**
21	**5.6.1**	Labour Charges for Laying of 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .					
	5.6.1.1	**150 mm dia NP2 H.P.**					
		Unit: per m					
		Taking Output =	**8**	**m**			
		(Assuming 4 pipes of 2m length and three collars)					
		Materials					
		Cement	0.011	cum	8264.70	90.91	**M-1 P**
		Sand	0.011	cum	584.64	6.43	**M-004**
		Jute	1.5	Kg	20.89	31.34	**M Sl. No. 257**
		Total				128.68	
		Labour					
		Head Mason	0.50	nos	569.00	284.50	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Unskilled Mazdoor	2.25	nos	424.00	954.00	
		Fitter Gr I	0.50	nos	577.00	288.50	
		Total				1527.00	
						1655.68	
		Add Overhead charge & C.P @ 15 %				₹ 248.35	
						₹ 1,904.03	
	5.6.2	Labour Charges for Laying, fitting and fixing NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .			**Say, Rs**	**₹ 238.00**	**Per M**
	5.6.2.2	**600 mm dia NP3 H.P.**					
		Unit: per m					
		Taking Output =	**7.5**	**m**			
		(Assuming 3 pipes of 2.5 m length and two collars)					
		Materials					
		Cement	0.034	cum	8264.70	281.00	**M-1 P**
		Sand	0.034	cum	584.64	19.88	**M-004**
		Jute	4	Kg	20.89	83.56	**M Sl. No. 257**
		Total				384.44	
		Labour					
		Head Mason	1.5	nos	569.00	853.50	
		Unskilled Mazdoor	7	nos	424.00	2968.00	
		Fitter Gr I	0.75	nos	577.00	432.75	
		Total				4254.25	
						4638.69	
		Add Overhead charge & C.P @ 15 %				₹ 695.80	
						₹ 5,334.49	
					Say, Rs	**₹ 711.27**	**Per M**
	5.6.1.7	**1000 mm dia NP3 H.P.**					
		Unit: per m					
		Taking Output =	**7.5**	**m**			
		(Assuming 3 pipes of 2.5 m length and two collars)					
		Materials					
		Cement	0.045	cum	8264.70	371.91	**M-1 P**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Sand	0.045	cum	584.64	26.31	**M-004**
		Jute	7.5	Kg	20.89	156.68	**M Sl. No. 257**
		Total				554.90	
		Labour					
		Head Mason	2	nos	569.00	1138.00	
		Unskilled Mazdoor	21	nos	424.00	8904.00	
		Fitter Gr I	1	nos	577.00	577.00	
		Total				10619.00	
						11173.90	
		Add Overhead charge & C.P @ 15 %				₹ 1,676.08	
						₹ 12,849.98	
					Say, Rs	**₹ 1,713.33**	**Per M**
	5.6.2.5	**1200 mm dia NP3 H.P.**					
		Unit: per m					
		Taking Output =	**7.5**	**m**			
		(Assuming 3 pipes of 2.5 m length and two collars)					
		Materials					
		Cement	0.057	cum	8264.70	471.09	**M-1 P**
		Sand	0.057	cum	584.64	33.32	**M-004**
		Jute	12	Kg	20.89	250.68	**M Sl. No. 257**
		Total				755.09	
		Labour					
		Head Mason	2.5	nos	569.00	1422.50	
		Unskilled Mazdoor	25	nos	424.00	10600.00	
		Fitter Gr I	1	nos	577.00	577.00	
		Total				12599.50	
						13354.59	
		Add Overhead charge & C.P @ 15 %				₹ 2,003.19	
						₹ 15,357.78	
					Say, Rs	**₹ 2,047.70**	**Per M**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
22	**5.4.10**	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 2.832 cum					
		Materials					
		Stone Boulder	2.832	cum	694.61	1967.14	
		Sand	1.12	cum	584.64	654.80	
		Cement	0.28	cum	8264.70	2314.12	
		Labour				4936.05	
		Head Mason	0.125	nos	569.00	71.13	
		Mason Gr II	2	nos	508.00	1016.00	
		Unskilled Mazdoor	5	nos	424.00	2120.00	
		Bhisti	0.5	nos	417.00	208.50	
						3415.63	
						8351.67	
		Add Overhead charge & C.P @ 15 %				₹ 1,252.75	
						₹ 9,604.43	
					Say, Rs	**₹ 3,391.40**	**Per M^3**
23	**5.7.16**	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 cum					
		Materials					
		Bricks	800	per 1000 nos	4891.00	3912.80	
		Local Sand	0.425	cum	145.87	61.99	
		Total				3974.79	
		Labour					
		Mason Gr II	1.125	nos	508.00	571.50	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Unskilled Mazdoor	2.25	nos	424.00	954.00	
						1525.50	
						5500.29	
		Add Overhead charge & C.P @ 15 %				₹ 825.04	
						₹ 6,325.34	
					Say, Rs	**₹ 680.10**	**Per M^3**
24	**5.8.9**	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 2.832 cum					
		Hammer man	2.25	nos	445.00	₹ 1,001.25	SII-17
		Skilled Mazdoor	2.25	nos	536.00	₹ 1,206.00	SII-18
		Unskilled mazdoor	7.00	nos	424.00	₹ 2,968.00	SI-1
		Blacksmith GR II	1.00	nos	508.00	₹ 508.00	SII-10
		Mate	1.00	nos	455.00	₹ 455.00	SII-2
					total	₹ 6,138.25	
		Add Overhead charge & C.P @ 15 %				₹ 920.74	
						₹ 7,058.99	
		Rate per Cum			**Say, Rs**	**₹ 2,492.58**	**Per M^3**
25	**5.4.6**	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 2.832 cum					
		Materials					
		Bricks	1150	per 1000 nos	4891.00	5624.65	
		Sand	0.92	cum	584.64	537.87	
		Cement	0.23	cum	8264.70	1900.88	
		Total				8063.40	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Labour					
		Head Mason	0.125	nos	569.00	71.13	
		Mason Gr II	2.5	nos	508.00	1270.00	
		Unskilled Mazdoor	6	nos	424.00	2544.00	
		Bhisti	1	nos	417.00	417.00	
						4302.13	
						12365.53	
		Add Overhead charge & C.P @ 15 %				₹ 1,854.83	
						₹ 14,220.35	
					Say, Rs	**₹ 5,021.30**	**Per M^3**

ITEM RATES					
Sl. No.	Reference		Particular	Unit	Rate (in Rs.)
1	**WRD SOR 2023 & PL JUNE 2024**	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	**Sqm**	**11.80**
2	**WRD SOR 2023 & PL JUNE 2024**	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.	**Cum**	**156.50**
3	**WRD SOR 2023 & PL JUNE 2024**	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	**Cum**	**149.30**
4	**WRD SOR 2023 & PL JUNE 2024**	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.	**Cum**	**196.10**
5	**WRD SOR 2023 & PL JUNE 2024**	**5.1.22**	Extra for wet earth all complete as per specifications and direction of E/I.	**Cum**	**17.22**
6	**WRD SOR 2023 & PL JUNE 2024**	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	**Cum**	**165.12**
7	**WRD SOR 2023 & PL JUNE 2024**	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	**Cum**	**61.88**

8	**WRD SOR 2023 & PL JUNE 2025**	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)		
		5.1.46.1	Beyond 150m but upto 1/2 km	**174.89**	**Cum**
		5.1.46.2	Beyond 1/2 km but upto 1 km	**217.92**	**Cum**
		5.1.46.3	Beyond 1 km but upto 1.50 km	**268.53**	**Cum**
		5.1.46.4	Beyond 1.50 km but upto 2.00 km	**319.14**	**Cum**
		5.1.46.5	Beyond 2.00 km but upto 2.50 km	**369.80**	**Cum**
		5.1.46.6	Beyond 2.50 km but upto 3.00 km	**420.40**	**Cum**
9	**WRD SOR 2023 & PL JUNE 2024**	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	**195.20**	**Cum**
10	**WRD SOR 2025 & PL 2025**	**WRD 5.5.10**	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	**Sqm**	**63.20**
11	**WRD SOR 2023 & PL JUNE 2025**	**5.5.5**	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of D/I.	**Cum**	**340.20**
12	**WRD SOR 2025 & PL 2025**	**5.3.8**	Providing & laying **P.C.C. M-100** with nominal mix of (1:3:6) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.	**Cum**	**6003.37**
13	**WRD SOR 2025 & PL 2025**	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	**Cum**	**6381.70**

14	**WRD SOR 2025 & PL 2025**	**5.3.5**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	**Cum**	**6914.20**
15	**WRD SOR 2025 & PL 2025**	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	**Cum**	**6914.20**
16	**WRD SOR 2025 & PL 2025**	**5.3.11**	Providing & laying **P.C.C. or R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	**Cum**	**8151.40**
17	**RCD 2025**	**RCD 14.09**	Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	**NO.**	5588.70
18	**WRD SOR 2025 & PL 2025**	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.		
			TMT Grade FE-500 - 8 mm	**MT**	**75929.60**
			TMT Grade FE-500 - 10 mm	**MT**	**74292.20**
			TMT Grade FE-500 - 12 mm	**MT**	**73574.90**
			TMT Grade FE-500 - 16 mm	**MT**	**73574.90**
			TMT Grade FE-500 - 20 mm	**MT**	**73574.90**
			TMT Grade FE-500 - 25mm	**MT**	**73574.90**
19	**WRD SOR 2025 & PL 2025**	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	**Cum**	**578.60**
20	**WRD SOR 2025 & PL 2025**	**WRD 5.3.20**	Providing centering including strutting, propping etc. and its removal after use in deck slab as per specifications and direction of E/I.	**Cum**	**789.10**
21	**WRD SOR 2025 & PL 2025**	**WRD 5.2.2**	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	**Cum**	**1377.70**
22	**WRD SOR 2025 & PL 2025**	**WRD 5.7.13**	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	**Cum**	**516.50**
23	**WRD SOR 2025 & PL 2025**	**WRD M-002**	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	**Cum**	694.61

24	**WRD SOR 2025 & PL 2025**	**WRD 5.7.18.1**	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	**Cum**	**1237.00**
25	**WRD SOR 2025 & PL 2025**	**WRD 5.1.37**	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .	**Cum**	**339.90**
26	**WRD SOR 2025 & PL 2025**	**WRD 5.5.5**	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	**Cum**	**340.20**
27	**WRD SOR 2025 & PL 2025**	**M-1701**	Providing 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**RM**	220.00
28	**WRD SOR 2025 & PL 2025**	**WRD 5.6.1.1**	Labour Charges for Laying of 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**RM**	**238.00**
29	**RCD 2025**	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	**R.M.**	6002.82
30	**WRD SOR 2025 & PL 2025**	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**R.M.**	**1713.33**
31	**RCD 2025**	**RCD M-149**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1200 mm dia with spigot	**R.M.**	7015.86
32	**WRD SOR 2025 & PL 2025**	**WRD 5.6.2.5**	Labour for laying 1200mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**R.M.**	**2047.70**
33	**WRD SOR 2025 & PL 2025**	**5.4.10**	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.	**Cum**	**3391.40**
34	**WRD SOR 2025 & PL 2025**	**M-181**	Structural Steel (Average rate of Angle, Joint and Channel) etc.	**MT**	**160035.11**
35	**WRD SOR 2025 & PL 2025**	**5.7.16**	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	**Sqm**	**680.10**
36	**RCD 2025**	**RCD 15.22**	Providing and fixing in position 20 mm thick compressible fibre board in expansion joint complete as per drawing & Technical specification.	**RM**	499.80
37	**RCD 2025**	**RCD M-151**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 600 mm dia with spigot	**RM**	2532.61

38	**WRD SOR 2025 & PL 2025**	**5.6.2.2**	Labour Charges for Laying, fitting and fixing NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**RM**	**711.27**
39	**WRD SOR 2025**	**M-126**	Modular Strip/box seal expansion joint	**RM**	36993.21
40	**PWD NH SOR CHHATISGARH 2025**	**3.18 PWD NH SOR CHHATISGARH 2025**	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (3.18 PWD NH SOR CHHATISGARH 2025)	**RM**	66.00
41	**RCD 2025**	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 900 mm dia with spigot	**R.M.**	4849.67
42	**RCD 2025**	**13.08**	Weepholes	**No.**	152.60
43	**RCD 2025**	**3.06 - 301**	Excavation for road work in soil with hydraulic excavator including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and tranporting to the embankment location within all lifts and lead upto 1000 m	**Cum**	78.40
44	**RCD 2025**	**4.01 B - 401**	Construction of granular sub-base by providing closegraded material, spreading in uniform layers with motorgrader on prepared surface, mixing by mix in placemethod with front end loader at OMC, and compactingwith vibratory roller to achieve the desired density,complete as per clause 401.	**Cum**	1044.90
45	**RCD 2025**	**14.01 C**	RCC Grade M-30 using Batching plant, Transit Mixer and Concrete Pump	**Cum**	6217.20
46	**RCD 2025**	**8.14**	Kilometer Stone M-15	**Nos.**	3853.40

	MATERIAL RATE:				
1	**WRD SOR 2025**	**M-004**	Coarse Sand	**Cum**	584.64
2	**WRD SOR 2025**	**M-012**	Coarse Aggregate	**Cum**	944.26
3	**WRD SOR 2025**	**M-001**	Boulder	**Cum**	694.61
4	**WRD SOR 2025**	**M-11 9(ii)**	Brick	**Cum**	4891
5	**WRD SOR 2025**	**M-006**	Fine Sand	**Cum**	145.87
6	**WRD SOR 2025**	**M1**	Cement (Gaya)	**per bag of 50 Kg**	281.00
7	**WRD SOR 2025**	**M-025**	Aggregate 26.5 mm to 4.75 mm	**Cum**	913.48
8	**WRD SOR 2025**	**M-015**	Aggregate 9.5 mm to 4.75 mm	**Cum**	602.28
9	**WRD SOR 2025**	**M-017**	Aggregate 4.75 mm and below	**Cum**	266.62
10	**WRD SOR 2025**	**M-181**	Structural Steel	**MT**	55116.67

Amba Division – Karma Dy.
(Total Cost – Rs. 16.55 Crores)

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
ABSTRACT OF COST (KARMA DISTRIBUTARY)								
S. No.	**Items**	**Qty.**	**Unit**	**Rate**	**Seigniorage Charges**	**Amount (Rs.) including Seigniorage Charges**	**Reference for Rate**	**Page No.**
1	Earthwork							
	KARMA DISTRIBUTARY	1	Job	54691181.46	0.00	₹ 5,46,91,181.46	AOC Earthwork Karma Distributary	21
	CHAURAHA MINOR	1	Job	13643449.59	0.00	₹ 1,36,43,449.59	AOC Earthwork Chauraha Minor	23
	NEURA SURAJMALMINOR	1	Job	9394449.24	0.00	₹ 93,94,449.24	AOC Earthwork Neura Surajmal Minor	25
	SHUSHNAR MR.	1	Job	12655530.55	0.00	₹ 1,26,55,530.55	AOC Earthwork Shushnar Minor	27
2	Head Regulator							
	CHAURAHA MINOR	1	No.	2617289.57	18671.94	₹ 26,35,961.51	HR (AOC) Chauraha Minor	34
	NEURA SURAJMALMINOR	1	No.	1728836.34	11986.72	₹ 17,40,823.06	HR (AOC) Neura Surajmal Minor	37
	SHUSHNAR MR.	1	No.	1911827.70	13173.91	₹ 19,25,001.61	HR (AOC) Shushnar Minor	40
3	Falls							
	KARMA DISTRIBUTARY :							
	0.610 m Fall at Ch. 8.150 Km	1	No.	2840462.59	24689.63	₹ 28,65,152.22	Fall (AOC) Karma Distributary	58
	0.610 m Fall at Ch. 9.150 Km	1	No.	2705245.12	23676.78	₹ 27,28,921.90		59
	0.914 m Fall at Ch. 16.860 Km	1	No.	1563077.43	14125.08	₹ 15,77,202.51		61
	1.067 m Fall at Ch. 21.350 Km	1	No.	2959904.84	13481.18	₹ 29,73,386.02		62
	0.457 m Fall at Ch. 22.150 Km	1	No.	2173230.66	9363.19	₹ 21,82,593.85		63
	0.914 m Fall at Ch. 23.050 Km	1	No.	1859795.55	8889.91	₹ 18,68,685.46		64
	1.220 m Fall at Ch. 23.300 Km	1	No.	2050024.53	10595.79	₹ 20,60,620.33		65
	CHAURAHA MINOR							
	0.914 m Fall at Ch. 3.190 Km	1	No.	843915.37	7343.28	₹ 8,51,258.65	Fall (AOC) Chauraha Minor	67
	0.457 m Fall at Ch. 4.175 Km	1	No.	1299189.62	11090.38	₹ 13,10,279.99		79
	0.305 m Fall at Ch. 6.000 Km	1	No.	527642.34	4593.79	₹ 5,32,236.13		68
	0.457 m Fall at Ch. 6.750 Km	1	No.	465582.73	3960.99	₹ 4,69,543.73		69
	0.457 m Fall at Ch. 7.050 Km	1	No.	432241.66	3613.07	₹ 4,35,854.73		70
	0.457 m Fall at Ch. 7.200 Km	1	No.	431936.96	3613.07	₹ 4,35,550.03		71
	0.457 m Fall at Ch. 7.500 Km	1	No.	375920.73	3087.98	₹ 3,79,008.71		72
	NEURA SURAJMAL MINOR							
	0.457 m Fall at Ch. 1.950 Km	1	No.	504899.45	4338.29	₹ 5,09,237.74	Fall (AOC) Neura Surajmal Minor	74
	0.457 m Fall at Ch. 2.300 Km	1	No.	505474.74	4338.29	₹ 5,09,813.02		75
	SHUSHNAR MR.							
	0.457 m Fall at Ch. 1.500 Km	1	No.	600428.65	5150.99	₹ 6,05,579.64	Fall (AOC) Shushnar Minor	77
	0.305 m Fall at Ch. 4.075 Km	1	No.	447729.06	3793.53	₹ 4,51,522.59		78
4	Slab Bridge							
	KARMA DISTRIBUTARY :							
	5.280 Km	1	No.	2542445.63	15198.98	₹ 25,57,644.61	Slab-AOC Karma Dy.	136
	7.420 Km	1	No.	2547621.59	15198.98	₹ 25,62,820.58		138
	19.740 Km	1	No.	1535034.86	9436.20	₹ 15,44,471.06		140
	CHAURAHA MINOR							
	5.910 KM	1	No.	1241985.82	7659.44	₹ 12,49,645.26	Slab-AOC Chauraha Mr.	146
	NEURA SURAJMAL MINOR							
	0.240 KM	1	No.	1164759.09	6839.14	₹ 11,71,598.23	Slab-AOC Neura Surajmal Mr.	142
	SHUSHNAR MR.							
	4.300 KM	1	No.	1049444.75	6315.89	₹ 10,55,760.64	Slab-AOC Shushnar Mr.	144
5	*Brick Sec*	1	No.	2661414.24	7071.81	₹ 26,68,486.04	'Brick Sec '!I12	165
6	*Repair of Structures*							
	KARMA DISTRIBUTARY	22	No.	2106630.839	13963.14	₹ 21,20,593.98	Abstract (Repair St.) Karma Dy.	167
	CHAURAHA MINOR	12	No.	389582.1952	3440.56	₹ 3,93,022.75	Abstract (Repair St.) Chauraha Minor	168
	NEURA SURAJMALMINOR	11	No.	255816.9052	2139.63	₹ 2,57,956.53	Abstract (Repair St.) Neura Surajmal Minor	169

S. No.	Items	Qty.	Unit	Rate	Seigniorage Charges	Amount (Rs.) including Seigniorage Charges	Reference for Rate	Page No.
	SHUSHNAR MR.	6	No.	231189.1823	283.06	₹ 2,31,472.24	Abstract (Repair St.) Shusnar Minor	170
	Approach Road	20	No.	521018.55	7578.59	₹ 1,05,71,942.89	Approach Road AOC	221
7	Outlets							
	KARMA DISTRIBUTARY	82	No.	127744.47	1100.17	₹ 1,05,65,260.53	Outlet-AOC	225
	CHAURAHA MINOR	20	No.	127744.47	1100.17	₹ 25,76,892.81		225
	NEURA SURAJMALMINOR	7	No.	127744.47	1100.17	₹ 9,01,912.48		225
	SHUSHNAR MR.	10	No.	127744.47	1100.17	₹ 12,88,446.41		225
7	Kilometer Stone	46	No.	3853.40	0.00	₹ 1,77,256.40	'Rates '!F61	259
	TOTAL (In Rs.)					**₹ 16,55,33,005.00**		
	TOTAL (In Lacs)					**₹ 1,655.33**		

	As Per Latest Approved Rates Feb.		
1	Steel & Cement (30 Km)	M.T.	**742.00**
2	RCC Hume Pipe (30 Km)	Per Meter	
	150 mm dia	Per Meter	**82.00**
	600 mm dia	Per Meter	**919.00**
	1000 mm dia	Per Meter	**1470.00**
	1200 mm dia	Per Meter	**1838.00**
3	Bricks (15 Km)	Per 1000 no	**3.18**
4	Boulder (60 Km)	Cumecs	**1159.0**
5	Coarse Sand (60 Km)	Cumecs	**1075.00**
6	Stone Chips/Aggregate (100 Km)	Cumecs	**1398.0**

CARRIAGE OF MATERIAL BY TIPPER OF 18 CUM CAPACITY INCLUDING OVER HEAD CHARGES & C.P																		
Sr No	Name Of Materials	Unit	Gross Tipper Capacity Per Trip	(For Void) Multiplying Factor	Net Tipper capacity (Payable Quantity) Per Trip	Cost of Loading,Unloading & Stacking Per Trip of Tipper (Tipperr capacity 18 cum x Xa_1	Cost of Haulage Per cum			Cost of Haulage Per Tipper of 18 cum capacity (Tipper capacity 18 Cum x H)			Lead in KM			Carriage of Cost =[(18Hsa.Ls+18Hua.Lu+18Hka.Lk)+18 X_a	Per Unit Rate =(col 17 / Net Payable capacity)
							For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed		
						$18X_a$	H_{Sa}	H_{ua}	H_{ka}	$18H_{Sa}$	$18H_{Ua}$	$18H_{Ka}$	L_S	L_U	L_K		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Boulder (60 Kms)	M^3	18	0.80	14.4	6507.00	9.10	11.10	22.20	163.80	199.80	399.60	50	10	0	16695	1159.00
2	Stone Aggregate (100 Kms)	M^3	18	0.924	16.63	6507.00	9.10	11.10	22.20	163.80	199.80	399.60	90	10	0	23247	1398.00
3	Sand (60 Kms)	M^3	18	0.924	16.63	6507.00	9.10	11.10	22.20	163.80	199.80	399.60	45	10	5	17874	1075.00

CARRIAGE OF MATERIAL BY TIPPER OF 25 TONNES CAPACITY INCLUDING OVER HEAD CHARGES & C.P																	
Sr No	Name Of Materials	Unit	Gross Tipper Capacity Per Trip	(For Void) Multiplying Factor	Net Tipper capacity (Payable Quantity) Per Trip	Cost of Loading,Unloading & Stacking Per Trip of Tipper (Tipperr capacity 25 t x X_b)	Cost of Haulage Per cum			Cost of Haulage Per Tipper of 8 tonne capacity (Tipper capacity 8x H)			Lead in KM			Carriage of Cost =[(25Hsa.Ls+25Hua.Lu+25Hka.Lk)+25 X_a	Per Unit Rate =(col 17 / Net Payable capacity)
							For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed		
						$25X_b$	H_{Sb}	Hub	H_{Kb}	$25H_{Sb}$	$25H_{Ub}$	$25H_{Kb}$	L_S	L_U	L_K		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	**Cement & Steel (30 Kms)**	M.T	25	1	25	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	20	10	0	18550	742.00
2	**Brick ($9^{3/4}$x$4^{3/4}$x$2^{3/4}$) (15 Kms)**	Per % 0	5000	1	5000	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	10	5	0	15900	3180.00
3	**R.C.C hume, A.C. pipe (30 Km)**																
a	**150 mm dia**	mtr	225	1	225	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	82.00
b	**500 mm & 600 mm dia**	mtr	20	1	20	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	919.00
c	**900mm & 1000 mm dia**	mtr	12.5	1	12.5	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	1470.00
d	**1100 & 1200 m dia**	mtr	10	1	10	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	1838.00

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND CONCRETE MIX RATIO TABLE						
Sl. No.	Mixes	Unit by Volume (Cum)	Crushed Aggregate			
			Cement (bags of 50 kg)	Sand (Cum)	Coarse Aggregate (Cum)	Boulder (Cum)
1	M -10 (1:3:6)	1.00	4.49	0.47	0.94	
2	M -15 (1:2:4)	1.00	6.48	0.45	0.90	
3	M -20 (1:1.5:3)	1.00	8.25	0.43	0.86	
4	M -25 (1:1:2)	1.00	11.34	0.39	0.79	
5	M-30 (1:0.75:1.5)	1.00	13.96	0.36	0.73	
6	RR Masonary (1:4)	1.00	2.880	0.40		1.00
7	Brick Work (1:4)	1.00	2.304	0.320		
8	Cement Plaster (1:4)	1.00	1.037	0.015		
9	Cement Punning	1.00	0.0015			

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND				
KARMA DISTRIBUTARY				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Quantity**	
0.00 - 0.150	150	11.186	1677.90	Sqm
0.150 - 3.200	3050	10.59	32311.70	Sqm
3.200 - 7.735	4535	9.744	44189.04	Sqm
7.735 - 8.700	965	9.203	8880.90	Sqm
8.700 - 9.565	865	8.553	7398.35	Sqm
9.565-11.360	1795	7.91	14200.25	Sqm
11.360-12.850	1490	7.298	10874.02	Sqm
12.850-14.460	1610	6.799	10946.39	Sqm
14.460-15.750	1290	6.515	8404.35	Sqm
15.750-16.860	1110	6.087	6756.57	Sqm
16.860-18.342	1482	5.746	8515.57	Sqm
18.342-20.058	1716	4.613	7915.91	Sqm
20.058-21.350	1292	3.697	4776.52	Sqm
21.350-21.750	400	3.056	1222.40	Sqm
21.750-22.150	400	2.714	1085.60	Sqm
22.150-22.990	840	2.373	1993.32	Sqm
22.990-23.750	760	1.889	1435.64	Sqm
	TOTAL		**172584.42**	**Sqm**

LIP CUTTING QUANTITY					
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Thickness (m)**	**Quantity**	
0.00 - 0.150	150	11.186	0.15	251.69	Cum
0.150 - 3.200	3050	10.594	0.15	4846.76	Cum
3.200 - 7.735	4535	9.744	0.15	6628.36	Cum
7.735 - 8.700	965	9.203	0.15	1332.13	Cum
8.700 - 9.565	865	8.553	0.15	1109.75	Cum
9.565-11.360	1795	7.911	0.15	2130.04	Cum
11.360-12.850	1490	7.298	0.15	1631.10	Cum
12.850-14.460	1610	6.799	0.15	1641.96	Cum
14.460-15.750	1290	6.515	0.15	1260.65	Cum
15.750-16.860	1110	6.087	0.15	1013.49	Cum
16.860-18.342	1482	5.746	0.15	1277.34	Cum
18.342-20.058	1716	4.613	0.15	1187.39	Cum
20.058-21.350	1292	3.697	0.15	716.48	Cum
21.350-21.750	400	3.056	0.15	183.36	Cum
21.750-22.150	400	2.714	0.15	162.84	Cum
22.150-22.990	840	2.373	0.15	299.00	Cum
22.990-23.750	760	1.889	0.15	215.35	Cum
	TOTAL			**25887.66**	**Cum**

CHAURAHA MR. (0.000 TO 7.700 KM)				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Quantity**	
0.00 - 3.190	3190	6.743	21510.17	Sqm
3.190-4.800	1610	6.25	10064.11	Sqm
4.800-5.380	580	5.847	3391.26	Sqm
5.380-6.520	1140	5.427	6186.78	Sqm
6.520-6.900	380	4.736	1799.68	Sqm
6.900-7.500	600	4.34	2602.80	Sqm
7.500-7.700	200	3.20	640.00	Sqm
	TOTAL		**46194.80**	**Sqm**

LIP CUTTING QUANTITY					
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Thickness (m)**	**Quantity**	
0.00 - 3.190	3190	6.743	0.15	3226.53	Cum
3.190-4.800	1610	6.251	0.15	1509.62	Cum
4.800-5.380	580	5.847	0.15	508.69	Cum
5.380-6.520	1140	5.427	0.15	928.02	Cum
6.520-6.900	380	4.736	0.15	269.95	Cum
6.900-7.500	600	4.338	0.15	390.42	Cum
7.500-7.700	200	3.2	0.15	96.00	Cum
	TOTAL			**6929.22**	**Cum**

NEURA SURAJMAL MR. (0.000 TO 4.700 KM)				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Quantity**	
0.00 -1.500	1500	5.186	7779.00	Sqm
1.500-2.400	900	4.74	4262.40	Sqm
2.400-4.225	1825	4.338	7916.85	Sqm
4.225-4.700	475	3.2	1520.00	Sqm
	TOTAL		**21478.25**	**Sqm**

LIP CUTTING QUANTITY					
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Thickness (m)**	**Quantity**	
0.00 -1.500	1500	5.86	0.15	1318.50	Cum
1.500-2.400	900	5.416	0.15	731.16	Cum
2.400-4.225	1825	5.077	0.15	1389.83	Cum
4.225-4.700	475	4.736	0.15	337.44	Cum
	TOTAL			**3776.93**	**Cum**

SHUSHNAR MR. (0.000 TO 4.500 KM)				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Quantity**	
0.000 -1.050	1050	5.538	5814.90	Sqm
1.050-2.550	1500	4.89	7333.50	Sqm
2.550-3.700	1150	4.507	5183.05	Sqm
3.700-4.500	800	3	2400.00	Sqm
	TOTAL		**20731.45**	**Sqm**

LIP CUTTING QUANTITY					
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Thickness (m)**	**Quantity**	
0.000 -1.050	1050	5.538	0.15	872.24	Cum
1.050-2.550	1500	4.889	0.15	1100.03	Cum
2.550-3.700	1150	4.507	0.15	777.46	Cum
3.700-4.500	800	3	0.15	360.00	Cum
	TOTAL			**3109.72**	**Cum**

DETAIL QUANTITIES OF EARTHWORK
KARMA DISTRIBUTARY (0.000 TO 23.400 KM)

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
0		0.000	0	0	0.000	0	0.000
100	100	13.452	6.726	672.600	1.745	0.873	87.250
200	100	11.402	12.427	1242.700	1.118	1.432	143.150
300	100	12.088	11.745	1174.500	2.375	1.747	174.650
400	100	15.447	13.768	1376.750	4.743	3.559	355.900
500	100	3.300	9.374	937.350	27.610	16.177	1617.650
600	100	2.792	3.046	304.600	2.119	14.865	1486.450
700	100	2.133	2.463	246.250	7.071	4.595	459.500
800	100	1.307	1.720	172.000	6.329	6.700	670.000
900	100	2.817	2.062	206.200	5.399	5.864	586.400
1000	100	2.236	2.527	252.650	5.474	5.437	543.650
1100	100	1.688	1.962	196.200	6.435	5.955	595.450
1200	100	1.453	1.571	157.050	7.619	7.027	702.700
1300	100	1.164	1.309	130.850	5.189	6.404	640.400
1400	100	0.988	1.076	107.600	7.555	6.372	637.200
1500	100	1.430	1.209	120.900	7.270	7.413	741.250
1600	100	1.596	1.513	151.300	5.665	6.468	646.750
1700	100	1.718	1.657	165.700	3.958	4.812	481.150
1800	100	1.763	1.741	174.050	2.371	3.165	316.450
1900	100	2.022	1.893	189.250	2.129	2.250	225.000
2000	100	2.313	2.168	216.750	2.725	2.427	242.700
2100	100	2.620	2.467	246.650	4.460	3.593	359.250
2200	100	4.442	3.531	353.100	6.097	5.279	527.850
2300	100	3.586	4.014	401.400	1.790	3.944	394.350
2400	100	3.491	3.539	353.850	2.032	1.911	191.100
2500	100	2.731	3.111	311.100	1.840	1.936	193.600
2600	100	2.618	2.675	267.450	3.085	2.463	246.250
2700	100	2.884	2.751	275.100	3.876	3.481	348.050
2800	100	3.005	2.945	294.450	3.695	3.786	378.550
2900	100	3.139	3.072	307.200	1.001	2.348	234.800
3000	100	3.290	3.215	321.450	3.299	2.150	215.000
3100	100	3.462	3.376	337.600	4.549	3.924	392.400
3200	100	20.930	12.196	1219.600	5.159	4.854	485.400
3300	100	1.225	11.078	1107.750	5.502	5.331	533.050
3400	100	0.670	0.948	94.750	6.590	6.046	604.600
3500	100	0.223	0.447	44.650	7.442	7.016	701.600
3600	100	0.024	0.124	12.350	8.380	7.911	791.100
3700	100	0.857	0.441	44.050	7.530	7.955	795.500
3800	100	0.623	0.740	74.000	7.530	7.530	753.000
3900	100	0.579	0.601	60.100	7.133	7.332	733.150
4000	100	0.552	0.566	56.550	6.901	7.017	701.700
4100	100	0.534	0.543	54.300	9.410	8.156	815.550

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
4200	100	4.964	2.749	274.900	3.686	6.548	654.800
4300	100	2.331	3.648	364.750	5.261	4.474	447.350
4400	100	1.894	2.113	211.250	5.278	5.270	526.950
4500	100	1.455	1.675	167.450	5.302	5.290	529.000
4600	100	1.038	1.247	124.650	5.550	5.426	542.600
4700	100	0.635	0.837	83.650	5.771	5.661	566.050
4800	100	0.256	0.446	44.550	5.648	5.710	570.950
4900	100	5.564	2.910	291.000	3.460	4.554	455.400
5000	100	0.080	2.822	282.200	9.489	6.475	647.450
5100	100	2.012	1.046	104.600	6.449	7.969	796.900
5200	100	0.996	1.504	150.400	9.176	7.813	781.250
5300	100	2.557	1.777	177.650	4.861	7.019	701.850
5400	100	1.493	2.025	202.500	6.539	5.700	570.000
5500	100	0.506	1.000	99.950	5.620	6.080	607.950
5600	100	0.031	0.269	26.850	6.027	5.824	582.350
5700	100	12.068	6.050	604.950	4.186	5.107	510.650
5800	100	0.000	6.034	603.400	13.844	9.015	901.500
5900	100	0.137	0.069	6.850	9.712	11.778	1177.800
6000	100	0.499	0.318	31.800	7.712	8.712	871.200
6100	100	0.814	0.657	65.650	7.055	7.384	738.350
6200	100	0.807	0.811	81.050	7.985	7.520	752.000
6300	100	0.568	0.688	68.750	8.184	8.085	808.450
6400	100	0.497	0.533	53.250	16.464	12.324	1232.400
6500	100	0.426	0.462	46.150	10.231	13.348	1334.750
6600	100	13.547	6.987	698.650	5.603	7.917	791.700
6700	100	1.193	7.370	737.000	8.991	7.297	729.700
6800	100	1.325	1.259	125.900	7.937	8.464	846.400
6900	100	1.447	1.386	138.600	7.276	7.607	760.650
7000	100	1.545	1.496	149.600	6.861	7.069	706.850
7100	100	1.618	1.582	158.150	6.099	6.480	648.000
7200	100	1.669	1.644	164.350	5.587	5.843	584.300
7300	100	1.409	1.539	153.900	5.402	5.495	549.450
7400	100	0.832	1.121	112.050	5.611	5.507	550.650
7500	100	2.260	1.546	154.600	3.919	4.765	476.500
7600	100	2.056	2.158	215.800	3.846	3.883	388.250
7700	100	1.831	1.944	194.350	3.752	3.799	379.900
7800	100	1.319	1.575	157.500	4.563	4.158	415.750
7900	100	1.095	1.207	120.700	4.715	4.639	463.900
8000	100	0.870	0.983	98.250	5.013	4.864	486.400
8100	100	0.638	0.754	75.400	5.420	5.217	521.650
8200	100	1.108	0.873	87.300	8.487	6.954	695.350
8300	100	1.669	1.389	138.850	8.474	8.481	848.050
8400	100	1.255	1.462	146.200	8.096	8.285	828.500
8500	100	0.840	1.048	104.750	8.175	8.136	813.550
8600	100	0.470	0.655	65.500	7.984	8.080	807.950

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
8700	100	0.317	0.394	39.350	6.216	7.100	710.000
8800	100	0.175	0.246	24.600	7.690	6.953	695.300
8900	100	0.064	0.120	11.950	8.910	8.300	830.000
9000	100	0.009	0.037	3.650	10.063	9.487	948.650
9100	100	0.000	0.005	0.450	11.182	10.623	1062.250
9200	100	0.039	0.020	1.950	8.908	10.045	1004.500
9300	100	0.043	0.041	4.100	7.608	8.258	825.800
9400	100	0.233	0.138	13.800	6.735	7.172	717.150
9500	100	0.304	0.269	26.850	6.058	6.397	639.650
9600	100	3.794	2.049	204.900	5.267	5.663	566.250
9700	100	2.539	3.167	316.650	5.115	5.191	519.100
9800	100	1.344	1.942	194.150	5.102	5.109	510.850
9900	100	0.430	0.887	88.700	5.176	5.139	513.900
10000	100	0.275	0.353	35.250	5.344	5.260	526.000
10100	100	0.282	0.279	27.850	5.417	5.381	538.050
10200	100	0.365	0.324	32.350	5.489	5.453	545.300
10300	100	0.508	0.437	43.650	5.571	5.530	553.000
10400	100	0.725	0.617	61.650	5.717	5.644	564.400
10500	100	0.954	0.840	83.950	5.999	5.858	585.800
10600	100	1.182	1.068	106.800	6.494	6.247	624.650
10700	100	1.198	1.190	119.000	6.826	6.660	666.000
10800	100	1.354	1.276	127.600	7.289	7.058	705.750
10900	100	1.538	1.446	144.600	7.781	7.535	753.500
11000	100	1.731	1.635	163.450	8.287	8.034	803.400
11100	100	1.920	1.826	182.550	8.805	8.546	854.600
11200	100	2.106	2.013	201.300	9.418	9.112	911.150
11300	100	2.253	2.180	217.950	9.964	9.691	969.100
11400	100	2.408	2.331	233.050	3.272	6.618	661.800
11500	100	0.416	1.412	141.200	4.942	4.107	410.700
11600	100	0.395	0.406	40.550	5.485	5.214	521.350
11700	100	0.461	0.428	42.800	5.959	5.722	572.200
11800	100	0.611	0.536	53.600	7.002	6.481	648.050
11900	100	1.239	0.925	92.500	6.259	6.631	663.050
12000	100	1.066	1.153	115.250	6.101	6.180	618.000
12100	100	0.938	1.002	100.200	6.090	6.096	609.550
12200	100	0.931	0.935	93.450	6.268	6.179	617.900
12300	100	1.085	1.008	100.800	6.582	6.425	642.500
12400	100	0.000	0.543	54.250	9.901	8.242	824.150
12500	100	0.008	0.004	0.400	7.352	8.627	862.650
12600	100	0.080	0.044	4.400	5.670	6.511	651.100
12700	100	0.242	0.161	16.100	4.405	5.038	503.750
12800	100	0.499	0.371	37.050	4.418	4.412	441.150
12900	100	15.408	7.954	795.350	4.819	4.619	461.850
13000	100	3.007	9.208	920.750	3.197	4.008	400.800
13100	100	3.609	3.308	330.800	2.450	2.824	282.350

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
13200	100	4.285	3.947	394.700	3.414	2.932	293.200
13300	100	3.559	3.922	392.200	3.044	3.229	322.900
13400	100	2.277	2.918	291.800	2.974	3.009	300.900
13500	100	1.239	1.758	175.800	3.319	3.147	314.650
13600	100	10.307	5.773	577.300	3.728	3.524	352.350
13700	100	0.801	5.554	555.400	6.059	4.894	489.350
13800	100	0.769	0.785	78.500	5.827	5.943	594.300
13900	100	0.836	0.803	80.250	5.420	5.624	562.350
14000	100	0.912	0.874	87.400	4.915	5.168	516.750
14100	100	11.022	5.967	596.700	4.311	4.613	461.300
14200	100	3.349	7.186	718.550	3.354	3.833	383.250
14300	100	3.358	3.354	335.350	3.215	3.285	328.450
14400	100	3.349	3.354	335.350	3.412	3.314	331.350
14500	100	1.013	2.181	218.100	4.317	3.865	386.450
14600	100	0.972	0.993	99.250	3.407	3.862	386.200
14700	100	10.454	5.713	571.300	2.112	2.760	275.950
14800	100	0.145	5.300	529.950	8.621	5.367	536.650
14900	100	0.070	0.108	10.750	7.254	7.938	793.750
15000	100	0.135	0.103	10.250	6.623	6.939	693.850
15100	100	3.174	1.655	165.450	2.986	4.805	480.450
15200	100	0.998	2.086	208.600	4.753	3.870	386.950
15300	100	0.931	0.965	96.450	4.352	4.553	455.250
15400	100	0.887	0.909	90.900	4.039	4.196	419.550
15500	100	0.838	0.863	86.250	3.123	3.581	358.100
15600	100	0.774	0.806	80.600	3.580	3.352	335.150
15700	100	0.764	0.769	76.900	4.169	3.875	387.450
15800	100	0.645	0.705	70.450	4.882	4.526	452.550
15900	100	0.650	0.648	64.750	4.165	4.524	452.350
16000	100	0.697	0.674	67.350	3.759	3.962	396.200
16100	100	0.507	0.602	60.200	4.252	4.006	400.550
16200	100	0.817	0.662	66.200	4.316	4.284	428.400
16300	100	0.940	0.879	87.850	6.237	5.277	527.650
16400	100	0.711	0.826	82.550	6.285	6.261	626.100
16500	100	0.730	0.721	72.050	4.305	5.295	529.500
16600	100	0.624	0.677	67.700	4.404	4.355	435.450
16700	100	0.730	0.677	67.700	4.553	4.479	447.850
16800	100	0.991	0.861	86.050	5.066	4.810	480.950
16900	100	0.750	0.871	87.050	7.288	6.177	617.700
17000	100	0.456	0.603	60.300	6.012	6.650	665.000
17100	100	0.869	0.663	66.250	3.396	4.704	470.400
17200	100	1.439	1.154	115.400	3.511	3.454	345.350
17300	100	0.935	1.187	118.700	4.005	3.758	375.800
17400	100	1.068	1.002	100.150	3.569	3.787	378.700
17500	100	1.377	1.223	122.250	3.220	3.395	339.450
17600	100	1.685	1.531	153.100	2.941	3.081	308.050

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
17700	100	1.994	1.840	183.950	2.705	2.823	282.300
17800	100	2.305	2.150	214.950	2.490	2.598	259.750
17900	100	2.619	2.462	246.200	2.096	2.293	229.300
18000	100	1.152	1.886	188.550	5.503	3.800	379.950
18100	100	2.546	1.849	184.900	3.504	4.504	450.350
18200	100	2.452	2.499	249.900	4.272	3.888	388.800
18300	100	2.413	2.433	243.250	5.003	4.638	463.750
18400	100	0.763	1.588	158.800	4.970	4.987	498.650
18500	100	0.656	0.710	70.950	7.207	6.089	608.850
18600	100	11.391	6.024	602.350	3.626	5.417	541.650
18700	100	4.363	7.877	787.700	2.682	3.154	315.400
18800	100	0.545	2.454	245.400	5.724	4.203	420.300
18900	100	0.428	0.487	48.650	6.081	5.903	590.250
19000	100	0.316	0.372	37.200	5.962	6.022	602.150
19100	100	0.210	0.263	26.300	7.472	6.717	671.700
19200	100	0.363	0.287	28.650	5.449	6.461	646.050
19300	100	0.204	0.284	28.350	6.845	6.147	614.700
19400	100	1.276	0.740	74.000	7.089	6.967	696.700
19500	100	0.452	0.864	86.400	6.107	6.598	659.800
19600	100	1.293	0.873	87.250	2.740	4.424	442.350
19700	100	0.136	0.715	71.450	5.302	4.021	402.100
19800	100	0.142	0.139	13.900	6.078	5.690	569.000
19900	100	1.149	0.646	64.550	2.893	4.486	448.550
20000	100	0.179	0.664	66.400	5.653	4.273	427.300
20100	100	0.232	0.206	20.550	6.417	6.035	603.500
20200	100	0.213	0.223	22.250	7.460	6.939	693.850
20300	100	0.369	0.291	29.100	6.777	7.119	711.850
20400	100	1.688	1.029	102.850	4.298	5.538	553.750
20500	100	1.456	1.572	157.200	4.861	4.580	457.950
20600	100	1.304	1.380	138.000	5.538	5.200	519.950
20700	100	2.449	1.877	187.650	2.964	4.251	425.100
20800	100	2.257	2.353	235.300	3.863	3.414	341.350
20900	100	0.851	1.554	155.400	3.911	3.887	388.700
21000	100	0.450	0.651	65.050	4.161	4.036	403.600
21100	100	0.230	0.340	34.000	4.407	4.284	428.400
21200	100	0.043	0.137	13.650	4.745	4.576	457.600
21300	100	0.000	0.022	2.150	5.289	5.017	501.700
21400	100	1.752	0.876	87.600	3.158	4.224	422.350
21500	100	1.367	1.560	155.950	3.510	3.334	333.400
21600	100	1.028	1.198	119.750	3.492	3.501	350.100
21700	100	0.736	0.882	88.200	3.866	3.679	367.900
21800	100	0.444	0.590	59.000	2.625	3.246	324.550
21900	100	1.024	0.734	73.400	1.785	2.205	220.500
22000	100	0.579	0.802	80.150	2.612	2.199	219.850
22100	100	0.266	0.423	42.250	3.599	3.106	310.550

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
22200	100	0.467	0.367	36.650	4.544	4.072	407.150
22300	100	0.278	0.373	37.250	4.831	4.688	468.750
22400	100	0.183	0.231	23.050	4.512	4.672	467.150
22500	100	0.294	0.239	23.850	3.421	3.967	396.650
22600	100	0.094	0.194	19.400	4.409	3.915	391.500
22700	100	0.008	0.051	5.100	5.538	4.974	497.350
22800	100	0.000	0.004	0.400	6.726	6.132	613.200
22900	100	0.000	0.000	0.000	5.472	6.099	609.900
23000	100	0.000	0.000	0.000	5.026	5.249	524.900
23100	100	0.738	0.369	36.900	2.714	3.870	387.000
23200	100	0.228	0.483	48.300	3.393	3.054	305.350
23300	100	9.277	4.753	475.250	7.294	5.344	534.350
23400	100	0.306	4.792	479.150	2.212	4.753	475.300
Total				**43794.700**			**128437.500**
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							**43794.700**
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							**128437.500**
NET QUANTITY OF EARTHWORK IN FILLING							**84642.80**

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK CHAURAHA MR (0.000 TO 7.600 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	11.723	5.862	586.150	4.482	2.241	224.100
200	100	10.939	11.331	1133.100	2.603	3.543	354.250
300	100	24.369	17.654	1765.400	0.000	1.302	130.150
400	100	12.116	18.243	1824.250	7.286	3.643	364.300
500	100	12.253	12.185	1218.450	7.136	7.211	721.100
600	100	11.264	11.759	1175.850	7.805	7.471	747.050
700	100	10.299	10.782	1078.150	9.340	8.573	857.250
800	100	9.363	9.831	983.100	8.134	8.737	873.700
900	100	8.785	9.074	907.400	7.006	7.570	757.000
1000	100	8.301	8.543	854.300	7.182	7.094	709.400
1100	100	7.792	8.047	804.650	7.405	7.294	729.350
1200	100	7.276	7.534	753.400	7.645	7.525	752.500
1300	100	7.890	7.583	758.300	5.872	6.759	675.850
1400	100	6.861	7.376	737.550	5.055	5.464	546.350
1500	100	5.876	6.369	636.850	6.187	5.621	562.100
1600	100	5.027	5.452	545.150	5.364	5.776	577.550
1700	100	4.729	4.878	487.800	5.213	5.289	528.850
1800	100	4.852	4.791	479.050	4.827	5.020	502.000
1900	100	5.910	5.381	538.100	5.835	5.331	533.100
2000	100	5.052	5.481	548.100	4.718	5.277	527.650
2100	100	3.636	4.344	434.400	4.962	4.840	484.000
2200	100	2.758	3.197	319.700	4.873	4.918	491.750
2300	100	2.529	2.644	264.350	5.075	4.974	497.400
2400	100	3.711	3.120	312.000	4.090	4.583	458.250
2500	100	1.366	2.539	253.850	2.674	3.382	338.200
2600	100	0.490	0.928	92.800	2.746	2.710	271.000
2700	100	0.543	0.517	51.650	2.284	2.515	251.500
2800	100	0.308	0.426	42.550	2.451	2.368	236.750
2900	100	0.046	0.177	17.700	6.207	4.329	432.900
3000	100	0.000	0.023	2.300	8.252	7.230	722.950
3100	100	0.489	0.245	24.450	8.714	8.483	848.300
3200	100	1.406	0.948	94.750	3.564	6.139	613.900
3300	100	1.989	1.698	169.750	2.803	3.184	318.350
3400	100	1.114	1.552	155.150	2.341	2.572	257.200
3500	100	0.560	0.837	83.700	2.985	2.663	266.300
3600	100	0.449	0.505	50.450	2.611	2.798	279.800
3700	100	0.325	0.387	38.700	4.191	3.401	340.100
3800	100	0.408	0.367	36.650	4.156	4.174	417.350
3900	100	0.133	0.271	27.050	5.084	4.620	462.000
4000	100	0.055	0.094	9.400	4.740	4.912	491.200
4100	100	0.034	0.045	4.450	2.241	3.491	349.050

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
4200	100	0.678	0.356	35.600	3.098	2.670	266.950
4300	100	1.831	1.255	125.450	4.689	3.894	389.350
4400	100	0.702	1.267	126.650	3.226	3.958	395.750
4500	100	0.049	0.376	37.550	3.154	3.190	319.000
4600	100	0.017	0.033	3.300	4.283	3.719	371.850
4700	100	0.022	0.020	1.950	4.628	4.456	445.550
4800	100	0.594	0.308	30.800	6.417	5.523	552.250
4900	100	0.381	0.488	48.750	5.919	6.168	616.800
5000	100	0.218	0.300	29.950	3.998	4.959	495.850
5100	100	0.126	0.172	17.200	3.603	3.801	380.050
5200	100	0.229	0.178	17.750	3.967	3.785	378.500
5300	100	0.010	0.120	11.950	3.530	3.749	374.850
5400	100	0.659	0.335	33.450	5.305	4.418	441.750
5500	100	0.235	0.447	44.700	4.049	4.677	467.700
5600	100	0.177	0.206	20.600	3.655	3.852	385.200
5700	100	0.198	0.188	18.750	1.618	2.637	263.650
5800	100	0.089	0.144	14.350	2.356	1.987	198.700
5900	100	0.028	0.059	5.850	3.242	2.799	279.900
6000	100	0.282	0.155	15.500	3.855	3.549	354.850
6100	100	0.098	0.190	19.000	5.172	4.514	451.350
6200	100	0.038	0.068	6.800	4.780	4.976	497.600
6300	100	0.084	0.061	6.100	7.828	6.304	630.400
6400	100	3.057	1.571	157.050	5.021	6.425	642.450
6500	100	0.197	1.627	162.700	6.328	5.675	567.450
6600	100	0.612	0.405	40.450	3.839	5.084	508.350
6700	100	0.029	0.321	32.050	6.271	5.055	505.500
6800	100	0.529	0.279	27.900	5.825	6.048	604.800
6900	100	0.468	0.499	49.850	2.872	4.349	434.850
7000	100	0.102	0.285	28.500	4.820	3.846	384.600
7100	100	0.374	0.238	23.800	3.011	3.916	391.550
7200	100	0.742	0.558	55.800	2.680	2.846	284.550
7300	100	0.224	0.483	48.300	5.304	3.992	399.200
7400	100	0.000	0.112	11.200	8.195	6.750	674.950
7500	100	0.456	0.228	22.800	4.317	6.256	625.600
7600	100	0.219	0.338	33.750	6.581	5.449	544.900
Total				**21667.050**			**36028.450**
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							**21667.050**
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							**36028.450**
NET QUANTITY OF EARTHWORK IN FILLING							**14361.40**

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK NEURA SURAJMAL MR (0.000 TO 4.600 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	0.025	0.013	1.250	7.312	3.656	365.600
200	100	0.520	0.273	27.250	3.299	5.306	530.550
300	100	0.082	0.301	30.100	5.750	4.525	452.450
400	100	0.567	0.325	32.450	4.439	5.095	509.450
500	100	0.162	0.365	36.450	3.781	4.110	411.000
600	100	0.280	0.221	22.100	3.561	3.671	367.100
700	100	0.000	0.140	14.000	6.141	4.851	485.100
800	100	0.704	0.352	35.200	0.702	3.422	342.150
900	100	0.812	0.758	75.800	1.846	1.274	127.400
1000	100	0.994	0.903	90.300	2.983	2.415	241.450
1100	100	0.626	0.810	81.000	3.148	3.066	306.550
1200	100	0.458	0.542	54.200	3.574	3.361	336.100
1300	100	0.008	0.233	23.300	4.670	4.122	412.200
1400	100	0.000	0.004	0.400	7.824	6.247	624.700
1500	100	1.736	0.868	86.800	5.566	6.695	669.500
1600	100	1.267	1.502	150.150	1.727	3.647	364.650
1700	100	0.157	0.712	71.200	3.851	2.789	278.900
1800	100	0.000	0.079	7.850	6.643	5.247	524.700
1900	100	0.101	0.051	5.050	6.054	6.349	634.850
2000	100	0.294	0.198	19.750	3.626	4.840	484.000
2100	100	0.548	0.421	42.100	3.215	3.421	342.050
2200	100	0.434	0.491	49.100	2.902	3.059	305.850
2300	100	0.656	0.545	54.500	3.664	3.283	328.300
2400	100	0.124	0.390	39.000	4.348	4.006	400.600
2500	100	0.000	0.062	6.200	6.212	5.280	528.000
2600	100	0.000	0.000	0.000	5.875	6.044	604.350
2700	100	0.000	0.000	0.000	6.377	6.126	612.600
2800	100	0.000	0.000	0.000	4.174	5.276	527.550
2900	100	0.649	0.325	32.450	3.718	3.946	394.600
3000	100	0.000	0.325	32.450	3.560	3.639	363.900
3100	100	0.123	0.062	6.150	3.550	3.555	355.500
3200	100	0.000	0.062	6.150	5.447	4.499	449.850
3300	100	0.000	0.000	0.000	3.932	4.690	468.950
3400	100	0.261	0.131	13.050	3.655	3.794	379.350
3500	100	0.160	0.211	21.050	3.131	3.393	339.300
3600	100	0.000	0.080	8.000	6.070	4.601	460.050
3700	100	0.100	0.050	5.000	4.449	5.260	525.950
3800	100	0.710	0.405	40.500	2.348	3.399	339.850
3900	100	0.859	0.785	78.450	3.364	2.856	285.600
4000	100	0.805	0.832	83.200	2.766	3.065	306.500
4100	100	0.567	0.686	68.600	1.683	2.225	222.450
4200	100	0.472	0.520	51.950	2.780	2.232	223.150

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
4300	100	1.364	0.918	91.800	0.917	1.849	184.850
4400	100	0.350	0.857	85.700	4.608	2.763	276.250
4500	100	0.065	0.208	20.750	2.996	3.802	380.200
4600	100	0.077	0.071	7.100	5.369	4.183	418.250
Total				**1707.850**			**18492.250**
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							**1707.850**
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							**18492.250**
NET QUANTITY OF EARTHWORK IN FILLING							**16784.40**

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK SHUSHNAR MR (0.000 TO 4.500 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	0.510	0.255	25.500	6.016	3.008	300.800
200	100	0.240	0.375	37.500	7.277	6.647	664.650
300	100	0.177	0.209	20.850	6.680	6.979	697.850
400	100	0.126	0.152	15.150	6.022	6.351	635.100
500	100	0.078	0.102	10.200	5.871	5.947	594.650
600	100	0.007	0.043	4.250	5.642	5.757	575.650
700	100	0.000	0.004	0.350	8.440	7.041	704.100
800	100	2.396	1.198	119.800	6.397	7.419	741.850
900	100	1.054	1.725	172.500	7.110	6.754	675.350
1000	100	0.789	0.922	92.150	6.814	6.962	696.200
1100	100	0.457	0.623	62.300	6.746	6.780	678.000
1200	100	0.250	0.354	35.350	6.375	6.561	656.050
1300	100	0.057	0.154	15.350	6.298	6.337	633.650
1400	100	0.000	0.029	2.850	5.648	5.973	597.300
1500	100	0.459	0.230	22.950	4.739	5.194	519.350
1600	100	0.251	0.355	35.500	4.086	4.413	441.250
1700	100	0.059	0.155	15.500	4.304	4.195	419.500
1800	100	0.685	0.372	37.200	3.944	4.124	412.400
1900	100	0.000	0.343	34.250	6.076	5.010	501.000
2000	100	0.978	0.489	48.900	7.285	6.681	668.050
2100	100	0.805	0.892	89.150	5.756	6.521	652.050
2200	100	0.497	0.651	65.100	5.598	5.677	567.700
2300	100	0.213	0.355	35.500	4.039	4.819	481.850
2400	100	0.000	0.107	10.650	4.303	4.171	417.100
2500	100	0.008	0.004	0.400	4.998	4.651	465.050
2600	100	0.000	0.004	0.400	7.379	6.189	618.850
2700	100	0.000	0.000	0.000	4.555	5.967	596.700
2800	100	0.007	0.004	0.350	6.328	5.442	544.150
2900	100	0.049	0.028	2.800	6.160	6.244	624.400
3000	100	0.090	0.070	6.950	6.280	6.220	622.000
3100	100	0.418	0.254	25.400	4.266	5.273	527.300
3200	100	0.181	0.300	29.950	6.533	5.400	539.950
3300	100	0.099	0.140	14.000	6.728	6.631	663.050
3400	100	0.018	0.059	5.850	6.836	6.782	678.200
3500	100	0.000	0.009	0.900	7.230	7.033	703.300
3600	100	0.000	0.000	0.000	7.332	7.281	728.100
3700	100	2.226	1.113	111.300	1.276	4.304	430.400
3800	100	0.482	1.354	135.400	3.636	2.456	245.600
3900	100	0.246	0.364	36.400	4.617	4.127	412.650
4000	100	0.037	0.142	14.150	4.356	4.487	448.650
4100	100	0.224	0.131	13.050	5.235	4.796	479.550
4200	100	0.089	0.157	15.650	4.332	4.784	478.350

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
4300	100	0.000	0.045	4.450	3.986	4.159	415.900
4400	100	0.000	0.000	0.000	6.427	5.207	520.650
4500	100	0.000	0.000	0.000	9.379	7.903	790.300
Total				**1426.200**			**25464.550**
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							**1426.200**
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							**25464.550**
NET QUANTITY OF EARTHWORK IN FILLING							**24038.35**

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND						
ABSTRACT OF QUANTITY OF EARTHWORK FOR KARMA DISTRIBUTARY						
Sl. No.	**Reference Clause no.**	**Particular**	**Quantity**	**Unit**	**Rate (in Rs.)**	**Amount in Rs.**
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	172584.42	Sqm	**11.80**	2037253.778
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	43794.70	Cum	**156.50**	6853870.55
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	17517.88	Cum	**17.22**	301614.3463
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	84642.80	Cum	**165.12**	13975877.22
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	25392.84	Cum	**174.89**	4440953.79
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (25% of net filling)	21160.70	Cum	**217.92**	4611339.74
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	38089.26	Cum	**319.14**	12155806.44
6	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.				
			25887.66	Cum	**196.10**	5076570.68

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
7	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	84642.80	Cum	**61.88**	5237894.92
TOTAL COST OF EARTHWORK (in Rs.)						**54691181.46**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**546.912**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR CHAURAHA MINOR						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	46194.80	Sqm	**11.80**	545301.4319
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	21667.05	Cum	**156.50**	3390893.325
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	8666.82	Cum	**17.22**	149221.0958
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	14361.40	Cum	**165.12**	2371296.35
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	4308.42	Cum	**174.89**	753499.57
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (25% of net filling)	3590.35	Cum	**217.92**	782409.07
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	6462.63	Cum	**319.14**	2062483.74
6	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.				
			6929.22	Cum	**196.10**	1358820.04

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
7	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	36028.45	Cum	**61.88**	2229524.96
TOTAL COST OF EARTHWORK (in Rs.)						**13643449.59**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**136.434**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR NEURA SURAJMAL MINOR						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	21478.25	Sqm	**11.80**	253537.638
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	1707.85	Cum	**156.50**	267278.525
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	683.14	Cum	**17.22**	11761.9726
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	16784.40	Cum	**165.12**	2771372.33
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	5035.32	Cum	**174.89**	880627.11
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (25% of net filling)	4196.10	Cum	**217.92**	914414.11
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	7552.98	Cum	**319.14**	2410458.04
6	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.				
			3776.93	Cum	**196.10**	740655.73

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
7	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	18492.25	Cum	**61.88**	1144343.79
TOTAL COST OF EARTHWORK (in Rs.)						**9394449.24**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**93.944**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR SHUSHNAR MINOR						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	20731.45	Sqm	**11.80**	244722.1196
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	1426.20	Cum	**156.50**	223200.3
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	570.48	Cum	**17.22**	9822.247458
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	24038.35	Cum	**165.12**	3969115.25
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	7211.51	Cum	**174.89**	1261220.11
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (25% of net filling)	6009.59	Cum	**217.92**	1309609.31
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	10817.26	Cum	**319.14**	3452219.56
6	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.				
			3109.72	Cum	**196.10**	609815.60

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
7	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	25464.55	Cum	**61.88**	1575806.06
TOTAL COST OF EARTHWORK (in Rs.)						**12655530.55**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**126.555**

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF CHAUHARA MINOR				
Calculation procedure of Gate's weight for estimation purpose				
1	**Weight of 1 Vertical lift gate including embedded parts**	**0.1332x(L^2XHxh)^0.659**		
	(L) is length = clear vent width in m + 0.50m.	2.500	0.500	**3.00**
	(H) is height of gate in m = clear vent height in m+ 0.20m.	1.350	0.200	**1.55**
	(h) is head of water above sill of gate in m	1.350	0.3	**1.650**
	Weight of lift gate including embedded parts	**1.05**		**T**
2	**Capacity of screw hoist in tonne including 25%reserve capacity (Hoist capacity shall be rounded off to next 1 tonne)**	**2.50 xWt of gate**		
		2.5	1.05	2.6
	Weight of screw hoist with all accessories	300 kg per tonne capacity of hoist		
		300	3	789.15
	Weight of screw hoist with all accessories	**0.79**		**T**
3	**Weight of hoist bridge:**			
(i)	Columns with bracings/Anchors/Stiffeners	400 kg per meter height		
		1.650	400	660
	Columns with bracings/Anchors/Stiffeners	**0.66**		**T**
(ii)	Beams with cross beams/stiffeners	400 kg per meter span		
		1.65	400	660
	Beams with cross beams/stiffeners	**0.66**		**T**
(iii)	Railing/ Chequered plate/Ladder etc	10% of wt. of columns/beams		
		1.32	10%	0.132
	Railing/ Chequered plate/Ladder etc	**0.132**		**T**
Total Weight of One Gate		**3.29**		**T**

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF NEURA SURAJMAL MINOR				
Calculation procedure of Gate's weight for estimation purpose				
1	**Weight of 1 Vertical lift gate including embedded parts**	**0.1332x(L^2XHxh)^0.659**		
	(L) is length = clear vent width in m + 0.50m.	1.650	0.500	**2.15**
	(H) is height of gate in m = clear vent height in m+ 0.20m.	1.115	0.200	**1.32**
	(h) is head of water above sill of gate in m	1.115	0.3	**1.415**
	Weight of lift gate including embedded parts	**0.55**		**T**
2	**Capacity of screw hoist in tone including 25%reserve capacity (Hoist**	**2.50 xWt of gate**		
		2.5	0.55	1.4
	Weight of screw hoist with all accessories	300 kg per tonne capacity of hoist		
		300	1	412.52
	Weight of screw hoist with all accessories	**0.41**		**T**
3	**Weight of hoist bridge:**			
(i)	Columns with bracings/Anchors/Stiffeners	400 kg per meter height		
		1.415	400	566
	Columns with bracings/Anchors/Stiffeners	**0.566**		**T**
(ii)	Beams with cross beams/stiffeners	400 kg per meter span		
		1.415	400	566
	Beams with cross beams/stiffeners	**0.566**		**T**
(iii)	Railing/ Chequered plate/Ladder etc	10% of wt. of columns/beams		
		1.132	10%	0.1132
	Railing/ Chequered plate/Ladder etc	**0.1132**		**T**
Total Weight of One Gate		**2.21**		**T**

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF SHUSHNAR MR.				
Calculation procedure of Gate's weight for estimation purpose				
1	**Weight of 1 Vertical lift gate including embedded parts**	**0.1332x(L^2XHxh)^0.659**		
	(L) is length = clear vent width in m + 0.50m.	1.900	0.500	**2.40**
	(H) is height of gate in m = clear vent height in m+ 0.20m.	1.250	0.200	**1.45**
	(h) is head of water above sill of gate in m	1.250	0.3	**1.550**
	Weight of lift gate including embedded parts	**0.72**		**T**
2	**Capacity of screw hoist in tone including 25%reserve capacity (Hoist**	**2.50 xWt of gate**		
		2.5	0.72	1.8
	Weight of screw hoist with all accessories	300 kg per tonne capacity of hoist		
		300	2	540.07
	Weight of screw hoist with all accessories	**0.54**		**T**
3	**Weight of hoist bridge:**			
(i)	Columns with bracings/Anchors/Stiffeners	400 kg per meter height		
		1.550	400	620
	Columns with bracings/Anchors/Stiffeners	**0.62**		**T**
(ii)	Beams with cross beams/stiffeners	400 kg per meter span		
		1.55	400	620
	Beams with cross beams/stiffeners	**0.62**		**T**
(iii)	Railing/ Chequered plate/Ladder etc	10% of wt. of columns/beams		
		1.24	10%	0.124
	Railing/ Chequered plate/Ladder etc	**0.124**		**T**
Total Weight of One Gate		**2.62**		**T**

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND ANALYSIS OF RATE OF HEAD REGULATOR GATE			
1	Cost of material **(A)** (Structural Steel WRD M-181)	Rs.	55116.67
2	Wastage **5%** =	Rs.	2755.83
3	Cost of miscellaneous material like electrodes,oxygen, acetylene nut bolt, rope	Rs.	35825.84
	Total 1+2+3= ***(B)*** =	Rs.	93698.34
4	Labour charge 30%(B) =	Rs.	28109.50
5	Overhead charge + Contractor profit **@15% A**	Rs.	8267.50
6	Workshop and energy charge ,**12 % of (B)**	Rs.	11243.80
7	Transportation and erection charge ,**15 % of B**	Rs.	14054.75
	Total = B+4+5+6+7 = ***C***	Rs.	155373.89
8	Other incidental charge , **3 % = of C**	Rs.	4661.22
	Total C+8 = D	Rs.	**160035.11**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
ABSTRACT OF COST HR FOR CHAUHARA MR OFFTAKING FROM RD-0+150 KM (L.) AT KARMA DISTRIBUTARY								
S. No.	**Item of Works**	**Qty.**	**Unit**	**Rate (As per WRD SOR 2025 & PL 2025)**	**Amount (Rs)**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	211.194	Cum	**156.50**	33051.86			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	23.92	Cum	**6381.70**	152660.51	7.75	10.76	21.53
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	124.80	Cum	**6914.20**	862862.56	51.48	53.66	107.32
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	22.85	Cum	**8151.40**	186299.17	12.96	8.91	18.06

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.32	MT	**73574.90**	244216.16			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	3.29	MT	**160035.11**	527053.15			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	368.56	Sqm	**578.60**	213249.08			
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	14.40	Sqm	**680.10**	9793.44			
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry. (WRD M-002)	5.13	Cum	**694.61**	3563.35			
10	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	5.13	Cum	**1237.00**	6345.81			
11	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)	1.65	Cum	**1377.70**	2273.21			
12	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.65	Cum	**516.50**	852.23			
13	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	3.77	Sqm	**63.20**	238.04			
14	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	Cum	**5588.70**	11177.40			
15	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (3.18 PWD NH SOR CHHATISGARH 2025)	4.20	Sqm	**66.00**	277.20			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
16	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications. (RCD 15.22 - (ii))	10.50	RM	**499.80**	5247.90			
17	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	48.14	Sqm	**149.30**	7186.66			
18	**Carriage of materials**							
	Coarse Sand (60 Km lead)	73.340	Cum	**1075.00**	78840.80			
	Coarse Aggregates (100 Km lead)	148.559	Cum	**1398.00**	207685.63			
	Cement (30 km lead)	72.188	MT	**742.00**	53563.16			
	Boulder (60 Km lead)	5.13	Cum	**1159.00**	5945.67			
	Steel (30 Km lead)	6.61	MT	**742.00**	4906.58			
TOTAL (In Rs.)					**2617289.57**			
TOTAL (In Rs.)					**2617289.57**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	73.34	Cum	**584.64**	42877.66	4287.77		
	Coarse Aggregate	148.56	Cum	**944.26**	140278.42	14027.84		
	Boulders	5.13	Cum	**694.61**	3563.35	356.33		
	Total					18671.94		
	For 1 nos. HR, Total Seigniorage charges					**18671.94**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST HR FOR NEURA SURAJMAL MR OFFTAKING FROM RD-3+150 KM (L.) AT KARMA DISTRIBUTARY								
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	127.460	Cum	**156.50**	19947.53			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	19.00	Cum	**6381.70**	121239.42	6.16	8.55	17.10
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	73.20	Cum	**6914.20**	506109.05	30.19	31.48	62.95
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	18.36	Cum	**8151.40**	149665.09	10.41	7.16	14.50

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.24	MT	**73574.90**	164558.13			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	2.21	MT	**160035.11**	353315.18			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	263.08	Sqm	**578.60**	152217.88			
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	11.67	Sqm	**680.10**	7936.77			
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry. (WRD M-002)	2.84	Cum	**694.61**	1969.22			
10	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	2.84	Cum	**1237.00**	3506.90			
11	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)	1.09	Cum	**1377.70**	1500.32			
12	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.09	Cum	**516.50**	562.47			
13	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	3.33	Sqm	**63.20**	210.18			
14	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	Cum	**5588.70**	11177.40			
15	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (3.18 PWD NH SOR CHHATISGARH 2025)	4.20	Sqm	**66.00**	277.20			
16	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications. (RCD 15.22 - (ii))	10.50	RM	**499.80**	5247.90			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
17	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	24.67	Sqm	**149.30**	3683.52			
18	**Carriage of materials**							
	Coarse Sand (60 Km lead)	47.185	Cum	**1075.00**	50723.99			
	Coarse Aggregates (100 Km lead)	95.643	Cum	**1398.00**	133708.65			
	Cement (30 km lead)	46.760	MT	**742.00**	34696.08			
	Boulder (60 Km lead)	2.84	Cum	**1159.00**	3285.77			
	Steel (30 Km lead)	4.44	MT	**742.00**	3297.70			
TOTAL (In Rs.)					**1728836.34**			
TOTAL (In Rs.)					**1728836.34**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	47.19	Cum	**584.64**	27586.30	2758.63		
	Coarse Aggregate	95.64	Cum	**944.26**	90311.68	9031.17		
	Boulders	2.84	Cum	**694.61**	1969.22	196.92		
	Total					11986.72		
	For 1 nos. HR, Total Seigniorage charges					**11986.72**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST HR FOR SHUSHNAR OFFTAKING FROM RD-18+342 KM (L.) AT KARMA DISTRIBUTARY CANAL								
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	137.113	Cum	**156.50**	21458.22			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	19.58	Cum	**6381.70**	124977.47	6.35	8.81	17.63
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	81.51	Cum	**6914.20**	563570.37	33.62	35.05	70.10
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	20.16	Cum	**8151.40**	164372.44	11.43	7.86	15.93

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.30	MT	**73574.90**	169211.82			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	2.62	MT	**160035.11**	419960.10			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	279.09	Sqm	**578.60**	161482.75			
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	12.77	Sqm	**680.10**	8687.60			
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry. (WRD M-002)	3.51	Cum	**694.61**	2438.08			
10	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	3.51	Cum	**1237.00**	4341.87			
11	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)	1.25	Cum	**1377.70**	1727.64			
12	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.25	Cum	**516.50**	647.69			
13	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	3.71	Sqm	**63.20**	234.28			
14	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	Cum	**5588.70**	11177.40			
15	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (3.18 PWD NH SOR CHHATISGARH 2025)	4.20	Sqm	**66.00**	277.20			
16	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications. (RCD 15.22 - (ii))	10.50	RM	**499.80**	5247.90			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
17	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	26.00	Sqm	**149.30**	3882.44			
18	**Carriage of materials**							
	Coarse Sand (60 Km lead)	51.726	Cum	**1075.00**	55605.37			
	Coarse Aggregates (100 Km lead)	104.907	Cum	**1398.00**	146660.68			
	Cement (30 km lead)	51.401	MT	**742.00**	38139.66			
	Boulder (60 Km lead)	3.51	Cum	**1159.00**	4068.09			
	Steel (30 Km lead)	4.92	MT	**742.00**	3653.63			
TOTAL (In Rs.)					**1911822.70**			
TOTAL (In Rs.)					**₹ 19,11,827.70**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	51.73	Cum	**584.64**	30241.04	3024.10		
	Coarse Aggregate	104.91	Cum	**944.26**	99059.95	9906.00		
	Boulders	3.51	Cum	**694.61**	2438.08	243.81		
	Total					13173.91		
	For 1 nos. HR, Total Seigniorage charges					**13173.91**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILS OF QUANTITIES OF HR FOR CHAUHARA MR OFFTAKING FROM RD-0+150 KM (L.) AT KARMA DISTRIBUTARY							
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section A-A	*2*	*1.17*	*1.73*	*3.050*	*12.294*	*Cum*
	Section B-B	*2*	*5.25*	*2.28*	*3.174*	*76.119*	*Cum*
	Section C-C	*2*	*0.51*	*2.10*	*3.174*	*6.812*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*3.39*	*1.36*	*3.050*	*14.076*	*Cum*
	Left Bank Sec a to d	1	3.66	2.71	2.200	*21.821*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.51*	*1.10*	*3.300*	*3.732*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.78*	*2.07*	*3.300*	*38.035*	*Cum*
	Floor						
	U/S key	*1*	*1.4625*	*3.915*	*0.850*	*4.867*	*Cum*
	Floor	*1*	*3.75*	*3.915*	*0.650*	*9.543*	*Cum*
		1	*0.318*	*2.5*	*0.450*	*0.358*	*Cum*
		1	*0.618*	*2.5*	*0.350*	*0.541*	*Cum*
		1	*0.0927*	*2.5*	*0.000*	*0.232*	*Cum*
		1	*3.07*	*2.5*	*0.950*	*7.291*	*Cum*
		1	*0.9*	*2.5*	*0.200*	*0.450*	*Cum*
		2	*0.135*	*2.5*	*0.200*	*0.135*	*Cum*
		1	*1.392*	*2.5*	*0.650*	*2.262*	*Cum*
		1	*0.775*	*2.5*	*0.850*	*1.647*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*1*	*2.200*	*2.500*	*0.600*	*3.300*	*Cum*
	Toe Wall Base D/S Portion	*1*	*2.500*	*0.850*	*1.200*	*2.550*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*3.000*	*1.900*	*0.900*	*5.130*	*Cum*
						211.19	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor						
		1	*0.624*	*4.490*	*0.150*	*0.42*	*Cum*
		1	*1.861*	*3.077*	*0.150*	*0.86*	*Cum*
		1	*1.374*	*2.500*	*0.150*	*0.52*	*Cum*
		1	*0.670*	*2.500*	*0.150*	*0.25*	*Cum*
		1	*3.238*	*2.500*	*0.150*	*1.21*	*Cum*
		1	*0.948*	*2.500*	*0.150*	*0.36*	*Cum*
		1	*0.244*	*2.500*	*0.150*	*0.09*	*Cum*
		1	*0.782*	*2.500*	*0.150*	*0.29*	*Cum*
		1	*0.692*	*2.500*	*0.150*	*0.26*	*Cum*
	PCC Below Abutment						
	Section A-A	*2*	*1.165*	*1.730*	*0.300*	*1.21*	*Cum*
	Section B-B	*2*	*5.250*	*2.284*	*0.300*	*7.19*	*Cum*
	Section C-C	*2*	*0.510*	*2.104*	*0.300*	*0.64*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*3.394*	*1.360*	*0.300*	*1.38*	*Cum*
	Left Bank Sec a to d	*1*	*3.660*	*2.710*	*0.150*	*1.49*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.514*	*1.100*	*0.300*	*0.34*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.780*	*2.073*	*0.300*	*3.46*	*Cum*
	Toe Wall Base D/S Portion	*1*	*2.500*	*0.850*	*0.300*	*0.64*	*Cum*
	Toe Wall Stem D/S Portion	*1*	*2.500*	*0.450*	*0.900*	*1.01*	*Cum*
	Toe Wall Base (For Brick Pitching)	*1*	*3.000*	*0.450*	*0.300*	*0.41*	*Cum*
	Toe Wall Stem (For Brick Pitching)	*1*	*3.000*	*0.300*	*0.900*	*0.81*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*10*	*0.600*	*0.600*	*0.300*	*1.08*	*Cum*
	TOTAL					**23.92**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section A-A	*2*	*1.17*	*0.82*	*0.50*	*0.96*	*Cum*
		2	*1.17*	*1.08*	*0.85*	*2.13*	*Cum*
		2	*1.17*	*1.33*	*1.40*	*4.34*	*Cum*
	Section B-B	*2*	*5.25*	*1.35*	*1.77*	*25.18*	*Cum*
		2	*5.25*	*1.88*	*1.10*	*21.76*	*Cum*
	Section C-C	*2*	*0.51*	*1.26*	*1.47*	*1.90*	*Cum*
		2	*0.51*	*1.70*	*1.40*	*2.43*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*3.39*	*0.45*	*0.50*	*0.76*	*Cum*
		1	*3.39*	*0.71*	*0.85*	*2.03*	*Cum*
		1	*3.39*	*0.96*	*1.40*	*4.56*	*Cum*
	Left Bank						
	Section a-a	*1*		2.805	*0.50*	*1.40*	*Sqm*
		1		*2.66*	*0.20*	*0.53*	*Sqm*
		1		*1.49*	*1.35*	*2.01*	*Sqm*
						3.95	***Sqm***
	Section b-b	*1*		*2.81*	*0.50*	*1.40*	*Sqm*
		1		*2.29*	*0.20*	*0.46*	*Sqm*
		1		*1.38*	*1.35*	*1.87*	*Sqm*
						3.73	***Sqm***
	Section c-c	*1*		*2.81*	*0.50*	*1.40*	*Sqm*
		1		*1.81*	*0.20*	*0.36*	*Sqm*
		1		*1.15*	*1.35*	*1.55*	*Sqm*
						3.31	***Sqm***
	Section d-d	*1*		*2.81*	*0.50*	*1.40*	*Sqm*
		1		*0.48*	*0.20*	*0.10*	*Sqm*
		1		*0.48*	*1.35*	*0.65*	*Sqm*
						2.15	***Sqm***
	Bottom Key	*1*	*3.66*	*1.46*	*0.70*	*3.75*	*Cum*
	Top Stem Area	*1*	*3.66*	*3.28*		*12.02*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.51*	*0.70*	*0.90*	*0.65*	*Cum*
		2	*0.51*	*0.53*	*1.60*	*0.86*	*Cum*
		2	*0.51*	*0.35*	*0.50*	*0.18*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.78*	*1.67*	*0.90*	*8.37*	*Cum*
		2	*2.78*	*1.22*	*1.60*	*10.87*	*Cum*
		2	*2.78*	*0.67*	*0.50*	*1.85*	*Cum*
	TOTAL					**104.61**	**Cum**
	Floor						
	U/S key	*1*	*1.46*	*3.92*	*0.70*	*4.01*	*Cum*
	Floor	*1*	*3.75*	*3.92*	*0.50*	*7.34*	*Cum*
		1	*0.32*	*2.50*	*0.30*	*0.24*	*Cum*
		1	*0.62*	*2.50*	*0.20*	*0.31*	*Cum*
		1	*0.09*	*2.50*		*0.23*	*Cum*
		1	*3.07*	*2.50*	*0.50*	*3.84*	*Cum*
		1	*0.90*	*2.50*	*0.20*	*0.45*	*Cum*
		2	*0.14*	*2.50*		*0.68*	*Cum*
		1	*1.39*	*2.50*	*0.50*	*1.74*	*Cum*
	D/S key	*1*	*0.78*	*2.50*	*0.70*	*1.36*	*Cum*
	TOTAL					**124.80**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Over Floor	*1*	*3.76*	*3.92*	*0.20*	*2.94*	*Cum*
		1	*0.67*	*2.50*	*0.20*	*0.34*	*Cum*
		1	*3.08*	*2.50*	*0.20*	*1.54*	*Cum*
		1	*0.95*	*2.50*	*0.20*	*0.47*	*Cum*
		1	*1.39*	*2.50*	*0.20*	*0.70*	*Cum*
	Top Slab	*1*	*5.25*	*3.30*	*0.39*	*6.77*	*Cum*
	75mm Th. Wearing coat on top slab	*1*	*4.25*	*3.30*	*0.08*	*1.05*	*Cum*
	Dirt wall	*2*	*5.76*	0.82	*0.50*	*4.72*	*Cum*
		2	*5.76*	*0.40*	*0.43*	*1.96*	*Cum*
	Parapet	*2*	*4.14*	*0.45*	*0.18*	*0.65*	*Cum*
		2	*4.14*	*0.35*	*0.25*	*0.73*	*Cum*
		2	*4.14*	*0.22*	*0.55*	*1.00*	*Cum*
	TOTAL					**22.85**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	**Length**	**Nos.**		**Weight per m**	**Quantity**	**Unit**
	Slab Per Span						
a1	*16*	*3.760*	*29*		*1.578*	*172.080*	*Kg*
a2	*10*	*5.650*	*17*		*0.616*	*59.211*	*Kg*
a3	*10*	*5.150*	*2*		*0.616*	*6.350*	*Kg*
a4	*10*	*3.680*	*18*		*0.616*	*40.834*	*Kg*
a5	*10*	*5.550*	*12*		*0.616*	*41.056*	*Kg*
	Dirt Wall						
d1	*12*	*4.460*	*26*		*0.888*	*102.938*	*Kg*
d2	*12*	*5.550*	*14*		*0.888*	*68.975*	*Kg*
	Crash Barrier						
x1	*12*	*2.501*	*54*		*0.888*	*119.888*	*Kg*
x2	*16*	*1.265*	*54*		*1.578*	*107.803*	*Kg*
x3	*10*	*2.850*	*24*		*0.616*	*42.166*	*Kg*
	Floor R/F						
	U/S Key						
	12	*7.386*	*10*		*0.888*	*65.566*	*Kg*
	12	*3.200*	*28*		*0.888*	*79.538*	*Kg*
	floor raft						
	12	*3.918*	*10*		*0.888*	*34.780*	*Kg*
	12	*7.594*	*20*		*0.888*	*134.824*	*Kg*
	12	*3.200*	*67*		*0.888*	*190.324*	*Kg*
	0.25 % Skin Reinforcement for Transition walls	*104.61*	*0.25%*	*0.26*	*7850*	*2052.95*	*Kg*
	TOTAL Weight of steel (in kg)					3319.29	Kg
	TOTAL Weight of Steel (in Tonne)					**3.32**	**MT**
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1		3.29		**3.29**	**MT**
	*Separate sheet attached						
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section A-A	*4*	*1.17*		*0.50*	*2.33*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*1.17*		*0.85*	*3.96*	*Sqm*
		4		*1.08*	*0.85*	*3.66*	*Sqm*
		4	*1.17*		*1.40*	*6.52*	*Sqm*
		4		*1.33*	*1.40*	*7.45*	*Sqm*
	Section B-B	*4*	*5.25*		*1.77*	*37.25*	*Sqm*
		4		*1.35*	*1.77*	*9.59*	*Sqm*
		4	*5.25*		*1.10*	*23.10*	*Sqm*
		4		*1.88*	*1.10*	*8.29*	*Sqm*
	Section C-C	*4*	*0.51*		*1.47*	*3.01*	*Sqm*
		4		*1.26*	*1.47*	*7.44*	*Sqm*
		4	*0.51*		*1.40*	*2.86*	*Sqm*
		4		*1.70*	*1.40*	*9.54*	*Sqm*
	U/S Transition wall						
	Right Bank (Section D-D)	*2*	*3.39*		*0.50*	*3.39*	*Sqm*
		2		*0.45*	*0.50*	*0.45*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	3.39		0.85	5.77	Sqm
		2		0.71	0.85	1.20	Sqm
		2	3.39		1.40	9.50	Sqm
		2		0.96	1.40	2.69	Sqm
	Left Bank						
	Bottom Key	2	3.66		0.70	5.12	Sqm
		2		1.46	0.70	2.05	Sqm
	Section a-a	2	1.22		0.50	1.22	Sqm
		2		2.81	0.50	2.81	Sqm
		2	1.22		0.20	0.49	Sqm
		2		2.66	0.20	1.06	Sqm
		2	1.22		1.35	3.29	Sqm
		2		1.49	1.35	4.03	Sqm
	Section b-b	2	1.22		0.50	1.22	Sqm
		2		2.81	0.50	2.81	Sqm
		2	1.22		0.20	0.49	Sqm
		2		2.29	0.20	0.91	Sqm
		2	1.22		1.35	3.29	Sqm
		2		1.38	1.35	3.74	Sqm
	Section c-c	2	1.22		0.50	1.22	Sqm
		2		2.81	0.50	2.81	Sqm
		2	1.22		0.20	0.49	Sqm
		2		1.81	0.20	0.72	Sqm
		2	1.22		1.35	3.29	Sqm
		2		1.15	1.35	3.09	Sqm
	Section d-d	2	1.22		0.50	1.22	Sqm
		2		2.81	0.50	2.81	Sqm
		2	1.22		0.20	0.49	Sqm
		2		0.48	0.20	0.19	Sqm
		2	1.22		1.35	3.29	Sqm
		2		0.48	1.35	1.30	Sqm
	D/S Transition wall						
	Sec 4-4	4	0.51		0.90	1.85	Sqm
		4		0.70	0.90	2.52	Sqm
		4	0.51		1.60	3.29	Sqm
		4		0.53	1.60	3.36	Sqm
		4	0.51		0.50	1.03	Sqm
		4		0.35	0.50	0.70	Sqm
	Avg. of Sec 1-1 & 3-3	4	2.78		0.90	10.01	Sqm
		4		1.67	0.90	6.02	Sqm
		4	2.78		1.60	17.79	Sqm
		4		1.22	1.60	7.82	Sqm
		4	2.78		0.50	5.56	Sqm
		4		0.67	0.50	1.33	Sqm
	Floor						
	U/S key	2	1.46		0.70	2.05	Sqm
		2		3.92	0.70	5.48	Sqm
	Floor	2	3.75		0.50	3.75	Sqm
		2		3.92	0.50	3.92	Sqm
		2	0.32		0.30	0.19	Sqm
		2		2.50	0.30	1.50	Sqm
		2	0.62		0.20	0.25	Sqm
		2		2.50	0.20	1.00	Sqm
		2	0.09		0.00	0.19	Sqm
		2		2.50	0.00	5.00	Sqm
		2	3.07		0.50	3.07	Sqm
		2		2.50	0.50	2.50	Sqm
		2	0.90		0.20	0.36	Sqm
		2		2.50	0.20	1.00	Sqm
		4	0.14			0.54	Sqm
		4		2.50		10.00	Sqm
		2	1.39		0.50	1.39	Sqm
		2		2.50	0.50	2.50	Sqm
	D/S key	2	0.78		0.70	1.09	Sqm
		2		2.50	0.70	3.50	Sqm
	Toe Wall Base D/S Portion	2	2.50		0.30	1.50	Sqm
		2		0.85	0.30	0.51	Sqm
	Toe Wall Stem D/S Portion	2	2.50		0.90	4.50	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.45*	*0.90*	*0.81*	*Sqm*
	Top Slab	*2*	*5.25*		*0.39*	*4.10*	*Sqm*
		2		*3.30*	*0.39*	*2.58*	*Sqm*
	Dirt wall	*4*	*5.76*		*0.50*	*11.52*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*5.76*		*0.43*	*9.79*	*Sqm*
		4		*0.40*	*0.43*	*0.68*	*Sqm*
	Parapet	*4*	*4.14*		*0.18*	*2.90*	*Sqm*
		4		*0.45*	*0.18*	*0.31*	*Sqm*
		4	*4.14*		*0.25*	*4.14*	*Sqm*
		4		*0.35*	*0.25*	*0.35*	*Sqm*
		4	*4.14*		*0.55*	*9.11*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**368.56**	**Sqm**
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.00*	*2.40*		*14.40*	*Sqm*
	TOTAL					**14.40**	**Sqm**
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.**(WRD M-002)**						
	Boulder Apron in D/S Portion	*1*	*3.00*	*1.90*	*0.90*	*5.13*	***Cum***
	TOTAL					**5.13**	**Cum**
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)						
	In D/S Portion below C.C. Blocks	*1*	*2.20*	*2.50*	*0.15*	*0.83*	*Cum*
	In D/S Portion below Stone Chips	*1*	*2.20*	*2.50*	*0.15*	*0.83*	*Cum*
	TOTAL					**1.65**	**Cum**
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	U/S transition	*2*	*2.03*	*0.48*		*1.94*	*Sqm*
	On Abutment Top	*2*	*4.36*	*0.45*		*1.82*	*Sqm*
	TOTAL					**3.77**	**Sqm**
12	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2	1			**2.00**	**No.**
13	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications**. (3.18 PWD NH SOR CHHATISGARH 2025)**	2	5.25	0.40		**4.20**	**Sqm**
14	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications. **(RCD 15.22 - (ii))**	2	5.25			**10.50**	**RM**
15	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compa.cted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Abutment						
	Section A-A	*2*	*1.17*	*1.13*		*2.633*	*Cum*
	Section B-B	*2*	*5.25*	*2.74*		*28.770*	*Cum*
	Section C-C	*2*	*0.51*	*2.34*		*2.387*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	1	*3.39*	*1.02*		*3.465*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.51*	*1.06*		*1.085*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.78*	*1.76*		*9.797*	*Cum*
	TOTAL					**48.14**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF HR FOR NEURA SURAJMAL MR OFFTAKING FROM RD-3+150 KM (L.) AT KARMA DISTRIBUTARY							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section A-A	*2*	*1.63*	*1.59*	*2.653*	*13.743*	*Cum*
	Section B-B	*2*	*5.25*	*1.67*	*1.990*	*34.895*	*Cum*
	Section C-C	*2*	*0.50*	*2.11*	*1.990*	*4.197*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*3.36*	*1.22*	*2.653*	*10.856*	*Cum*
	Left Bank Sec a to d	1	3.10	2.62	1.963	*15.936*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.49*	*1.10*	*2.191*	*2.362*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.61*	*1.86*	*2.191*	*21.267*	*Cum*
	Floor						
	U/S key	*1*	*1.2845*	*2.6865*	*0.850*	*2.933*	*Cum*
	Floor	*1*	*3.304*	*2.6865*	*0.650*	*5.770*	*Cum*
		1	*0.418*	*1.65*	*0.450*	*0.310*	*Cum*
		1	*0.598*	*1.65*	*0.350*	*0.345*	*Cum*
		1	*0.0897*	*1.65*	*0.000*	*0.148*	*Cum*
		1	*3.079*	*1.65*	*0.950*	*4.826*	*Cum*
		1	*0.9*	*1.65*	*0.200*	*0.297*	*Cum*
		2	*0.135*	*1.65*	*0.200*	*0.089*	*Cum*
		1	*1.822*	*1.65*	*0.650*	*1.954*	*Cum*
		1	*0.735*	*1.65*	*0.690*	*0.837*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*1*	*2.200*	*1.650*	*0.600*	*2.178*	*Cum*
	Toe Wall Base D/S Portion	*1*	*1.650*	*0.850*	*1.200*	*1.683*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*3.000*	*1.050*	*0.900*	*2.835*	*Cum*
						127.46	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor						
		1	*0.629*	*3.055*	*0.150*	*0.29*	*Cum*
		1	*1.538*	*2.019*	*0.150*	*0.47*	*Cum*
		1	*1.269*	*1.650*	*0.150*	*0.31*	*Cum*
		1	*0.670*	*1.650*	*0.150*	*0.17*	*Cum*
		1	*3.338*	*1.650*	*0.150*	*0.83*	*Cum*
		1	*0.973*	*1.650*	*0.150*	*0.24*	*Cum*
		1	*0.753*	*1.650*	*0.150*	*0.19*	*Cum*
		1	*0.613*	*1.650*	*0.150*	*0.15*	*Cum*
		1	*0.692*	*1.650*	*0.150*	*0.17*	*Cum*
	PCC Below Abutment						
	Section A-A	*2*	*1.631*	*1.588*	*0.300*	*1.55*	*Cum*
	Section B-B	*2*	*5.250*	*1.670*	*0.300*	*5.26*	*Cum*
	Section C-C	*2*	*0.500*	*2.109*	*0.300*	*0.63*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*3.360*	*1.218*	*0.300*	*1.23*	*Cum*
	Left Bank Sec a to d	*1*	*3.102*	*2.617*	*0.150*	*1.22*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.490*	*1.100*	*0.300*	*0.32*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.610*	*1.860*	*0.300*	*2.91*	*Cum*
	Toe Wall Base D/S Portion	*1*	*1.650*	*0.850*	*0.300*	*0.42*	*Cum*
	Toe Wall Stem D/S Portion	*1*	*1.650*	*0.450*	*0.900*	*0.67*	*Cum*
	Toe Wall Base (For Brick Pitching)	*1*	*3.000*	*0.450*	*0.300*	*0.41*	*Cum*
	Toe Wall Stem (For Brick Pitching)	*1*	*3.000*	*0.300*	*0.900*	*0.81*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*7*	*0.600*	*0.600*	*0.300*	*0.76*	*Cum*
	TOTAL					**19.00**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section A-A	*2*	*1.63*	*0.82*	*0.50*	*1.34*	*Cum*
		2	*1.63*	*1.00*	*0.61*	*2.01*	*Cum*
		2	*1.63*	*1.19*	*1.24*	*4.81*	*Cum*
	Section B-B	*2*	*5.25*	*1.05*	*0.75*	*8.23*	*Cum*
		2	*5.25*	*1.27*	*0.94*	*12.53*	*Cum*
	Section C-C	*2*	*0.50*	*0.96*	*0.45*	*0.43*	*Cum*
		2	*0.50*	*1.09*	*1.24*	*1.35*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*3.36*	*0.45*	*0.50*	*0.76*	*Cum*
		1	*3.36*	*0.63*	*0.61*	*1.31*	*Cum*
		1	*3.36*	*0.82*	*1.24*	*3.41*	*Cum*
	Left Bank						
	Section a-a	*1*		*2.45*	*0.50*	*1.23*	*Sqm*
		1		*2.30*	*0.20*	*0.46*	*Sqm*
		1		*1.31*	*1.11*	*1.46*	*Sqm*
						3.15	***Sqm***
	Section b-b	*1*		*2.45*	*0.50*	*1.23*	*Sqm*
		1		*2.09*	*0.20*	*0.42*	*Sqm*
		1		*1.28*	*1.11*	*1.43*	*Sqm*
						3.07	***Sqm***
	Section c-c	*1*		*2.45*	*0.50*	*1.23*	*Sqm*
		1		*1.67*	*0.20*	*0.33*	*Sqm*
		1		*1.15*	*1.11*	*1.28*	*Sqm*
						2.83	***Sqm***
	Section d-d	*1*		*2.45*	*0.50*	*1.23*	*Sqm*
		1		*0.48*	*0.20*	*0.10*	*Sqm*
		1		*0.48*	*1.11*	*0.53*	*Sqm*
						1.86	***Sqm***
	Bottom Key	*1*	*3.10*	*1.29*	*0.70*	*2.79*	*Cum*
	Top Stem Area	*1*	*3.10*	*2.73*		*8.46*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.49*	*0.70*	*0.94*	*0.65*	*Cum*
		2	*0.49*	*0.53*	*0.45*	*0.23*	*Cum*
		2	*0.49*	*0.35*	*0.50*	*0.17*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.61*	*1.46*	*0.94*	*7.17*	*Cum*
		2	*2.61*	*1.19*	*0.45*	*2.80*	*Cum*
		2	*2.61*	*0.74*	*0.50*	*1.92*	*Cum*
	TOTAL					**60.35**	**Cum**
	Floor						
	U/S key	*1*	*1.28*	*2.69*	*0.70*	*2.42*	*Cum*
	Floor	*1*	*3.30*	*2.69*	*0.50*	*4.44*	*Cum*
		1	*0.42*	*1.65*	*0.30*	*0.21*	*Cum*
		1	*0.60*	*1.65*	*0.20*	*0.20*	*Cum*
		1	*0.09*	*1.65*		*0.15*	*Cum*
		1	*3.08*	*1.65*	*0.50*	*2.54*	*Cum*
		1	*0.90*	*1.65*	*0.20*	*0.30*	*Cum*
		2	*0.14*	*1.65*		*0.45*	*Cum*
		1	*1.82*	*1.65*	*0.50*	*1.50*	*Cum*
	D/S key	*1*	*0.74*	*1.65*	*0.54*	*0.65*	*Cum*
	TOTAL					**73.20**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Over Floor	*1*	*3.45*	*2.69*	*0.20*	*1.85*	*Cum*
		1	*0.67*	*1.65*	*0.20*	*0.22*	*Cum*
		1	*3.08*	*1.65*	*0.20*	*1.02*	*Cum*
		1	*0.95*	*1.65*	*0.20*	*0.31*	*Cum*
		1	*1.82*	*1.65*	*0.20*	*0.60*	*Cum*
	Top Slab	*1*	*5.25*	*2.45*	*0.39*	*5.02*	*Cum*
	75mm Th. Wearing coat on top slab	*1*	*4.25*	*2.45*	*0.08*	*0.78*	*Cum*
	Dirt wall	*2*	*5.75*	0.82	*0.50*	*4.72*	*Cum*
		2	*5.75*	*0.40*	*0.43*	*1.96*	*Cum*
	Parapet	*2*	*3.29*	*0.45*	*0.18*	*0.51*	*Cum*
		2	*3.29*	*0.35*	*0.25*	*0.58*	*Cum*
		2	*3.29*	*0.22*	*0.55*	*0.79*	*Cum*
	TOTAL					**18.36**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	**Length**	**Nos.**		**Weight per m**	**Quantity**	**Unit**
	Slab Per Span						
a1	*16*	*2.910*	*29*		*1.578*	*133.179*	*Kg*
a2	*10*	*5.650*	*12*		*0.616*	*41.796*	*Kg*
a3	*10*	*5.150*	*2*		*0.616*	*6.350*	*Kg*
a4	*10*	*3.680*	*18*		*0.616*	*40.834*	*Kg*
a5	*10*	*5.550*	*9*		*0.616*	*30.792*	*Kg*
	Dirt Wall						
d1	*12*	*4.460*	*26*		*0.888*	*102.938*	*Kg*
d2	*12*	*5.550*	*14*		*0.888*	*68.975*	*Kg*
	Crash Barrier						
x1	*12*	*2.472*	*54*		*0.888*	*118.498*	*Kg*
x2	*16*	*1.294*	*54*		*1.578*	*110.274*	*Kg*
x3	*10*	*2.350*	*24*		*0.616*	*34.768*	*Kg*
	Floor R/F						
	U/S Key						
	12	*6.707*	*7*		*0.888*	*41.677*	*Kg*
	12	*2.350*	*25*		*0.888*	*52.153*	*Kg*
	floor raft						
	12	*3.510*	*7*		*0.888*	*21.811*	*Kg*
	12	*8.050*	*14*		*0.888*	*100.044*	*Kg*
	12	*2.350*	*71*		*0.888*	*148.113*	*Kg*
	0.25 % Skin Reinforcement for Transition walls	*60.35*	*0.25%*	*0.15*	*7850*	*1184.41*	*Kg*
	TOTAL Weight of steel (in kg)					2236.61	Kg
	TOTAL Weight of Steel (in Tonne)					**2.24**	**MT**
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1		2.21		**2.21**	**MT**
	*Separate sheet attached						
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section A-A	*4*	*1.63*		*0.50*	*3.26*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*1.63*		*0.61*	*4.00*	*Sqm*
		4		*1.00*	*0.61*	*2.46*	*Sqm*
		4	*1.63*		*1.24*	*8.09*	*Sqm*
		4		*1.19*	*1.24*	*5.89*	*Sqm*
	Section B-B	*4*	*5.25*		*0.75*	*15.75*	*Sqm*
		4		*1.05*	*0.75*	*3.14*	*Sqm*
		4	*5.25*		*0.94*	*19.74*	*Sqm*
		4		*1.27*	*0.94*	*4.78*	*Sqm*
	Section C-C	*4*	*0.50*		*0.45*	*0.90*	*Sqm*
		4		*0.96*	*0.45*	*1.72*	*Sqm*
		4	*0.50*		*1.24*	*2.48*	*Sqm*
		4		*1.09*	*1.24*	*5.41*	*Sqm*
	U/S Transition wall						
	Right Bank (Section D-D)	*2*	*3.36*		*0.50*	*3.36*	*Sqm*
		2		*0.45*	*0.50*	*0.45*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	3.36		0.61	4.12	Sqm
		2		0.63	0.61	0.78	Sqm
		2	3.36		1.24	8.33	Sqm
		2		0.82	1.24	2.03	Sqm
	Left Bank						
	Bottom Key	2	3.10		0.70	4.34	Sqm
		2		1.29	0.70	1.80	Sqm
	Section a-a	2	1.03		0.50	1.03	Sqm
		2		2.45	0.50	2.45	Sqm
		2	1.03		0.20	0.41	Sqm
		2		2.30	0.20	0.92	Sqm
		2	1.03		1.11	2.30	Sqm
		2		1.31	1.11	2.92	Sqm
	Section b-b	2	1.03		0.50	1.03	Sqm
		2		2.45	0.50	2.45	Sqm
		2	1.03		0.20	0.41	Sqm
		2		2.09	0.20	0.84	Sqm
		2	1.03		1.11	2.30	Sqm
		2		1.28	1.11	2.86	Sqm
	Section c-c	2	1.03		0.50	1.03	Sqm
		2		2.45	0.50	2.45	Sqm
		2	1.03		0.20	0.41	Sqm
		2		1.67	0.20	0.67	Sqm
		2	1.03		1.11	2.30	Sqm
		2		1.15	1.11	2.55	Sqm
	Section d-d	2	1.03		0.50	1.03	Sqm
		2		2.45	0.50	2.45	Sqm
		2	1.03		0.20	0.41	Sqm
		2		0.48	0.20	0.19	Sqm
		2	1.03		1.11	2.30	Sqm
		2		0.48	1.11	1.07	Sqm
	D/S Transition wall						
	Sec 4-4	4	0.49		0.94	1.84	Sqm
		4		0.70	0.94	2.63	Sqm
		4	0.49		0.45	0.88	Sqm
		4		0.53	0.45	0.95	Sqm
		4	0.49		0.50	0.98	Sqm
		4		0.35	0.50	0.70	Sqm
	Avg. of Sec 1-1 & 3-3	4	2.61		0.94	9.82	Sqm
		4		1.46	0.94	5.49	Sqm
		4	2.61		0.45	4.70	Sqm
		4		1.19	0.45	2.14	Sqm
		4	2.61		0.50	5.22	Sqm
		4		0.74	0.50	1.47	Sqm
	Floor						
	U/S key	2	1.28		0.70	1.80	Sqm
		2		2.69	0.70	3.76	Sqm
	Floor	2	3.30		0.50	3.30	Sqm
		2		2.69	0.50	2.69	Sqm
		2	0.42		0.30	0.25	Sqm
		2		1.65	0.30	0.99	Sqm
		2	0.60		0.20	0.24	Sqm
		2		1.65	0.20	0.66	Sqm
		2	0.09		0.00	0.18	Sqm
		2		1.65	0.00	3.30	Sqm
		2	3.08		0.50	3.08	Sqm
		2		1.65	0.50	1.65	Sqm
		2	0.90		0.20	0.36	Sqm
		2		1.65	0.20	0.66	Sqm
		4	0.14			0.54	Sqm
		4		1.65		6.60	Sqm
		2	1.82		0.50	1.82	Sqm
		2		1.65	0.50	1.65	Sqm
	D/S key	2	0.74		0.54	0.79	Sqm
		2		1.65	0.54	1.78	Sqm
	Toe Wall Base D/S Portion	2	1.65		0.30	0.99	Sqm
		2		0.85	0.30	0.51	Sqm
	Toe Wall Stem D/S Portion	2	1.65		0.90	2.97	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.45*	*0.90*	*0.81*	*Sqm*
	Top Slab	*2*	*5.25*		*0.39*	*4.10*	*Sqm*
		2		*2.45*	*0.39*	*1.91*	*Sqm*
	Dirt wall	*4*	*5.75*		*0.50*	*11.50*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*5.75*		*0.43*	*9.78*	*Sqm*
		4		*0.40*	*0.43*	*0.68*	*Sqm*
	Parapet	*4*	*3.29*		*0.18*	*2.30*	*Sqm*
		4		*0.45*	*0.18*	*0.31*	*Sqm*
		4	*3.29*		*0.25*	*3.29*	*Sqm*
		4		*0.35*	*0.25*	*0.35*	*Sqm*
		4	*3.29*		*0.55*	*7.24*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**263.08**	**Sqm**
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.00*	*1.95*		*11.67*	*Sqm*
	TOTAL					**11.67**	**Sqm**
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.**(WRD M-002)**						
	Boulder Apron in D/S Portion	*1*	*3.00*	*1.05*	*0.90*	*2.84*	***Cum***
	TOTAL					**2.84**	**Cum**
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)						
	In D/S Portion below C.C. Blocks	*1*	*2.20*	*1.65*	*0.15*	*0.54*	*Cum*
	In D/S Portion below Stone Chips	*1*	*2.20*	*1.65*	*0.15*	*0.54*	*Cum*
	TOTAL					**1.09**	**Cum**
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	U/S transition	*2*	*1.79*	*0.48*		*1.72*	*Sqm*
	On Abutment Top	*2*	*4.62*	*0.45*		*1.61*	*Sqm*
	TOTAL					**3.33**	**Sqm**
12	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2	1			**2.00**	**No.**
13	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications**. (3.18 PWD NH SOR CHHATISGARH 2025)**	2	5.25	0.40		**4.20**	**Sqm**
14	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications. **(RCD 15.22 - (ii))**	2	5.25			**10.50**	**RM**
15	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compa.cted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Abutment						
	Section A-A	*2*	*1.63*	*0.85*		*2.758*	*Cum*
	Section B-B	*2*	*5.25*	*1.16*		*12.180*	*Cum*
	Section C-C	*2*	*0.50*	*0.91*		*0.912*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	1	*3.36*	*0.76*		*2.552*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.49*	*0.63*		*0.619*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.61*	*1.08*		*5.651*	*Cum*
	TOTAL					**24.67**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF HR FOR SHUSHNAR OFFTAKING FROM RD-18+342 KM (L.) AT KARMA DISTRIBUTARY CANAL							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section A-A	*2*	*1.00*	*1.67*	*2.750*	*9.185*	*Cum*
	Section B-B	*2*	*5.25*	*1.76*	*2.100*	*38.808*	*Cum*
	Section C-C	*2*	*0.58*	*1.58*	*2.100*	*3.816*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*2.92*	*1.30*	*2.750*	*10.455*	*Cum*
	Left Bank Sec a to d	1	3.43	2.31	2.100	*16.607*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.50*	*1.10*	*2.300*	*2.530*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.71*	*1.99*	*2.300*	*24.761*	*Cum*
	Floor						
	U/S key	*1*	*1.3875*	*3.7375*	*0.850*	*4.408*	*Cum*
	Floor	*1*	*3.5*	*3.7375*	*0.650*	*8.503*	*Cum*
		1	*0.418*	*1.9*	*0.450*	*0.357*	*Cum*
		1	*0.718*	*1.9*	*0.350*	*0.477*	*Cum*
		1	*0.402*	*1.9*	*0.300*	*0.764*	*Cum*
		1	*3.079*	*1.9*	*0.950*	*5.558*	*Cum*
		1	*0.885*	*1.9*	*0.200*	*0.336*	*Cum*
		2	*0.133*	*1.9*	*0.200*	*0.101*	*Cum*
		1	*1.292*	*1.9*	*0.650*	*1.596*	*Cum*
		1	*0.725*	*1.9*	*0.650*	*0.895*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*1*	*2.200*	*1.900*	*0.600*	*2.508*	*Cum*
	Toe Wall Base D/S Portion	*1*	*1.900*	*0.850*	*1.200*	*1.938*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*3.000*	*0.900*	*1.300*	*3.510*	*Cum*
						137.11	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor						
		1	*0.624*	*4.390*	*0.150*	*0.41*	*Cum*
		1	*1.723*	*2.555*	*0.150*	*0.66*	*Cum*
		1	*1.269*	*1.900*	*0.150*	*0.36*	*Cum*
		1	*0.670*	*1.900*	*0.150*	*0.19*	*Cum*
		1	*3.338*	*1.900*	*0.150*	*0.95*	*Cum*
		1	*0.973*	*1.900*	*0.150*	*0.28*	*Cum*
		1	*0.217*	*1.900*	*0.150*	*0.06*	*Cum*
		1	*0.567*	*1.900*	*0.150*	*0.16*	*Cum*
		1	*0.692*	*1.900*	*0.150*	*0.20*	*Cum*
	PCC Below Abutment						
	Section A-A	*2*	*1.000*	*1.670*	*0.300*	*1.00*	*Cum*
	Section B-B	*2*	*5.250*	*1.760*	*0.300*	*5.54*	*Cum*
	Section C-C	*2*	*0.575*	*1.580*	*0.300*	*0.55*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*2.925*	*1.300*	*0.300*	*1.14*	*Cum*
	Left Bank Sec a to d	*1*	*3.425*	*2.309*	*0.150*	*1.19*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.500*	*1.100*	*0.300*	*0.33*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.709*	*1.987*	*0.300*	*3.23*	*Cum*
	Toe Wall Base D/S Portion	*1*	*1.900*	*0.850*	*0.300*	*0.48*	*Cum*
	Toe Wall Stem D/S Portion	*1*	*1.900*	*0.450*	*0.900*	*0.77*	*Cum*
	Toe Wall Base (For Brick Pitching)	*1*	*3.000*	*0.450*	*0.300*	*0.41*	*Cum*
	Toe Wall Stem (For Brick Pitching)	*1*	*3.000*	*0.300*	*0.900*	*0.81*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm	*8*	*0.600*	*0.600*	*0.300*	*0.86*	*Cum*
	TOTAL					**19.58**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section A-A	*2*	*1.00*	*0.82*	*0.50*	*0.82*	*Cum*
		2	*1.00*	*1.05*	*0.75*	*1.57*	*Cum*
		2	*1.00*	*1.27*	*1.20*	*3.05*	*Cum*
	Section B-B	*2*	*5.25*	*1.09*	*0.90*	*10.30*	*Cum*
		2	*5.25*	*1.36*	*0.90*	*12.85*	*Cum*
	Section C-C	*2*	*0.58*	*0.97*	*0.60*	*0.67*	*Cum*
		2	*0.58*	*1.18*	*1.20*	*1.63*	*Cum*
	U/S Transition wall						
	Right Bank (Section D-D)	*1*	*2.92*	*0.45*	*0.50*	*0.66*	*Cum*
		1	*2.92*	*0.68*	*0.75*	*1.48*	*Cum*
		1	*2.92*	*0.90*	*1.20*	*3.16*	*Cum*
	Left Bank						
	Section a-a	*1*		2.655	*0.50*	*1.33*	*Sqm*
		1		*2.51*	*0.20*	*0.50*	*Sqm*
		1		*1.42*	*1.25*	*1.77*	*Sqm*
						3.60	***Sqm***
	Section b-b	*1*		*2.66*	*0.50*	*1.33*	*Sqm*
		1		*2.27*	*0.20*	*0.45*	*Sqm*
		1		*1.37*	*1.25*	*1.72*	*Sqm*
						3.50	***Sqm***
	Section c-c	*1*		*2.66*	*0.50*	*1.33*	*Sqm*
		1		*1.76*	*0.20*	*0.35*	*Sqm*
		1		*1.12*	*1.25*	*1.40*	*Sqm*
						3.08	***Sqm***
	Section d-d	*1*		*2.66*	*0.50*	*1.33*	*Sqm*
		1		*0.48*	*0.20*	*0.10*	*Sqm*
		1		*0.48*	*1.25*	*0.60*	*Sqm*
						2.02	***Sqm***
	Bottom Key	*1*	*3.43*	*1.39*	*0.70*	*3.33*	*Cum*
	Top Stem Area	*1*	*3.43*	*3.05*		*10.44*	*Cum*
	D/S Transition wall						
	Sec 4-4	*2*	*0.50*	*0.70*	*0.90*	*0.63*	*Cum*
		2	*0.50*	*0.53*	*0.60*	*0.32*	*Cum*
		2	*0.50*	*0.35*	*0.50*	*0.18*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.71*	*1.59*	*0.90*	*7.74*	*Cum*
		2	*2.71*	*1.26*	*0.60*	*4.09*	*Cum*
		2	*2.71*	*0.74*	*0.50*	*2.01*	*Cum*
	TOTAL					**64.92**	**Cum**
	Floor						
	U/S key	*1*	*1.39*	*3.74*	*0.70*	*3.63*	*Cum*
	Floor	*1*	*3.50*	*3.74*	*0.50*	*6.54*	*Cum*
		1	*0.42*	*1.90*	*0.30*	*0.24*	*Cum*
		1	*0.72*	*1.90*	*0.20*	*0.27*	*Cum*
		1	*0.40*	*1.90*	*0.30*	*0.23*	*Cum*
		1	*3.08*	*1.90*	*0.50*	*2.93*	*Cum*
		1	*0.89*	*1.90*	*0.20*	*0.34*	*Cum*
		2	*0.13*	*1.90*		*0.50*	*Cum*
		1	*1.29*	*1.90*	*0.50*	*1.23*	*Cum*
	D/S key	*1*	*0.73*	*1.90*	*0.50*	*0.69*	*Cum*
	TOTAL					**81.51**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Floor	*1*	*3.63*	*3.74*	*0.20*	*2.71*	*Cum*
		1	*0.67*	*1.90*	*0.20*	*0.25*	*Cum*
		1	*3.08*	*1.90*	*0.20*	*1.17*	*Cum*
		1	*0.95*	*1.90*	*0.20*	*0.36*	*Cum*
		1	*1.29*	*1.90*	*0.20*	*0.49*	*Cum*
	Top Slab	*1*	*5.25*	*2.70*	*0.39*	*5.54*	*Cum*
	75mm Th. Wearing coat on top slab	*1*	*4.25*	*2.70*	*0.08*	*0.86*	*Cum*
	Dirt wall	*2*	*5.83*	0.82	*0.50*	*4.78*	*Cum*
		2	*5.83*	*0.40*	*0.43*	*1.98*	*Cum*
	Parapet	*2*	*3.54*	*0.45*	*0.18*	*0.55*	*Cum*
		2	*3.54*	*0.35*	*0.25*	*0.62*	*Cum*
		2	*3.54*	*0.22*	*0.55*	*0.85*	*Cum*
	TOTAL					**20.16**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	**Length**	**Nos.**		**Weight per m**	**Quantity**	**Unit**
	Slab Per Span						
a1	*16*	*3.160*	*29*		*1.578*	*144.621*	*Kg*
a2	*10*	*5.650*	*14*		*0.616*	*48.762*	*Kg*
a3	*10*	*5.150*	*2*		*0.616*	*6.350*	*Kg*
a4	*10*	*3.080*	*9*		*0.616*	*17.088*	*Kg*
a5	*10*	*5.550*	*10*		*0.616*	*34.214*	*Kg*
	Dirt Wall						
d1	*12*	*4.460*	*26*		*0.888*	*102.938*	*Kg*
d2	*12*	*5.550*	*14*		*0.888*	*68.975*	*Kg*
	Crash Barrier						
x1	*12*	*2.501*	*42*		*0.888*	*93.246*	*Kg*
x2	*16*	*1.265*	*42*		*1.578*	*83.847*	*Kg*
x3	*10*	*2.200*	*24*		*0.616*	*32.549*	*Kg*
	Floor R/F						
	U/S Key						
	12	*7.098*	*8*		*0.888*	*50.407*	*Kg*
	12	*2.600*	*27*		*0.888*	*62.317*	*Kg*
	floor raft						
	12	*3.394*	*8*		*0.888*	*24.103*	*Kg*
	12	*7.494*	*16*		*0.888*	*106.439*	*Kg*
	12	*2.600*	*65*		*0.888*	*150.022*	*Kg*
	0.25 % Skin Reinforcement for Transition walls	*64.92*	*0.25%*	*0.16*	*7850*	*1273.98*	*Kg*
	TOTAL Weight of steel (in kg)					2299.86	Kg
	TOTAL Weight of Steel (in Tonne)					**2.30**	**MT**
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1	2.62			**2.62**	**MT**
	*Separate sheet attached						
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section A-A	*4*	*1.00*		*0.50*	*2.00*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*1.00*		*0.75*	*3.00*	*Sqm*
		4		*1.05*	*0.75*	*3.14*	*Sqm*
		4	*1.00*		*1.20*	*4.80*	*Sqm*
		4		*1.27*	*1.20*	*6.10*	*Sqm*
	Section B-B	*4*	*5.25*		*0.90*	*18.90*	*Sqm*
		4		*1.09*	*0.90*	*3.92*	*Sqm*
		4	*5.25*		*0.90*	*18.90*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4		1.36	0.90	4.90	Sqm
	Section C-C	4	0.58		0.60	1.38	Sqm
		4		0.97	0.60	2.33	Sqm
		4	0.58		1.20	2.76	Sqm
		4		1.18	1.20	5.66	Sqm
	U/S Transition wall						
	Right Bank (Section D-D)	2	2.92		0.50	2.92	Sqm
		2		0.45	0.50	0.45	Sqm
		2	2.92		0.75	4.39	Sqm
		2		0.68	0.75	1.01	Sqm
		2	2.92		1.20	7.02	Sqm
		2		0.90	1.20	2.16	Sqm
	Left Bank						
	Bottom Key	2	3.43		0.70	4.80	Sqm
		2		1.39	0.70	1.94	Sqm
	Section a-a	2	1.14		0.50	1.14	Sqm
		2		2.66	0.50	2.66	Sqm
		2	1.14		0.20	0.46	Sqm
		2		2.51	0.20	1.00	Sqm
		2	1.14		1.25	2.85	Sqm
		2		1.42	1.25	3.54	Sqm
	Section b-b	2	1.14		0.50	1.14	Sqm
		2		2.66	0.50	2.66	Sqm
		2	1.14		0.20	0.46	Sqm
		2		2.27	0.20	0.91	Sqm
		2	1.14		1.25	2.85	Sqm
		2		1.37	1.25	3.43	Sqm
	Section c-c	2	1.14		0.50	1.14	Sqm
		2		2.66	0.50	2.66	Sqm
		2	1.14		0.20	0.46	Sqm
		2		1.76	0.20	0.70	Sqm
		2	1.14		1.25	2.85	Sqm
		2		1.12	1.25	2.79	Sqm
	Section d-d	2	1.14		0.50	1.14	Sqm
		2		2.66	0.50	2.66	Sqm
		2	1.14		0.20	0.46	Sqm
		2		0.48	0.20	0.19	Sqm
		2	1.14		1.25	2.85	Sqm
		2		0.48	1.25	1.20	Sqm
	D/S Transition wall						
	Sec 4-4	4	0.50		0.90	1.80	Sqm
		4		0.70	0.90	2.52	Sqm
		4	0.50		0.60	1.20	Sqm
		4		0.53	0.60	1.26	Sqm
		4	0.50		0.50	1.00	Sqm
		4		0.35	0.50	0.70	Sqm
	Avg. of Sec 1-1 & 3-3	4	2.71		0.90	9.75	Sqm
		4		1.59	0.90	5.71	Sqm
		4	2.71		0.60	6.50	Sqm
		4		1.26	0.60	3.02	Sqm
		4	2.71		0.50	5.42	Sqm
		4		0.74	0.50	1.49	Sqm
	Floor						
	U/S key	2	1.39		0.70	1.94	Sqm
		2		3.74	0.70	5.23	Sqm
	Floor	2	3.50		0.50	3.50	Sqm
		2		3.74	0.50	3.74	Sqm
		2	0.42		0.30	0.25	Sqm
		2		1.90	0.30	1.14	Sqm
		2	0.72		0.20	0.29	Sqm
		2		1.90	0.20	0.76	Sqm
		2	0.40		0.30	0.80	Sqm
		2		1.90	0.30	3.80	Sqm
		2	3.08		0.50	3.08	Sqm
		2		1.90	0.50	1.90	Sqm
		2	0.89		0.20	0.35	Sqm
		2		1.90	0.20	0.76	Sqm
		4	0.13			0.53	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4		*1.90*		*7.60*	*Sqm*
		2	*1.29*		*0.50*	*1.29*	*Sqm*
		2		*1.90*	*0.50*	*1.90*	*Sqm*
	D/S key	*2*	*0.73*		*0.50*	*0.73*	*Sqm*
		2		*1.90*	*0.50*	*1.90*	*Sqm*
	Toe Wall Base D/S Portion	*2*	*1.90*		*0.30*	*1.14*	*Sqm*
		2		*0.85*	*0.30*	*0.51*	*Sqm*
	Toe Wall Stem D/S Portion	*2*	*1.90*		*0.90*	*3.42*	*Sqm*
		2		*0.45*	*0.90*	*0.81*	*Sqm*
	Top Slab	*2*	*5.25*		*0.39*	*4.10*	*Sqm*
		2		*2.70*	*0.39*	*2.11*	*Sqm*
	Dirt wall	*4*	*5.83*		*0.50*	*11.65*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*5.83*		*0.43*	*9.90*	*Sqm*
		4		*0.40*	*0.43*	*0.68*	*Sqm*
	Parapet	*4*	*3.54*		*0.18*	*2.48*	*Sqm*
		4		*0.45*	*0.18*	*0.31*	*Sqm*
		4	*3.54*		*0.25*	*3.54*	*Sqm*
		4		*0.35*	*0.25*	*0.35*	*Sqm*
		4	*3.54*		*0.55*	*7.79*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**279.09**	**Sqm**
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.00*	*2.13*		*12.77*	*Sqm*
	TOTAL					**12.77**	**Sqm**
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.**(WRD M-002)**						
	Boulder Apron in D/S Portion	*1*	*3.00*	*0.90*	*1.30*	*3.51*	***Cum***
	TOTAL					**3.51**	**Cum**
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)						
	In D/S Portion below C.C. Blocks	*1*	*2.20*	*1.90*	*0.15*	*0.63*	*Cum*
	In D/S Portion below Stone Chips	*1*	*2.20*	*1.90*	*0.15*	*0.63*	*Cum*
	TOTAL					**1.25**	**Cum**
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	U/S transition	*2*	*1.99*	*0.48*		*1.91*	*Sqm*
	On Abutment Top	*2*	*4.94*	*0.45*		*1.79*	*Sqm*
	TOTAL					**3.71**	**Sqm**
12	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2	1			**2.00**	**No.**
13	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications**. (3.18 PWD NH SOR CHHATISGARH 2025)**	2	5.25	0.40		**4.20**	**Sqm**
14	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications. **(RCD 15.22 - (ii))**	2	5.25			**10.50**	**RM**
15	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compa.cted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Abutment						
	Section A-A	*2*	*1.00*	*0.95*		*1.906*	*Cum*
	Section B-B	*2*	*5.25*	*1.29*		*13.514*	*Cum*
	Section C-C	*2*	*0.58*	*1.06*		*1.216*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	U/S Transition wall						
	Right Bank (Section D-D)	1	*2.92*	*0.88*		*2.582*	*Cum*
	D/S Transition wall						
	Sec 4-4	2	*0.50*	*0.68*		*0.680*	*Cum*
	Avg. of Sec 1-1 & 3-3	2	*2.71*	*1.13*		*6.106*	*Cum*
	TOTAL					**26.00**	**Cum**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR KARMA DISTRIBUTARY								
S. No.	**Item of Works**	**Qty.**	**Unit**	**Rate (As per WRD SOR 2025 & PL 2025)**	**Amount (Rs)**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**
SHARDA TYPE FALL OF HEIGHT 0.61 METER AT CH. 8.150 KM								
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	309.079	Cum	**195.20**	60332.26			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	31.21	Cum	**6381.70**	199159.04	10.11	14.04	28.09
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	160.59	Cum	**6914.20**	1110361.49	66.24	69.05	138.11
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	33.04	Cum	**8151.40**	269284.66	18.73	12.88	26.10
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	6.11	MT	**73574.90**	449487.27			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	373.58	Sqm	**578.60**	216150.71			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	38.66	Sqm	**680.10**	26293.35			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	5.62	Cum	**694.61**	3901.97			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	5.62	Cum	**1237.00**	6948.85			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	5.62	Cum	**1377.70**	7739.23			5.62
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	5.62	Cum	**516.50**	2901.44			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	18.80	Sqm	**63.20**	1187.94			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	44.91	Cum	**149.30**	6704.63			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	95.982	Cum	**1075.00**	103180.28			
	Coarse Aggregates (100 Km lead)	197.911	Cum	**1398.00**	276679.81			
	Cement (30 km lead)	95.086	MT	**742.00**	70554.10			
	Boulder (60 Km lead)	5.62	Cum	**1159.00**	6510.68			
	Brick (15 km lead)	2319.00	No.	**3.18**	7374.42			
	Steel (30 Km lead)	6.11	MT	**742.00**	4533.06			
	TOTAL (In Rs.)				**2840462.59**			
	TOTAL (In Rs.)				**2840462.59**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	95.98	Cum	**584.64**	56114.72	5611.47		
	Coarse Aggregate	197.91	Cum	**944.26**	186879.60	18687.96		
	Boulders	5.62	Cum	**694.61**	3901.97	390.20		
	Total					24689.63		
	For 1 nos. fall, Total Seigniorage charges					**24689.63**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.61 METER AT CH. 9.150 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	273.094	Cum	**195.20**	53307.89			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	29.79	Cum	**6381.70**	190115.14	9.65	13.41	26.81
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	155.67	Cum	**6914.20**	1076355.00	64.22	66.94	133.88
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	30.77	Cum	**8151.40**	250852.81	17.45	12.00	24.31
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	5.56	MT	**73574.90**	409359.02			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	366.00	Sqm	**578.60**	211769.27			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	38.66	Sqm	**680.10**	26293.35			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	4.94	Cum	**694.61**	3427.90			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	4.94	Cum	**1237.00**	6104.60			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	4.94	Cum	**1377.70**	6798.95			4.94
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	4.94	Cum	**516.50**	2548.93			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	18.80	Sqm	**63.20**	1187.94			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	41.28	Cum	**149.30**	6162.50			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	92.347	Cum	**1075.00**	99273.22			
	Coarse Aggregates (100 Km lead)	189.937	Cum	**1398.00**	265532.06			
	Cement (30 km lead)	91.316	MT	**742.00**	67756.70			
	Boulder (60 Km lead)	4.94	Cum	**1159.00**	5719.67			
	Brick (15 km lead)	2319.00	No.	**3.18**	7374.42			
	Steel (30 Km lead)	5.56	MT	**742.00**	4128.37			
	TOTAL (In Rs.)				**2705245.12**			
	TOTAL (In Rs.)				**2705245.12**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	92.35	Cum	**584.64**	53989.85	5398.99		
	Coarse Aggregate	189.94	Cum	**944.26**	179350.00	17935.00		
	Boulders	4.94	Cum	**694.61**	3427.90	342.79		
	Total					23676.78		
	For 1 nos. fall, Total Seigniorage charges					**23676.78**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 16.860 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	163.984	Cum	**195.20**	32009.70			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	20.90	Cum	**6381.70**	133386.94	6.77	9.41	18.81
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	106.27	Cum	**6914.20**	734796.36	43.84	45.70	91.40
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.17	Cum	**8151.40**	9512.68	0.66	0.46	0.92
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.50	MT	**73574.90**	184138.94			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	293.10	Sqm	**578.60**	169587.24			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	13.50	Sqm	**680.10**	9181.35			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	2.34	Cum	**694.61**	1625.39			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	2.34	Cum	**1237.00**	2894.58			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	2.34	Cum	**1377.70**	3223.82			2.34
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	2.34	Cum	**516.50**	1208.61			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	15.66	Sqm	**63.20**	989.71			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	38.86	Cum	**149.30**	5802.06			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	55.558	Cum	**1075.00**	59725.29			
	Coarse Aggregates (100 Km lead)	113.468	Cum	**1398.00**	158628.94			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	Cement (30 km lead)	51.272	MT	**742.00**	38043.52			
	Boulder (60 Km lead)	2.34	Cum	**1159.00**	2712.06			
	Brick (15 km lead)	810.00	No.	**3.18**	2575.80			
	Steel (30 Km lead)	2.50	MT	**742.00**	1857.03			
	TOTAL (In Rs.)				**1563077.43**			
	TOTAL (In Rs.)				**1563077.43**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	55.56	Cum	**584.64**	32481.67	3248.17		
	Coarse Aggregate	113.47	Cum	**944.26**	107143.75	10714.37		
	Boulders	2.34	Cum	**694.61**	1625.39	162.54		
	Total					14125.08		
	For 1 nos. fall, Total Seigniorage charges					**14125.08**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH. 21.350 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	180.949	Cum	**195.20**	35321.26			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	15.72	Cum	**6381.70**	100328.20	5.09	7.07	14.15
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	99.16	Cum	**6914.20**	685605.68	40.90	42.64	85.28
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	11.27	Cum	**8151.40**	91882.83	6.39	4.40	8.90
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.87	MT	**73574.90**	211163.23			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	265.98	Sqm	**578.60**	153894.17			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	12.97	Sqm	**680.10**	8819.54			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.54	Cum	**694.61**	375.09			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.54	Cum	**1237.00**	667.98			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.54	Cum	**1377.70**	743.96			0.54
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.54	Cum	**516.50**	278.91			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.58	Sqm	**63.20**	542.29			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	52.01	Cum	**149.30**	7764.42			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	54.109	Cum	**1159.00**	62712.39			
	Coarse Aggregates (100 Km lead)	108.871	Cum	**1075.00**	117036.13			
	Cement (30 km lead)	52.388	MT	**742.00**	38871.93			
	Boulder (60 Km lead)	0.54	Cum	**1159.00**	625.86			
	Brick (15 km lead)	778.00	No.	**1838.00**	1429964.00			
	Steel (30 Km lead)	2.87	MT	**742.00**	2129.57			
	TOTAL (In Rs.)				**2959904.84**			
	TOTAL (In Rs.)				**2959904.84**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	54.11	Cum	**584.64**	31634.31	3163.43		
	Coarse Aggregate	108.87	Cum	**944.26**	102802.36	10280.24		
	Boulders	0.54	Cum	**694.61**	375.09	37.51		
	Total					13481.18		
	For 1 nos. fall, Total Seigniorage charges					**13481.18**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 22.150 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	88.575	Cum	**195.20**	17289.86			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	12.87	Cum	**6381.70**	82121.51	4.17	5.79	11.58
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	64.93	Cum	**6914.20**	448961.49	26.78	27.92	55.84
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	10.09	Cum	**8151.40**	82239.76	5.72	3.93	7.97
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.98	MT	**73574.90**	145878.30			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	197.60	Sqm	**578.60**	114330.63			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	10.02	Sqm	**680.10**	6812.56			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.26	Cum	**694.61**	182.34			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.26	Cum	**1237.00**	324.71			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.26	Cum	**1377.70**	361.65			0.26
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.26	Cum	**516.50**	135.58			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	6.77	Sqm	**63.20**	427.91			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	29.45	Cum	**149.30**	4397.14			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	37.647	Cum	**1159.00**	43632.58			
	Coarse Aggregates (100 Km lead)	75.657	Cum	**1075.00**	81331.15			
	Cement (30 km lead)	36.675	MT	**742.00**	27212.68			
	Boulder (60 Km lead)	0.26	Cum	**1159.00**	304.24			
	Brick (15 km lead)	601.00	No.	**1838.00**	1104638.00			
	Steel (30 Km lead)	1.98	MT	**742.00**	1471.18			
	TOTAL (In Rs.)				**2173230.66**			
	TOTAL (In Rs.)				**2173230.66**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	37.65	Cum	**584.64**	22009.79	2200.98		
	Coarse Aggregate	75.66	Cum	**944.26**	71439.77	7143.98		
	Boulders	0.26	Cum	**694.61**	182.34	18.23		
	Total					9363.19		
	For 1 nos. fall, Total Seigniorage charges					**9363.19**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.915 METER AT CH. 23.050 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	92.349	Cum	**195.20**	18026.56			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	11.54	Cum	**6381.70**	73622.05	3.74	5.19	10.38
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	62.60	Cum	**6914.20**	432846.55	25.82	26.92	53.84
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	9.51	Cum	**8151.40**	77528.09	5.39	3.71	7.51
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.16	MT	**73574.90**	158951.32			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	191.89	Sqm	**578.60**	111024.80			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	7.45	Sqm	**680.10**	5064.02			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.14	Cum	**694.61**	93.77			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.14	Cum	**1237.00**	167.00			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.14	Cum	**1377.70**	185.99			0.14
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.14	Cum	**516.50**	69.73			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	6.32	Sqm	**63.20**	399.13			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	29.61	Cum	**149.30**	4420.68			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	35.820	Cum	**1159.00**	41515.13			
	Coarse Aggregates (100 Km lead)	71.870	Cum	**1075.00**	77259.91			
	Cement (30 km lead)	34.954	MT	**742.00**	25935.94			
	Boulder (60 Km lead)	0.14	Cum	**1159.00**	156.47			
	Brick (15 km lead)	446.00	No.	**1838.00**	819748.00			
	Steel (30 Km lead)	2.16	MT	**742.00**	1603.02			
	TOTAL (In Rs.)				**1859795.55**			
	TOTAL (In Rs.)				**1859795.55**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	35.82	Cum	**584.64**	20941.68	2094.17		
	Coarse Aggregate	71.87	Cum	**944.26**	67863.67	6786.37		
	Boulders	0.14	Cum	**694.61**	93.77	9.38		
	Total					8889.91		
	For 1 nos. fall, Total Seigniorage charges					**8889.91**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH. 23.300 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	124.294	Cum	**195.20**	24262.24			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	11.96	Cum	**6381.70**	76356.39	3.88	5.38	10.77
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	78.18	Cum	**6914.20**	540527.94	32.25	33.62	67.23
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	9.53	Cum	**8151.40**	77693.15	5.40	3.72	7.53
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.50	MT	**73574.90**	183682.84			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	226.29	Sqm	**578.60**	130931.98			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	7.45	Sqm	**680.10**	5064.02			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.14	Cum	**694.61**	93.77			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.14	Cum	**1237.00**	167.00			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.14	Cum	**1377.70**	185.99			0.14
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.14	Cum	**516.50**	69.73			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	6.72	Sqm	**63.20**	424.72			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	34.94	Cum	**149.30**	5217.09			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	42.717	Cum	**1159.00**	49509.34			
	Coarse Aggregates (100 Km lead)	85.665	Cum	**1075.00**	92089.76			
	Cement (30 km lead)	41.529	MT	**742.00**	30814.27			
	Boulder (60 Km lead)	0.14	Cum	**1159.00**	156.47			
	Brick (15 km lead)	446.00	No.	**1838.00**	819748.00			
	Steel (30 Km lead)	2.50	MT	**742.00**	1852.43			
	TOTAL (In Rs.)				**2050024.53**			
	TOTAL (In Rs.)				**2050024.53**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	42.72	Cum	**584.64**	24974.24	2497.42		
	Coarse Aggregate	85.66	Cum	**944.26**	80889.93	8088.99		
	Boulders	0.14	Cum	**694.61**	93.77	9.38		
	Total					10595.79		
	For 1 nos. fall, Total Seigniorage charges					**10595.79**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR CHAURAHA MR.								
SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 3.190 KM								
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	116.542	Cum	**195.20**	22748.95			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	12.09	Cum	**6381.70**	77185.70	3.92	5.44	10.89
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	53.90	Cum	**6914.20**	372660.60	22.23	23.18	46.35
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.77	Cum	**8151.40**	6266.88	0.44	0.30	0.61
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.27	MT	**73574.90**	93388.23			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	181.12	Sqm	**578.60**	104796.64			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	11.61	Sqm	**680.10**	7895.96			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.16	Cum	**694.61**	807.48			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.16	Cum	**1237.00**	1438.01			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.16	Cum	**1377.70**	1601.58			1.16
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.16	Cum	**516.50**	600.43			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.89	Sqm	**63.20**	625.28			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	32.90	Cum	**149.30**	4912.05			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	28.919	Cum	**1075.00**	31087.49			
	Coarse Aggregates (100 Km lead)	59.007	Cum	**1398.00**	82492.33			
	Cement (30 km lead)	26.588	MT	**742.00**	19727.94			
	Boulder (60 Km lead)	1.16	Cum	**1159.00**	1347.34			
	Brick (15 km lead)	696.00	No.	**3.18**	2213.28			
	Steel (30 Km lead)	1.27	MT	**742.00**	941.82			
	TOTAL (In Rs.)				**843915.37**			
	TOTAL (In Rs.)				**843915.37**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	28.92	Cum	**584.64**	16906.97	1690.70		
	Coarse Aggregate	59.01	Cum	**944.26**	55718.31	5571.83		
	Boulders	1.16	Cum	**694.61**	807.48	80.75		
	Total					7343.28		
	For 1 nos. fall, Total Seigniorage charges					**7343.28**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC OF SHARDA TYPE FALL OF HEIGHT 0.305 METER AT CH. 6.000 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	35.909	Cum	**195.20**	7009.48			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.36	Cum	**6381.70**	59715.82	3.03	4.21	8.42
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	31.93	Cum	**6914.20**	220755.34	13.17	13.73	27.46
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.60	Cum	**8151.40**	4858.44	0.34	0.23	0.47
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.75	MT	**73574.90**	55320.98			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	128.36	Sqm	**578.60**	74267.38			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	7.18	Sqm	**680.10**	4882.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.60	Cum	**694.61**	419.37			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.60	Cum	**1237.00**	746.84			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.60	Cum	**1377.70**	831.79			0.60
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.60	Cum	**516.50**	311.84			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.77	Sqm	**63.20**	554.30			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	4.67	Cum	**149.30**	696.52			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	18.172	Cum	**1075.00**	19535.14			
	Coarse Aggregates (100 Km lead)	36.954	Cum	**1398.00**	51661.91			
	Cement (30 km lead)	16.540	MT	**742.00**	12272.65			
	Boulder (60 Km lead)	0.60	Cum	**1159.00**	699.75			
	Brick (15 km lead)	430.00	No.	**3.18**	1367.40			
	Steel (30 Km lead)	0.75	MT	**742.00**	557.91			
	TOTAL (In Rs.)				**527642.34**			
	TOTAL (In Rs.)				**527642.34**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	18.17	Cum	**584.64**	10624.21	1062.42		
	Coarse Aggregate	36.95	Cum	**944.26**	34894.33	3489.43		
	Boulders	0.60	Cum	**694.61**	419.37	41.94		
	Total					4593.79		
	For 1 nos. fall, Total Seigniorage charges					**4593.79**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC OF SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 6.750 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	39.879	Cum	**195.20**	7784.32			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.17	Cum	**6381.70**	52141.61	2.65	3.68	7.35
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	27.78	Cum	**6914.20**	192110.82	11.46	11.95	23.90
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.54	Cum	**8151.40**	4403.59	0.31	0.21	0.43
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.65	MT	**73574.90**	48142.70			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	118.83	Sqm	**578.60**	68752.67			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.88	Sqm	**680.10**	4001.03			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.27	Cum	**694.61**	187.54			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.27	Cum	**1237.00**	333.99			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.27	Cum	**1377.70**	371.98			0.27
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.27	Cum	**516.50**	139.46			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.64	Sqm	**63.20**	546.33			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	7.99	Cum	**149.30**	1193.60			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	15.835	Cum	**1075.00**	17022.56			
	Coarse Aggregates (100 Km lead)	31.945	Cum	**1398.00**	44659.51			
	Cement (30 km lead)	14.415	MT	**742.00**	10695.81			
	Boulder (60 Km lead)	0.27	Cum	**1159.00**	312.93			
	Brick (15 km lead)	352.00	No.	**3.18**	1119.36			
	Steel (30 Km lead)	0.65	MT	**742.00**	485.52			
	TOTAL (In Rs.)				**465582.73**			
	TOTAL (In Rs.)				**465582.73**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	15.83	Cum	**584.64**	9257.74	925.77		
	Coarse Aggregate	31.95	Cum	**944.26**	30164.66	3016.47		
	Boulders	0.27	Cum	**694.61**	187.54	18.75		
	Total					3960.99		
	For 1 nos. fall, Total Seigniorage charges					**3960.99**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 7.050 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	47.223	Cum	**195.20**	9217.95			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	7.59	Cum	**6381.70**	48425.84	2.46	3.41	6.83
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	25.28	Cum	**6914.20**	174779.21	10.43	10.87	21.74
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.52	Cum	**8151.40**	4253.20	0.30	0.20	0.41
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.60	MT	**73574.90**	43799.43			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	113.02	Sqm	**578.60**	65395.38			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.89	Sqm	**680.10**	4003.07			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.18	Cum	**694.61**	125.03			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.18	Cum	**1237.00**	222.66			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.18	Cum	**1377.70**	247.99			0.18
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.18	Cum	**516.50**	92.97			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.64	Sqm	**63.20**	545.76			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	13.80	Cum	**149.30**	2060.58			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	14.488	Cum	**1075.00**	15574.46			
	Coarse Aggregates (100 Km lead)	29.161	Cum	**1398.00**	40767.01			
	Cement (30 km lead)	13.182	MT	**742.00**	9780.85			
	Boulder (60 Km lead)	0.18	Cum	**1159.00**	208.62			
	Brick (15 km lead)	353.00	No.	**3.18**	1122.54			
	Steel (30 Km lead)	0.60	MT	**742.00**	441.72			
	TOTAL (In Rs.)				**432241.66**			
	TOTAL (In Rs.)				**432241.66**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	14.49	Cum	**584.64**	8470.19	847.02		
	Coarse Aggregate	29.16	Cum	**944.26**	27535.52	2753.55		
	Boulders	0.18	Cum	**694.61**	125.03	12.50		
	Total					3613.07		
	For 1 nos. fall, Total Seigniorage charges					**3613.07**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 7.200 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	46.022	Cum	**195.20**	8983.52			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	7.59	Cum	**6381.70**	48425.84	2.46	3.41	6.83
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	25.28	Cum	**6914.20**	174779.21	10.43	10.87	21.74
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.52	Cum	**8151.40**	4253.20	0.30	0.20	0.41
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.60	MT	**73574.90**	43799.43			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	113.02	Sqm	**578.60**	65395.38			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.89	Sqm	**680.10**	4003.07			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.18	Cum	**694.61**	125.03			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.18	Cum	**1237.00**	222.66			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.18	Cum	**1377.70**	247.99			0.18
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.18	Cum	**516.50**	92.97			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.64	Sqm	**63.20**	545.76			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	13.33	Cum	**149.30**	1990.32			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	14.488	Cum	**1075.00**	15574.46			
	Coarse Aggregates (100 Km lead)	29.161	Cum	**1398.00**	40767.01			
	Cement (30 km lead)	13.182	MT	**742.00**	9780.85			
	Boulder (60 Km lead)	0.18	Cum	**1159.00**	208.62			
	Brick (15 km lead)	353.00	No.	**3.18**	1122.54			
	Steel (30 Km lead)	0.60	MT	**742.00**	441.72			
	TOTAL (In Rs.)				**431936.96**			
	TOTAL (In Rs.)				**431936.96**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	14.49	Cum	**584.64**	8470.19	847.02		
	Coarse Aggregate	29.16	Cum	**944.26**	27535.52	2753.55		
	Boulders	0.18	Cum	**694.61**	125.03	12.50		
	Total					3613.07		
	For 1 nos. fall, Total Seigniorage charges					**3613.07**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 7.500 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	35.273	Cum	**195.20**	6885.31			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	5.80	Cum	**6381.70**	37008.78	1.88	2.61	5.22
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	22.21	Cum	**6914.20**	153571.85	9.16	9.55	19.10
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.45	Cum	**8151.40**	3652.36	0.25	0.17	0.35
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.52	MT	**73574.90**	38484.89			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	100.48	Sqm	**578.60**	58138.88			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.40	Sqm	**680.10**	5712.84			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.23	Cum	**694.61**	156.29			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.23	Cum	**1237.00**	278.33			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.23	Cum	**1377.70**	309.98			0.23
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.23	Cum	**516.50**	116.21			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	7.52	Sqm	**63.20**	475.35			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	8.37	Cum	**149.30**	1249.53			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	12.335	Cum	**1075.00**	13260.29			
	Coarse Aggregates (100 Km lead)	24.900	Cum	**1398.00**	34809.90			
	Cement (30 km lead)	11.295	MT	**742.00**	8380.94			
	Boulder (60 Km lead)	0.23	Cum	**1159.00**	260.78			
	Brick (15 km lead)	504.00	No.	**3.18**	1602.72			
	Steel (30 Km lead)	0.52	MT	**742.00**	388.12			
	TOTAL (In Rs.)				**375920.73**			
	TOTAL (In Rs.)				**375920.73**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	12.34	Cum	**584.64**	7211.62	721.16		
	Coarse Aggregate	24.90	Cum	**944.26**	23511.87	2351.19		
	Boulders	0.23	Cum	**694.61**	156.29	15.63		
	Total					3087.98		
	For 1 nos. fall, Total Seigniorage charges					**3087.98**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR NEURA SURAJMAL MR.								
SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 1.950 KM								
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	49.635	Cum	**195.20**	9688.77			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.82	Cum	**6381.70**	56261.65	2.86	3.97	7.93
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	30.31	Cum	**6914.20**	209556.55	12.50	13.03	26.07
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.58	Cum	**8151.40**	4732.25	0.33	0.23	0.46
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.71	MT	**73574.90**	52514.58			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	123.82	Sqm	**578.60**	71639.71			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.89	Sqm	**680.10**	4003.07			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.47	Cum	**694.61**	328.20			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.47	Cum	**1237.00**	584.48			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.47	Cum	**1377.70**	650.96			0.47
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.47	Cum	**516.50**	244.05			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.64	Sqm	**63.20**	546.10			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	11.93	Cum	**149.30**	1780.51			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	17.226	Cum	**1075.00**	18518.12			
	Coarse Aggregates (100 Km lead)	34.931	Cum	**1398.00**	48833.00			
	Cement (30 km lead)	15.688	MT	**742.00**	11640.27			
	Boulder (60 Km lead)	0.47	Cum	**1159.00**	547.63			
	Brick (15 km lead)	353.00	No.	**3.18**	1122.54			
	Steel (30 Km lead)	0.71	MT	**742.00**	529.61			
	TOTAL (In Rs.)				**504899.45**			
	TOTAL (In Rs.)				**504899.45**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	17.23	Cum	**584.64**	10071.10	1007.11		
	Coarse Aggregate	34.93	Cum	**944.26**	32983.58	3298.36		
	Boulders	0.47	Cum	**694.61**	328.20	32.82		
	Total					4338.29		
	For 1 nos. fall, Total Seigniorage charges					**4338.29**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 2.300 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	51.689	Cum	**195.20**	10089.62			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.82	Cum	**6381.70**	56261.65	2.86	3.97	7.93
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	30.31	Cum	**6914.20**	209556.55	12.50	13.03	26.07
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.58	Cum	**8151.40**	4732.25	0.33	0.23	0.46
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.71	MT	**73574.90**	52514.58			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	123.82	Sqm	**578.60**	71639.71			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.89	Sqm	**680.10**	4003.07			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.47	Cum	**694.61**	328.20			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.47	Cum	**1237.00**	584.48			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.47	Cum	**1377.70**	650.96			0.47
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.47	Cum	**516.50**	244.05			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.64	Sqm	**63.20**	546.10			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	13.09	Cum	**149.30**	1954.94			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	17.226	Cum	**1075.00**	18518.12			
	Coarse Aggregates (100 Km lead)	34.931	Cum	**1398.00**	48833.00			
	Cement (30 km lead)	15.688	MT	**742.00**	11640.27			
	Boulder (60 Km lead)	0.47	Cum	**1159.00**	547.63			
	Brick (15 km lead)	353.00	No.	**3.18**	1122.54			
	Steel (30 Km lead)	0.71	MT	**742.00**	529.61			
	TOTAL (In Rs.)				**505474.74**			
	TOTAL (In Rs.)				**505474.74**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	17.23	Cum	**584.64**	10071.10	1007.11		
	Coarse Aggregate	34.93	Cum	**944.26**	32983.58	3298.36		
	Boulders	0.47	Cum	**694.61**	328.20	32.82		
	Total					4338.29		
	For 1 nos. fall, Total Seigniorage charges					**4338.29**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR SHUSHNAR MR.								
SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 1.500 KM								
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	66.178	Cum	**195.20**	12918.02			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.52	Cum	**6381.70**	60773.72	3.09	4.29	8.57
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	36.96	Cum	**6914.20**	255540.21	15.25	15.89	31.78
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.64	Cum	**8151.40**	5222.56	0.36	0.25	0.51
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.87	MT	**73574.90**	64038.02			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	142.46	Sqm	**578.60**	82426.36			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.57	Sqm	**680.10**	5827.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.60	Cum	**694.61**	416.77			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.60	Cum	**1237.00**	742.20			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.60	Cum	**1377.70**	826.62			0.60
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.60	Cum	**516.50**	309.90			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.97	Sqm	**63.20**	567.15			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	19.24	Cum	**149.30**	2872.98			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	20.428	Cum	**1075.00**	21959.61			
	Coarse Aggregates (100 Km lead)	41.461	Cum	**1398.00**	57963.16			
	Cement (30 km lead)	18.694	MT	**742.00**	13871.14			
	Boulder (60 Km lead)	0.60	Cum	**1159.00**	695.40			
	Brick (15 km lead)	514.00	No.	**3.18**	1634.52			
	Steel (30 Km lead)	0.87	MT	**742.00**	645.82			
	TOTAL (In Rs.)				**600428.65**			
	TOTAL (In Rs.)				**600428.65**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	20.43	Cum	**584.64**	11942.76	1194.28		
	Coarse Aggregate	41.46	Cum	**944.26**	39150.43	3915.04		
	Boulders	0.60	Cum	**694.61**	416.77	41.68		
	Total					5150.99		
	For 1 nos. fall, Total Seigniorage charges					**5150.99**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.305 METER AT CH. 4.075 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	41.239	Cum	**195.20**	8049.91			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	7.95	Cum	**6381.70**	50708.48	2.57	3.58	7.15
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	26.41	Cum	**6914.20**	182634.19	10.90	11.36	22.72
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.57	Cum	**8151.40**	4678.33	0.33	0.22	0.45
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.62	MT	**73574.90**	45767.87			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	115.05	Sqm	**578.60**	66565.34			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.88	Sqm	**680.10**	4001.03			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.27	Cum	**694.61**	187.54			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.27	Cum	**1237.00**	333.99			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.27	Cum	**1377.70**	371.98			0.27
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.27	Cum	**516.50**	139.46			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.60	Sqm	**63.20**	543.43			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	9.24	Cum	**149.30**	1378.91			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	15.158	Cum	**1075.00**	16294.50			
	Coarse Aggregates (100 Km lead)	30.591	Cum	**1398.00**	42766.34			
	Cement (30 km lead)	13.796	MT	**742.00**	10236.50			
	Boulder (60 Km lead)	0.27	Cum	**1159.00**	312.93			
	Brick (15 km lead)	352.00	No.	**3.18**	1119.36			
	Steel (30 Km lead)	0.62	MT	**742.00**	461.57			
	TOTAL (In Rs.)				**447729.06**			
	TOTAL (In Rs.)				**447729.06**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	15.16	Cum	**584.64**	8861.78	886.18		
	Coarse Aggregate	30.59	Cum	**944.26**	28885.94	2888.59		
	Boulders	0.27	Cum	**694.61**	187.54	18.75		
	Total					3793.53		
	For 1 nos. fall, Total Seigniorage charges					**3793.53**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 4.175 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	85.880	Cum	**195.20**	16763.80			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	20.10	Cum	**6381.70**	128274.59	6.51	9.05	18.09
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	70.75	Cum	**6914.20**	489168.93	29.18	30.42	60.84
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	12.09	Cum	**8151.40**	98517.37	6.85	4.71	9.55
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.28	MT	**73574.90**	167774.34			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	206.23	Sqm	**578.60**	119326.97			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	9.29	Sqm	**680.10**	6316.77			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.93	Cum	**694.61**	645.99			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.93	Cum	**1237.00**	1150.41			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.93	Cum	**1377.70**	1281.26			0.93
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.93	Cum	**516.50**	480.35			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	6.67	Sqm	**63.20**	421.82			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	15.18	No.	**5588.70**	84833.45			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	5.35	Cum	**149.30**	798.07			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	44.181	Cum	**1159.00**	51205.23			
	Coarse Aggregates (100 Km lead)	89.412	Cum	**1075.00**	96117.80			
	Cement (30 km lead)	42.549	MT	**742.00**	31571.35			
	Boulder (60 Km lead)	0.93	Cum	**1159.00**	1077.87			
	Brick (15 km lead)	557.00	No.	**3.18**	1771.26			
	Steel (30 Km lead)	2.28	MT	**742.00**	1692.00			
	TOTAL (In Rs.)				**1299189.62**			
	TOTAL (In Rs.)				**1299189.62**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	44.18	Cum	**584.64**	25829.70	2582.97		
	Coarse Aggregate	89.41	Cum	**944.26**	84428.08	8442.81		
	Boulders	0.93	Cum	**694.61**	645.99	64.60		
	Total					11090.38		
	For 1 nos. fall, Total Seigniorage charges					**11090.38**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR KARMA DISTRIBUTARY							
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
	SHARDA TYPE FALL OF HEIGHT 0.61 METER AT CH. 8.150 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.62*	*1.93*	*2.199*	*5.209*	*Cum*
	Section 2-2	*2*	*4.10*	*2.08*	*2.199*	*37.506*	*Cum*
	Section 3-3	*2*	*3.95*	*1.96*	*2.199*	*34.049*	*Cum*
	Section 5-5	*2*	*7.06*	*2.08*	*2.199*	*64.501*	*Cum*
	Section 6-6	*2*	*3.52*	*1.44*	*2.199*	*22.261*	*Cum*
	U/S Key Floor	*1*	*0.625*	*5.950*	*0.850*	*3.161*	*Cum*
	U/S Floor	*1*	*1.290*	*5.950*	*2.000*	*15.351*	*Cum*
	D/S Floor	*1*	*4.707*	*5.950*	*2.150*	*60.214*	*Cum*
		1	*4.250*	*5.950*	*1.950*	*49.311*	*Cum*
	D/S Key Floor	*1*	*0.625*	*5.950*	*0.850*	*3.161*	*Cum*
	Toe Wall D/S Portion	*1*	*16.600*	*0.750*	*0.900*	*11.205*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*3.500*	*0.600*	*0.750*	*3.150*	*Cum*
						309.08	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*5.95*	*0.15*	*0.48*	*Cum*
		1	*0.782*	*5.95*	*0.15*	*0.70*	*Cum*
		1	*0.287*	*5.95*	*0.15*	*0.26*	*Cum*
		1	*0.070*	*5.95*	*0.15*	*0.06*	*Cum*
		1	*4.989*	*5.95*	*0.15*	*4.45*	*Cum*
		1	*0.353*	*5.95*	*0.15*	*0.32*	*Cum*
		1	*2.888*	*5.95*	*0.15*	*2.58*	*Cum*
		1	*0.782*	*5.95*	*0.15*	*0.70*	*Cum*
		1	*0.542*	*5.95*	*0.15*	*0.48*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.62*	*1.93*	*0.15*	*0.36*	*Cum*
	Section 2-2	*2*	*4.10*	*2.08*	*0.15*	*2.56*	*Cum*
	Section 3-3	*2*	*3.95*	*1.96*	*0.15*	*2.32*	*Cum*
	Section 5-5	*2*	*7.06*	*2.08*	*0.15*	*4.40*	*Cum*
	Section 6-6	*2*	*3.52*	*1.44*	*0.15*	*1.52*	*Cum*
	Toe Wall D/S Portion	*1*	*16.60*	*0.75*	*0.30*	*3.74*	*Cum*
	Toe Wall D/S Portion	*1*	*16.30*	*0.45*	*0.60*	*4.40*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.50*	*0.60*	*0.15*	*0.63*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.50*	*0.30*	*0.60*	*1.26*	*Cum*
	TOTAL					**31.21**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.62*	*0.45*	*0.45*	*0.25*	*Cum*
		2	*0.62*	*1.04*	*1.96*	*2.50*	*Cum*
		2	*0.62*	*1.78*	*0.55*	*1.20*	*Cum*
	Section 2-2	*2*	*4.10*	*1.23*	*1.35*	*13.56*	*Cum*
		2	*4.10*	*1.78*	*1.00*	*14.60*	*Cum*
	Section 3-3	*2*	*3.46*	*1.17*	*1.15*	*9.26*	*Cum*
		2	*3.46*	*1.66*	*1.20*	*13.76*	*Cum*
	Section 5-5	*2*	*7.02*	*0.45*	*0.45*	*2.84*	*Cum*
		2	*7.02*	*1.04*	*1.96*	*28.57*	*Cum*
		2	*7.02*	*1.78*	*0.55*	*13.72*	*Cum*
	Section 6-6	*2*	*4.35*	*0.45*	*0.45*	*1.76*	*Cum*
		2	*4.35*	*0.80*	*1.15*	*7.94*	*Cum*
		2	*4.35*	*1.29*	*0.50*	*5.61*	*Cum*
	Floor	*1*	*0.63*	*5.95*	*0.70*	*2.60*	*Cum*
		1	*1.24*	*5.95*	*0.50*	*3.69*	*Cum*
		1	*0.53*	*5.95*	*0.05*	*0.16*	*Cum*
		1	*4.71*	*5.95*	*0.55*	*15.40*	*Cum*
		1	*0.28*	*5.95*	*0.25*	*0.42*	*Cum*
		1	*0.20*	*5.95*	*0.40*	*0.48*	*Cum*
		1	*4.05*	*5.95*	*0.50*	*12.05*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.63*	*5.95*	*0.70*	*2.60*	*Cum*
	Crest	*1*	*1.00*	*5.95*	*1.28*	*7.62*	*Cum*
	TOTAL					**160.59**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.80*	*5.95*	*0.15*	*0.71*	*Cum*
	Coping over Abutment Top	*2*	*20.89*	*0.45*	*0.05*	*0.94*	*Cum*
	Slab Bridge						
	Slab	*1*	*6.75*	*6.5*	*0.46*	*20.07*	*Cum*
	Wearing coat	*1*	*6.75*	*5.50*	*0.07*	*2.60*	*Cum*
	Dirt wall	*2*	*0.40*	*6.5*	*0.65*	*3.38*	*Cum*
	pedastial	*2*	*0.82*	*6.5*	*0.50*	*5.33*	*Cum*
	TOTAL					**33.04**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*20*	*59*	*7.61*		*2.466*	*1107.1*	*Kg*
a2	*12*	*45*	*7.30*		*0.888*	*291.6*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*31*	*7.53*		*0.616*	*143.9*	*Kg*
a5	*10*	*34*	*7.20*		*0.616*	*150.9*	*Kg*
x1	*12*	*112*	*2.70*		*0.888*	*268.5*	*Kg*
x2	*16*	*112*	*1.47*		*1.578*	*258.9*	*Kg*
x3	*10*	*24*	*6.65*		*0.616*	*98.4*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**160.59**	**0.30%**	**0.48**	**7850**	**3781.93**	**Kg**
	TOTAL REINFORCEMENT STEEL (in kg)					**6109.25**	**Kg'**
	TOTAL REINFORCEMENT STEEL (in MT)					**6.11**	**MT**

6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.62*		*0.45*	*1.11*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.62*		*1.96*	*4.82*	*Sqm*
		4		*1.04*	*1.96*	*8.14*	*Sqm*
		4	*0.62*		*0.55*	*1.35*	*Sqm*
		4		*1.78*	*0.55*	*3.91*	*Sqm*
	Section 2-2	*4*	*4.10*		*1.35*	*22.14*	*Sqm*
		4		*1.23*	*1.35*	*6.62*	*Sqm*
		4	*4.10*		*1.00*	*16.40*	*Sqm*
		4		*1.78*	*1.00*	*7.12*	*Sqm*
	Section 3-3	*4*	*3.46*		*1.15*	*15.89*	*Sqm*
		4		*1.17*	*1.15*	*5.36*	*Sqm*
		4	*3.46*		*1.20*	*16.58*	*Sqm*
		4		*1.66*	*1.20*	*7.97*	*Sqm*
	Section 5-5	*4*	*7.02*		*0.45*	*12.64*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*7.02*		*1.96*	*55.04*	*Sqm*
		4		*1.04*	*1.96*	*8.14*	*Sqm*
		4	*7.02*		*0.55*	*15.45*	*Sqm*
		4		*1.78*	*0.55*	*3.91*	*Sqm*
	Section 6-6	*4*	*4.35*		*0.45*	*7.82*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*4.35*		*1.15*	*19.99*	*Sqm*
		4		*0.80*	*1.15*	*3.66*	*Sqm*
		4	*4.35*		*0.50*	*8.69*	*Sqm*
		4		*1.29*	*0.50*	*2.58*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*5.95*	*0.70*	*8.33*	*Sqm*
		2	*1.24*		*0.50*	*1.24*	*Sqm*
		2		*5.95*	*0.50*	*5.95*	*Sqm*
		2	*0.53*		*0.05*	*0.05*	*Sqm*
		2		*5.95*	*0.05*	*0.60*	*Sqm*
		2	*4.71*		*0.55*	*5.18*	*Sqm*
		2		*5.95*	*0.55*	*6.55*	*Sqm*
		2	*0.28*		*0.25*	*0.14*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*5.95*	*0.25*	*2.98*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*5.95*	*0.40*	*4.76*	*Sqm*
		2	*4.05*		*0.50*	*4.05*	*Sqm*
		2		*5.95*	*0.50*	*5.95*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*5.95*	*0.70*	*8.33*	*Sqm*
	Crest	*2*	*1.004*		*1.275*	*2.56*	*Sqm*
		2		*5.95*	*1.275*	*15.17*	*Sqm*
	Toe Wall D/S Portion	*2*	*16.60*		*0.30*	*9.96*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*16.30*		*0.60*	*19.56*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.50*		*0.15*	*2.10*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.50*		*0.60*	*8.40*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**373.58**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.50*	*5.52*		*38.66*	*Sqm*
	TOTAL					**38.66**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*3.50*	*5.35*	*0.30*	**5.62**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*3.50*	*5.35*	*0.15*	**5.62**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*20.89*	*0.45*		*9.40*	*Sqm*
	On Abutment Top (Right Side)	*1*	*20.89*	*0.45*		*9.40*	*Sqm*
	TOTAL					**18.80**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		7.03		7.03	**Cum**
	Abutment						
	Section 1-1	2	*0.62*	*1.15*		*1.411*	*Cum*
	Section 2-2	2	*4.10*	*0.67*		*5.460*	*Cum*
	Section 3-3	2	*3.95*	*0.58*		*4.602*	*Cum*
	Section 5-5	2	*7.06*	*1.15*		*16.206*	*Cum*
	Section 6-6	2	*3.52*	*1.16*		*8.169*	*Cum*
	D/S protection	2					
	Toe wall	1	*16.60*	*0.09*		*1.494*	*Cum*
		2	*3.50*	*0.08*		*0.537*	*Cum*
	TOTAL					**44.91**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.61 METER AT CH. 9.150 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.62*	*1.93*	*2.016*	*4.776*	*Cum*
	Section 2-2	*2*	*4.10*	*2.08*	*2.016*	*34.385*	*Cum*
	Section 3-3	*2*	*3.95*	*1.96*	*2.016*	*31.216*	*Cum*
	Section 5-5	*2*	*7.06*	*2.08*	*2.016*	*59.133*	*Cum*
	Section 6-6	*2*	*3.52*	*1.44*	*2.016*	*20.408*	*Cum*
	U/S Key Floor	*1*	*0.625*	*5.300*	*0.850*	*2.816*	*Cum*
	U/S Floor	*1*	*1.290*	*5.300*	*1.818*	*12.430*	*Cum*
	D/S Floor	*1*	*4.707*	*5.300*	*2.016*	*50.293*	*Cum*
		1	*4.250*	*5.300*	*1.816*	*40.905*	*Cum*
	D/S Key Floor	*1*	*0.625*	*5.300*	*0.850*	*2.816*	*Cum*
	Toe Wall D/S Portion	*1*	*15.950*	*0.750*	*0.900*	*10.766*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*3.500*	*0.600*	*0.750*	*3.150*	*Cum*
						273.09	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*5.30*	*0.15*	*0.43*	*Cum*
		1	*0.782*	*5.30*	*0.15*	*0.62*	*Cum*
		1	*0.287*	*5.30*	*0.15*	*0.23*	*Cum*
		1	*0.070*	*5.30*	*0.15*	*0.06*	*Cum*
		1	*4.989*	*5.30*	*0.15*	*3.97*	*Cum*
		1	*0.353*	*5.30*	*0.15*	*0.28*	*Cum*
		1	*2.888*	*5.30*	*0.15*	*2.30*	*Cum*
		1	*0.782*	*5.30*	*0.15*	*0.62*	*Cum*
		1	*0.542*	*5.30*	*0.15*	*0.43*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.62*	*1.93*	*0.15*	*0.36*	*Cum*
	Section 2-2	*2*	*4.10*	*2.08*	*0.15*	*2.56*	*Cum*
	Section 3-3	*2*	*3.95*	*1.96*	*0.15*	*2.32*	*Cum*
	Section 5-5	*2*	*7.06*	*2.08*	*0.15*	*4.40*	*Cum*
	Section 6-6	*2*	*3.52*	*1.44*	*0.15*	*1.52*	*Cum*
	Toe Wall D/S Portion	*1*	*15.95*	*0.75*	*0.30*	*3.59*	*Cum*
	Toe Wall D/S Portion	*1*	*15.65*	*0.45*	*0.60*	*4.23*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.50*	*0.60*	*0.15*	*0.63*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.50*	*0.30*	*0.60*	*1.26*	*Cum*
	TOTAL					**29.79**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.62*	*0.45*	*0.45*	*0.25*	*Cum*
		2	*0.62*	*1.04*	*1.96*	*2.50*	*Cum*
		2	*0.62*	*1.78*	*0.55*	*1.20*	*Cum*
	Section 2-2	*2*	*4.10*	*1.23*	*1.35*	*13.56*	*Cum*
		2	*4.10*	*1.78*	*1.00*	*14.60*	*Cum*
	Section 3-3	*2*	*3.46*	*1.17*	*1.15*	*9.26*	*Cum*
		2	*3.46*	*1.66*	*1.20*	*13.76*	*Cum*
	Section 5-5	*2*	*7.02*	*0.45*	*0.45*	*2.84*	*Cum*
		2	*7.02*	*1.04*	*1.96*	*28.57*	*Cum*
		2	*7.02*	*1.78*	*0.55*	*13.72*	*Cum*
	Section 6-6	*2*	*4.35*	*0.45*	*0.45*	*1.76*	*Cum*
		2	*4.35*	*0.80*	*1.15*	*7.94*	*Cum*
		2	*4.35*	*1.29*	*0.50*	*5.61*	*Cum*
	Floor	*1*	*0.63*	*5.30*	*0.70*	*2.32*	*Cum*
		1	*1.24*	*5.30*	*0.50*	*3.29*	*Cum*
		1	*0.53*	*5.30*	*0.05*	*0.14*	*Cum*
		1	*4.71*	*5.30*	*0.55*	*13.72*	*Cum*
		1	*0.28*	*5.30*	*0.25*	*0.37*	*Cum*
		1	*0.20*	*5.30*	*0.40*	*0.42*	*Cum*
		1	*4.05*	*5.30*	*0.50*	*10.73*	*Cum*
		1	*0.63*	*5.30*	*0.70*	*2.32*	*Cum*
	Crest	*1*	*1.00*	*5.30*	*1.28*	*6.78*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**155.67**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.80*	*5.30*	*0.15*	*0.64*	*Cum*
	Coping over Abutment Top	*2*	*20.89*	*0.45*	*0.05*	*0.94*	*Cum*
	Slab Bridge						
	Slab	*1*	*6.10*	*6.5*	*0.46*	*18.14*	*Cum*
	Wearing coat	*1*	*6.10*	*5.50*	*0.07*	*2.35*	*Cum*
	Dirt wall	*2*	*0.40*	*6.5*	*0.65*	*3.38*	*Cum*
	pedastial	*2*	*0.82*	*6.5*	*0.50*	*5.33*	*Cum*
	TOTAL					**30.77**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*20*	*51*	*6.86*		*2.466*	*862.7*	*Kg*
a2	*12*	*35*	*7.30*		*0.888*	*226.8*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*29*	*6.78*		*0.616*	*121.2*	*Kg*
a5	*10*	*28*	*7.10*		*0.616*	*122.6*	*Kg*
x1	*12*	*102*	*2.65*		*0.888*	*240.0*	*Kg*
x2	*16*	*102*	*1.42*		*1.578*	*227.8*	*Kg*
x3	*10*	*24*	*6.00*		*0.616*	*88.8*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**155.67**	**0.30%**	**0.47**	**7850**	**3666.10**	**Kg**
	TOTAL REINFORCEMENT STEEL (in kg)					**5563.84**	**Kg'**
	TOTAL REINFORCEMENT STEEL (in MT)					**5.56**	**MT**

6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.62*		*0.45*	*1.11*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.62*		*1.96*	*4.82*	*Sqm*
		4		*1.04*	*1.96*	*8.14*	*Sqm*
		4	*0.62*		*0.55*	*1.35*	*Sqm*
		4		*1.78*	*0.55*	*3.91*	*Sqm*
	Section 2-2	*4*	*4.10*		*1.35*	*22.14*	*Sqm*
		4		*1.23*	*1.35*	*6.62*	*Sqm*
		4	*4.10*		*1.00*	*16.40*	*Sqm*
		4		*1.78*	*1.00*	*7.12*	*Sqm*
	Section 3-3	*4*	*3.46*		*1.15*	*15.89*	*Sqm*
		4		*1.17*	*1.15*	*5.36*	*Sqm*
		4	*3.46*		*1.20*	*16.58*	*Sqm*
		4		*1.66*	*1.20*	*7.97*	*Sqm*
	Section 5-5	*4*	*7.02*		*0.45*	*12.64*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*7.02*		*1.96*	*55.04*	*Sqm*
		4		*1.04*	*1.96*	*8.14*	*Sqm*
		4	*7.02*		*0.55*	*15.45*	*Sqm*
		4		*1.78*	*0.55*	*3.91*	*Sqm*
	Section 6-6	*4*	*4.35*		*0.45*	*7.82*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*4.35*		*1.15*	*19.99*	*Sqm*
		4		*0.80*	*1.15*	*3.66*	*Sqm*
		4	*4.35*		*0.50*	*8.69*	*Sqm*
		4		*1.29*	*0.50*	*2.58*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*5.30*	*0.70*	*7.42*	*Sqm*
		2	*1.24*		*0.50*	*1.24*	*Sqm*
		2		*5.30*	*0.50*	*5.30*	*Sqm*
		2	*0.53*		*0.05*	*0.05*	*Sqm*
		2		*5.30*	*0.05*	*0.53*	*Sqm*
		2	*4.71*		*0.55*	*5.18*	*Sqm*
		2		*5.30*	*0.55*	*5.83*	*Sqm*
		2	*0.28*		*0.25*	*0.14*	*Sqm*
		2		*5.30*	*0.25*	*2.65*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*5.30*	*0.40*	*4.24*	*Sqm*
		2	*4.05*		*0.50*	*4.05*	*Sqm*
		2		*5.30*	*0.50*	*5.30*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*5.30*	*0.70*	*7.42*	*Sqm*
	Crest	*2*	*1.004*		*1.275*	*2.56*	*Sqm*
		2		*5.3*	*1.275*	*13.52*	*Sqm*
	Toe Wall D/S Portion	*2*	*15.95*		*0.30*	*9.57*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*15.65*		*0.60*	*18.78*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.50*		*0.15*	*2.10*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.50*		*0.60*	*8.40*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**366.00**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.50*	*5.52*		*38.66*	*Sqm*
	TOTAL					**38.66**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*3.50*	*4.70*	*0.30*	**4.94**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*3.50*	*4.70*	*0.15*	**4.94**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*20.89*	*0.45*		*9.40*	*Sqm*
	On Abutment Top (Right Side)	*1*	*20.89*	*0.45*		*9.40*	*Sqm*
	TOTAL					**18.80**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		6.71		6.71	**Cum**
	Abutment						
	Section 1-1	2	*0.62*	*1.02*		*1.260*	*Cum*
	Section 2-2	2	*4.10*	*0.53*		*4.321*	*Cum*
	Section 3-3	2	*3.95*	*0.47*		*3.685*	*Cum*
	Section 5-5	2	*7.06*	*1.02*		*14.471*	*Cum*
	Section 6-6	2	*3.52*	*1.26*		*8.858*	*Cum*
	D/S protection	2					
	Toe wall	1	*15.95*	*0.09*		*1.436*	*Cum*
		2	*3.50*	*0.08*		*0.537*	*Cum*
	TOTAL					**41.28**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 16.860 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.26*	*1.99*	*2.140*	*10.760*	*Cum*
	Section 2-2	*2*	*3.50*	*1.41*	*2.140*	*21.122*	*Cum*
	Section 3-3	*2*	*2.20*	*1.29*	*1.940*	*11.011*	*Cum*
	Section 5-5	*2*	*6.13*	*2.14*	*2.140*	*56.147*	*Cum*
	Section 6-6	*2*	*3.16*	*1.29*	*1.940*	*15.816*	*Cum*
	U/S Key Floor	*1*	*0.588*	*3.200*	*0.700*	*1.316*	*Cum*
	U/S Floor	*1*	*2.500*	*3.200*	*1.915*	*15.320*	*Cum*
	D/S Floor	*1*	*3.500*	*3.200*	*1.000*	*11.200*	*Cum*
		1	*2.500*	*3.200*	*0.800*	*6.400*	*Cum*
	D/S Key Floor	*1*	*0.763*	*3.200*	*1.400*	*3.416*	*Cum*
	Toe Wall D/S Portion	*1*	*13.000*	*0.750*	*0.900*	*8.775*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*3.000*	*0.600*	*0.750*	*2.700*	*Cum*
						163.98	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*3.20*	*0.15*	*0.26*	*Cum*
		1	*0.615*	*3.20*	*0.15*	*0.30*	*Cum*
		1	*5.643*	*3.20*	*0.15*	*2.71*	*Cum*
		1	*0.495*	*3.20*	*0.15*	*0.24*	*Cum*
		1	*0.521*	*3.20*	*0.15*	*0.25*	*Cum*
		1	*1.398*	*3.20*	*0.15*	*0.67*	*Cum*
		1	*0.542*	*3.20*	*0.15*	*0.26*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.26*	*1.99*	*0.15*	*0.75*	*Cum*
	Section 2-2	*2*	*3.50*	*1.41*	*0.15*	*1.48*	*Cum*
	Section 3-3	*2*	*2.20*	*1.29*	*0.15*	*0.85*	*Cum*
	Section 5-5	*2*	*6.13*	*2.14*	*0.15*	*3.94*	*Cum*
	Section 6-6	*2*	*3.16*	*1.29*	*0.15*	*1.22*	*Cum*
	Toe Wall D/S Portion	*1*	*13.00*	*0.75*	*0.30*	*2.93*	*Cum*
	Toe Wall D/S Portion	*1*	*12.70*	*0.45*	*0.60*	*3.43*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.00*	*0.60*	*0.15*	*0.54*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*3.00*	*0.30*	*0.60*	*1.08*	*Cum*
	TOTAL					**20.90**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.04*	*0.45*	*0.45*	*0.42*	*Cum*
		2	*1.04*	*1.07*	*2.07*	*4.59*	*Cum*
		2	*1.04*	*1.84*	*0.65*	*2.49*	*Cum*
	Section 2-2	*2*	*3.50*	*0.45*	*0.45*	*1.42*	*Cum*
		2	*3.50*	*0.78*	*1.10*	*6.01*	*Cum*
		2	*3.50*	*1.26*	*0.65*	*5.73*	*Cum*
	Section 3-3	*2*	*1.78*	*0.45*	*0.45*	*0.72*	*Cum*
		2	*1.78*	*0.72*	*0.90*	*2.31*	*Cum*
		2	*1.78*	*1.14*	*0.50*	*2.03*	*Cum*
	Section 5-5	*2*	*6.09*	*0.45*	*0.45*	*2.47*	*Cum*
		2	*6.09*	*1.07*	*2.07*	*26.90*	*Cum*
		2	*6.09*	*1.84*	*0.65*	*14.56*	*Cum*
	Section 6-6	*2*	*3.73*	*0.45*	*0.45*	*1.51*	*Cum*
		2	*3.73*	*0.72*	*0.90*	*4.83*	*Cum*
		2	*3.73*	*1.14*	*0.50*	*4.25*	*Cum*
	Floor	*1*	*0.59*	*3.20*	*0.55*	*1.03*	*Cum*
		1	*6.00*	*3.20*	*0.65*	*12.48*	*Cum*
		1	*0.57*	*3.20*	*0.35*	*0.64*	*Cum*
		1	*0.20*	*3.20*	*0.40*	*0.26*	*Cum*
		1	*2.30*	*3.20*	*0.50*	*3.68*	*Cum*
		1	*0.76*	*3.20*	*1.25*	*3.05*	*Cum*
	Crest	*1*	*1.04*	*3.20*	*1.48*	*4.90*	*Cum*
	TOTAL					**106.27**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.80*	*3.20*	*0.15*	*0.38*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*17.40*	*0.45*	*0.05*	*0.39*	*Cum*
	On Abutment Top (Right Side)	*1*	*17.40*	*0.45*	*0.05*	*0.39*	*Cum*
	TOTAL					**1.17**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**106.27**	**0.30%**	**0.32**	**7850**	**2502.74**	**Kg**
	Total Weight in Metric Tonne					**2.50**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.04*		*0.45*	*1.87*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.04*		*2.07*	*8.59*	*Sqm*
		4		*1.07*	*2.07*	*8.83*	*Sqm*
		4	*1.04*		*0.65*	*2.70*	*Sqm*
		4		*1.84*	*0.65*	*4.78*	*Sqm*
	Section 2-2	*4*	*3.50*		*0.45*	*6.30*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.50*		*1.10*	*15.40*	*Sqm*
		4		*0.78*	*1.10*	*3.43*	*Sqm*
		4	*3.50*		*0.65*	*9.10*	*Sqm*
		4		*1.26*	*0.65*	*3.28*	*Sqm*
	Section 3-3	*4*	*1.78*		*0.45*	*3.20*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.78*		*0.90*	*6.41*	*Sqm*
		4		*0.72*	*0.90*	*2.59*	*Sqm*
		4	*1.78*		*0.50*	*3.56*	*Sqm*
		4		*1.14*	*0.50*	*2.28*	*Sqm*
	Section 5-5	*4*	*6.09*		*0.45*	*10.96*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*6.09*		*2.07*	*50.30*	*Sqm*
		4		*1.07*	*2.07*	*8.83*	*Sqm*
		4	*6.09*		*0.65*	*15.83*	*Sqm*
		4		*1.84*	*0.65*	*4.78*	*Sqm*
	Section 6-6	*4*	*3.73*		*0.45*	*6.71*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.73*		*0.90*	*13.43*	*Sqm*
		4		*0.72*	*0.90*	*2.59*	*Sqm*
		4	*3.73*		*0.50*	*7.46*	*Sqm*
		4		*1.14*	*0.50*	*2.28*	*Sqm*
	Floor	*2*	*0.59*		*0.55*	*0.65*	*Sqm*
		2		*3.20*	*0.55*	*3.52*	*Sqm*
		2	*6.00*		*0.65*	*7.80*	*Sqm*
		2		*3.20*	*0.65*	*4.16*	*Sqm*
		2	*0.57*		*0.35*	*0.40*	*Sqm*
		2		*3.20*	*0.35*	*2.24*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*3.20*	*0.40*	*2.56*	*Sqm*
		2	*2.30*		*0.50*	*2.30*	*Sqm*
		2		*3.20*	*0.50*	*3.20*	*Sqm*
		2	*0.76*		*1.25*	*1.91*	*Sqm*
		2		*3.20*	*1.25*	*8.00*	*Sqm*
	Crest	*2*	*1.035*		*1.48*	*3.06*	*Sqm*
		2		*3.2*	*1.48*	*9.47*	*Sqm*
	Toe Wall D/S Portion	*2*	*13.00*		*0.30*	*7.80*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*12.70*		*0.60*	*15.24*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.00*		*0.15*	*1.80*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*3.00*		*0.60*	*7.20*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**293.10**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*3.00*	*2.25*		*13.50*	*Sqm*
	TOTAL					**13.50**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*3.00*	*2.60*	*0.30*	**2.34**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*3.00*	*2.60*	*0.15*	**2.34**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*17.40*	*0.45*		*7.83*	*Sqm*
	On Abutment Top (Right Side)	*1*	*17.40*	*0.45*		*7.83*	*Sqm*
	TOTAL					**15.66**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		6.25		6.25	**Cum**
	Abutment						
	Section 1-1	2	*1.26*	*1.04*		*2.629*	*Cum*
	Section 2-2	2	*3.50*	*1.03*		*7.182*	*Cum*
	Section 3-3	2	*2.20*	*0.79*		*3.494*	*Cum*
	Section 5-5	2	*6.13*	*1.04*		*12.757*	*Cum*
	Section 6-6	2	*3.16*	*0.79*		*5.018*	*Cum*
	D/S protection	2					
	Toe wall	2	*3.20*	*0.09*		*0.576*	*Cum*
		2	0.60	0.80		*0.960*	*Cum*
	TOTAL					**38.86**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH. 21.350 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.31*	*1.87*	*2.842*	*13.972*	*Cum*
	Section 2-2	*2*	*3.20*	*1.72*	*2.842*	*31.285*	*Cum*
	Section 3-3	*2*	*5.00*	*1.60*	*2.842*	*45.472*	*Cum*
	Section 5-5	*2*	*4.64*	*2.02*	*2.842*	*53.246*	*Cum*
	Section 6-6	*2*	*1.78*	*1.08*	*2.842*	*10.896*	*Cum*
	U/S Key Floor	*1*	*0.588*	*1.500*	*0.700*	*0.617*	*Cum*
	U/S Floor	*1*	*2.000*	*1.500*	*2.067*	*6.201*	*Cum*
	D/S Floor	*1*	*3.000*	*1.500*	*1.000*	*4.500*	*Cum*
		1	*5.500*	*1.500*	*0.800*	*6.600*	*Cum*
	D/S Key Floor	*1*	*0.663*	*1.500*	*1.000*	*0.994*	*Cum*
	Toe Wall D/S Portion	*1*	*7.950*	*0.750*	*0.900*	*5.366*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.000*	*0.600*	*0.750*	*1.800*	*Cum*
						180.95	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.50*	*0.15*	*0.12*	*Cum*
		1	*0.615*	*1.50*	*0.15*	*0.14*	*Cum*
		1	*4.452*	*1.50*	*0.15*	*1.00*	*Cum*
		1	*0.425*	*1.50*	*0.15*	*0.10*	*Cum*
		1	*3.863*	*1.50*	*0.15*	*0.87*	*Cum*
		1	*1.174*	*1.50*	*0.15*	*0.26*	*Cum*
		1	*0.542*	*1.50*	*0.15*	*0.12*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.31*	*1.87*	*0.15*	*0.74*	*Cum*
	Section 2-2	*2*	*3.20*	*1.72*	*0.15*	*1.65*	*Cum*
	Section 3-3	*2*	*5.00*	*1.60*	*0.15*	*2.40*	*Cum*
	Section 5-5	*2*	*4.64*	*2.02*	*0.15*	*2.81*	*Cum*
	Section 6-6	*2*	*1.78*	*1.08*	*0.15*	*0.58*	*Cum*
	Toe Wall D/S Portion	*1*	*7.95*	*0.75*	*0.30*	*1.79*	*Cum*
	Toe Wall D/S Portion	*1*	*7.65*	*0.45*	*0.60*	*2.07*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**15.72**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.09*	*0.45*	*0.45*	*0.44*	*Cum*
		2	*1.09*	*1.01*	*1.87*	*4.11*	*Cum*
		2	*1.09*	*1.72*	*0.65*	*2.44*	*Cum*
	Section 2-2	*2*	*3.20*	*0.82*	*0.50*	*2.62*	*Cum*
		2	*3.20*	*1.05*	*0.75*	*5.02*	*Cum*
		2	*3.20*	*1.42*	*1.20*	*10.91*	*Cum*
	Section 3-3	*2*	*4.69*	*0.82*	*0.50*	*3.84*	*Cum*
		2	*4.69*	*0.99*	*0.55*	*5.08*	*Cum*
		2	*4.69*	*1.30*	*1.40*	*17.05*	*Cum*
	Section 5-5	*2*	*4.59*	*0.45*	*0.45*	*1.86*	*Cum*
		2	*4.59*	*1.01*	*1.87*	*17.32*	*Cum*
		2	*4.59*	*1.72*	*0.65*	*10.27*	*Cum*
	Section 6-6	*2*	*2.43*	*0.45*	*0.45*	*0.98*	*Cum*
		2	*2.43*	*0.62*	*0.55*	*1.64*	*Cum*
		2	*2.43*	*0.93*	*0.55*	*2.48*	*Cum*
	Floor	*1*	*0.59*	*1.50*	*0.55*	*0.48*	*Cum*
		1	*5.00*	*1.50*	*0.65*	*4.88*	*Cum*
		1	*0.36*	*1.50*	*0.30*	*0.16*	*Cum*
		1	*0.20*	*1.50*	*0.45*	*0.14*	*Cum*
		1	*5.30*	*1.50*	*0.55*	*4.37*	*Cum*
		1	*0.66*	*1.50*	*0.85*	*0.84*	*Cum*
	Crest	*1*	*1.07*	*1.50*	*1.39*	*2.23*	*Cum*
	TOTAL					**99.16**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.85*	*1.50*	*0.15*	*0.19*	*Cum*
	Coping over Abutment Top	*2*	*9.53*	*0.45*	*0.05*	*0.43*	*Cum*
	Slab Bridge						
	Slab	*1*	*2.30*	*6.5*	*0.34*	*5.01*	*Cum*
	Wearing coat	*1*	*2.30*	*5.50*	*0.07*	*0.89*	*Cum*
	Dirt wall	*2*	*0.40*	*6.5*	*0.30*	*1.56*	*Cum*
	300 mm thick pedastial	*2*	*0.82*	*6.5*	*0.30*	*3.20*	*Cum*
	TOTAL					**11.27**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*36*	*2.76*		*1.578*	*156.8*	*Kg*
a2	*10*	*12*	*6.90*		*0.616*	*51.0*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*23*	*2.68*		*0.616*	*38.0*	*Kg*
a5	*10*	*8*	*6.80*		*0.616*	*33.5*	*Kg*
x1	*12*	*38*	*2.50*		*0.888*	*84.4*	*Kg*
x2	*16*	*38*	*1.94*		*1.578*	*116.3*	*Kg*
x3	*12*	*24*	*2.20*		*0.888*	*46.9*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**99.16**	**0.30%**	**0.30**	**7850**	**2335.20**	**Kg**
	TOTAL REINFORCEMENT STEEL (in kg)					**2870.04**	**Kg'**
	TOTAL REINFORCEMENT STEEL (in MT)					**2.87**	**MT**

6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.09*		*0.45*	*1.96*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.09*		*1.87*	*8.13*	*Sqm*
		4		*1.01*	*1.87*	*7.54*	*Sqm*
		4	*1.09*		*0.65*	*2.83*	*Sqm*
		4		*1.72*	*0.65*	*4.47*	*Sqm*
	Section 2-2	*4*	*3.20*		*0.50*	*6.40*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*3.20*		*0.75*	*9.60*	*Sqm*
		4		*1.05*	*0.75*	*3.14*	*Sqm*
		4	*3.20*		*1.20*	*15.36*	*Sqm*
		4		*1.42*	*1.20*	*6.82*	*Sqm*
	Section 3-3	*4*	*4.69*		*0.50*	*9.37*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*4.69*		*0.55*	*10.31*	*Sqm*
		4		*0.99*	*0.55*	*2.17*	*Sqm*
		4	*4.69*		*1.40*	*26.24*	*Sqm*
		4		*1.30*	*1.40*	*7.28*	*Sqm*
	Section 5-5	*4*	*4.59*		*0.45*	*8.27*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*4.59*		*1.87*	*34.30*	*Sqm*
		4		*1.01*	*1.87*	*7.54*	*Sqm*
		4	*4.59*		*0.65*	*11.94*	*Sqm*
		4		*1.72*	*0.65*	*4.47*	*Sqm*
	Section 6-6	*4*	*2.43*		*0.45*	*4.37*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.43*		*0.55*	*5.34*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*2.43*		*0.55*	*5.34*	*Sqm*
		4		*0.93*	*0.55*	*2.05*	*Sqm*
	Floor	*2*	*0.59*		*0.55*	*0.65*	*Sqm*
		2		*1.50*	*0.55*	*1.65*	*Sqm*
		2	*5.00*		*0.65*	*6.50*	*Sqm*
		2		*1.50*	*0.65*	*1.95*	*Sqm*
		2	*0.36*		*0.30*	*0.21*	*Sqm*
		2		*1.50*	*0.30*	*0.90*	*Sqm*
		2	*0.20*		*0.45*	*0.18*	*Sqm*
		2		*1.50*	*0.45*	*1.35*	*Sqm*
		2	*5.30*		*0.55*	*5.83*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*1.50*	*0.55*	*1.65*	*Sqm*
		2	*0.66*		*0.85*	*1.13*	*Sqm*
		2		*1.50*	*0.85*	*2.55*	*Sqm*
	Crest	*2*	*1.0725*		*1.385*	*2.97*	*Sqm*
		2		*1.5*	*1.385*	*4.16*	*Sqm*
	Toe Wall D/S Portion	*2*	*7.95*		*0.30*	*4.77*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*7.65*		*0.60*	*9.18*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**265.98**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*3.24*		*12.97*	*Sqm*
	TOTAL					**12.97**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*0.90*	*0.30*	**0.54**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*0.90*	*0.15*	**0.54**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.53*	*0.45*		*4.29*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.53*	*0.45*		*4.29*	*Sqm*
	TOTAL					**8.58**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		2.17		2.17	**Cum**
	Abutment						
	Section 1-1	2	*1.31*	*1.95*		*5.127*	*Cum*
	Section 2-2	2	*3.20*	*1.37*		*8.799*	*Cum*
	Section 3-3	2	*5.00*	*1.17*		*11.670*	*Cum*
	Section 5-5	2	*4.64*	*1.95*		*18.086*	*Cum*
	Section 6-6	2	*1.78*	*0.65*		*2.319*	*Cum*
	D/S protection	2					
	Toe wall	2	*7.95*	*0.15*	*0.60*	*1.431*	*Cum*
		2	*2.00*	*0.15*	*0.60*	*2.400*	*Cum*
	TOTAL					**52.01**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 22.150 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.33*	*1.44*	*1.597*	*6.111*	*Cum*
	Section 2-2	*2*	*2.80*	*1.66*	*1.597*	*14.846*	*Cum*
	Section 3-3	*2*	*5.20*	*1.54*	*1.597*	*25.578*	*Cum*
	Section 5-5	*2*	*3.97*	*1.59*	*1.597*	*20.222*	*Cum*
	Section 6-6	*2*	*1.49*	*1.02*	*1.597*	*4.838*	*Cum*
	U/S Key Floor	*1*	*0.625*	*1.100*	*0.850*	*0.584*	*Cum*
	U/S Floor	*1*	*2.000*	*1.100*	*1.307*	*2.875*	*Cum*
	D/S Floor	*1*	*3.000*	*1.100*	*0.850*	*2.805*	*Cum*
		1	*5.500*	*1.100*	*0.650*	*3.933*	*Cum*
	D/S Key Floor	*1*	*0.625*	*1.100*	*0.850*	*0.584*	*Cum*
	Toe Wall D/S Portion	*1*	*6.850*	*0.750*	*0.900*	*4.624*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.750*	*0.600*	*0.750*	*1.575*	*Cum*
						88.58	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.10*	*0.15*	*0.09*	*Cum*
		1	*0.783*	*1.10*	*0.15*	*0.13*	*Cum*
		1	*4.239*	*1.10*	*0.15*	*0.70*	*Cum*
		1	*0.283*	*1.10*	*0.15*	*0.05*	*Cum*
		1	*4.276*	*1.10*	*0.15*	*0.71*	*Cum*
		1	*0.783*	*1.10*	*0.15*	*0.13*	*Cum*
		1	*0.542*	*1.10*	*0.15*	*0.09*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.33*	*1.44*	*0.15*	*0.57*	*Cum*
	Section 2-2	*2*	*2.80*	*1.66*	*0.15*	*1.39*	*Cum*
	Section 3-3	*2*	*5.20*	*1.54*	*0.15*	*2.40*	*Cum*
	Section 5-5	*2*	*3.97*	*1.59*	*0.15*	*1.90*	*Cum*
	Section 6-6	*2*	*1.49*	*1.02*	*0.15*	*0.45*	*Cum*
	Toe Wall D/S Portion	*1*	*6.85*	*0.75*	*0.30*	*1.54*	*Cum*
	Toe Wall D/S Portion	*1*	*6.55*	*0.45*	*0.60*	*1.77*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.60*	*0.15*	*0.32*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.30*	*0.60*	*0.63*	*Cum*
	TOTAL					**12.87**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.25*	*0.45*	*0.45*	*0.51*	*Cum*
		2	*1.25*	*0.80*	*1.16*	*2.30*	*Cum*
		2	*1.25*	*1.29*	*0.50*	*1.61*	*Cum*
	Section 2-2	*2*	*2.65*	*0.82*	*0.50*	*2.17*	*Cum*
		2	*2.65*	*1.02*	*0.65*	*3.50*	*Cum*
		2	*2.65*	*1.36*	*1.00*	*7.21*	*Cum*
	Section 3-3	*2*	*4.83*	*0.82*	*0.50*	*3.96*	*Cum*
		2	*4.83*	*0.96*	*0.45*	*4.15*	*Cum*
		2	*4.83*	*1.24*	*1.20*	*14.36*	*Cum*
	Section 5-5	*2*	*3.93*	*0.45*	*0.45*	*1.59*	*Cum*
		2	*3.93*	*0.80*	*1.16*	*7.24*	*Cum*
		2	*3.93*	*1.29*	*0.50*	*5.08*	*Cum*
	Section 6-6	*2*	*2.11*	*0.45*	*0.45*	*0.85*	*Cum*
		2	*2.11*	*0.59*	*0.45*	*1.11*	*Cum*
		2	*2.11*	*0.87*	*0.50*	*1.83*	*Cum*
	Floor	*1*	*0.63*	*1.10*	*0.70*	*0.48*	*Cum*
		1	*5.00*	*1.10*	*0.50*	*2.75*	*Cum*
		1	*0.17*	*1.10*	*0.20*	*0.04*	*Cum*
		1	*0.20*	*1.10*	*0.40*	*0.09*	*Cum*
		1	*5.30*	*1.10*	*0.50*	*2.92*	*Cum*
		1	*0.63*	*1.10*	*0.70*	*0.48*	*Cum*
	Crest	*1*	*0.87*	*1.10*	*0.75*	*0.71*	*Cum*
	TOTAL					**64.93**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*1.10*	*0.15*	*0.12*	*Cum*
	Coping over Abutment Top	*2*	*7.52*	*0.45*	*0.05*	*0.34*	*Cum*
	Slab Bridge						
	Slab	*1*	*1.90*	*6.5*	*0.34*	*4.14*	*Cum*
	Wearing coat	*1*	*1.90*	*5.50*	*0.07*	*0.73*	*Cum*
	Dirt wall	*2*	*0.40*	*6.5*	*0.30*	*1.56*	*Cum*
	300 mm thick pedastial	*2*	*0.82*	*6.5*	*0.30*	*3.20*	*Cum*
	TOTAL					**10.09**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*36*	*2.36*		*1.578*	*134.1*	*Kg*
a2	*10*	*10*	*6.90*		*0.616*	*42.5*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*23*	*2.28*		*0.616*	*32.3*	*Kg*
a5	*10*	*7*	*6.80*		*0.616*	*29.3*	*Kg*
x1	*12*	*32*	*2.50*		*0.888*	*71.0*	*Kg*
x2	*16*	*32*	*1.94*		*1.578*	*98.0*	*Kg*
x3	*12*	*24*	*1.80*		*0.888*	*38.3*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**64.93**	**0.30%**	**0.19**	**7850**	**1529.18**	**Kg**
	TOTAL REINFORCEMENT STEEL (in kg)					**1982.72**	**Kg'**
	TOTAL REINFORCEMENT STEEL (in MT)					**1.98**	**MT**

6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.25*		*0.45*	*2.24*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.25*		*1.16*	*5.77*	*Sqm*
		4		*0.80*	*1.16*	*3.69*	*Sqm*
		4	*1.25*		*0.50*	*2.49*	*Sqm*
		4		*1.29*	*0.50*	*2.59*	*Sqm*
	Section 2-2	*4*	*2.65*		*0.50*	*5.30*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*2.65*		*0.65*	*6.89*	*Sqm*
		4		*1.02*	*0.65*	*2.64*	*Sqm*
		4	*2.65*		*1.00*	*10.60*	*Sqm*
		4		*1.36*	*1.00*	*5.44*	*Sqm*
	Section 3-3	*4*	*4.83*		*0.50*	*9.65*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*4.83*		*0.45*	*8.69*	*Sqm*
		4		*0.96*	*0.45*	*1.72*	*Sqm*
		4	*4.83*		*1.20*	*23.16*	*Sqm*
		4		*1.24*	*1.20*	*5.95*	*Sqm*
	Section 5-5	*4*	*3.93*		*0.45*	*7.07*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.93*		*1.16*	*18.18*	*Sqm*
		4		*0.80*	*1.16*	*3.69*	*Sqm*
		4	*3.93*		*0.50*	*7.86*	*Sqm*
		4		*1.29*	*0.50*	*2.59*	*Sqm*
	Section 6-6	*4*	*2.11*		*0.45*	*3.79*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.11*		*0.45*	*3.79*	*Sqm*
		4		*0.59*	*0.45*	*1.05*	*Sqm*
		4	*2.11*		*0.50*	*4.21*	*Sqm*
		4		*0.87*	*0.50*	*1.74*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.10*	*0.70*	*1.54*	*Sqm*
		2	*5.00*		*0.50*	*5.00*	*Sqm*
		2		*1.10*	*0.50*	*1.10*	*Sqm*
		2	*0.17*		*0.20*	*0.07*	*Sqm*
		2		*1.10*	*0.20*	*0.44*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*1.10*	*0.40*	*0.88*	*Sqm*
		2	*5.30*		*0.50*	*5.30*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*1.10*	*0.50*	*1.10*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.10*	*0.70*	*1.54*	*Sqm*
	Crest	*2*	*0.866*		*0.747*	*1.29*	*Sqm*
		2		*1.1*	*0.747*	*1.64*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.85*		*0.30*	*4.11*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.55*		*0.60*	*7.86*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.15*	*1.05*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.60*	*4.20*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**197.60**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.75*	*2.86*		*10.02*	*Sqm*
	TOTAL					**10.02**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.75*	*0.50*	*0.30*	**0.26**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.75*	*0.50*	*0.15*	**0.26**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*7.52*	*0.45*		*3.39*	*Sqm*
	On Abutment Top (Right Side)	*1*	*7.52*	*0.45*		*3.39*	*Sqm*
	TOTAL					**6.77**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.20		1.20	**Cum**
	Abutment						
	Section 1-1	2	*1.33*	*0.63*		*1.664*	*Cum*
	Section 2-2	2	*2.80*	*1.18*		*6.588*	*Cum*
	Section 3-3	2	*5.20*	*1.00*		*10.368*	*Cum*
	Section 5-5	2	*3.97*	*0.63*		*4.989*	*Cum*
	Section 6-6	2	*1.49*	*0.44*		*1.307*	*Cum*
	D/S protection	2					
	Toe wall	2	*6.85*	*0.15*	*0.60*	*1.233*	*Cum*
		2	*1.75*	*0.15*	*0.60*	*2.100*	*Cum*
	TOTAL					**29.45**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.915 METER AT CH. 23.050 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.02*	*1.63*	*1.839*	*6.117*	*Cum*
	Section 2-2	*2*	*2.00*	*1.60*	*1.839*	*11.770*	*Cum*
	Section 3-3	*2*	*6.45*	*1.48*	*1.839*	*35.110*	*Cum*
	Section 5-5	*2*	*3.09*	*1.78*	*1.839*	*20.248*	*Cum*
	Section 6-6	*2*	*1.20*	*0.96*	*1.839*	*4.219*	*Cum*
	U/S Key Floor	*1*	*0.613*	*0.900*	*0.800*	*0.441*	*Cum*
	U/S Floor	*1*	*2.000*	*0.900*	*1.815*	*3.267*	*Cum*
	D/S Floor	*1*	*2.000*	*0.900*	*0.850*	*1.530*	*Cum*
		1	*6.500*	*0.900*	*0.650*	*3.803*	*Cum*
	D/S Key Floor	*1*	*0.625*	*0.900*	*0.850*	*0.478*	*Cum*
	Toe Wall D/S Portion	*1*	*5.950*	*0.750*	*0.900*	*4.016*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*0.600*	*0.750*	*1.350*	*Cum*
						92.35	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*0.90*	*0.15*	*0.07*	*Cum*
		1	*0.726*	*0.90*	*0.15*	*0.10*	*Cum*
		1	*3.401*	*0.90*	*0.15*	*0.46*	*Cum*
		1	*0.353*	*0.90*	*0.15*	*0.05*	*Cum*
		1	*5.088*	*0.90*	*0.15*	*0.69*	*Cum*
		1	*0.783*	*0.90*	*0.15*	*0.11*	*Cum*
		1	*0.542*	*0.90*	*0.15*	*0.07*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.02*	*1.63*	*0.15*	*0.50*	*Cum*
	Section 2-2	*2*	*2.00*	*1.60*	*0.15*	*0.96*	*Cum*
	Section 3-3	*2*	*6.45*	*1.48*	*0.15*	*2.86*	*Cum*
	Section 5-5	*2*	*3.09*	*1.78*	*0.15*	*1.65*	*Cum*
	Section 6-6	*2*	*1.20*	*0.96*	*0.15*	*0.34*	*Cum*
	Toe Wall D/S Portion	*1*	*5.95*	*0.75*	*0.30*	*1.34*	*Cum*
	Toe Wall D/S Portion	*1*	*5.65*	*0.45*	*0.60*	*1.53*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.60*	*0.15*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**11.54**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.79*	*0.45*	*0.45*	*0.32*	*Cum*
		2	*0.79*	*0.89*	*1.47*	*2.07*	*Cum*
		2	*0.79*	*1.48*	*0.55*	*1.29*	*Cum*
	Section 2-2	*2*	*2.00*	*0.82*	*0.50*	*1.64*	*Cum*
		2	*2.00*	*0.99*	*0.55*	*2.17*	*Cum*
		2	*2.00*	*1.30*	*1.00*	*5.20*	*Cum*
	Section 3-3	*2*	*6.20*	*0.82*	*0.50*	*5.08*	*Cum*
		2	*6.20*	*0.93*	*0.35*	*4.01*	*Cum*
		2	*6.20*	*1.18*	*1.20*	*17.54*	*Cum*
	Section 5-5	*2*	*3.05*	*0.45*	*0.45*	*1.24*	*Cum*
		2	*3.05*	*0.89*	*1.47*	*7.96*	*Cum*
		2	*3.05*	*1.48*	*0.55*	*4.97*	*Cum*
	Section 6-6	*2*	*1.79*	*0.45*	*0.45*	*0.72*	*Cum*
		2	*1.79*	*0.56*	*0.35*	*0.69*	*Cum*
		2	*1.79*	*0.81*	*0.50*	*1.45*	*Cum*
	Floor	*1*	*0.61*	*0.90*	*0.65*	*0.36*	*Cum*
		1	*4.00*	*0.90*	*0.50*	*1.80*	*Cum*
		1	*0.33*	*0.90*	*0.25*	*0.07*	*Cum*
		1	*0.20*	*0.90*	*0.40*	*0.07*	*Cum*
		1	*6.30*	*0.90*	*0.50*	*2.84*	*Cum*
		1	*0.63*	*0.90*	*0.70*	*0.39*	*Cum*
	Crest	*1*	*0.77*	*0.90*	*1.05*	*0.73*	*Cum*
	TOTAL					**62.60**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*0.90*	*0.15*	*0.08*	*Cum*
	Coping over Abutment Top	*2*	*7.02*	*0.45*	*0.05*	*0.32*	*Cum*
	Slab Bridge						
	Slab	*1*	*1.70*	*6.5*	*0.34*	*3.70*	*Cum*
	Wearing coat	*1*	*1.70*	*5.50*	*0.07*	*0.65*	*Cum*
	Dirt wall	*2*	*0.40*	*6.5*	*0.30*	*1.56*	*Cum*
	300 mm thick pedastial	*2*	*0.82*	*6.5*	*0.30*	*3.20*	*Cum*
	TOTAL					**9.51**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*36*	*7.06*		*1.578*	*401.1*	*Kg*
a2	*10*	*9*	*7.30*		*0.616*	*40.5*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*23*	*2.08*		*0.616*	*29.5*	*Kg*
a5	*10*	*6*	*6.80*		*0.616*	*25.2*	*Kg*
x1	*12*	*28*	*2.50*		*0.888*	*62.2*	*Kg*
x2	*16*	*28*	*1.94*		*1.578*	*85.7*	*Kg*
x3	*12*	*24*	*1.60*		*0.888*	*34.1*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**62.60**	**0.30%**	**0.19**	**7850**	**1474.29**	**Kg**
	TOTAL REINFORCEMENT STEEL (in kg)					**2160.40**	**Kg'**
	TOTAL REINFORCEMENT STEEL (in MT)					**2.16**	**MT**

6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.79*		*0.45*	*1.43*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.79*		*1.47*	*4.64*	*Sqm*
		4		*0.89*	*1.47*	*5.21*	*Sqm*
		4	*0.79*		*0.55*	*1.74*	*Sqm*
		4		*1.48*	*0.55*	*3.25*	*Sqm*
	Section 2-2	*4*	*2.00*		*0.50*	*4.00*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*2.00*		*0.55*	*4.40*	*Sqm*
		4		*0.99*	*0.55*	*2.17*	*Sqm*
		4	*2.00*		*1.00*	*8.00*	*Sqm*
		4		*1.30*	*1.00*	*5.20*	*Sqm*
	Section 3-3	*4*	*6.20*		*0.50*	*12.39*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*6.20*		*0.35*	*8.67*	*Sqm*
		4		*0.93*	*0.35*	*1.30*	*Sqm*
		4	*6.20*		*1.20*	*29.74*	*Sqm*
		4		*1.18*	*1.20*	*5.66*	*Sqm*
	Section 5-5	*4*	*3.05*		*0.45*	*5.49*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.05*		*1.47*	*17.89*	*Sqm*
		4		*0.89*	*1.47*	*5.21*	*Sqm*
		4	*3.05*		*0.55*	*6.72*	*Sqm*
		4		*1.48*	*0.55*	*3.25*	*Sqm*
	Section 6-6	*4*	*1.79*		*0.45*	*3.21*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.79*		*0.35*	*2.50*	*Sqm*
		4		*0.56*	*0.35*	*0.78*	*Sqm*
		4	*1.79*		*0.50*	*3.57*	*Sqm*
		4		*0.81*	*0.50*	*1.62*	*Sqm*
	Floor	*2*	*0.61*		*0.65*	*0.80*	*Sqm*
		2		*0.90*	*0.65*	*1.17*	*Sqm*
		2	*4.00*		*0.50*	*4.00*	*Sqm*
		2		*0.90*	*0.50*	*0.90*	*Sqm*
		2	*0.33*		*0.25*	*0.17*	*Sqm*
		2		*0.90*	*0.25*	*0.45*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*0.90*	*0.40*	*0.72*	*Sqm*
		2	*6.30*		*0.50*	*6.30*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.90*	*0.50*	*0.90*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.90*	*0.70*	*1.26*	*Sqm*
	Crest	*2*	*0.7745*		*1.048*	*1.62*	*Sqm*
		2		*0.9*	*1.048*	*1.89*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.95*		*0.30*	*3.57*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.65*		*0.60*	*6.78*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**191.89**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*2.48*		*7.45*	*Sqm*
	TOTAL					**7.45**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.30*	*0.30*	**0.14**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.30*	*0.15*	**0.14**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*7.02*	*0.45*		*3.16*	*Sqm*
	On Abutment Top (Right Side)	*1*	*7.02*	*0.45*		*3.16*	*Sqm*
	TOTAL					**6.32**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		2.36		2.36	**Cum**
	Abutment						
	Section 1-1	2	*1.02*	*0.80*		*1.623*	*Cum*
	Section 2-2	2	*2.00*	*0.89*		*3.545*	*Cum*
	Section 3-3	2	*6.45*	*1.05*		*13.577*	*Cum*
	Section 5-5	2	*3.09*	*0.80*		*4.920*	*Cum*
	Section 6-6	2	*1.20*	*0.30*		*0.715*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.95*	*0.15*	*0.60*	*1.071*	*Cum*
		2	*1.50*	*0.15*	*0.60*	*1.800*	*Cum*
	TOTAL					**29.61**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH. 23.300 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.98*	*1.81*	*2.393*	*8.525*	*Cum*
	Section 2-2	*2*	*3.10*	*1.60*	*2.393*	*23.746*	*Cum*
	Section 3-3	*2*	*5.70*	*1.48*	*2.393*	*40.375*	*Cum*
	Section 5-5	*2*	*3.01*	*1.96*	*2.393*	*28.307*	*Cum*
	Section 6-6	*2*	*1.20*	*0.96*	*2.393*	*5.490*	*Cum*
	U/S Key Floor	*1*	*0.575*	*0.900*	*0.650*	*0.336*	*Cum*
	U/S Floor	*1*	*2.000*	*0.900*	*2.270*	*4.086*	*Cum*
	D/S Floor	*1*	*3.000*	*0.900*	*1.050*	*2.835*	*Cum*
		1	*6.000*	*0.900*	*0.850*	*4.590*	*Cum*
	D/S Key Floor	*1*	*0.675*	*0.900*	*1.050*	*0.638*	*Cum*
	Toe Wall D/S Portion	*1*	*5.950*	*0.750*	*0.900*	*4.016*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*0.600*	*0.750*	*1.350*	*Cum*
						124.29	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*0.90*	*0.15*	*0.07*	*Cum*
		1	*0.559*	*0.90*	*0.15*	*0.08*	*Cum*
		1	*4.477*	*0.90*	*0.15*	*0.60*	*Cum*
		1	*0.425*	*0.90*	*0.15*	*0.06*	*Cum*
		1	*4.438*	*0.90*	*0.15*	*0.60*	*Cum*
		1	*1.006*	*0.90*	*0.15*	*0.14*	*Cum*
		1	*0.542*	*0.90*	*0.15*	*0.07*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.98*	*1.81*	*0.15*	*0.53*	*Cum*
	Section 2-2	*2*	*3.10*	*1.60*	*0.15*	*1.49*	*Cum*
	Section 3-3	*2*	*5.70*	*1.48*	*0.15*	*2.53*	*Cum*
	Section 5-5	*2*	*3.01*	*1.96*	*0.15*	*1.77*	*Cum*
	Section 6-6	*2*	*1.20*	*0.96*	*0.15*	*0.34*	*Cum*
	Toe Wall D/S Portion	*1*	*5.95*	*0.75*	*0.30*	*1.34*	*Cum*
	Toe Wall D/S Portion	*1*	*5.65*	*0.45*	*0.60*	*1.53*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.60*	*0.15*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**11.96**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.76*	*0.45*	*0.45*	*0.31*	*Cum*
		2	*0.76*	*0.98*	*1.77*	*2.62*	*Cum*
		2	*0.76*	*1.66*	*0.70*	*1.76*	*Cum*
	Section 2-2	*2*	*3.10*	*0.82*	*0.50*	*2.54*	*Cum*
		2	*3.10*	*0.99*	*0.55*	*3.36*	*Cum*
		2	*3.10*	*1.30*	*1.30*	*10.48*	*Cum*
	Section 3-3	*2*	*5.45*	*0.82*	*0.50*	*4.46*	*Cum*
		2	*5.45*	*0.93*	*0.35*	*3.53*	*Cum*
		2	*5.45*	*1.18*	*1.50*	*19.28*	*Cum*
	Section 5-5	*2*	*3.01*	*0.45*	*0.45*	*1.22*	*Cum*
		2	*3.01*	*0.98*	*1.77*	*10.47*	*Cum*
		2	*3.01*	*1.66*	*0.70*	*7.01*	*Cum*
	Section 6-6	*2*	*1.79*	*0.45*	*0.45*	*0.72*	*Cum*
		2	*1.79*	*0.56*	*0.35*	*0.69*	*Cum*
		2	*1.79*	*0.81*	*0.50*	*1.45*	*Cum*
	Floor	*1*	*0.58*	*0.90*	*0.50*	*0.26*	*Cum*
		1	*5.00*	*0.90*	*0.70*	*3.15*	*Cum*
		1	*0.36*	*0.90*	*0.30*	*0.10*	*Cum*
		1	*0.20*	*0.90*	*0.50*	*0.09*	*Cum*
		1	*5.80*	*0.90*	*0.60*	*3.13*	*Cum*
		1	*0.68*	*0.90*	*0.90*	*0.55*	*Cum*
	Crest	*1*	*0.83*	*0.90*	*1.35*	*1.00*	*Cum*
	TOTAL					**78.18**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*0.90*	*0.15*	*0.08*	*Cum*
	Coping over Abutment Top	*2*	*7.47*	*0.45*	*0.05*	*0.34*	*Cum*
	Slab Bridge						
	Slab	*1*	*1.70*	*6.5*	*0.34*	*3.70*	*Cum*
	Wearing coat	*1*	*1.70*	*5.50*	*0.07*	*0.65*	*Cum*
	Dirt wall	*2*	*0.40*	*6.5*	*0.30*	*1.56*	*Cum*
	300 mm thick pedastial	*2*	*0.82*	*6.5*	*0.30*	*3.20*	*Cum*
	TOTAL					**9.53**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*36*	*6.56*		*1.578*	*372.7*	*Kg*
a2	*10*	*9*	*6.90*		*0.616*	*38.3*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*23*	*2.08*		*0.616*	*29.5*	*Kg*
a5	*10*	*6*	*6.80*		*0.616*	*25.2*	*Kg*
x1	*12*	*28*	*2.50*		*0.888*	*62.2*	*Kg*
x2	*16*	*28*	*1.94*		*1.578*	*85.7*	*Kg*
x3	*12*	*24*	*1.60*		*0.888*	*34.1*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**78.18**	**0.30%**	**0.23**	**7850**	**1841.06**	**Kg**
	TOTAL REINFORCEMENT STEEL (in kg)					**2496.54**	**Kg'**
	TOTAL REINFORCEMENT STEEL (in MT)					**2.50**	**MT**

6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.76*		*0.45*	*1.36*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.76*		*1.77*	*5.35*	*Sqm*
		4		*0.98*	*1.77*	*6.95*	*Sqm*
		4	*0.76*		*0.70*	*2.11*	*Sqm*
		4		*1.66*	*0.70*	*4.65*	*Sqm*
	Section 2-2	*4*	*3.10*		*0.50*	*6.20*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*3.10*		*0.55*	*6.82*	*Sqm*
		4		*0.99*	*0.55*	*2.17*	*Sqm*
		4	*3.10*		*1.30*	*16.13*	*Sqm*
		4		*1.30*	*1.30*	*6.76*	*Sqm*
	Section 3-3	*4*	*5.45*		*0.50*	*10.89*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*5.45*		*0.35*	*7.62*	*Sqm*
		4		*0.93*	*0.35*	*1.30*	*Sqm*
		4	*5.45*		*1.50*	*32.67*	*Sqm*
		4		*1.18*	*1.50*	*7.08*	*Sqm*
	Section 5-5	*4*	*3.01*		*0.45*	*5.43*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.01*		*1.77*	*21.34*	*Sqm*
		4		*0.98*	*1.77*	*6.95*	*Sqm*
		4	*3.01*		*0.70*	*8.44*	*Sqm*
		4		*1.66*	*0.70*	*4.65*	*Sqm*
	Section 6-6	*4*	*1.79*		*0.45*	*3.21*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.79*		*0.35*	*2.50*	*Sqm*
		4		*0.56*	*0.35*	*0.78*	*Sqm*
		4	*1.79*		*0.50*	*3.57*	*Sqm*
		4		*0.81*	*0.50*	*1.62*	*Sqm*
	Floor	*2*	*0.58*		*0.50*	*0.58*	*Sqm*
		2		*0.90*	*0.50*	*0.90*	*Sqm*
		2	*5.00*		*0.70*	*7.00*	*Sqm*
		2		*0.90*	*0.70*	*1.26*	*Sqm*
		2	*0.36*		*0.30*	*0.21*	*Sqm*
		2		*0.90*	*0.30*	*0.54*	*Sqm*
		2	*0.20*		*0.50*	*0.20*	*Sqm*
		2		*0.90*	*0.50*	*0.90*	*Sqm*
		2	*5.80*		*0.60*	*6.96*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.90*	*0.60*	*1.08*	*Sqm*
		2	*0.68*		*0.90*	*1.22*	*Sqm*
		2		*0.90*	*0.90*	*1.62*	*Sqm*
	Crest	*2*	*0.825*		*1.35*	*2.23*	*Sqm*
		2		*0.9*	*1.35*	*2.43*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.95*		*0.30*	*3.57*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.65*		*0.60*	*6.78*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**226.29**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*2.48*		*7.45*	*Sqm*
	TOTAL					**7.45**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.30*	*0.30*	**0.14**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.30*	*0.15*	**0.14**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*7.47*	*0.45*		*3.36*	*Sqm*
	On Abutment Top (Right Side)	*1*	*7.47*	*0.45*		*3.36*	*Sqm*
	TOTAL					**6.72**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		2.81		2.81	**Cum**
	Abutment						
	Section 1-1	2	*0.98*	*1.28*		*2.520*	*Cum*
	Section 2-2	2	*3.10*	*1.11*		*6.906*	*Cum*
	Section 3-3	2	*5.70*	*0.96*		*10.961*	*Cum*
	Section 5-5	2	*3.01*	*1.28*		*7.729*	*Cum*
	Section 6-6	2	*1.20*	*0.48*		*1.145*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.95*	*0.15*	*0.60*	*1.071*	*Cum*
		2	*1.50*	*0.15*	*0.60*	*1.800*	*Cum*
	TOTAL					**34.94**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR CHAURAHA MR.						
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 3.190 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.20*	*1.99*	*2.854*	*13.572*	*Cum*
	Section 2-2	*2*	*3.10*	*1.26*	*2.854*	*22.288*	*Cum*
	Section 3-3	*2*	*1.13*	*1.14*	*2.654*	*6.838*	*Cum*
	Section 5-5	*2*	*2.93*	*2.14*	*2.854*	*35.745*	*Cum*
	Section 6-6	*2*	*1.71*	*1.14*	*2.654*	*10.317*	*Cum*
	U/S Key Floor	*1*	*0.600*	*2.150*	*0.750*	*0.968*	*Cum*
	U/S Floor	*1*	*2.000*	*2.150*	*1.846*	*7.938*	*Cum*
	D/S Floor	*1*	*3.500*	*2.150*	*0.950*	*7.149*	*Cum*
		1	*2.000*	*2.150*	*0.750*	*3.225*	*Cum*
	D/S Key Floor	*1*	*0.700*	*2.150*	*1.150*	*1.731*	*Cum*
	Toe Wall D/S Portion	*1*	*6.700*	*0.750*	*0.900*	*4.523*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.500*	*0.600*	*0.750*	*2.250*	*Cum*
						116.54	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*2.15*	*0.15*	*0.17*	*Cum*
		1	*0.670*	*2.15*	*0.15*	*0.22*	*Cum*
		1	*5.167*	*2.15*	*0.15*	*1.67*	*Cum*
		1	*0.424*	*2.15*	*0.15*	*0.14*	*Cum*
		1	*0.146*	*2.15*	*0.15*	*0.05*	*Cum*
		1	*1.118*	*2.15*	*0.15*	*0.36*	*Cum*
		1	*0.542*	*2.15*	*0.15*	*0.17*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.20*	*1.99*	*0.15*	*0.71*	*Cum*
	Section 2-2	*2*	*3.10*	*1.26*	*0.15*	*1.17*	*Cum*
	Section 3-3	*2*	*1.13*	*1.14*	*0.15*	*0.39*	*Cum*
	Section 5-5	*2*	*2.93*	*2.14*	*0.15*	*1.88*	*Cum*
	Section 6-6	*2*	*1.71*	*1.14*	*0.15*	*0.58*	*Cum*
	Toe Wall D/S Portion	*1*	*6.70*	*0.75*	*0.30*	*1.51*	*Cum*
	Toe Wall D/S Portion	*1*	*6.40*	*0.45*	*0.60*	*1.73*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.60*	*0.15*	*0.45*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.30*	*0.60*	*0.90*	*Cum*
	TOTAL					**12.09**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.97*	*0.45*	*0.45*	*0.39*	*Cum*
		2	*0.97*	*0.99*	*1.81*	*3.50*	*Cum*
		2	*0.97*	*1.69*	*0.60*	*1.97*	*Cum*
	Section 2-2	*2*	*3.10*	*0.45*	*0.45*	*1.26*	*Cum*
		2	*3.10*	*0.71*	*0.85*	*3.71*	*Cum*
		2	*3.10*	*1.11*	*0.60*	*4.13*	*Cum*
	Section 3-3	*2*	*1.36*	*0.45*	*0.45*	*0.55*	*Cum*
		2	*1.36*	*0.65*	*0.65*	*1.14*	*Cum*
		2	*1.36*	*0.99*	*0.50*	*1.34*	*Cum*
	Section 5-5	*2*	*2.89*	*0.45*	*0.45*	*1.17*	*Cum*
		2	*2.89*	*0.99*	*1.81*	*10.40*	*Cum*
		2	*2.89*	*1.69*	*0.60*	*5.84*	*Cum*
	Section 6-6	*2*	*1.63*	*0.45*	*0.45*	*0.66*	*Cum*
		2	*1.63*	*0.65*	*0.65*	*1.37*	*Cum*
		2	*1.63*	*0.99*	*0.50*	*1.61*	*Cum*
	Floor	*1*	*0.60*	*2.15*	*0.60*	*0.77*	*Cum*
		1	*5.50*	*2.15*	*0.60*	*7.10*	*Cum*
		1	*0.61*	*2.15*	*0.30*	*0.39*	*Cum*
		1	*0.20*	*2.15*	*0.40*	*0.17*	*Cum*
		1	*1.80*	*2.15*	*0.50*	*1.94*	*Cum*
		1	*0.70*	*2.15*	*1.00*	*1.51*	*Cum*
	Crest	*1*	*1.06*	*2.15*	*1.31*	*2.98*	*Cum*
	TOTAL					**53.90**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.85*	*2.15*	*0.15*	*0.27*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.99*	*0.45*	*0.05*	*0.25*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.99*	*0.45*	*0.05*	*0.25*	*Cum*
	TOTAL					**0.77**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**53.90**	**0.30%**	**0.16**	**7850**	**1269.29**	**Kg**
	Total Weight in Metric Tonne					**1.27**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.97*		*0.45*	*1.75*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.97*		*1.81*	*7.05*	*Sqm*
		4		*0.99*	*1.81*	*7.21*	*Sqm*
		4	*0.97*		*0.60*	*2.33*	*Sqm*
		4		*1.69*	*0.60*	*4.05*	*Sqm*
	Section 2-2	*4*	*3.10*		*0.45*	*5.58*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.10*		*0.85*	*10.54*	*Sqm*
		4		*0.71*	*0.85*	*2.40*	*Sqm*
		4	*3.10*		*0.60*	*7.44*	*Sqm*
		4		*1.11*	*0.60*	*2.66*	*Sqm*
	Section 3-3	*4*	*1.36*		*0.45*	*2.44*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.36*		*0.65*	*3.52*	*Sqm*
		4		*0.65*	*0.65*	*1.68*	*Sqm*
		4	*1.36*		*0.50*	*2.71*	*Sqm*
		4		*0.99*	*0.50*	*1.98*	*Sqm*
	Section 5-5	*4*	*2.89*		*0.45*	*5.19*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.89*		*1.81*	*20.93*	*Sqm*
		4		*0.99*	*1.81*	*7.21*	*Sqm*
		4	*2.89*		*0.60*	*6.92*	*Sqm*
		4		*1.69*	*0.60*	*4.05*	*Sqm*
	Section 6-6	*4*	*1.63*		*0.45*	*2.93*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.63*		*0.65*	*4.24*	*Sqm*
		4		*0.65*	*0.65*	*1.68*	*Sqm*
		4	*1.63*		*0.50*	*3.26*	*Sqm*
		4		*0.99*	*0.50*	*1.98*	*Sqm*
	Floor	*2*	*0.60*		*0.60*	*0.72*	*Sqm*
		2		*2.15*	*0.60*	*2.58*	*Sqm*
		2	*5.50*		*0.60*	*6.60*	*Sqm*
		2		*2.15*	*0.60*	*2.58*	*Sqm*
		2	*0.61*		*0.30*	*0.36*	*Sqm*
		2		*2.15*	*0.30*	*1.29*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*2.15*	*0.40*	*1.72*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*2.15*	*0.50*	*2.15*	*Sqm*
		2	*0.70*		*1.00*	*1.40*	*Sqm*
		2		*2.15*	*1.00*	*4.30*	*Sqm*
	Crest	*2*	*1.06*		*1.309*	*2.78*	*Sqm*
		2		*2.15*	*1.309*	*5.63*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.70*		*0.30*	*4.02*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.40*		*0.60*	*7.68*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.15*	*1.50*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.60*	*6.00*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**181.12**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.50*	*2.32*		*11.61*	*Sqm*
	TOTAL					**11.61**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.50*	*1.55*	*0.30*	**1.16**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.50*	*1.55*	*0.15*	**1.16**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.99*	*0.45*		*4.95*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.99*	*0.45*		*4.95*	*Sqm*
	TOTAL					**9.89**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		4.74		4.74	**Cum**
	Abutment						
	Section 1-1	2	*1.20*	*2.00*		*4.786*	*Cum*
	Section 2-2	2	*3.10*	*0.97*		*5.993*	*Cum*
	Section 3-3	2	*1.13*	*0.74*		*1.675*	*Cum*
	Section 5-5	2	*2.93*	*2.00*		*11.722*	*Cum*
	Section 6-6	2	*1.71*	*0.74*		*2.527*	*Cum*
	D/S protection	2					
	Toe wall	2	*6.70*	*0.08*		*1.072*	*Cum*
		2	2.50	0.08		*0.383*	*Cum*
	TOTAL					**32.90**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 4.175 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.13*	*1.53*	*1.261*	*4.387*	*Cum*
	Section 2-2	*2*	*4.10*	*1.78*	*1.261*	*18.406*	*Cum*
	Section 3-3	*2*	*3.70*	*1.66*	*1.261*	*15.490*	*Cum*
	Section 5-5	*2*	*2.75*	*1.68*	*1.261*	*11.690*	*Cum*
	Section 6-6	*2*	*0.77*	*0.96*	*1.261*	*1.852*	*Cum*
	U/S Key Floor	*1*	*0.625*	*2.150*	*0.850*	*1.142*	*Cum*
	U/S Floor	*1*	*2.000*	*2.150*	*1.815*	*7.805*	*Cum*
	D/S Floor	*1*	*3.750*	*2.150*	*0.850*	*6.853*	*Cum*
		1	*3.750*	*2.150*	*0.650*	*5.241*	*Cum*
	D/S Key Floor	*1*	*0.625*	*2.150*	*0.850*	*1.142*	*Cum*
	Toe Wall D/S Portion	*1*	*6.700*	*0.750*	*0.900*	*4.523*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.000*	*2.450*	*0.750*	*7.350*	*Cum*
						85.88	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*2.15*	*0.15*	*0.17*	*Cum*
		1	*0.726*	*2.15*	*0.15*	*0.23*	*Cum*
		1	*5.367*	*2.15*	*0.15*	*1.73*	*Cum*
		1	*0.282*	*2.15*	*0.15*	*0.09*	*Cum*
		1	*2.147*	*2.15*	*0.15*	*0.69*	*Cum*
		1	*0.782*	*2.15*	*0.15*	*0.25*	*Cum*
		1	*0.542*	*2.15*	*0.15*	*0.17*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.13*	*1.53*	*0.15*	*0.52*	*Cum*
	Section 2-2	*2*	*4.10*	*1.78*	*0.15*	*2.19*	*Cum*
	Section 3-3	*2*	*3.70*	*1.66*	*0.15*	*1.84*	*Cum*
	Section 5-5	*2*	*2.75*	*1.68*	*0.15*	*1.39*	*Cum*
	Section 6-6	*2*	*0.77*	*0.96*	*0.15*	*0.22*	*Cum*
	Toe Wall D/S Portion	*1*	*6.70*	*0.75*	*0.30*	*1.51*	*Cum*
	Toe Wall D/S Portion	*1*	*6.40*	*0.45*	*0.60*	*1.73*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*2.45*	*0.15*	*1.47*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*2.45*	*0.60*	*5.88*	*Cum*
	TOTAL					**20.10**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.56*	*0.45*	*0.45*	*0.23*	*Cum*
		2	*0.56*	*0.84*	*1.31*	*1.23*	*Cum*
		2	*0.56*	*1.38*	*0.50*	*0.78*	*Cum*
	Section 2-2	*2*	*4.10*	*0.82*	*0.50*	*3.36*	*Cum*
		2	*4.10*	*1.08*	*0.85*	*7.49*	*Cum*
		2	*4.10*	*1.48*	*1.00*	*12.14*	*Cum*
	Section 3-3	*2*	*3.36*	*0.82*	*0.50*	*2.75*	*Cum*
		2	*3.36*	*1.02*	*0.65*	*4.43*	*Cum*
		2	*3.36*	*1.36*	*1.20*	*10.95*	*Cum*
	Section 5-5	*2*	*2.72*	*0.45*	*0.45*	*1.10*	*Cum*
		2	*2.72*	*0.84*	*1.31*	*5.98*	*Cum*
		2	*2.72*	*1.38*	*0.50*	*3.76*	*Cum*
	Section 6-6	*2*	*1.45*	*0.45*	*0.45*	*0.59*	*Cum*
		2	*1.45*	*0.56*	*0.65*	*1.04*	*Cum*
		2	*1.45*	*0.81*	*0.50*	*1.17*	*Cum*
	Floor	*1*	*0.63*	*2.15*	*0.70*	*0.94*	*Cum*
		1	*5.75*	*2.15*	*0.50*	*6.18*	*Cum*
		1	*0.55*	*2.15*	*0.20*	*0.24*	*Cum*
		1	*0.20*	*2.15*	*0.40*	*0.17*	*Cum*
		1	*3.55*	*2.15*	*0.50*	*3.82*	*Cum*
		1	*0.63*	*2.15*	*0.70*	*0.94*	*Cum*
	Crest	*1*	*0.79*	*2.15*	*0.87*	*1.47*	*Cum*
	TOTAL					**70.75**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.65*	*2.15*	*0.15*	*0.21*	*Cum*
	Coping over Abutment Top	*2*	*7.42*	*0.45*	*0.05*	*0.33*	*Cum*
	Slab Bridge						
	Slab	*1*	*2.95*	*5.5*	*0.41*	*6.59*	*Cum*
	Wearing coat	*1*	*2.95*	*4.50*	*0.07*	*0.93*	*Cum*
	Dirt wall	*2*	*0.40*	*5.5*	*0.30*	*1.32*	*Cum*
	300 mm thick pedastial	*2*	*0.82*	*5.5*	*0.30*	*2.71*	*Cum*
	TOTAL					**12.09**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*31*	*3.41*		*1.578*	*166.8*	*Kg*
a2	*10*	*15*	*6.30*		*0.616*	*58.3*	*Kg*
a3	*10*	*2*	*5.40*		*0.616*	*6.7*	*Kg*
a4	*10*	*19*	*3.33*		*0.616*	*39.0*	*Kg*
a5	*10*	*11*	*5.80*		*0.616*	*39.3*	*Kg*
x1	*12*	*48*	*2.50*		*0.888*	*106.6*	*Kg*
x2	*16*	*48*	*1.94*		*1.578*	*147.0*	*Kg*
x3	*12*	*20*	*2.85*		*0.888*	*50.6*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**70.75**	**0.30%**	**0.21**	**7850**	**1666.13**	**Kg**
	TOTAL REINFORCEMENT STEEL (in kg)					**2280.32**	**Kg'**
	TOTAL REINFORCEMENT STEEL (in MT)					**2.28**	**MT**

6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.56*		*0.45*	*1.01*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.56*		*1.31*	*2.93*	*Sqm*
		4		*0.84*	*1.31*	*4.40*	*Sqm*
		4	*0.56*		*0.50*	*1.12*	*Sqm*
		4		*1.38*	*0.50*	*2.77*	*Sqm*
	Section 2-2	*4*	*4.10*		*0.50*	*8.20*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*4.10*		*0.85*	*13.94*	*Sqm*
		4		*1.08*	*0.85*	*3.66*	*Sqm*
		4	*4.10*		*1.00*	*16.40*	*Sqm*
		4		*1.48*	*1.00*	*5.92*	*Sqm*
	Section 3-3	*4*	*3.36*		*0.50*	*6.71*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*3.36*		*0.65*	*8.72*	*Sqm*
		4		*1.02*	*0.65*	*2.64*	*Sqm*
		4	*3.36*		*1.20*	*16.10*	*Sqm*
		4		*1.36*	*1.20*	*6.53*	*Sqm*
	Section 5-5	*4*	*2.72*		*0.45*	*4.89*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.72*		*1.31*	*14.21*	*Sqm*
		4		*0.84*	*1.31*	*4.40*	*Sqm*
		4	*2.72*		*0.50*	*5.44*	*Sqm*
		4		*1.38*	*0.50*	*2.77*	*Sqm*
	Section 6-6	*4*	*1.45*		*0.45*	*2.60*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.45*		*0.65*	*3.76*	*Sqm*
		4		*0.56*	*0.65*	*1.44*	*Sqm*
		4	*1.45*		*0.50*	*2.89*	*Sqm*
		4		*0.81*	*0.50*	*1.62*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*2.15*	*0.70*	*3.01*	*Sqm*
		2	*5.75*		*0.50*	*5.75*	*Sqm*
		2		*2.15*	*0.50*	*2.15*	*Sqm*
		2	*0.55*		*0.20*	*0.22*	*Sqm*
		2		*2.15*	*0.20*	*0.86*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*2.15*	*0.40*	*1.72*	*Sqm*
		2	*3.55*		*0.50*	*3.55*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*2.15*	*0.50*	*2.15*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*2.15*	*0.70*	*3.01*	*Sqm*
	Crest	*2*	*0.786*		*0.867*	*1.36*	*Sqm*
		2		*2.15*	*0.867*	*3.73*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.70*		*0.30*	*4.02*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.40*		*0.60*	*7.68*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*2.45*	*0.15*	*1.47*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*2.45*	*0.60*	*5.88*	*Sqm*
	TOTAL					**206.23**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.32*		*9.29*	*Sqm*
	TOTAL					**9.29**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*1.55*	*0.30*	**0.93**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*1.55*	*0.15*	**0.93**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*7.42*	*0.45*		*3.34*	*Sqm*
	On Abutment Top (Right Side)	*1*	*7.42*	*0.45*		*3.34*	*Sqm*
	TOTAL					**6.67**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.97		1.97	**Cum**
	Abutment						
	Section 1-1	2	*1.13*	*0.37*		*0.840*	*Cum*
	Section 2-2	2	*4.10*	*0.45*		*3.649*	*Cum*
	Section 3-3	2	*3.70*	*0.35*		*2.619*	*Cum*
	Section 5-5	2	*2.75*	*0.37*		*2.038*	*Cum*
	Section 6-6	2	*0.77*	*0.30*		*0.457*	*Cum*
	D/S protection	2					
	Toe wall	2	*6.70*	*0.15*	*0.60*	*1.206*	*Cum*
		2	*2.00*	*0.15*	*0.60*	*2.400*	*Cum*
	TOTAL					**15.18**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.305 METER AT CH. 6.000 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.92*	*1.50*	*0.850*	*2.356*	*Cum*
	Section 2-2	*2*	*2.00*	*1.17*	*0.850*	*3.978*	*Cum*
	Section 3-3	*2*	*2.18*	*1.05*	*0.650*	*2.969*	*Cum*
	Section 5-5	*2*	*2.48*	*1.65*	*0.850*	*6.966*	*Cum*
	Section 6-6	*2*	*1.53*	*1.05*	*0.650*	*2.082*	*Cum*
	U/S Key Floor	*1*	*0.625*	*1.750*	*0.850*	*0.930*	*Cum*
	U/S Floor	*1*	*2.000*	*1.750*	*1.155*	*4.043*	*Cum*
	D/S Floor	*1*	*1.976*	*1.750*	*0.850*	*2.939*	*Cum*
		1	*3.000*	*1.750*	*0.650*	*3.413*	*Cum*
	D/S Key Floor	*1*	*0.625*	*1.750*	*0.650*	*0.711*	*Cum*
	Toe Wall D/S Portion	*1*	*5.850*	*0.750*	*0.900*	*3.949*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.750*	*0.600*	*0.750*	*1.575*	*Cum*
						35.91	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.75*	*0.15*	*0.14*	*Cum*
		1	*0.782*	*1.75*	*0.15*	*0.21*	*Cum*
		1	*3.567*	*1.75*	*0.15*	*0.94*	*Cum*
		1	*0.282*	*1.75*	*0.15*	*0.07*	*Cum*
		1	*1.446*	*1.75*	*0.15*	*0.38*	*Cum*
		1	*0.782*	*1.75*	*0.15*	*0.21*	*Cum*
		1	*0.542*	*1.75*	*0.15*	*0.14*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.92*	*1.50*	*0.15*	*0.42*	*Cum*
	Section 2-2	*2*	*2.00*	*1.17*	*0.15*	*0.70*	*Cum*
	Section 3-3	*2*	*2.18*	*1.05*	*0.15*	*0.69*	*Cum*
	Section 5-5	*2*	*2.48*	*1.65*	*0.15*	*1.23*	*Cum*
	Section 6-6	*2*	*1.53*	*1.05*	*0.15*	*0.48*	*Cum*
	Toe Wall D/S Portion	*1*	*5.85*	*0.75*	*0.30*	*1.32*	*Cum*
	Toe Wall D/S Portion	*1*	*5.55*	*0.45*	*0.60*	*1.50*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.60*	*0.15*	*0.32*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.30*	*0.60*	*0.63*	*Cum*
	TOTAL					**9.36**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.77*	*0.45*	*0.45*	*0.31*	*Cum*
		2	*0.77*	*0.75*	*1.01*	*1.16*	*Cum*
		2	*0.77*	*1.20*	*0.50*	*0.93*	*Cum*
	Section 2-2	*2*	*2.00*	*0.45*	*0.45*	*0.81*	*Cum*
		2	*2.00*	*0.66*	*0.70*	*1.85*	*Cum*
		2	*2.00*	*1.02*	*0.50*	*2.04*	*Cum*
	Section 3-3	*2*	*2.40*	*0.45*	*0.45*	*0.97*	*Cum*
		2	*2.40*	*0.60*	*0.50*	*1.44*	*Cum*
		2	*2.40*	*0.90*	*0.50*	*2.16*	*Cum*
	Section 5-5	*2*	*2.94*	*0.45*	*0.45*	*1.19*	*Cum*
		2	*2.94*	*0.75*	*1.01*	*4.44*	*Cum*
		2	*2.94*	*1.20*	*0.50*	*3.53*	*Cum*
	Section 6-6	*2*	*1.45*	*0.45*	*0.45*	*0.59*	*Cum*
		2	*1.45*	*0.60*	*0.50*	*0.87*	*Cum*
		2	*1.45*	*0.90*	*0.50*	*1.31*	*Cum*
	Floor	*1*	*0.63*	*1.75*	*0.70*	*0.77*	*Cum*
		1	*3.98*	*1.75*	*0.50*	*3.48*	*Cum*
		1	*0.50*	*1.75*	*0.20*	*0.17*	*Cum*
		1	*0.20*	*1.75*	*0.40*	*0.14*	*Cum*
		1	*2.80*	*1.75*	*0.50*	*2.45*	*Cum*
		1	*0.63*	*1.75*	*0.50*	*0.55*	*Cum*
	Crest	*1*	*0.70*	*1.75*	*0.64*	*0.78*	*Cum*
	TOTAL					**31.93**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*1.75*	*0.15*	*0.16*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.75*	*0.45*	*0.05*	*0.22*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.75*	*0.45*	*0.05*	*0.22*	*Cum*
	TOTAL					**0.60**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**31.93**	**0.30%**	**0.10**	**7850**	**751.90**	**Kg**
	Total Weight in Metric Tonne					**0.75**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.77*		*0.45*	*1.39*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.77*		*1.01*	*3.10*	*Sqm*
		4		*0.75*	*1.01*	*3.02*	*Sqm*
		4	*0.77*		*0.50*	*1.54*	*Sqm*
		4		*1.20*	*0.50*	*2.41*	*Sqm*
	Section 2-2	*4*	*2.00*		*0.45*	*3.60*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.00*		*0.70*	*5.60*	*Sqm*
		4		*0.66*	*0.70*	*1.85*	*Sqm*
		4	*2.00*		*0.50*	*4.00*	*Sqm*
		4		*1.02*	*0.50*	*2.04*	*Sqm*
	Section 3-3	*4*	*2.40*		*0.45*	*4.32*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.40*		*0.50*	*4.80*	*Sqm*
		4		*0.60*	*0.50*	*1.20*	*Sqm*
		4	*2.40*		*0.50*	*4.80*	*Sqm*
		4		*0.90*	*0.50*	*1.80*	*Sqm*
	Section 5-5	*4*	*2.94*		*0.45*	*5.29*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.94*		*1.01*	*11.81*	*Sqm*
		4		*0.75*	*1.01*	*3.02*	*Sqm*
		4	*2.94*		*0.50*	*5.88*	*Sqm*
		4		*1.20*	*0.50*	*2.41*	*Sqm*
	Section 6-6	*4*	*1.45*		*0.45*	*2.61*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.45*		*0.50*	*2.90*	*Sqm*
		4		*0.60*	*0.50*	*1.20*	*Sqm*
		4	*1.45*		*0.50*	*2.90*	*Sqm*
		4		*0.90*	*0.50*	*1.80*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.75*	*0.70*	*2.45*	*Sqm*
		2	*3.98*		*0.50*	*3.98*	*Sqm*
		2		*1.75*	*0.50*	*1.75*	*Sqm*
		2	*0.50*		*0.20*	*0.20*	*Sqm*
		2		*1.75*	*0.20*	*0.70*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*1.75*	*0.40*	*1.40*	*Sqm*
		2	*2.80*		*0.50*	*2.80*	*Sqm*
		2		*1.75*	*0.50*	*1.75*	*Sqm*
		2	*0.63*		*0.50*	*0.63*	*Sqm*
		2		*1.75*	*0.50*	*1.75*	*Sqm*
	Crest	*2*	*0.6975*		*0.636*	*0.89*	*Sqm*
		2		*1.75*	*0.636*	*2.23*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.85*		*0.30*	*3.51*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.55*		*0.60*	*6.66*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.15*	*1.05*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.60*	*4.20*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**128.36**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.75*	*2.05*		*7.18*	*Sqm*
	TOTAL					**7.18**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.75*	*1.15*	*0.30*	**0.60**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.75*	*1.15*	*0.15*	**0.60**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.75*	*0.45*		*4.39*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.75*	*0.45*		*4.39*	*Sqm*
	TOTAL					**8.77**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.39		1.39	**Cum**
	Abutment						
	Section 1-1	2	*0.92*	*0.13*		*0.246*	*Cum*
	Section 2-2	2	*2.00*	*0.13*		*0.534*	*Cum*
	Section 3-3	2	*2.18*	*0.07*		*0.305*	*Cum*
	Section 5-5	2	*2.48*	*0.13*		*0.662*	*Cum*
	Section 6-6	2	*1.53*	*0.07*		*0.214*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.85*	*0.09*		*1.053*	*Cum*
		2	1.75	0.08		*0.265*	*Cum*
	TOTAL					**4.67**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 6.750 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.95*	*1.56*	*1.218*	*3.616*	*Cum*
	Section 2-2	*2*	*2.00*	*1.14*	*1.218*	*5.554*	*Cum*
	Section 3-3	*2*	*2.19*	*1.02*	*1.018*	*4.548*	*Cum*
	Section 5-5	*2*	*2.36*	*1.71*	*1.218*	*9.864*	*Cum*
	Section 6-6	*2*	*1.47*	*1.02*	*1.018*	*3.042*	*Cum*
	U/S Key Floor	*1*	*0.625*	*1.200*	*0.850*	*0.638*	*Cum*
	U/S Floor	*1*	*2.000*	*1.200*	*1.218*	*2.923*	*Cum*
	D/S Floor	*1*	*2.000*	*1.200*	*0.850*	*2.040*	*Cum*
		1	*3.000*	*1.200*	*0.650*	*2.340*	*Cum*
	D/S Key Floor	*1*	*0.625*	*1.200*	*0.650*	*0.488*	*Cum*
	Toe Wall D/S Portion	*1*	*5.150*	*0.750*	*0.900*	*3.476*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*0.600*	*0.750*	*1.350*	*Cum*
						39.88	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.20*	*0.15*	*0.10*	*Cum*
		1	*0.782*	*1.20*	*0.15*	*0.14*	*Cum*
		1	*3.617*	*1.20*	*0.15*	*0.65*	*Cum*
		1	*0.282*	*1.20*	*0.15*	*0.05*	*Cum*
		1	*1.396*	*1.20*	*0.15*	*0.25*	*Cum*
		1	*0.782*	*1.20*	*0.15*	*0.14*	*Cum*
		1	*0.542*	*1.20*	*0.15*	*0.10*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.95*	*1.56*	*0.15*	*0.45*	*Cum*
	Section 2-2	*2*	*2.00*	*1.14*	*0.15*	*0.68*	*Cum*
	Section 3-3	*2*	*2.19*	*1.02*	*0.15*	*0.67*	*Cum*
	Section 5-5	*2*	*2.36*	*1.71*	*0.15*	*1.21*	*Cum*
	Section 6-6	*2*	*1.47*	*1.02*	*0.15*	*0.45*	*Cum*
	Toe Wall D/S Portion	*1*	*5.15*	*0.75*	*0.30*	*1.16*	*Cum*
	Toe Wall D/S Portion	*1*	*4.85*	*0.45*	*0.60*	*1.31*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.60*	*0.15*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**8.17**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.80*	*0.45*	*0.45*	*0.32*	*Cum*
		2	*0.80*	*0.78*	*1.11*	*1.38*	*Cum*
		2	*0.80*	*1.26*	*0.50*	*1.01*	*Cum*
	Section 2-2	*2*	*2.00*	*0.45*	*0.45*	*0.81*	*Cum*
		2	*2.00*	*0.65*	*0.65*	*1.68*	*Cum*
		2	*2.00*	*0.99*	*0.50*	*1.98*	*Cum*
	Section 3-3	*2*	*2.42*	*0.45*	*0.45*	*0.98*	*Cum*
		2	*2.42*	*0.59*	*0.45*	*1.27*	*Cum*
		2	*2.42*	*0.87*	*0.50*	*2.10*	*Cum*
	Section 5-5	*2*	*2.32*	*0.45*	*0.45*	*0.94*	*Cum*
		2	*2.32*	*0.78*	*1.11*	*4.01*	*Cum*
		2	*2.32*	*1.26*	*0.50*	*2.93*	*Cum*
	Section 6-6	*2*	*1.39*	*0.45*	*0.45*	*0.56*	*Cum*
		2	*1.39*	*0.59*	*0.45*	*0.73*	*Cum*
		2	*1.39*	*0.87*	*0.50*	*1.21*	*Cum*
	Floor	*1*	*0.63*	*1.20*	*0.70*	*0.53*	*Cum*
		1	*4.00*	*1.20*	*0.50*	*2.40*	*Cum*
		1	*0.55*	*1.20*	*0.20*	*0.13*	*Cum*
		1	*0.20*	*1.20*	*0.40*	*0.10*	*Cum*
		1	*2.80*	*1.20*	*0.50*	*1.68*	*Cum*
		1	*0.63*	*1.20*	*0.50*	*0.38*	*Cum*
	Crest	*1*	*0.72*	*1.20*	*0.76*	*0.65*	*Cum*
	TOTAL					**27.78**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*1.20*	*0.15*	*0.11*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.61*	*0.45*	*0.05*	*0.22*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.61*	*0.45*	*0.05*	*0.22*	*Cum*
	TOTAL					**0.54**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**27.78**	**0.30%**	**0.08**	**7850**	**654.34**	**Kg**
	Total Weight in Metric Tonne					**0.65**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.80*		*0.45*	*1.44*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.80*		*1.11*	*3.54*	*Sqm*
		4		*0.78*	*1.11*	*3.46*	*Sqm*
		4	*0.80*		*0.50*	*1.60*	*Sqm*
		4		*1.26*	*0.50*	*2.53*	*Sqm*
	Section 2-2	*4*	*2.00*		*0.45*	*3.60*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.00*		*0.65*	*5.20*	*Sqm*
		4		*0.65*	*0.65*	*1.68*	*Sqm*
		4	*2.00*		*0.50*	*4.00*	*Sqm*
		4		*0.99*	*0.50*	*1.98*	*Sqm*
	Section 3-3	*4*	*2.42*		*0.45*	*4.35*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.42*		*0.45*	*4.35*	*Sqm*
		4		*0.59*	*0.45*	*1.05*	*Sqm*
		4	*2.42*		*0.50*	*4.83*	*Sqm*
		4		*0.87*	*0.50*	*1.74*	*Sqm*
	Section 5-5	*4*	*2.32*		*0.45*	*4.17*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.32*		*1.11*	*10.27*	*Sqm*
		4		*0.78*	*1.11*	*3.46*	*Sqm*
		4	*2.32*		*0.50*	*4.64*	*Sqm*
		4		*1.26*	*0.50*	*2.53*	*Sqm*
	Section 6-6	*4*	*1.39*		*0.45*	*2.50*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.39*		*0.45*	*2.50*	*Sqm*
		4		*0.59*	*0.45*	*1.05*	*Sqm*
		4	*1.39*		*0.50*	*2.78*	*Sqm*
		4		*0.87*	*0.50*	*1.74*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.20*	*0.70*	*1.68*	*Sqm*
		2	*4.00*		*0.50*	*4.00*	*Sqm*
		2		*1.20*	*0.50*	*1.20*	*Sqm*
		2	*0.55*		*0.20*	*0.22*	*Sqm*
		2		*1.20*	*0.20*	*0.48*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*1.20*	*0.40*	*0.96*	*Sqm*
		2	*2.80*		*0.50*	*2.80*	*Sqm*
		2		*1.20*	*0.50*	*1.20*	*Sqm*
		2	*0.63*		*0.50*	*0.63*	*Sqm*
		2		*1.20*	*0.50*	*1.20*	*Sqm*
	Crest	*2*	*0.718*		*0.759*	*1.09*	*Sqm*
		2		*1.2*	*0.759*	*1.82*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.15*		*0.30*	*3.09*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.85*		*0.60*	*5.82*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**118.83**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.96*		*5.88*	*Sqm*
	TOTAL					**5.88**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.60*	*0.30*	**0.27**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.60*	*0.15*	**0.27**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.61*	*0.45*		*4.32*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.61*	*0.45*		*4.32*	*Sqm*
	TOTAL					**8.64**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.58		1.58	**Cum**
	Abutment						
	Section 1-1	2	*0.95*	*0.34*		*0.649*	*Cum*
	Section 2-2	2	*2.00*	*0.34*		*1.368*	*Cum*
	Section 3-3	2	*2.19*	*0.23*		*0.990*	*Cum*
	Section 5-5	2	*2.36*	*0.34*		*1.616*	*Cum*
	Section 6-6	2	*1.47*	*0.23*		*0.662*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.15*	*0.09*		*0.901*	*Cum*
		2	1.50	0.08		*0.233*	*Cum*
	TOTAL					**7.99**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 7.050 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.95*	*1.37*	*1.709*	*4.450*	*Cum*
	Section 2-2	*2*	*2.00*	*1.10*	*1.709*	*7.506*	*Cum*
	Section 3-3	*2*	*2.70*	*0.98*	*1.509*	*7.969*	*Cum*
	Section 5-5	*2*	*2.37*	*1.52*	*1.709*	*12.337*	*Cum*
	Section 6-6	*2*	*1.00*	*0.98*	*1.509*	*2.943*	*Cum*
	U/S Key Floor	*1*	*0.625*	*1.000*	*0.850*	*0.531*	*Cum*
	U/S Floor	*1*	*2.000*	*1.000*	*1.307*	*2.614*	*Cum*
	D/S Floor	*1*	*2.000*	*1.000*	*0.850*	*1.700*	*Cum*
		1	*3.000*	*1.000*	*0.650*	*1.950*	*Cum*
	D/S Key Floor	*1*	*0.625*	*1.000*	*0.850*	*0.531*	*Cum*
	Toe Wall D/S Portion	*1*	*4.950*	*0.750*	*0.900*	*3.341*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*0.600*	*0.750*	*1.350*	*Cum*
						47.22	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.00*	*0.15*	*0.08*	*Cum*
		1	*0.783*	*1.00*	*0.15*	*0.12*	*Cum*
		1	*3.618*	*1.00*	*0.15*	*0.54*	*Cum*
		1	*0.283*	*1.00*	*0.15*	*0.04*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*1.397*	*1.00*	*0.15*	*0.21*	*Cum*
		1	*0.782*	*1.00*	*0.15*	*0.12*	*Cum*
		1	*0.542*	*1.00*	*0.15*	*0.08*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.95*	*1.37*	*0.15*	*0.39*	*Cum*
	Section 2-2	*2*	*2.00*	*1.10*	*0.15*	*0.66*	*Cum*
	Section 3-3	*2*	*2.70*	*0.98*	*0.15*	*0.79*	*Cum*
	Section 5-5	*2*	*2.37*	*1.52*	*0.15*	*1.08*	*Cum*
	Section 6-6	*2*	*1.00*	*0.98*	*0.15*	*0.29*	*Cum*
	Toe Wall D/S Portion	*1*	*4.95*	*0.75*	*0.30*	*1.11*	*Cum*
	Toe Wall D/S Portion	*1*	*4.65*	*0.45*	*0.60*	*1.26*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.60*	*0.15*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**7.59**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.72*	*0.45*	*0.45*	*0.29*	*Cum*
		2	*0.72*	*0.76*	*1.04*	*1.14*	*Cum*
		2	*0.72*	*1.22*	*0.50*	*0.88*	*Cum*
	Section 2-2	*2*	*2.00*	*0.45*	*0.45*	*0.81*	*Cum*
		2	*2.00*	*0.62*	*0.58*	*1.45*	*Cum*
		2	*2.00*	*0.95*	*0.50*	*1.90*	*Cum*
	Section 3-3	*2*	*2.42*	*0.45*	*0.45*	*0.98*	*Cum*
		2	*2.42*	*0.56*	*0.38*	*1.04*	*Cum*
		2	*2.42*	*0.83*	*0.50*	*2.00*	*Cum*
	Section 5-5	*2*	*2.33*	*0.45*	*0.45*	*0.94*	*Cum*
		2	*2.33*	*0.76*	*1.04*	*3.67*	*Cum*
		2	*2.33*	*1.22*	*0.50*	*2.84*	*Cum*
	Section 6-6	*2*	*1.41*	*0.45*	*0.45*	*0.57*	*Cum*
		2	*1.41*	*0.56*	*0.38*	*0.60*	*Cum*
		2	*1.41*	*0.83*	*0.50*	*1.17*	*Cum*
	Floor	*1*	*0.63*	*1.00*	*0.70*	*0.44*	*Cum*
		1	*4.00*	*1.00*	*0.50*	*2.00*	*Cum*
		1	*0.55*	*1.00*	*0.20*	*0.11*	*Cum*
		1	*0.20*	*1.00*	*0.40*	*0.08*	*Cum*
		1	*2.80*	*1.00*	*0.50*	*1.40*	*Cum*
		1	*0.63*	*1.00*	*0.70*	*0.44*	*Cum*
	Crest	*1*	*0.71*	*1.00*	*0.73*	*0.52*	*Cum*
	TOTAL					**25.28**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*1.00*	*0.15*	*0.09*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.60*	*0.45*	*0.05*	*0.22*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.60*	*0.45*	*0.05*	*0.22*	*Cum*
	TOTAL					**0.52**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**25.28**	**0.30%**	**0.08**	**7850**	**595.30**	**Kg**
	Total Weight in Metric Tonne					**0.60**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.72*		*0.45*	*1.30*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.72*		*1.04*	*3.00*	*Sqm*
		4		*0.76*	*1.04*	*3.16*	*Sqm*
		4	*0.72*		*0.50*	*1.45*	*Sqm*
		4		*1.22*	*0.50*	*2.44*	*Sqm*
	Section 2-2	*4*	*2.00*		*0.45*	*3.60*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4	*2.00*		*0.58*	*4.64*	*Sqm*
		4		*0.62*	*0.58*	*1.45*	*Sqm*
		4	*2.00*		*0.50*	*4.00*	*Sqm*
		4		*0.95*	*0.50*	*1.90*	*Sqm*
	Section 3-3	*4*	*2.42*		*0.45*	*4.35*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.42*		*0.38*	*3.67*	*Sqm*
		4		*0.56*	*0.38*	*0.86*	*Sqm*
		4	*2.42*		*0.50*	*4.83*	*Sqm*
		4		*0.83*	*0.50*	*1.66*	*Sqm*
	Section 5-5	*4*	*2.33*		*0.45*	*4.19*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.33*		*1.04*	*9.65*	*Sqm*
		4		*0.76*	*1.04*	*3.16*	*Sqm*
		4	*2.33*		*0.50*	*4.66*	*Sqm*
		4		*1.22*	*0.50*	*2.44*	*Sqm*
	Section 6-6	*4*	*1.41*		*0.45*	*2.54*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.41*		*0.38*	*2.14*	*Sqm*
		4		*0.56*	*0.38*	*0.86*	*Sqm*
		4	*1.41*		*0.50*	*2.82*	*Sqm*
		4		*0.83*	*0.50*	*1.66*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.00*	*0.70*	*1.40*	*Sqm*
		2	*4.00*		*0.50*	*4.00*	*Sqm*
		2		*1.00*	*0.50*	*1.00*	*Sqm*
		2	*0.55*		*0.20*	*0.22*	*Sqm*
		2		*1.00*	*0.20*	*0.40*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*1.00*	*0.40*	*0.80*	*Sqm*
		2	*2.80*		*0.50*	*2.80*	*Sqm*
		2		*1.00*	*0.50*	*1.00*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.00*	*0.70*	*1.40*	*Sqm*
	Crest	*2*	*0.7135*		*0.731*	*1.04*	*Sqm*
		2		*1*	*0.731*	*1.46*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.95*		*0.30*	*2.97*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.65*		*0.60*	*5.58*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**113.02**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.96*		*5.89*	*Sqm*
	TOTAL					**5.89**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.40*	*0.30*	**0.18**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.40*	*0.15*	**0.18**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.60*	*0.45*		*4.32*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.60*	*0.45*		*4.32*	*Sqm*
	TOTAL					**8.64**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Under U/S floor	1		1.46		1.46	**Cum**
	Abutment						
	Section 1-1	2	*0.95*	*0.73*		*1.384*	*Cum*
	Section 2-2	2	*2.00*	*0.67*		*2.696*	*Cum*
	Section 3-3	2	*2.70*	*0.50*		*2.678*	*Cum*
	Section 5-5	2	*2.37*	*0.73*		*3.458*	*Cum*
	Section 6-6	2	*1.00*	*0.50*		*0.989*	*Cum*
	D/S protection	2					
	Toe wall	2	*1.00*	*0.09*		*0.180*	*Cum*
		2	0.60	0.80		*0.960*	*Cum*
	TOTAL					**13.80**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 7.200 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.95*	*1.37*	*1.653*	*4.305*	*Cum*
	Section 2-2	*2*	*2.00*	*1.10*	*1.653*	*7.260*	*Cum*
	Section 3-3	*2*	*2.70*	*0.98*	*1.453*	*7.674*	*Cum*
	Section 5-5	*2*	*2.37*	*1.52*	*1.653*	*11.933*	*Cum*
	Section 6-6	*2*	*1.00*	*0.98*	*1.453*	*2.834*	*Cum*
	U/S Key Floor	*1*	*0.625*	*1.000*	*0.850*	*0.531*	*Cum*
	U/S Floor	*1*	*2.000*	*1.000*	*1.307*	*2.614*	*Cum*
	D/S Floor	*1*	*2.000*	*1.000*	*0.850*	*1.700*	*Cum*
		1	*3.000*	*1.000*	*0.650*	*1.950*	*Cum*
	D/S Key Floor	*1*	*0.625*	*1.000*	*0.850*	*0.531*	*Cum*
	Toe Wall D/S Portion	*1*	*4.950*	*0.750*	*0.900*	*3.341*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*0.600*	*0.750*	*1.350*	*Cum*
						46.02	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.00*	*0.15*	*0.08*	*Cum*
		1	*0.783*	*1.00*	*0.15*	*0.12*	*Cum*
		1	*3.618*	*1.00*	*0.15*	*0.54*	*Cum*
		1	*0.283*	*1.00*	*0.15*	*0.04*	*Cum*
		1	*1.397*	*1.00*	*0.15*	*0.21*	*Cum*
		1	*0.782*	*1.00*	*0.15*	*0.12*	*Cum*
		1	*0.542*	*1.00*	*0.15*	*0.08*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.95*	*1.37*	*0.15*	*0.39*	*Cum*
	Section 2-2	*2*	*2.00*	*1.10*	*0.15*	*0.66*	*Cum*
	Section 3-3	*2*	*2.70*	*0.98*	*0.15*	*0.79*	*Cum*
	Section 5-5	*2*	*2.37*	*1.52*	*0.15*	*1.08*	*Cum*
	Section 6-6	*2*	*1.00*	*0.98*	*0.15*	*0.29*	*Cum*
	Toe Wall D/S Portion	*1*	*4.95*	*0.75*	*0.30*	*1.11*	*Cum*
	Toe Wall D/S Portion	*1*	*4.65*	*0.45*	*0.60*	*1.26*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.60*	*0.15*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**7.59**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.72*	*0.45*	*0.45*	*0.29*	*Cum*
		2	*0.72*	*0.76*	*1.04*	*1.14*	*Cum*
		2	*0.72*	*1.22*	*0.50*	*0.88*	*Cum*
	Section 2-2	*2*	*2.00*	*0.45*	*0.45*	*0.81*	*Cum*
		2	*2.00*	*0.62*	*0.58*	*1.45*	*Cum*
		2	*2.00*	*0.95*	*0.50*	*1.90*	*Cum*
	Section 3-3	*2*	*2.42*	*0.45*	*0.45*	*0.98*	*Cum*
		2	*2.42*	*0.56*	*0.38*	*1.04*	*Cum*
		2	*2.42*	*0.83*	*0.50*	*2.00*	*Cum*
	Section 5-5	*2*	*2.33*	*0.45*	*0.45*	*0.94*	*Cum*
		2	*2.33*	*0.76*	*1.04*	*3.67*	*Cum*
		2	*2.33*	*1.22*	*0.50*	*2.84*	*Cum*
	Section 6-6	*2*	*1.41*	*0.45*	*0.45*	*0.57*	*Cum*
		2	*1.41*	*0.56*	*0.38*	*0.60*	*Cum*
		2	*1.41*	*0.83*	*0.50*	*1.17*	*Cum*
	Floor	*1*	*0.63*	*1.00*	*0.70*	*0.44*	*Cum*
		1	*4.00*	*1.00*	*0.50*	*2.00*	*Cum*
		1	*0.55*	*1.00*	*0.20*	*0.11*	*Cum*
		1	*0.20*	*1.00*	*0.40*	*0.08*	*Cum*
		1	*2.80*	*1.00*	*0.50*	*1.40*	*Cum*
		1	*0.63*	*1.00*	*0.70*	*0.44*	*Cum*
	Crest	*1*	*0.71*	*1.00*	*0.73*	*0.52*	*Cum*
	TOTAL					**25.28**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*1.00*	*0.15*	*0.09*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.60*	*0.45*	*0.05*	*0.22*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.60*	*0.45*	*0.05*	*0.22*	*Cum*
	TOTAL					**0.52**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**25.28**	**0.30%**	**0.08**	**7850**	**595.30**	**Kg**
	Total Weight in Metric Tonne					**0.60**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.72*		*0.45*	*1.30*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.72*		*1.04*	*3.00*	*Sqm*
		4		*0.76*	*1.04*	*3.16*	*Sqm*
		4	*0.72*		*0.50*	*1.45*	*Sqm*
		4		*1.22*	*0.50*	*2.44*	*Sqm*
	Section 2-2	*4*	*2.00*		*0.45*	*3.60*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.00*		*0.58*	*4.64*	*Sqm*
		4		*0.62*	*0.58*	*1.45*	*Sqm*
		4	*2.00*		*0.50*	*4.00*	*Sqm*
		4		*0.95*	*0.50*	*1.90*	*Sqm*
	Section 3-3	*4*	*2.42*		*0.45*	*4.35*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.42*		*0.38*	*3.67*	*Sqm*
		4		*0.56*	*0.38*	*0.86*	*Sqm*
		4	*2.42*		*0.50*	*4.83*	*Sqm*
		4		*0.83*	*0.50*	*1.66*	*Sqm*
	Section 5-5	*4*	*2.33*		*0.45*	*4.19*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.33*		*1.04*	*9.65*	*Sqm*
		4		*0.76*	*1.04*	*3.16*	*Sqm*
		4	*2.33*		*0.50*	*4.66*	*Sqm*
		4		*1.22*	*0.50*	*2.44*	*Sqm*
	Section 6-6	*4*	*1.41*		*0.45*	*2.54*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.41*		*0.38*	*2.14*	*Sqm*
		4		*0.56*	*0.38*	*0.86*	*Sqm*
		4	*1.41*		*0.50*	*2.82*	*Sqm*
		4		*0.83*	*0.50*	*1.66*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.00*	*0.70*	*1.40*	*Sqm*
		2	*4.00*		*0.50*	*4.00*	*Sqm*
		2		*1.00*	*0.50*	*1.00*	*Sqm*
		2	*0.55*		*0.20*	*0.22*	*Sqm*
		2		*1.00*	*0.20*	*0.40*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*1.00*	*0.40*	*0.80*	*Sqm*
		2	*2.80*		*0.50*	*2.80*	*Sqm*
		2		*1.00*	*0.50*	*1.00*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.00*	*0.70*	*1.40*	*Sqm*
	Crest	*2*	*0.7135*		*0.731*	*1.04*	*Sqm*
		2		*1*	*0.731*	*1.46*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.95*		*0.30*	*2.97*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.65*		*0.60*	*5.58*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**113.02**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.96*		*5.89*	*Sqm*
	TOTAL					**5.89**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.40*	*0.30*	**0.18**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.40*	*0.15*	**0.18**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.60*	*0.45*		*4.32*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.60*	*0.45*		*4.32*	*Sqm*
	TOTAL					**8.64**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.46		1.46	**Cum**
	Abutment						
	Section 1-1	2	*0.95*	*0.68*		*1.286*	*Cum*
	Section 2-2	2	*2.00*	*0.66*		*2.640*	*Cum*
	Section 3-3	2	*2.70*	*0.49*		*2.624*	*Cum*
	Section 5-5	2	*2.37*	*0.68*		*3.214*	*Cum*
	Section 6-6	2	*1.00*	*0.49*		*0.969*	*Cum*
	D/S protection	2					
	Toe wall	2	*1.00*	*0.09*		*0.180*	*Cum*
		2	0.60	0.80		*0.960*	*Cum*
	TOTAL					**13.33**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 7.500 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.94*	*1.37*	*1.307*	*3.375*	*Cum*
	Section 2-2	*2*	*2.50*	*1.05*	*1.307*	*6.862*	*Cum*
	Section 3-3	*2*	*2.20*	*0.93*	*1.107*	*4.530*	*Cum*
	Section 5-5	*2*	*2.37*	*1.52*	*1.307*	*9.409*	*Cum*
	Section 6-6	*2*	*0.15*	*0.93*	*1.107*	*0.309*	*Cum*
	U/S Key Floor	*1*	*0.625*	*0.800*	*0.850*	*0.425*	*Cum*
	U/S Floor	*1*	*2.000*	*0.800*	*1.307*	*2.091*	*Cum*
	D/S Floor	*1*	*2.000*	*0.800*	*0.850*	*1.360*	*Cum*
		1	*3.000*	*0.800*	*0.650*	*1.560*	*Cum*
	D/S Key Floor	*1*	*0.625*	*0.800*	*0.850*	*0.425*	*Cum*
	Toe Wall D/S Portion	*1*	*2.300*	*0.750*	*0.900*	*1.553*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*1.500*	*0.750*	*3.375*	*Cum*
						35.27	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*0.80*	*0.15*	*0.07*	*Cum*
		1	*0.783*	*0.80*	*0.15*	*0.09*	*Cum*
		1	*3.420*	*0.80*	*0.15*	*0.41*	*Cum*
		1	*0.283*	*0.80*	*0.15*	*0.03*	*Cum*
		1	*1.597*	*0.80*	*0.15*	*0.19*	*Cum*
		1	*0.782*	*0.80*	*0.15*	*0.09*	*Cum*
		1	*0.542*	*0.80*	*0.15*	*0.07*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.94*	*1.37*	*0.15*	*0.39*	*Cum*
	Section 2-2	*2*	*2.50*	*1.05*	*0.15*	*0.79*	*Cum*
	Section 3-3	*2*	*2.20*	*0.93*	*0.15*	*0.61*	*Cum*
	Section 5-5	*2*	*2.37*	*1.52*	*0.15*	*1.08*	*Cum*
	Section 6-6	*2*	*0.15*	*0.93*	*0.15*	*0.04*	*Cum*
	Toe Wall D/S Portion	*1*	*2.30*	*0.75*	*0.30*	*0.52*	*Cum*
	Toe Wall D/S Portion	*1*	*2.00*	*0.45*	*0.60*	*0.54*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.50*	*1.50*	*0.15*	*0.34*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**5.80**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.72*	*0.45*	*0.45*	*0.29*	*Cum*
		2	*0.72*	*0.76*	*1.04*	*1.13*	*Cum*
		2	*0.72*	*1.22*	*0.50*	*0.87*	*Cum*
	Section 2-2	*2*	*2.50*	*0.45*	*0.45*	*1.01*	*Cum*
		2	*2.50*	*0.60*	*0.50*	*1.50*	*Cum*
		2	*2.50*	*0.90*	*0.50*	*2.25*	*Cum*
	Section 3-3	*2*	*1.96*	*0.45*	*0.45*	*0.79*	*Cum*
		2	*1.96*	*0.54*	*0.30*	*0.64*	*Cum*
		2	*1.96*	*0.78*	*0.50*	*1.53*	*Cum*
	Section 5-5	*2*	*2.32*	*0.45*	*0.45*	*0.94*	*Cum*
		2	*2.32*	*0.76*	*1.04*	*3.66*	*Cum*
		2	*2.32*	*1.22*	*0.50*	*2.84*	*Cum*
	Section 6-6	*2*	*0.54*	*0.45*	*0.45*	*0.22*	*Cum*
		2	*0.54*	*0.54*	*0.30*	*0.17*	*Cum*
		2	*0.54*	*0.78*	*0.50*	*0.42*	*Cum*
	Floor	*1*	*0.63*	*0.80*	*0.70*	*0.35*	*Cum*
		1	*4.00*	*0.80*	*0.50*	*1.60*	*Cum*
		1	*0.35*	*0.80*	*0.20*	*0.06*	*Cum*
		1	*0.20*	*0.80*	*0.40*	*0.06*	*Cum*
		1	*2.80*	*0.80*	*0.50*	*1.12*	*Cum*
		1	*0.63*	*0.80*	*0.70*	*0.35*	*Cum*
	Crest	*1*	*0.71*	*0.80*	*0.71*	*0.40*	*Cum*
	TOTAL					**22.21**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*0.80*	*0.15*	*0.07*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*8.36*	*0.45*	*0.05*	*0.19*	*Cum*
	On Abutment Top (Right Side)	*1*	*8.36*	*0.45*	*0.05*	*0.19*	*Cum*
	TOTAL					**0.45**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**22.21**	**0.30%**	**0.07**	**7850**	**523.07**	**Kg**
	Total Weight in Metric Tonne					**0.52**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.72*		*0.45*	*1.29*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.72*		*1.04*	*2.97*	*Sqm*
		4		*0.76*	*1.04*	*3.16*	*Sqm*
		4	*0.72*		*0.50*	*1.43*	*Sqm*
		4		*1.22*	*0.50*	*2.44*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.45*	*4.50*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.50*		*0.50*	*5.00*	*Sqm*
		4		*0.60*	*0.50*	*1.20*	*Sqm*
		4	*2.50*		*0.50*	*5.00*	*Sqm*
		4		*0.90*	*0.50*	*1.80*	*Sqm*
	Section 3-3	*4*	*1.96*		*0.45*	*3.53*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.96*		*0.30*	*2.35*	*Sqm*
		4		*0.54*	*0.30*	*0.65*	*Sqm*
		4	*1.96*		*0.50*	*3.92*	*Sqm*
		4		*0.78*	*0.50*	*1.56*	*Sqm*
	Section 5-5	*4*	*2.32*		*0.45*	*4.18*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.32*		*1.04*	*9.63*	*Sqm*
		4		*0.76*	*1.04*	*3.16*	*Sqm*
		4	*2.32*		*0.50*	*4.64*	*Sqm*
		4		*1.22*	*0.50*	*2.44*	*Sqm*
	Section 6-6	*4*	*0.54*		*0.45*	*0.97*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.54*		*0.30*	*0.65*	*Sqm*
		4		*0.54*	*0.30*	*0.65*	*Sqm*
		4	*0.54*		*0.50*	*1.08*	*Sqm*
		4		*0.78*	*0.50*	*1.56*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.80*	*0.70*	*1.12*	*Sqm*
		2	*4.00*		*0.50*	*4.00*	*Sqm*
		2		*0.80*	*0.50*	*0.80*	*Sqm*
		2	*0.35*		*0.20*	*0.14*	*Sqm*
		2		*0.80*	*0.20*	*0.32*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*0.80*	*0.40*	*0.64*	*Sqm*
		2	*2.80*		*0.50*	*2.80*	*Sqm*
		2		*0.80*	*0.50*	*0.80*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.80*	*0.70*	*1.12*	*Sqm*
	Crest	*2*	*0.7095*		*0.708*	*1.00*	*Sqm*
		2		*0.8*	*0.708*	*1.13*	*Sqm*
	Toe Wall D/S Portion	*2*	*2.30*		*0.30*	*1.38*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*2.00*		*0.60*	*2.40*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*1.50*	*0.15*	*0.90*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**100.48**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*2.80*		*8.40*	*Sqm*
	TOTAL					**8.40**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.50*	*0.30*	**0.23**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.50*	*0.15*	**0.23**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*8.36*	*0.45*		*3.76*	*Sqm*
	On Abutment Top (Right Side)	*1*	*8.36*	*0.45*		*3.76*	*Sqm*
	TOTAL					**7.52**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.34		1.34	**Cum**
	Abutment						
	Section 1-1	2	*0.94*	*0.40*		*0.757*	*Cum*
	Section 2-2	2	*2.50*	*0.40*		*1.985*	*Cum*
	Section 3-3	2	*2.20*	*0.27*		*1.201*	*Cum*
	Section 5-5	2	*2.37*	*0.40*		*1.901*	*Cum*
	Section 6-6	2	*0.15*	*0.27*		*0.082*	*Cum*
	D/S protection	2					
	Toe wall	2	*0.80*	*0.09*		*0.144*	*Cum*
		2	0.60	0.80		*0.960*	*Cum*
	TOTAL					**8.37**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR NEURA SURAJMAL MR.						
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 1.950 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.95*	*1.41*	*1.486*	*3.975*	*Cum*
	Section 2-2	*2*	*3.00*	*1.14*	*1.486*	*10.164*	*Cum*
	Section 3-3	*2*	*1.70*	*1.02*	*1.286*	*4.460*	*Cum*
	Section 5-5	*2*	*2.36*	*1.56*	*1.486*	*10.981*	*Cum*
	Section 6-6	*2*	*0.96*	*1.02*	*1.286*	*2.505*	*Cum*
	U/S Key Floor	*1*	*0.625*	*1.650*	*0.850*	*0.877*	*Cum*
	U/S Floor	*1*	*2.000*	*1.650*	*1.307*	*4.313*	*Cum*
	D/S Floor	*1*	*3.000*	*1.650*	*0.850*	*4.208*	*Cum*
		1	*2.000*	*1.650*	*0.650*	*2.145*	*Cum*
	D/S Key Floor	*1*	*0.625*	*1.650*	*0.850*	*0.877*	*Cum*
	Toe Wall D/S Portion	*1*	*5.600*	*0.750*	*0.900*	*3.780*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*0.600*	*0.750*	*1.350*	*Cum*
						49.64	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.65*	*0.15*	*0.13*	*Cum*
		1	*0.783*	*1.65*	*0.15*	*0.19*	*Cum*
		1	*4.518*	*1.65*	*0.15*	*1.12*	*Cum*
		1	*0.283*	*1.65*	*0.15*	*0.07*	*Cum*
		1	*0.497*	*1.65*	*0.15*	*0.12*	*Cum*
		1	*0.782*	*1.65*	*0.15*	*0.19*	*Cum*
		1	*0.542*	*1.65*	*0.15*	*0.13*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.95*	*1.41*	*0.15*	*0.40*	*Cum*
	Section 2-2	*2*	*3.00*	*1.14*	*0.15*	*1.03*	*Cum*
	Section 3-3	*2*	*1.70*	*1.02*	*0.15*	*0.52*	*Cum*
	Section 5-5	*2*	*2.36*	*1.56*	*0.15*	*1.11*	*Cum*
	Section 6-6	*2*	*0.96*	*1.02*	*0.15*	*0.29*	*Cum*
	Toe Wall D/S Portion	*1*	*5.60*	*0.75*	*0.30*	*1.26*	*Cum*
	Toe Wall D/S Portion	*1*	*5.30*	*0.45*	*0.60*	*1.43*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.60*	*0.15*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**8.82**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.72*	*0.45*	*0.45*	*0.29*	*Cum*
		2	*0.72*	*0.78*	*1.11*	*1.25*	*Cum*
		2	*0.72*	*1.26*	*0.50*	*0.91*	*Cum*
	Section 2-2	*2*	*3.00*	*0.45*	*0.45*	*1.22*	*Cum*
		2	*3.00*	*0.65*	*0.65*	*2.52*	*Cum*
		2	*3.00*	*0.99*	*0.50*	*2.97*	*Cum*
	Section 3-3	*2*	*1.42*	*0.45*	*0.45*	*0.57*	*Cum*
		2	*1.42*	*0.59*	*0.45*	*0.74*	*Cum*
		2	*1.42*	*0.87*	*0.50*	*1.23*	*Cum*
	Section 5-5	*2*	*2.32*	*0.45*	*0.45*	*0.94*	*Cum*
		2	*2.32*	*0.78*	*1.11*	*4.01*	*Cum*
		2	*2.32*	*1.26*	*0.50*	*2.93*	*Cum*
	Section 6-6	*2*	*1.39*	*0.45*	*0.45*	*0.56*	*Cum*
		2	*1.39*	*0.59*	*0.45*	*0.73*	*Cum*
		2	*1.39*	*0.87*	*0.50*	*1.21*	*Cum*
	Floor	*1*	*0.63*	*1.65*	*0.70*	*0.72*	*Cum*
		1	*5.00*	*1.65*	*0.50*	*4.13*	*Cum*
		1	*0.45*	*1.65*	*0.20*	*0.15*	*Cum*
		1	*0.20*	*1.65*	*0.40*	*0.13*	*Cum*
		1	*1.80*	*1.65*	*0.50*	*1.49*	*Cum*
		1	*0.63*	*1.65*	*0.70*	*0.72*	*Cum*
	Crest	*1*	*0.72*	*1.65*	*0.75*	*0.89*	*Cum*
	TOTAL					**30.31**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*1.65*	*0.15*	*0.15*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.60*	*0.45*	*0.05*	*0.22*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.60*	*0.45*	*0.05*	*0.22*	*Cum*
	TOTAL					**0.58**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**30.31**	**0.30%**	**0.09**	**7850**	**713.76**	**Kg**
	Total Weight in Metric Tonne					**0.71**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.72*		*0.45*	*1.30*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.72*		*1.11*	*3.19*	*Sqm*
		4		*0.78*	*1.11*	*3.46*	*Sqm*
		4	*0.72*		*0.50*	*1.44*	*Sqm*
		4		*1.26*	*0.50*	*2.53*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.45*	*5.40*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.00*		*0.65*	*7.80*	*Sqm*
		4		*0.65*	*0.65*	*1.68*	*Sqm*
		4	*3.00*		*0.50*	*6.00*	*Sqm*
		4		*0.99*	*0.50*	*1.98*	*Sqm*
	Section 3-3	*4*	*1.42*		*0.45*	*2.55*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.42*		*0.45*	*2.55*	*Sqm*
		4		*0.59*	*0.45*	*1.05*	*Sqm*
		4	*1.42*		*0.50*	*2.83*	*Sqm*
		4		*0.87*	*0.50*	*1.74*	*Sqm*
	Section 5-5	*4*	*2.32*		*0.45*	*4.17*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.32*		*1.11*	*10.27*	*Sqm*
		4		*0.78*	*1.11*	*3.46*	*Sqm*
		4	*2.32*		*0.50*	*4.64*	*Sqm*
		4		*1.26*	*0.50*	*2.53*	*Sqm*
	Section 6-6	*4*	*1.39*		*0.45*	*2.50*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.39*		*0.45*	*2.50*	*Sqm*
		4		*0.59*	*0.45*	*1.05*	*Sqm*
		4	*1.39*		*0.50*	*2.78*	*Sqm*
		4		*0.87*	*0.50*	*1.74*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.65*	*0.70*	*2.31*	*Sqm*
		2	*5.00*		*0.50*	*5.00*	*Sqm*
		2		*1.65*	*0.50*	*1.65*	*Sqm*
		2	*0.45*		*0.20*	*0.18*	*Sqm*
		2		*1.65*	*0.20*	*0.66*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*1.65*	*0.40*	*1.32*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*1.65*	*0.50*	*1.65*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.65*	*0.70*	*2.31*	*Sqm*
	Crest	*2*	*0.7165*		*0.749*	*1.07*	*Sqm*
		2		*1.65*	*0.749*	*2.47*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.60*		*0.30*	*3.36*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.30*		*0.60*	*6.36*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**123.82**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.96*		*5.89*	*Sqm*
	TOTAL					**5.89**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*1.05*	*0.30*	**0.47**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*1.05*	*0.15*	**0.47**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.60*	*0.45*		*4.32*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.60*	*0.45*		*4.32*	*Sqm*
	TOTAL					**8.64**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.97		1.97	**Cum**
	Abutment						
	Section 1-1	2	*0.95*	*0.54*		*1.014*	*Cum*
	Section 2-2	2	*3.00*	*0.53*		*3.150*	*Cum*
	Section 3-3	2	*1.70*	*0.38*		*1.282*	*Cum*
	Section 5-5	2	*2.36*	*0.54*		*2.533*	*Cum*
	Section 6-6	2	*0.96*	*0.38*		*0.720*	*Cum*
	D/S protection	2					
	Toe wall	2	*1.65*	*0.09*		*0.297*	*Cum*
		2	0.60	0.80		*0.960*	*Cum*
	TOTAL					**11.93**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 2.300 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.95*	*1.41*	*1.578*	*4.222*	*Cum*
	Section 2-2	*2*	*3.00*	*1.14*	*1.578*	*10.794*	*Cum*
	Section 3-3	*2*	*1.70*	*1.02*	*1.378*	*4.779*	*Cum*
	Section 5-5	*2*	*2.36*	*1.56*	*1.578*	*11.661*	*Cum*
	Section 6-6	*2*	*0.96*	*1.02*	*1.378*	*2.685*	*Cum*
	U/S Key Floor	*1*	*0.625*	*1.650*	*0.850*	*0.877*	*Cum*
	U/S Floor	*1*	*2.000*	*1.650*	*1.307*	*4.313*	*Cum*
	D/S Floor	*1*	*3.000*	*1.650*	*0.850*	*4.208*	*Cum*
		1	*2.000*	*1.650*	*0.650*	*2.145*	*Cum*
	D/S Key Floor	*1*	*0.625*	*1.650*	*0.850*	*0.877*	*Cum*
	Toe Wall D/S Portion	*1*	*5.600*	*0.750*	*0.900*	*3.780*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*0.600*	*0.750*	*1.350*	*Cum*
						51.69	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.65*	*0.15*	*0.13*	*Cum*
		1	*0.783*	*1.65*	*0.15*	*0.19*	*Cum*
		1	*4.518*	*1.65*	*0.15*	*1.12*	*Cum*
		1	*0.283*	*1.65*	*0.15*	*0.07*	*Cum*
		1	*0.497*	*1.65*	*0.15*	*0.12*	*Cum*
		1	*0.782*	*1.65*	*0.15*	*0.19*	*Cum*
		1	*0.542*	*1.65*	*0.15*	*0.13*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.95*	*1.41*	*0.15*	*0.40*	*Cum*
	Section 2-2	*2*	*3.00*	*1.14*	*0.15*	*1.03*	*Cum*
	Section 3-3	*2*	*1.70*	*1.02*	*0.15*	*0.52*	*Cum*
	Section 5-5	*2*	*2.36*	*1.56*	*0.15*	*1.11*	*Cum*
	Section 6-6	*2*	*0.96*	*1.02*	*0.15*	*0.29*	*Cum*
	Toe Wall D/S Portion	*1*	*5.60*	*0.75*	*0.30*	*1.26*	*Cum*
	Toe Wall D/S Portion	*1*	*5.30*	*0.45*	*0.60*	*1.43*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.60*	*0.15*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**8.82**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.72*	*0.45*	*0.45*	*0.29*	*Cum*
		2	*0.72*	*0.78*	*1.11*	*1.25*	*Cum*
		2	*0.72*	*1.26*	*0.50*	*0.91*	*Cum*
	Section 2-2	*2*	*3.00*	*0.45*	*0.45*	*1.22*	*Cum*
		2	*3.00*	*0.65*	*0.65*	*2.52*	*Cum*
		2	*3.00*	*0.99*	*0.50*	*2.97*	*Cum*
	Section 3-3	*2*	*1.42*	*0.45*	*0.45*	*0.57*	*Cum*
		2	*1.42*	*0.59*	*0.45*	*0.74*	*Cum*
		2	*1.42*	*0.87*	*0.50*	*1.23*	*Cum*
	Section 5-5	*2*	*2.32*	*0.45*	*0.45*	*0.94*	*Cum*
		2	*2.32*	*0.78*	*1.11*	*4.01*	*Cum*
		2	*2.32*	*1.26*	*0.50*	*2.93*	*Cum*
	Section 6-6	*2*	*1.39*	*0.45*	*0.45*	*0.56*	*Cum*
		2	*1.39*	*0.59*	*0.45*	*0.73*	*Cum*
		2	*1.39*	*0.87*	*0.50*	*1.21*	*Cum*
	Floor	*1*	*0.63*	*1.65*	*0.70*	*0.72*	*Cum*
		1	*5.00*	*1.65*	*0.50*	*4.13*	*Cum*
		1	*0.45*	*1.65*	*0.20*	*0.15*	*Cum*
		1	*0.20*	*1.65*	*0.40*	*0.13*	*Cum*
		1	*1.80*	*1.65*	*0.50*	*1.49*	*Cum*
		1	*0.63*	*1.65*	*0.70*	*0.72*	*Cum*
	Crest	*1*	*0.72*	*1.65*	*0.75*	*0.89*	*Cum*
	TOTAL					**30.31**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*1.65*	*0.15*	*0.15*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.60*	*0.45*	*0.05*	*0.22*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.60*	*0.45*	*0.05*	*0.22*	*Cum*
	TOTAL					**0.58**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**30.31**	**0.30%**	**0.09**	**7850**	**713.76**	**Kg**
	Total Weight in Metric Tonne					**0.71**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.72*		*0.45*	*1.30*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.72*		*1.11*	*3.19*	*Sqm*
		4		*0.78*	*1.11*	*3.46*	*Sqm*
		4	*0.72*		*0.50*	*1.44*	*Sqm*
		4		*1.26*	*0.50*	*2.53*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.45*	*5.40*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.00*		*0.65*	*7.80*	*Sqm*
		4		*0.65*	*0.65*	*1.68*	*Sqm*
		4	*3.00*		*0.50*	*6.00*	*Sqm*
		4		*0.99*	*0.50*	*1.98*	*Sqm*
	Section 3-3	*4*	*1.42*		*0.45*	*2.55*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.42*		*0.45*	*2.55*	*Sqm*
		4		*0.59*	*0.45*	*1.05*	*Sqm*
		4	*1.42*		*0.50*	*2.83*	*Sqm*
		4		*0.87*	*0.50*	*1.74*	*Sqm*
	Section 5-5	*4*	*2.32*		*0.45*	*4.17*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.32*		*1.11*	*10.27*	*Sqm*
		4		*0.78*	*1.11*	*3.46*	*Sqm*
		4	*2.32*		*0.50*	*4.64*	*Sqm*
		4		*1.26*	*0.50*	*2.53*	*Sqm*
	Section 6-6	*4*	*1.39*		*0.45*	*2.50*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.39*		*0.45*	*2.50*	*Sqm*
		4		*0.59*	*0.45*	*1.05*	*Sqm*
		4	*1.39*		*0.50*	*2.78*	*Sqm*
		4		*0.87*	*0.50*	*1.74*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.65*	*0.70*	*2.31*	*Sqm*
		2	*5.00*		*0.50*	*5.00*	*Sqm*
		2		*1.65*	*0.50*	*1.65*	*Sqm*
		2	*0.45*		*0.20*	*0.18*	*Sqm*
		2		*1.65*	*0.20*	*0.66*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*1.65*	*0.40*	*1.32*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*1.65*	*0.50*	*1.65*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.65*	*0.70*	*2.31*	*Sqm*
	Crest	*2*	*0.7165*		*0.749*	*1.07*	*Sqm*
		2		*1.65*	*0.749*	*2.47*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.60*		*0.30*	*3.36*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.30*		*0.60*	*6.36*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**123.82**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.96*		*5.89*	*Sqm*
	TOTAL					**5.89**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*1.05*	*0.30*	**0.47**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*1.05*	*0.15*	**0.47**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.60*	*0.45*		*4.32*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.60*	*0.45*		*4.32*	*Sqm*
	TOTAL					**8.64**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.97		1.97	**Cum**
	Abutment						
	Section 1-1	2	*0.95*	*0.61*		*1.158*	*Cum*
	Section 2-2	2	*3.00*	*0.59*		*3.534*	*Cum*
	Section 3-3	2	*1.70*	*0.43*		*1.462*	*Cum*
	Section 5-5	2	*2.36*	*0.61*		*2.892*	*Cum*
	Section 6-6	2	*0.96*	*0.43*		*0.821*	*Cum*
	D/S protection	2					
	Toe wall	2	*1.65*	*0.09*		*0.297*	*Cum*
		2	0.60	0.80		*0.960*	*Cum*
	TOTAL					**13.09**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR SHUSHNAR MR.						
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 1.500 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*2.14*	*1.47*	*2.010*	*12.681*	*Cum*
	Section 2-2	*2*	*1.50*	*1.20*	*2.010*	*7.236*	*Cum*
	Section 3-3	*2*	*2.00*	*1.08*	*1.810*	*7.819*	*Cum*
	Section 5-5	*2*	*2.56*	*1.62*	*2.010*	*16.726*	*Cum*
	Section 6-6	*2*	*1.05*	*1.08*	*1.810*	*4.086*	*Cum*
	U/S Key Floor	*1*	*0.625*	*1.600*	*0.850*	*0.850*	*Cum*
	U/S Floor	*1*	*2.000*	*1.600*	*1.307*	*4.182*	*Cum*
	D/S Floor	*1*	*2.500*	*1.600*	*0.850*	*3.400*	*Cum*
		1	*2.500*	*1.600*	*0.650*	*2.600*	*Cum*
	D/S Key Floor	*1*	*0.625*	*1.600*	*0.850*	*0.850*	*Cum*
	Toe Wall D/S Portion	*1*	*5.850*	*0.750*	*0.900*	*3.949*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.000*	*0.600*	*0.750*	*1.800*	*Cum*
						66.18	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.60*	*0.15*	*0.13*	*Cum*
		1	*0.783*	*1.60*	*0.15*	*0.19*	*Cum*
		1	*4.068*	*1.60*	*0.15*	*0.98*	*Cum*
		1	*0.283*	*1.60*	*0.15*	*0.07*	*Cum*
		1	*0.947*	*1.60*	*0.15*	*0.23*	*Cum*
		1	*0.782*	*1.60*	*0.15*	*0.19*	*Cum*
		1	*0.542*	*1.60*	*0.15*	*0.13*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*2.14*	*1.47*	*0.15*	*0.95*	*Cum*
	Section 2-2	*2*	*1.50*	*1.20*	*0.15*	*0.54*	*Cum*
	Section 3-3	*2*	*2.00*	*1.08*	*0.15*	*0.65*	*Cum*
	Section 5-5	*2*	*2.56*	*1.62*	*0.15*	*1.25*	*Cum*
	Section 6-6	*2*	*1.05*	*1.08*	*0.15*	*0.34*	*Cum*
	Toe Wall D/S Portion	*1*	*5.85*	*0.75*	*0.30*	*1.32*	*Cum*
	Toe Wall D/S Portion	*1*	*5.55*	*0.45*	*0.60*	*1.50*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**9.52**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.92*	*0.45*	*0.45*	*0.78*	*Cum*
		2	*1.92*	*0.81*	*1.21*	*3.75*	*Cum*
		2	*1.92*	*1.32*	*0.50*	*2.54*	*Cum*
	Section 2-2	*2*	*2.50*	*0.45*	*0.45*	*1.01*	*Cum*
		2	*2.50*	*0.68*	*0.75*	*2.53*	*Cum*
		2	*2.50*	*1.05*	*0.50*	*2.63*	*Cum*
	Section 3-3	*2*	*1.69*	*0.45*	*0.45*	*0.68*	*Cum*
		2	*1.69*	*0.62*	*0.55*	*1.14*	*Cum*
		2	*1.69*	*0.93*	*0.50*	*1.57*	*Cum*
	Section 5-5	*2*	*2.52*	*0.45*	*0.45*	*1.02*	*Cum*
		2	*2.52*	*0.81*	*1.21*	*4.94*	*Cum*
		2	*2.52*	*1.32*	*0.50*	*3.33*	*Cum*
	Section 6-6	*2*	*1.51*	*0.45*	*0.45*	*0.61*	*Cum*
		2	*1.51*	*0.62*	*0.55*	*1.02*	*Cum*
		2	*1.51*	*0.93*	*0.50*	*1.40*	*Cum*
	Floor	*1*	*0.63*	*1.60*	*0.70*	*0.70*	*Cum*
		1	*4.50*	*1.60*	*0.50*	*3.60*	*Cum*
		1	*0.50*	*1.60*	*0.20*	*0.16*	*Cum*
		1	*0.20*	*1.60*	*0.40*	*0.13*	*Cum*
		1	*2.30*	*1.60*	*0.50*	*1.84*	*Cum*
		1	*0.63*	*1.60*	*0.70*	*0.70*	*Cum*
	Crest	*1*	*0.72*	*1.60*	*0.77*	*0.88*	*Cum*
	TOTAL					**36.96**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*1.60*	*0.20*	*0.19*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.97*	*0.45*	*0.05*	*0.22*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.97*	*0.45*	*0.05*	*0.22*	*Cum*
	TOTAL					**0.64**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**36.96**	**0.30%**	**0.11**	**7850**	**870.38**	**Kg**
	Total Weight in Metric Tonne					**0.87**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.92*		*0.45*	*3.45*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.92*		*1.21*	*9.25*	*Sqm*
		4		*0.81*	*1.21*	*3.92*	*Sqm*
		4	*1.92*		*0.50*	*3.83*	*Sqm*
		4		*1.32*	*0.50*	*2.65*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.45*	*4.50*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.50*		*0.75*	*7.50*	*Sqm*
		4		*0.68*	*0.75*	*2.03*	*Sqm*
		4	*2.50*		*0.50*	*5.00*	*Sqm*
		4		*1.05*	*0.50*	*2.10*	*Sqm*
	Section 3-3	*4*	*1.69*		*0.45*	*3.03*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.69*		*0.55*	*3.71*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*1.69*		*0.50*	*3.37*	*Sqm*
		4		*0.93*	*0.50*	*1.86*	*Sqm*
	Section 5-5	*4*	*2.52*		*0.45*	*4.53*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.52*		*1.21*	*12.16*	*Sqm*
		4		*0.81*	*1.21*	*3.92*	*Sqm*
		4	*2.52*		*0.50*	*5.04*	*Sqm*
		4		*1.32*	*0.50*	*2.65*	*Sqm*
	Section 6-6	*4*	*1.51*		*0.45*	*2.72*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.51*		*0.55*	*3.32*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*1.51*		*0.50*	*3.02*	*Sqm*
		4		*0.93*	*0.50*	*1.86*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.60*	*0.70*	*2.24*	*Sqm*
		2	*4.50*		*0.50*	*4.50*	*Sqm*
		2		*1.60*	*0.50*	*1.60*	*Sqm*
		2	*0.50*		*0.20*	*0.20*	*Sqm*
		2		*1.60*	*0.20*	*0.64*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*1.60*	*0.40*	*1.28*	*Sqm*
		2	*2.30*		*0.50*	*2.30*	*Sqm*
		2		*1.60*	*0.50*	*1.60*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.60*	*0.70*	*2.24*	*Sqm*
	Crest	*2*	*0.7195*		*0.766*	*1.10*	*Sqm*
		2		*1.6*	*0.766*	*2.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.85*		*0.30*	*3.51*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.55*		*0.60*	*6.66*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**142.46**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.14*		*8.57*	*Sqm*
	TOTAL					**8.57**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*1.00*	*0.30*	**0.60**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*1.00*	*0.15*	**0.60**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.97*	*0.45*		*4.49*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.97*	*0.45*		*4.49*	*Sqm*
	TOTAL					**8.97**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.83		1.83	**Cum**
	Abutment						
	Section 1-1	2	*2.14*	*1.03*		*4.413*	*Cum*
	Section 2-2	2	*1.50*	*0.84*		*2.532*	*Cum*
	Section 3-3	2	*2.00*	*0.65*		*2.584*	*Cum*
	Section 5-5	2	*2.56*	*1.03*		*5.283*	*Cum*
	Section 6-6	2	*1.05*	*0.65*		*1.350*	*Cum*
	D/S protection	2					
	Toe wall	2	*1.60*	*0.09*		*0.288*	*Cum*
		2	0.60	0.80		*0.960*	*Cum*
	TOTAL					**19.24**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.305 METER AT CH. 4.075 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.92*	*1.32*	*1.351*	*3.282*	*Cum*
	Section 2-2	*2*	*2.50*	*1.14*	*1.351*	*7.701*	*Cum*
	Section 3-3	*2*	*2.20*	*1.02*	*1.151*	*5.166*	*Cum*
	Section 5-5	*2*	*2.38*	*1.47*	*1.351*	*9.480*	*Cum*
	Section 6-6	*2*	*0.96*	*1.02*	*1.151*	*2.242*	*Cum*
	U/S Key Floor	*1*	*0.625*	*1.200*	*0.850*	*0.638*	*Cum*
	U/S Floor	*1*	*2.000*	*1.200*	*1.153*	*2.767*	*Cum*
	D/S Floor	*1*	*2.500*	*1.200*	*0.850*	*2.550*	*Cum*
		1	*2.500*	*1.200*	*0.650*	*1.950*	*Cum*
	D/S Key Floor	*1*	*0.625*	*1.200*	*0.850*	*0.638*	*Cum*
	Toe Wall D/S Portion	*1*	*5.150*	*0.750*	*0.900*	*3.476*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*0.600*	*0.750*	*1.350*	*Cum*
						41.24	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.20*	*0.15*	*0.10*	*Cum*
		1	*0.783*	*1.20*	*0.15*	*0.14*	*Cum*
		1	*4.018*	*1.20*	*0.15*	*0.72*	*Cum*
		1	*0.283*	*1.20*	*0.15*	*0.05*	*Cum*
		1	*0.996*	*1.20*	*0.15*	*0.18*	*Cum*
		1	*0.782*	*1.20*	*0.15*	*0.14*	*Cum*
		1	*0.542*	*1.20*	*0.15*	*0.10*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.92*	*1.32*	*0.15*	*0.36*	*Cum*
	Section 2-2	*2*	*2.50*	*1.14*	*0.15*	*0.86*	*Cum*
	Section 3-3	*2*	*2.20*	*1.02*	*0.15*	*0.67*	*Cum*
	Section 5-5	*2*	*2.38*	*1.47*	*0.15*	*1.05*	*Cum*
	Section 6-6	*2*	*0.96*	*1.02*	*0.15*	*0.29*	*Cum*
	Toe Wall D/S Portion	*1*	*5.15*	*0.75*	*0.30*	*1.16*	*Cum*
	Toe Wall D/S Portion	*1*	*4.85*	*0.45*	*0.60*	*1.31*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.60*	*0.15*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**7.95**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.69*	*0.45*	*0.45*	*0.28*	*Cum*
		2	*0.69*	*0.74*	*0.96*	*0.97*	*Cum*
		2	*0.69*	*1.17*	*0.50*	*0.81*	*Cum*
	Section 2-2	*2*	*2.50*	*0.45*	*0.45*	*1.01*	*Cum*
		2	*2.50*	*0.65*	*0.65*	*2.10*	*Cum*
		2	*2.50*	*0.99*	*0.50*	*2.48*	*Cum*
	Section 3-3	*2*	*1.92*	*0.45*	*0.45*	*0.78*	*Cum*
		2	*1.92*	*0.59*	*0.45*	*1.01*	*Cum*
		2	*1.92*	*0.87*	*0.50*	*1.67*	*Cum*
	Section 5-5	*2*	*2.34*	*0.45*	*0.45*	*0.95*	*Cum*
		2	*2.34*	*0.74*	*0.96*	*3.29*	*Cum*
		2	*2.34*	*1.17*	*0.50*	*2.74*	*Cum*
	Section 6-6	*2*	*1.39*	*0.45*	*0.45*	*0.56*	*Cum*
		2	*1.39*	*0.59*	*0.45*	*0.73*	*Cum*
		2	*1.39*	*0.87*	*0.50*	*1.21*	*Cum*
	Floor	*1*	*0.63*	*1.20*	*0.70*	*0.53*	*Cum*
		1	*4.50*	*1.20*	*0.50*	*2.70*	*Cum*
		1	*0.45*	*1.20*	*0.20*	*0.11*	*Cum*
		1	*0.20*	*1.20*	*0.40*	*0.10*	*Cum*
		1	*2.30*	*1.20*	*0.50*	*1.38*	*Cum*
		1	*0.63*	*1.20*	*0.70*	*0.53*	*Cum*
	Crest	*1*	*0.69*	*1.20*	*0.60*	*0.50*	*Cum*
	TOTAL					**26.41**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*1.20*	*0.20*	*0.14*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.55*	*0.45*	*0.05*	*0.21*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.55*	*0.45*	*0.05*	*0.21*	*Cum*
	TOTAL					**0.57**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**26.41**	**0.30%**	**0.08**	**7850**	**622.06**	**Kg**
	Total Weight in Metric Tonne					**0.62**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.69*		*0.45*	*1.25*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.69*		*0.96*	*2.65*	*Sqm*
		4		*0.74*	*0.96*	*2.81*	*Sqm*
		4	*0.69*		*0.50*	*1.39*	*Sqm*
		4		*1.17*	*0.50*	*2.35*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.45*	*4.50*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.50*		*0.65*	*6.50*	*Sqm*
		4		*0.65*	*0.65*	*1.68*	*Sqm*
		4	*2.50*		*0.50*	*5.00*	*Sqm*
		4		*0.99*	*0.50*	*1.98*	*Sqm*
	Section 3-3	*4*	*1.92*		*0.45*	*3.45*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.92*		*0.45*	*3.45*	*Sqm*
		4		*0.59*	*0.45*	*1.05*	*Sqm*
		4	*1.92*		*0.50*	*3.83*	*Sqm*
		4		*0.87*	*0.50*	*1.74*	*Sqm*
	Section 5-5	*4*	*2.34*		*0.45*	*4.21*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.34*		*0.96*	*8.93*	*Sqm*
		4		*0.74*	*0.96*	*2.81*	*Sqm*
		4	*2.34*		*0.50*	*4.68*	*Sqm*
		4		*1.17*	*0.50*	*2.35*	*Sqm*
	Section 6-6	*4*	*1.39*		*0.45*	*2.50*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.39*		*0.45*	*2.50*	*Sqm*
		4		*0.59*	*0.45*	*1.05*	*Sqm*
		4	*1.39*		*0.50*	*2.78*	*Sqm*
		4		*0.87*	*0.50*	*1.74*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.20*	*0.70*	*1.68*	*Sqm*
		2	*4.50*		*0.50*	*4.50*	*Sqm*
		2		*1.20*	*0.50*	*1.20*	*Sqm*
		2	*0.45*		*0.20*	*0.18*	*Sqm*
		2		*1.20*	*0.20*	*0.48*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*1.20*	*0.40*	*0.96*	*Sqm*
		2	*2.30*		*0.50*	*2.30*	*Sqm*
		2		*1.20*	*0.50*	*1.20*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.20*	*0.70*	*1.68*	*Sqm*
	Crest	*2*	*0.693*		*0.597*	*0.83*	*Sqm*
		2		*1.2*	*0.597*	*1.43*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.15*		*0.30*	*3.09*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.85*		*0.60*	*5.82*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**115.05**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.96*		*5.88*	*Sqm*
	TOTAL					**5.88**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.60*	*0.30*	**0.27**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.60*	*0.15*	**0.27**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.55*	*0.45*		*4.30*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.55*	*0.45*		*4.30*	*Sqm*
	TOTAL					**8.60**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.10		1.10	**Cum**
	Abutment						
	Section 1-1	2	*0.92*	*0.44*		*0.808*	*Cum*
	Section 2-2	2	*2.50*	*0.43*		*2.160*	*Cum*
	Section 3-3	2	*2.20*	*0.30*		*1.320*	*Cum*
	Section 5-5	2	*2.38*	*0.44*		*2.096*	*Cum*
	Section 6-6	2	*0.96*	*0.30*		*0.573*	*Cum*
	D/S protection	2					
	Toe wall	2	*1.20*	*0.09*		*0.216*	*Cum*
		2	0.60	0.80		*0.960*	*Cum*
	TOTAL					**9.24**	**Cum**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
ABSTRACT OF COST FOR CONSTRUCTION OF SLAB CULVERT FOR KARMA DY.								
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT KM 5.280								
S. No.	**Item of Works**	**Qty.**	**Unit**	**Rate (As per WRD SOR 2025 & PL 2025)**	**Amount (Rs)**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	90.000	Sqm	**11.80**	1062.40			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	134.444	Cum	**156.50**	21040.54			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	10.84	Cum	**6381.70**	69180.18	3.51	4.88	9.76
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	65.21	Cum	**6914.20**	450879.81	26.90	28.04	56.08
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	68.75	Cum	**8151.40**	560439.35	38.98	26.81	54.32
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	6.23	MT	**73574.90**	458569.95			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	307.26	Sqm	**578.60**	177779.73			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1220.80			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch- 14, Sl.No. 14.17, Pg. 60)	5.20	Sqm	**66.00**	343.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	13.00	RM	**36993.21**	480911.73			
11	Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	93.67	Cum	**149.30**	13984.91			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	59.733	Cum	**1075.00**	64212.70			
	Coarse Aggregates (100 Km lead)	120.153	Cum	**1398.00**	167973.93			
	Cement (30 km lead)	69.395	MT	**742.00**	51491.15			
	Boulder (60 Km lead)	5.20	Cum	**1159.00**	6026.80			
	Brick (15 km lead)	480.00	No.	**3.18**	1526.40			
	Steel (30 Km lead)	6.23	MT	**742.00**	4624.66			
	TOTAL (In Rs.)				**2542445.63**			
	TOTAL (In Rs.)				**2542445.63**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	59.73	Cum	**584.64**	34922.15	3492.22		
	Coarse Aggregate	120.15	Cum	**944.26**	113455.70	11345.57		
	Boulders	5.20	Cum	**694.61**	3611.97	361.20		
	Total					15198.98		
	For 1 nos. fall, Total Seigniorage charges					**15198.98**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT KM 7.420								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	154.703	Cum	**156.50**	24210.95			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	10.84	Cum	**6381.70**	69180.18	3.51	4.88	9.76
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	65.21	Cum	**6914.20**	450879.81	26.90	28.04	56.08
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	68.75	Cum	**8151.40**	560439.35	38.98	26.81	54.32
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	6.23	MT	**73574.90**	458569.95			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	307.26	Sqm	**578.60**	177779.73			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1220.80			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch- 14, Sl.No. 14.17, Pg. 60)	5.20	Sqm	**66.00**	343.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	13.00	RM	**36993.21**	480911.73			
11	Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	104.73	Cum	**149.30**	15636.33			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	59.733	Cum	**1075.00**	64212.70			
	Coarse Aggregates (100 Km lead)	120.153	Cum	**1398.00**	167973.93			
	Cement (30 km lead)	69.395	MT	**742.00**	51491.15			
	Boulder (60 Km lead)	5.20	Cum	**1159.00**	6026.80			
	Brick (15 km lead)	480.00	No.	**3.18**	1526.40			
	Steel (30 Km lead)	6.23	MT	**742.00**	4624.66			
	TOTAL (In Rs.)				**2547621.59**			
	TOTAL (In Rs.)				**2547621.59**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	59.73	Cum	**584.64**	34922.15	3492.22		
	Coarse Aggregate	120.15	Cum	**944.26**	113455.70	11345.57		
	Boulders	5.20	Cum	**694.61**	3611.97	361.20		
	Total					15198.98		
	For 1 nos. fall, Total Seigniorage charges					**15198.98**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT KM 19.740								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	90.000	Sqm	**11.80**	1062.40			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	79.097	Cum	**156.50**	12378.70			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	10.08	Cum	**6381.70**	64351.79	3.27	4.54	9.08
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	48.77	Cum	**6914.20**	337209.14	20.12	20.97	41.94
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	29.86	Cum	**8151.40**	243369.52	16.93	11.64	23.59
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.49	MT	**73574.90**	256698.27			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	216.76	Sqm	**578.60**	125417.46			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1220.80			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch- 14, Sl.No. 14.17, Pg. 60)	3.16	Sqm	**66.00**	208.56			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	7.90	RM	**36993.21**	292246.36			
11	Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	52.03	Cum	**149.30**	7767.85			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	37.153	Cum	**1075.00**	39939.41			
	Coarse Aggregates (100 Km lead)	74.604	Cum	**1398.00**	104297.00			
	Cement (30 km lead)	40.313	MT	**742.00**	29912.57			
	Boulder (60 Km lead)	3.16	Cum	**1159.00**	3662.44			
	Brick (15 km lead)	480.00	No.	**3.18**	1526.40			
	Steel (30 Km lead)	3.49	MT	**742.00**	2588.79			
	TOTAL (In Rs.)				**1535034.86**			
	TOTAL (In Rs.)				**1535034.86**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	37.15	Cum	**584.64**	21721.09	2172.11		
	Coarse Aggregate	74.60	Cum	**944.26**	70445.99	7044.60		
	Boulders	3.16	Cum	**694.61**	2194.97	219.50		
	Total					9436.20		
	For 1 nos. fall, Total Seigniorage charges					**9436.20**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 0.240 OF NEURA SURAJMAL MINOR								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	130.000	Sqm	**11.80**	1534.57			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	146.012	Cum	**156.50**	22850.85			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.01	Cum	**6381.70**	51132.86	2.60	3.61	7.21
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	35.49	Cum	**6914.20**	245416.55	14.64	15.26	30.53
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	20.65	Cum	**8151.40**	168352.44	11.71	8.05	16.32
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.78	MT	**73574.90**	204682.34			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	169.47	Sqm	**578.60**	98055.44			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1220.80			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch- 14, Sl.No. 14.17, Pg. 60)	2.32	Sqm	**66.00**	153.12			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	5.80	RM	**36993.21**	214560.62			
11	Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	89.45	Cum	**149.30**	13355.59			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	26.923	Cum	**1075.00**	28942.22			
	Coarse Aggregates (100 Km lead)	54.053	Cum	**1398.00**	75565.44			
	Cement (30 km lead)	28.948	MT	**742.00**	21479.34			
	Boulder (60 Km lead)	2.32	Cum	**1159.00**	2688.88			
	Brick (15 km lead)	480.00	No.	**3.18**	1526.40			
	Steel (30 Km lead)	2.78	MT	**742.00**	2064.21			
	TOTAL (In Rs.)				**1164759.09**			
	TOTAL (In Rs.)				**1164759.09**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	26.92	Cum	**584.64**	15740.26	1574.03		
	Coarse Aggregate	54.05	Cum	**944.26**	51039.64	5103.96		
	Boulders	2.32	Cum	**694.61**	1611.50	161.15		
	Total					6839.14		
	For 1 nos. fall, Total Seigniorage charges					**6839.14**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT KM 4.300 OF SHUSHNAR MINOR								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	90.000	Sqm	**11.80**	1062.40			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	61.441	Cum	**156.50**	9615.46			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	7.77	Cum	**6381.70**	49577.51	2.52	3.50	6.99
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	33.13	Cum	**6914.20**	229098.44	13.67	14.25	28.50
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	18.39	Cum	**8151.40**	149929.26	10.43	7.17	14.53
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.67	MT	**73574.90**	196149.94			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	159.52	Sqm	**578.60**	92296.65			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1220.80			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch- 14, Sl.No. 14.17, Pg. 60)	1.96	Sqm	**66.00**	129.36			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	4.90	RM	**36993.21**	181266.73			
11	Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	38.09	Cum	**149.30**	5686.10			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	24.917	Cum	**1075.00**	26785.82			
	Coarse Aggregates (100 Km lead)	50.018	Cum	**1398.00**	69925.18			
	Cement (30 km lead)	26.614	MT	**742.00**	19747.52			
	Boulder (60 Km lead)	1.96	Cum	**1159.00**	2271.64			
	Brick (15 km lead)	480.00	No.	**3.18**	1526.40			
	Steel (30 Km lead)	2.67	MT	**742.00**	1978.16			
	TOTAL (In Rs.)				**1049444.75**			
	TOTAL (In Rs.)				**1049444.75**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	24.92	Cum	**584.64**	14567.50	1456.75		
	Coarse Aggregate	50.02	Cum	**944.26**	47230.01	4723.00		
	Boulders	1.96	Cum	**694.61**	1361.44	136.14		
	Total					6315.89		
	For 1 nos. fall, Total Seigniorage charges					**6315.89**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 5.910 OF CHAURAHA MINOR								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.000	Sqm	**11.80**	1180.44			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	55.907	Cum	**156.50**	8749.45			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.09	Cum	**6381.70**	58022.67	2.95	4.09	8.18
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	41.71	Cum	**6914.20**	288386.93	17.21	17.94	35.87
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	20.97	Cum	**8151.40**	170937.91	11.89	8.18	16.57
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.96	MT	**73574.90**	217505.77			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	182.48	Sqm	**578.60**	105581.81			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1220.80			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch- 14, Sl.No. 14.17, Pg. 60)	2.44	Sqm	**66.00**	161.04			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	6.10	RM	**36993.21**	225658.58			
11	Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	39.28	Cum	**149.30**	5864.30			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	30.205	Cum	**1075.00**	32470.26			
	Coarse Aggregates (100 Km lead)	60.619	Cum	**1398.00**	84746.05			
	Cement (30 km lead)	32.041	MT	**742.00**	23774.52			
	Boulder (60 Km lead)	2.44	Cum	**1159.00**	2827.96			
	Brick (15 km lead)	480.00	No.	**3.18**	1526.40			
	Steel (30 Km lead)	2.96	MT	**742.00**	2193.54			
	TOTAL (In Rs.)				**1241985.82**			
	TOTAL (In Rs.)				**1241985.82**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	30.20	Cum	**584.64**	17658.99	1765.90		
	Coarse Aggregate	60.62	Cum	**944.26**	57240.56	5724.06		
	Boulders	2.44	Cum	**694.61**	1694.85	169.48		
	Total					7659.44		
	For 1 nos. fall, Total Seigniorage charges					**7659.44**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR KARMA DY							
BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 5.280							
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*90.00*			**90.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.04*	*1.73*	*2.01*	*14.16*	*Cum*
		1	*5.97*	*2.07*	*2.01*	*24.84*	*Cum*
	Extra for Slope (0.5:1)	*2*	*8.00*	*1.01*	*2.01*	*32.34*	*Cum*
	Left abutment	*2*	*2.04*	*1.73*	*2.01*	*14.16*	*Cum*
		1	*5.97*	*2.07*	*2.01*	*24.84*	*Cum*
	Extra for Slope (0.5:1)	*2*	*5.97*	*1.01*	*2.01*	*24.12*	*Cum*
	TOTAL					**134.44**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*2.04*	*1.73*	*0.20*	*1.41*	*Cum*
		1	*5.97*	*2.07*	*0.20*	*2.47*	*Cum*
	Left abutment	*2*	*2.04*	*1.73*	*0.20*	*1.41*	*Cum*
		1	*5.97*	*2.07*	*0.20*	*2.47*	*Cum*
	Levelling course	*2*	*5.50*	*3.50*	*0.08*	*3.08*	*Cum*
	TOTAL					**10.84**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.97*	*1.87*	*0.20*	*2.23*	*Cum*
		1	*5.97*	*1.67*	*0.80*	*7.97*	*Cum*
		1	*5.97*	*1.15*	*1.50*	*10.25*	*Cum*
		1	*5.97*	*0.82*	*0.20*	*0.98*	*Cum*
		1	*5.97*	*0.40*	*0.37*	*0.88*	*Cum*
	Return wall	*2*	*1.94*	*1.53*	*0.20*	*1.18*	*Cum*
		2	*1.94*	*1.28*	*0.80*	*3.97*	*Cum*
		2	*1.94*	*0.72*	*1.77*	*4.90*	*Cum*
		2	*1.94*	*0.40*	*0.15*	*0.23*	*Cum*
	Left abutment	*1*	*5.97*	*1.87*	*0.20*	*2.23*	*Cum*
		1	*5.97*	*1.67*	*0.80*	*7.97*	*Cum*
		1	*5.97*	*1.15*	*1.50*	*10.25*	*Cum*
		1	*5.97*	*0.82*	*0.20*	*0.98*	*Cum*
		1	*5.97*	*0.40*	*0.37*	*0.88*	*Cum*
	Return wall	*2*	*1.94*	*1.53*	*0.20*	*1.18*	*Cum*
		2	*1.94*	*1.28*	*0.80*	*3.97*	*Cum*
		2	*1.94*	*0.72*	*1.77*	*4.90*	*Cum*
		2	*1.94*	*0.40*	*0.15*	*0.23*	*Cum*
	TOTAL					**65.21**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	8.35	6.50	0.71	*38.40*	*Cum*
	Approch Slab	*2*	*3.50*	*6.50*	0.34	*15.24*	*Cum*
	Wearing coat	*1*	*15.35*	*5.50*	*0.08*	*6.33*	*Cum*
	Parapet	*2*	*15.35*	*0.44*	*0.18*	*2.39*	*Cum*
		2	*15.35*	*0.35*	*0.25*	*2.69*	*Cum*
		2	*15.35*	*0.22*	*0.55*	*3.70*	*Cum*
	TOTAL					**68.75**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*20*	*64*	*9.41*		*2.466*	*1485.0*	*Kg*
a2	*12*	*60*	*7.50*		*0.888*	*399.5*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*46*	*9.33*		*0.616*	*264.6*	*Kg*
a5	*10*	*60*	*7.40*		*0.616*	*273.7*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c2	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
c3	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c4	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*140*	*2.65*		*0.888*	*329.5*	*Kg*
x2	*16*	*140*	*1.55*		*1.578*	*341.4*	*Kg*
x3	*10*	*24*	*8.25*		*0.616*	*122.1*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.28*		*1.578*	*233.4*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*65.2*	*0.0025*	*0.163*	*7850.00*	*1279.76*	*Kg*
	Total Reinforcement Steel (in kg)					*6232.7*	*Kg*
	Total Weight in Metric Tonne					**6.23**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.97*		*0.20*	*2.39*	*Sqm*
		2		*1.87*	*0.20*	*0.75*	*Sqm*
		2	*5.97*		*0.80*	*9.55*	*Sqm*
		2		*1.67*	*0.80*	*2.67*	*Sqm*
		2	*5.97*		*1.50*	*17.91*	*Sqm*
		2		*1.15*	*1.50*	*3.44*	*Sqm*
		2	*5.97*		*0.20*	*2.39*	*Sqm*
		2		*0.82*	*0.20*	*0.33*	*Sqm*
	Return wall	*2*	*1.94*		*0.20*	*0.77*	*Sqm*
		2		*1.53*	*0.20*	*0.61*	*Sqm*
		2	*1.94*		*0.80*	*3.10*	*Sqm*
		2		*1.28*	*0.80*	*2.05*	*Sqm*
		2	*1.94*		*1.77*	*6.85*	*Sqm*
		2		*0.72*	*1.77*	*2.53*	*Sqm*
		2	*1.94*		*0.15*	*0.58*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.97*		*0.20*	*2.39*	*Sqm*
		2		*1.87*	*0.20*	*0.75*	*Sqm*
		2	*5.97*		*0.80*	*9.55*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*1.67*	*0.80*	*2.67*	*Sqm*
		2	*5.97*		*1.50*	*17.91*	*Sqm*
		2		*1.15*	*1.50*	*3.44*	*Sqm*
		2	*5.97*		*0.20*	*2.39*	*Sqm*
		2		*0.82*	*0.20*	*0.33*	*Sqm*
	Return wall	*2*	*1.94*		*0.20*	*0.77*	*Sqm*
		2		*1.53*	*0.20*	*0.61*	*Sqm*
		2	*1.94*		*0.80*	*3.10*	*Sqm*
		2		*1.28*	*0.80*	*2.05*	*Sqm*
		2	*1.94*		*1.77*	*6.85*	*Sqm*
		2		*0.72*	*1.77*	*2.53*	*Sqm*
		2	*1.94*		*0.15*	*0.58*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*8.35*		*0.71*	*11.82*	*Sqm*
		1	*8.35*	6.50		*54.28*	*Sqm*
		2		*6.50*	0.71	*9.20*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.34*	*4.69*	*Sqm*
		2	*3.50*	6.50		*45.50*	*Sqm*
		4		*6.50*	0.34	*8.71*	*Sqm*
	Parapet	*4*	*15.35*		*0.18*	*10.75*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*15.35*		*0.25*	*15.35*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*15.35*		*0.55*	*33.77*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**307.26**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*6.50*	*0.40*		*5.20*	*Sqm*
	TOTAL					**5.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*6.50*			*13.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.97	1.45		*17.32*	*Cum*
	Right and left Return wall	4	2.04	2.44		*19.90*	*Cum*
	Extra slope	*2*	*8.004*	*1.005*	*2.01*	*32.34*	*Cum*
		2	*5.969*	*1.005*	*2.01*	*24.12*	*Cum*
	TOTAL					**93.67**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR NEURA SURAJMAL MINOR						
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 0.240						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*130.00*			**130.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.84*	*1.45*	*2.48*	*13.21*	*Cum*
		1	*5.00*	*1.89*	*2.48*	*23.38*	*Cum*
	Extra for Slope (0.5:1)	*2*	*6.85*	*1.24*	*2.48*	*42.07*	*Cum*
	Left abutment	*2*	*1.84*	*1.45*	*2.48*	*13.21*	*Cum*
		1	*5.00*	*1.89*	*2.48*	*23.38*	*Cum*
	Extra for Slope (0.5:1)	*2*	*5.00*	*1.24*	*2.48*	*30.75*	*Cum*
	TOTAL					**146.01**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.84*	*1.45*	*0.20*	*1.07*	*Cum*
		1	*5.00*	*1.89*	*0.20*	*1.89*	*Cum*
	Left abutment	*2*	*1.84*	*1.45*	*0.20*	*1.07*	*Cum*
		1	*5.00*	*1.89*	*0.20*	*1.89*	*Cum*
	Levelling course	*2*	*3.10*	*4.25*	*0.08*	*2.11*	*Cum*
	TOTAL					**8.01**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.00*	*1.69*	*0.20*	*1.69*	*Cum*
		1	*5.00*	*1.44*	*0.80*	*5.74*	*Cum*
		1	*5.00*	*0.90*	*0.55*	*2.49*	*Cum*
		1	*5.00*	*0.82*	*0.50*	*2.05*	*Cum*
	Return wall	*2*	*1.74*	*1.25*	*0.20*	*0.87*	*Cum*
		2	*1.74*	*1.05*	*0.80*	*2.92*	*Cum*
		2	*1.74*	*0.62*	*0.82*	*1.78*	*Cum*
		2	*1.74*	*0.40*	*0.15*	*0.21*	*Cum*
	Left abutment	*1*	*5.00*	*1.69*	*0.20*	*1.69*	*Cum*
		1	*5.00*	*1.44*	*0.80*	*5.74*	*Cum*
		1	*5.00*	*0.90*	*0.55*	*2.49*	*Cum*
		1	*5.00*	*0.82*	*0.50*	*2.05*	*Cum*
	Return wall	*2*	*1.74*	*1.25*	*0.20*	*0.87*	*Cum*
		2	*1.74*	*1.05*	*0.80*	*2.92*	*Cum*
		2	*1.74*	*0.62*	*0.82*	*1.78*	*Cum*
		2	*1.74*	*0.40*	*0.15*	*0.21*	*Cum*
	TOTAL					**35.49**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	5.25	2.90	0.34	*5.10*	*Cum*
	Approch Slab	*2*	*3.50*	*2.90*	0.34	*6.80*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Wearing coat	*1*	*12.25*	*1.90*	*0.08*	*1.75*	*Cum*
	Parapet	*2*	*12.25*	*0.44*	*0.18*	*1.91*	*Cum*
		2	*12.25*	*0.35*	*0.25*	*2.15*	*Cum*
		2	*12.25*	*0.22*	*0.55*	*2.95*	*Cum*
	TOTAL					**20.65**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*3.96*		*1.578*	*181.2*	*Kg*
a2	*10*	*15*	*6.25*		*0.616*	*57.8*	*Kg*
a3	*10*	*2*	*5.15*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*3.88*		*0.616*	*43.1*	*Kg*
a5	*10*	*10*	*6.15*		*0.616*	*37.9*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*48*	*2.32*		*0.888*	*98.9*	*Kg*
x2	*16*	*48*	*1.27*		*1.578*	*96.5*	*Kg*
x3	*10*	*24*	*2.80*		*0.616*	*41.4*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.28*		*1.578*	*233.4*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*35.5*	*0.0025*	*0.089*	*7850.00*	*696.58*	*Kg*
	Total Reinforcement Steel (in kg)					*2782.0*	*Kg*
	Total Weight in Metric Tonne					**2.78**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.00*		*0.20*	*2.00*	*Sqm*
		2		*1.69*	*0.20*	*0.67*	*Sqm*
		2	*5.00*		*0.80*	*8.01*	*Sqm*
		2		*1.44*	*0.80*	*2.30*	*Sqm*
		2	*5.00*		*0.55*	*5.51*	*Sqm*
		2		*0.90*	*0.55*	*0.99*	*Sqm*
		2	*5.00*		*0.50*	*5.00*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.74*		*0.20*	*0.70*	*Sqm*
		2		*1.25*	*0.20*	*0.50*	*Sqm*
		2	*1.74*		*0.80*	*2.79*	*Sqm*
		2		*1.05*	*0.80*	*1.67*	*Sqm*
		2	*1.74*		*0.82*	*2.86*	*Sqm*
		2		*0.62*	*0.82*	*1.02*	*Sqm*
		2	*1.74*		*0.15*	*0.52*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.00*		*0.20*	*2.00*	*Sqm*
		2		*1.69*	*0.20*	*0.67*	*Sqm*
		2	*5.00*		*0.80*	*8.01*	*Sqm*
		2		*1.44*	*0.80*	*2.30*	*Sqm*
		2	*5.00*		*0.55*	*5.51*	*Sqm*
		2		*0.90*	*0.55*	*0.99*	*Sqm*
		2	*5.00*		*0.50*	*5.00*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.74*		*0.20*	*0.70*	*Sqm*
		2		*1.25*	*0.20*	*0.50*	*Sqm*
		2	*1.74*		*0.80*	*2.79*	*Sqm*
		2		*1.05*	*0.80*	*1.67*	*Sqm*
		2	*1.74*		*0.82*	*2.86*	*Sqm*
		2		*0.62*	*0.82*	*1.02*	*Sqm*
		2	*1.74*		*0.15*	*0.52*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*5.25*		*0.34*	*3.52*	*Sqm*
		1	*5.25*	2.90		*15.23*	*Sqm*
		2		*2.90*	0.34	*1.94*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.34*	*4.69*	*Sqm*
		2	*3.50*	2.90		*20.30*	*Sqm*
		4		*2.90*	0.34	*3.89*	*Sqm*
	Parapet	*4*	*12.25*		*0.18*	*8.58*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*12.25*		*0.25*	*12.25*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*12.25*		*0.55*	*26.95*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**169.47**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*2.90*	*0.40*		*2.32*	*Sqm*
	TOTAL					**2.32**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*2.90*			*5.80*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.00	0.72		*7.24*	*Cum*
	Right and left Return wall	4	1.84	1.27		*9.39*	*Cum*
	Extra slope	*2*	*6.8465*	*1.2395*	*2.479*	*42.07*	*Cum*
		2	*5.004*	*1.2395*	*2.479*	*30.75*	*Cum*
	TOTAL					**89.45**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR SHUSHNAR MINOR						
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 4.300						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*90.00*			**90.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.88*	*1.42*	*1.37*	*7.31*	*Cum*
		1	*5.03*	*1.76*	*1.37*	*12.14*	*Cum*
	Extra for Slope (0.5:1)	*2*	*6.91*	*0.69*	*1.37*	*13.05*	*Cum*
	Left abutment	*2*	*1.88*	*1.42*	*1.37*	*7.31*	*Cum*
		1	*5.03*	*1.76*	*1.37*	*12.14*	*Cum*
	Extra for Slope (0.5:1)	*2*	*5.03*	*0.69*	*1.37*	*9.50*	*Cum*
	TOTAL					**61.44**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.88*	*1.42*	*0.20*	*1.06*	*Cum*
		1	*5.03*	*1.76*	*0.20*	*1.77*	*Cum*
	Left abutment	*2*	*1.88*	*1.42*	*0.20*	*1.06*	*Cum*
		1	*5.03*	*1.76*	*0.20*	*1.77*	*Cum*
	Levelling course	*2*	*3.10*	*4.25*	*0.08*	*2.11*	*Cum*
	TOTAL					**7.77**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.03*	*1.66*	*0.20*	*1.67*	*Cum*
		1	*5.03*	*1.39*	*0.80*	*5.58*	*Cum*
		1	*5.03*	*0.88*	*0.45*	*2.00*	*Cum*
		1	*5.03*	*0.82*	*0.50*	*2.06*	*Cum*
	Return wall	*2*	*1.78*	*1.22*	*0.20*	*0.86*	*Cum*
		2	*1.78*	*1.02*	*0.80*	*2.89*	*Cum*
		2	*1.78*	*0.51*	*0.72*	*1.30*	*Cum*
		2	*1.78*	*0.40*	*0.15*	*0.21*	*Cum*
	Left abutment	*1*	*5.03*	*1.66*	*0.20*	*1.67*	*Cum*
		1	*5.03*	*1.39*	*0.80*	*5.58*	*Cum*
		1	*5.03*	*0.88*	*0.45*	*2.00*	*Cum*
		1	*5.03*	*0.82*	*0.50*	*2.06*	*Cum*
	Return wall	*2*	*1.78*	*1.22*	*0.20*	*0.86*	*Cum*
		2	*1.78*	*1.02*	*0.80*	*2.89*	*Cum*
		2	*1.78*	*0.51*	*0.72*	*1.30*	*Cum*
		2	*1.78*	*0.40*	*0.15*	*0.21*	*Cum*
	TOTAL					**33.13**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	5.25	2.45	0.34	*4.31*	*Cum*
	Approch Slab	*2*	*3.50*	*2.45*	0.34	*5.75*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Wearing coat	*1*	*12.25*	*1.45*	*0.08*	*1.33*	*Cum*
	Parapet	*2*	*12.25*	*0.44*	*0.18*	*1.91*	*Cum*
		2	*12.25*	*0.35*	*0.25*	*2.15*	*Cum*
		2	*12.25*	*0.22*	*0.55*	*2.95*	*Cum*
	TOTAL					**18.39**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*3.51*		*1.578*	*160.6*	*Kg*
a2	*10*	*13*	*6.25*		*0.616*	*50.1*	*Kg*
a3	*10*	*2*	*5.15*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*3.43*		*0.616*	*38.1*	*Kg*
a5	*10*	*9*	*6.15*		*0.616*	*34.1*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*40*	*2.32*		*0.888*	*82.4*	*Kg*
x2	*16*	*40*	*1.27*		*1.578*	*80.4*	*Kg*
x3	*10*	*24*	*2.80*		*0.616*	*41.4*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.28*		*1.578*	*233.4*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*33.1*	*0.0025*	*0.083*	*7850.00*	*650.26*	*Kg*
	Total Reinforcement Steel (in kg)					*2666.0*	*Kg*
	Total Weight in Metric Tonne					**2.67**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.03*		*0.20*	*2.01*	*Sqm*
		2		*1.66*	*0.20*	*0.66*	*Sqm*
		2	*5.03*		*0.80*	*8.05*	*Sqm*
		2		*1.39*	*0.80*	*2.22*	*Sqm*
		2	*5.03*		*0.45*	*4.53*	*Sqm*
		2		*0.88*	*0.45*	*0.79*	*Sqm*
		2	*5.03*		*0.50*	*5.03*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.78*		*0.20*	*0.71*	*Sqm*
		2		*1.22*	*0.20*	*0.49*	*Sqm*
		2	*1.78*		*0.80*	*2.84*	*Sqm*
		2		*1.02*	*0.80*	*1.63*	*Sqm*
		2	*1.78*		*0.72*	*2.56*	*Sqm*
		2		*0.51*	*0.72*	*0.73*	*Sqm*
		2	*1.78*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.03*		*0.20*	*2.01*	*Sqm*
		2		*1.66*	*0.20*	*0.66*	*Sqm*
		2	*5.03*		*0.80*	*8.05*	*Sqm*
		2		*1.39*	*0.80*	*2.22*	*Sqm*
		2	*5.03*		*0.45*	*4.53*	*Sqm*
		2		*0.88*	*0.45*	*0.79*	*Sqm*
		2	*5.03*		*0.50*	*5.03*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.78*		*0.20*	*0.71*	*Sqm*
		2		*1.22*	*0.20*	*0.49*	*Sqm*
		2	*1.78*		*0.80*	*2.84*	*Sqm*
		2		*1.02*	*0.80*	*1.63*	*Sqm*
		2	*1.78*		*0.72*	*2.56*	*Sqm*
		2		*0.51*	*0.72*	*0.73*	*Sqm*
		2	*1.78*		*0.15*	*0.53*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*5.25*		*0.34*	*3.52*	*Sqm*
		1	*5.25*	2.45		*12.86*	*Sqm*
		2		*2.45*	0.34	*1.64*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.34*	*4.69*	*Sqm*
		2	*3.50*	2.45		*17.15*	*Sqm*
		4		*2.45*	0.34	*3.28*	*Sqm*
	Parapet	*4*	*12.25*		*0.18*	*8.58*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*12.25*		*0.25*	*12.25*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*12.25*		*0.55*	*26.95*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**159.52**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*2.45*	*0.40*		*1.96*	*Sqm*
	TOTAL					**1.96**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*2.45*			*4.90*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.03	0.67		*6.78*	*Cum*
	Right and left Return wall	4	1.88	1.17		*8.76*	*Cum*
	Extra slope	*2*	*6.9115*	*0.687*	*1.374*	*13.05*	*Cum*
		2	*5.034*	*0.687*	*1.374*	*9.50*	*Cum*
	TOTAL					**38.09**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 7.420						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*120.00*			**120.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.04*	*1.73*	*2.22*	*15.62*	*Cum*
		1	*5.97*	*2.07*	*2.22*	*27.39*	*Cum*
	Extra for Slope (0.5:1)	*2*	*8.00*	*1.11*	*2.22*	*39.34*	*Cum*
	Left abutment	*2*	*2.04*	*1.73*	*2.22*	*15.62*	*Cum*
		1	*5.97*	*2.07*	*2.22*	*27.39*	*Cum*
	Extra for Slope (0.5:1)	*2*	*5.97*	*1.11*	*2.22*	*29.34*	*Cum*
	TOTAL					**154.70**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*2.04*	*1.73*	*0.20*	*1.41*	*Cum*
		1	*5.97*	*2.07*	*0.20*	*2.47*	*Cum*
	Left abutment	*2*	*2.04*	*1.73*	*0.20*	*1.41*	*Cum*
		1	*5.97*	*2.07*	*0.20*	*2.47*	*Cum*
	Levelling course	*2*	*5.50*	*3.50*	*0.08*	*3.08*	*Cum*
	TOTAL					**10.84**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.97*	*1.87*	*0.20*	*2.23*	*Cum*
		1	*5.97*	*1.67*	*0.80*	*7.97*	*Cum*
		1	*5.97*	*1.15*	*1.50*	*10.25*	*Cum*
		1	*5.97*	*0.82*	*0.20*	*0.98*	*Cum*
		1	*5.97*	*0.40*	*0.37*	*0.88*	*Cum*
	Return wall	*2*	*1.94*	*1.53*	*0.20*	*1.18*	*Cum*
		2	*1.94*	*1.28*	*0.80*	*3.97*	*Cum*
		2	*1.94*	*0.72*	*1.77*	*4.90*	*Cum*
		2	*1.94*	*0.40*	*0.15*	*0.23*	*Cum*
	Left abutment	*1*	*5.97*	*1.87*	*0.20*	*2.23*	*Cum*
		1	*5.97*	*1.67*	*0.80*	*7.97*	*Cum*
		1	*5.97*	*1.15*	*1.50*	*10.25*	*Cum*
		1	*5.97*	*0.82*	*0.20*	*0.98*	*Cum*
		1	*5.97*	*0.40*	*0.37*	*0.88*	*Cum*
	Return wall	*2*	*1.94*	*1.53*	*0.20*	*1.18*	*Cum*
		2	*1.94*	*1.28*	*0.80*	*3.97*	*Cum*
		2	*1.94*	*0.72*	*1.77*	*4.90*	*Cum*
		2	*1.94*	*0.40*	*0.15*	*0.23*	*Cum*
	TOTAL					**65.21**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	1	8.35	6.50	0.71	*38.40*	*Cum*
	Approch Slab	*2*	*3.50*	*6.50*	0.34	*15.24*	*Cum*
	Wearing coat	*1*	*15.35*	*5.50*	*0.08*	*6.33*	*Cum*
	Parapet	*2*	*15.35*	*0.44*	*0.18*	*2.39*	*Cum*
		2	*15.35*	*0.35*	*0.25*	*2.69*	*Cum*
		2	*15.35*	*0.22*	*0.55*	*3.70*	*Cum*
	TOTAL					**68.75**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*20*	*64*	*9.41*		*2.466*	*1485.0*	*Kg*
a2	*12*	*60*	*7.50*		*0.888*	*399.5*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*46*	*9.33*		*0.616*	*264.6*	*Kg*
a5	*10*	*60*	*7.40*		*0.616*	*273.7*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c2	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
c3	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c4	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*140*	*2.65*		*0.888*	*329.5*	*Kg*
x2	*16*	*140*	*1.55*		*1.578*	*341.4*	*Kg*
x3	*10*	*24*	*8.25*		*0.616*	*122.1*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.28*		*1.578*	*233.4*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*65.2*	*0.0025*	*0.163*	*7850.00*	#######	*Kg*
	Total Reinforcement Steel (in kg)					*6232.7*	*Kg*
	Total Weight in Metric Tonne					**6.23**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.97*		*0.20*	*2.39*	*Sqm*
		2		*1.87*	*0.20*	*0.75*	*Sqm*
		2	*5.97*		*0.80*	*9.55*	*Sqm*
		2		*1.67*	*0.80*	*2.67*	*Sqm*
		2	*5.97*		*1.50*	*17.91*	*Sqm*
		2		*1.15*	*1.50*	*3.44*	*Sqm*
		2	*5.97*		*0.20*	*2.39*	*Sqm*
		2		*0.82*	*0.20*	*0.33*	*Sqm*
	Return wall	*2*	*1.94*		*0.20*	*0.77*	*Sqm*
		2		*1.53*	*0.20*	*0.61*	*Sqm*
		2	*1.94*		*0.80*	*3.10*	*Sqm*
		2		*1.28*	*0.80*	*2.05*	*Sqm*
		2	*1.94*		*1.77*	*6.85*	*Sqm*
		2		*0.72*	*1.77*	*2.53*	*Sqm*
		2	*1.94*		*0.15*	*0.58*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.97*		*0.20*	*2.39*	*Sqm*
		2		*1.87*	*0.20*	*0.75*	*Sqm*
		2	*5.97*		*0.80*	*9.55*	*Sqm*
		2		*1.67*	*0.80*	*2.67*	*Sqm*
		2	*5.97*		*1.50*	*17.91*	*Sqm*
		2		*1.15*	*1.50*	*3.44*	*Sqm*
		2	*5.97*		*0.20*	*2.39*	*Sqm*
		2		*0.82*	*0.20*	*0.33*	*Sqm*
	Return wall	*2*	*1.94*		*0.20*	*0.77*	*Sqm*
		2		*1.53*	*0.20*	*0.61*	*Sqm*
		2	*1.94*		*0.80*	*3.10*	*Sqm*
		2		*1.28*	*0.80*	*2.05*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	*1.94*		*1.77*	*6.85*	*Sqm*
		2		*0.72*	*1.77*	*2.53*	*Sqm*
		2	*1.94*		*0.15*	*0.58*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*8.35*		*0.71*	*11.82*	*Sqm*
		1	*8.35*	6.50		*54.28*	*Sqm*
		2		*6.50*	0.71	*9.20*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.34*	*4.69*	*Sqm*
		2	*3.50*	6.50		*45.50*	*Sqm*
		4		*6.50*	0.34	*8.71*	*Sqm*
	Parapet	*4*	*15.35*		*0.18*	*10.75*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*15.35*		*0.25*	*15.35*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*15.35*		*0.55*	*33.77*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**307.26**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*6.50*	*0.40*		*5.20*	*Sqm*
	TOTAL					**5.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*6.50*			*13.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.97	1.35		*16.15*	*Cum*
	Right and left Return wall	4	2.04	2.44		*19.90*	*Cum*
	Extra slope	*2*	*8.00*	*1.1085*	*2.217*	*39.34*	*Cum*
		2	*5.97*	*1.1085*	*2.217*	*29.34*	*Cum*
	TOTAL					**104.73**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 19.740						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*90.00*			**90.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.94*	*1.54*	*1.43*	*8.50*	*Cum*
		1	*6.16*	*1.88*	*1.43*	*16.50*	*Cum*
	Extra for Slope (0.5:1)	*2*	*8.10*	*0.71*	*1.43*	*16.52*	*Cum*
	Left abutment	*2*	*1.94*	*1.54*	*1.43*	*8.50*	*Cum*
		1	*6.16*	*1.88*	*1.43*	*16.50*	*Cum*
	Extra for Slope (0.5:1)	*2*	*6.16*	*0.71*	*1.43*	*12.57*	*Cum*
	TOTAL					**79.10**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.94*	*1.54*	*0.20*	*1.19*	*Cum*
		1	*6.16*	*1.88*	*0.20*	*2.31*	*Cum*
	Left abutment	*2*	*1.94*	*1.54*	*0.20*	*1.19*	*Cum*
		1	*6.16*	*1.88*	*0.20*	*2.31*	*Cum*
	Levelling course	*2*	*5.50*	*3.50*	*0.08*	*3.08*	*Cum*
	TOTAL					**10.08**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*6.16*	*1.68*	*0.20*	*2.06*	*Cum*
		1	*6.16*	*1.48*	*0.80*	*7.27*	*Cum*
		1	*6.16*	*1.05*	*0.85*	*5.49*	*Cum*
		1	*6.16*	*0.82*	*0.42*	*2.12*	*Cum*
		1	*6.16*	*0.40*	*0.05*	*0.12*	*Cum*
	Return wall	*2*	*1.84*	*1.34*	*0.20*	*0.98*	*Cum*
		2	*1.84*	*1.14*	*0.80*	*3.34*	*Cum*
		2	*1.84*	*0.67*	*1.12*	*2.77*	*Cum*
		2	*1.84*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*6.16*	*1.68*	*0.20*	*2.06*	*Cum*
		1	*6.16*	*1.48*	*0.80*	*7.27*	*Cum*
		1	*6.16*	*1.05*	*0.85*	*5.49*	*Cum*
		1	*6.16*	*0.82*	*0.42*	*2.12*	*Cum*
		1	*6.16*	*0.40*	*0.05*	*0.12*	*Cum*
	Return wall	*2*	*1.84*	*1.34*	*0.20*	*0.98*	*Cum*
		2	*1.84*	*1.14*	*0.80*	*3.34*	*Cum*
		2	*1.84*	*0.67*	*1.12*	*2.77*	*Cum*
		2	*1.84*	*0.40*	*0.15*	*0.22*	*Cum*
	TOTAL					**48.77**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	6.50	3.95	0.39	*9.88*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Approch Slab	*2*	*3.50*	*3.95*	0.34	*9.26*	*Cum*
	Wearing coat	*1*	*13.50*	*2.95*	*0.08*	*2.99*	*Cum*
	Parapet	*2*	*13.50*	*0.44*	*0.18*	*2.10*	*Cum*
		2	*13.50*	*0.35*	*0.25*	*2.37*	*Cum*
		2	*13.50*	*0.22*	*0.55*	*3.25*	*Cum*
	TOTAL					**29.86**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*36*	*4.41*		*1.578*	*250.5*	*Kg*
a2	*10*	*20*	*6.90*		*0.616*	*85.1*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*23*	*4.33*		*0.616*	*61.4*	*Kg*
a5	*10*	*14*	*7.40*		*0.616*	*63.9*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c2	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
c3	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c4	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*66*	*2.38*		*0.888*	*139.2*	*Kg*
x2	*16*	*66*	*1.32*		*1.578*	*137.5*	*Kg*
x3	*10*	*24*	*3.85*		*0.616*	*57.0*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.28*		*1.578*	*233.4*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*48.8*	*0.0025*	*0.122*	*7850.00*	*957.121*	*Kg*
	Total Reinforcement Steel (in kg)					*3488.9*	*Kg*
	Total Weight in Metric Tonne					**3.49**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*6.16*		*0.20*	*2.47*	*Sqm*
		2		*1.68*	*0.20*	*0.67*	*Sqm*
		2	*6.16*		*0.80*	*9.86*	*Sqm*
		2		*1.48*	*0.80*	*2.36*	*Sqm*
		2	*6.16*		*0.85*	*10.48*	*Sqm*
		2		*1.05*	*0.85*	*1.78*	*Sqm*
		2	*6.16*		*0.42*	*5.18*	*Sqm*
		2		*0.82*	*0.42*	*0.69*	*Sqm*
	Return wall	*2*	*1.84*		*0.20*	*0.74*	*Sqm*
		2		*1.34*	*0.20*	*0.53*	*Sqm*
		2	*1.84*		*0.80*	*2.94*	*Sqm*
		2		*1.14*	*0.80*	*1.82*	*Sqm*
		2	*1.84*		*1.12*	*4.12*	*Sqm*
		2		*0.67*	*1.12*	*1.51*	*Sqm*
		2	*1.84*		*0.15*	*0.55*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*6.16*		*0.20*	*2.47*	*Sqm*
		2		*1.68*	*0.20*	*0.67*	*Sqm*
		2	*6.16*		*0.80*	*9.86*	*Sqm*
		2		*1.48*	*0.80*	*2.36*	*Sqm*
		2	*6.16*		*0.85*	*10.48*	*Sqm*
		2		*1.05*	*0.85*	*1.78*	*Sqm*
		2	*6.16*		*0.42*	*5.18*	*Sqm*
		2		*0.82*	*0.42*	*0.69*	*Sqm*
	Return wall	*2*	*1.84*		*0.20*	*0.74*	*Sqm*
		2		*1.34*	*0.20*	*0.53*	*Sqm*
		2	*1.84*		*0.80*	*2.94*	*Sqm*
		2		*1.14*	*0.80*	*1.82*	*Sqm*
		2	*1.84*		*1.12*	*4.12*	*Sqm*
		2		*0.67*	*1.12*	*1.51*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	*1.84*		*0.15*	*0.55*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*6.50*		*0.39*	*5.01*	*Sqm*
		1	*6.50*	3.95		*25.68*	*Sqm*
		2		*3.95*	0.39	*3.04*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.34*	*4.69*	*Sqm*
		2	*3.50*	3.95		*27.65*	*Sqm*
		4		*3.95*	0.34	*5.29*	*Sqm*
	Parapet	*4*	*13.50*		*0.18*	*9.45*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*13.50*		*0.25*	*13.50*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*13.50*		*0.55*	*29.70*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**216.76**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing (RCD 13.08)	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*3.95*	*0.40*		*3.16*	*Sqm*
	TOTAL					**3.16**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*3.95*			***7.90***	***RM***
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				**2.00**	**Nos**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	6.16	0.85		*10.43*	*Cum*
	Right and left Return wall	4	1.94	1.61		*12.51*	*Cum*
	Extra slope	*2*	*8.10*	*0.714*	*1.428*	*16.52*	*Cum*
		2	*6.16*	*0.714*	*1.428*	*12.57*	*Cum*
	TOTAL					**52.03**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES FOR CHAURAHA MINOR						
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 5.910						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*100.00*			**100.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.92*	*1.51*	*1.20*	*6.96*	*Cum*
		1	*5.19*	*1.95*	*1.20*	*12.13*	*Cum*
	Extra for Slope (0.5:1)	*2*	*7.12*	*0.60*	*1.20*	*10.25*	*Cum*
	Left abutment	*2*	*1.92*	*1.51*	*1.20*	*6.96*	*Cum*
		1	*5.19*	*1.95*	*1.20*	*12.13*	*Cum*
	Extra for Slope (0.5:1)	*2*	*5.19*	*0.60*	*1.20*	*7.48*	*Cum*
	TOTAL					**55.91**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.92*	*1.51*	*0.20*	*1.16*	*Cum*
		1	*5.19*	*1.95*	*0.20*	*2.02*	*Cum*
	Left abutment	*2*	*1.92*	*1.51*	*0.20*	*1.16*	*Cum*
		1	*5.19*	*1.95*	*0.20*	*2.02*	*Cum*
	Levelling course	*2*	*3.10*	*5.50*	*0.08*	*2.73*	*Cum*
	TOTAL					**9.09**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.19*	*1.75*	*0.20*	*1.81*	*Cum*
		1	*5.19*	*1.45*	*0.80*	*6.01*	*Cum*
		1	*5.19*	*1.03*	*0.76*	*4.05*	*Cum*
		1	*5.19*	*0.82*	*0.50*	*2.13*	*Cum*
	Return wall	*2*	*1.82*	*1.31*	*0.20*	*0.95*	*Cum*
		2	*1.82*	*1.11*	*0.80*	*3.23*	*Cum*
		2	*1.82*	*0.65*	*1.03*	*2.44*	*Cum*
		2	*1.82*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*5.19*	*1.75*	*0.20*	*1.81*	*Cum*
		1	*5.19*	*1.45*	*0.80*	*6.01*	*Cum*
		1	*5.19*	*1.03*	*0.76*	*4.05*	*Cum*
		1	*5.19*	*0.82*	*0.50*	*2.13*	*Cum*
	Return wall	*2*	*1.82*	*1.31*	*0.20*	*0.95*	*Cum*
		2	*1.82*	*1.11*	*0.80*	*3.23*	*Cum*
		2	*1.82*	*0.65*	*1.03*	*2.44*	*Cum*
		2	*1.82*	*0.40*	*0.15*	*0.22*	*Cum*
	TOTAL					**41.71**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	5.50	3.05	0.33	*5.49*	*Cum*
	Approch Slab	*2*	*3.50*	*3.05*	0.30	*6.41*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Wearing coat	*1*	*12.50*	*2.05*	*0.08*	*1.92*	*Cum*
	Parapet	*2*	*12.50*	*0.44*	*0.18*	*1.94*	*Cum*
		2	*12.50*	*0.35*	*0.25*	*2.19*	*Cum*
		2	*12.50*	*0.22*	*0.55*	*3.01*	*Cum*
	TOTAL					**20.97**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*32*	*3.51*		*1.578*	*177.3*	*Kg*
a2	*10*	*16*	*5.90*		*0.616*	*58.2*	*Kg*
a3	*10*	*2*	*5.40*		*0.616*	*6.7*	*Kg*
a4	*10*	*19*	*3.43*		*0.616*	*40.2*	*Kg*
a5	*10*	*11*	*5.80*		*0.616*	*39.3*	*Kg*
	APPROACH SLAB						
c1	*12*	*74*	*3.70*		*0.888*	*243.1*	*Kg*
c2	*12*	*46*	*5.70*		*0.888*	*232.8*	*Kg*
c3	*12*	*74*	*3.70*		*0.888*	*243.1*	*Kg*
c4	*12*	*46*	*5.70*		*0.888*	*232.8*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*50*	*2.32*		*0.888*	*103.0*	*Kg*
x2	*16*	*50*	*1.27*		*1.578*	*100.5*	*Kg*
x3	*10*	*24*	*2.95*		*0.616*	*43.6*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.28*		*1.578*	*233.4*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*41.7*	*0.0025*	*0.104*	*7850.00*	*818.55*	*Kg*
	Total Reinforcement Steel (in kg)					*2956.2*	*Kg*
	Total Weight in Metric Tonne					**2.96**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.19*		*0.20*	*2.08*	*Sqm*
		2		*1.75*	*0.20*	*0.70*	*Sqm*
		2	*5.19*		*0.80*	*8.31*	*Sqm*
		2		*1.45*	*0.80*	*2.32*	*Sqm*
		2	*5.19*		*0.76*	*7.84*	*Sqm*
		2		*1.03*	*0.76*	*1.56*	*Sqm*
		2	*5.19*		*0.50*	*5.19*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.82*		*0.20*	*0.73*	*Sqm*
		2		*1.31*	*0.20*	*0.52*	*Sqm*
		2	*1.82*		*0.80*	*2.92*	*Sqm*
		2		*1.11*	*0.80*	*1.77*	*Sqm*
		2	*1.82*		*1.03*	*3.74*	*Sqm*
		2		*0.65*	*1.03*	*1.34*	*Sqm*
		2	*1.82*		*0.15*	*0.55*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.19*		*0.20*	*2.08*	*Sqm*
		2		*1.75*	*0.20*	*0.70*	*Sqm*
		2	*5.19*		*0.80*	*8.31*	*Sqm*
		2		*1.45*	*0.80*	*2.32*	*Sqm*
		2	*5.19*		*0.76*	*7.84*	*Sqm*
		2		*1.03*	*0.76*	*1.56*	*Sqm*
		2	*5.19*		*0.50*	*5.19*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.82*		*0.20*	*0.73*	*Sqm*
		2		*1.31*	*0.20*	*0.52*	*Sqm*
		2	*1.82*		*0.80*	*2.92*	*Sqm*
		2		*1.11*	*0.80*	*1.77*	*Sqm*
		2	*1.82*		*1.03*	*3.74*	*Sqm*
		2		*0.65*	*1.03*	*1.34*	*Sqm*
		2	*1.82*		*0.15*	*0.55*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*5.50*		*0.33*	*3.60*	*Sqm*
		1	*5.50*	3.05		*16.78*	*Sqm*
		2		*3.05*	0.33	*2.00*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	3.05		*21.35*	*Sqm*
		4		*3.05*	0.30	*3.66*	*Sqm*
	Parapet	*4*	*12.50*		*0.18*	*8.75*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*12.50*		*0.25*	*12.50*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*12.50*		*0.55*	*27.50*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**182.48**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*3.05*	*0.40*		*2.44*	*Sqm*
	TOTAL					**2.44**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*3.05*			*6.10*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.19	0.96		*9.97*	*Cum*
	Right and left Return wall	4	1.92	1.51		*11.59*	*Cum*
	Extra slope	*2*	*7.1155*	*0.6*	*1.2*	*10.25*	*Cum*
		2	*5.192*	*0.6*	*1.2*	*7.48*	*Cum*
	TOTAL					**39.28**	**Cum**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND

DETAILS OF QUANTITIES OF BRICK WORK OF CANAL

S.No.	Name of Canal	Reaches (m)	Length (m)	Area (m2)	Quantity (m3)	Unit	Rates (As per Bihar SOR 2025)	Amount	Cement (MT)	Coarse Sand (Cum)
1	Chauraha Minor	7500-7700	200.000	0.560	112.000	Cum	**5021.30**	₹ 5,62,385.60	12.90	35.84
2	Neura Srajmal Minor	4225-4700	475.000	0.560	266.000	Cum	**5021.30**	₹ 13,35,665.80	30.64	85.12
	Total				***378.00***			***₹ 18,98,051.40***	***43.55***	***120.96***
3	**Carriage of materials**									
	Coarse Sand (60 Km lead)				120.960	Cum	**1075.00**	₹ 1,30,032.00		
	Cement (30 km lead)				43.546	MT	**742.00**	₹ 32,310.84		
	Brick (15 km lead)				189000.00	No.	**3.18**	₹ 6,01,020.00		
	Carriage of materials Total (In Rs.)							**₹ 7,63,362.84**		
	SUB TOTAL (In Rs.)							**₹ 26,61,414.24**		
	Seigniorage @10%				**Rate**	**Amount in Rs.**	**10%**			
	Coarse Sand	120.96	Cum		**584.64**	70718.05	7071.81			
	Total						**₹ 7,071.81**			

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND			
DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF KARMA DISTRIBUTARY			
Sl. No.	**Structure Type**	**Chainage In Km**	**Amount (In Rs.)**
1	BRIDGE COMBINED WITH HR	0.005	₹ 0.00
2	HR FOR CHAUHARA MR.	0.150	₹ 51,303.43
3	BRIDGE	0.220	₹ 14,034.77
4	BRIDGE / FALL (0.305 M)	0.435	₹ 6,869.55
5	BRIDGE / FALL (1.220 M)	1.350	₹ 1,135.08
6	BRIDGE / FALL (1.220 M)	2.150	₹ 10,991.80
7	BRIDGE	2.415	₹ 10,860.26
8	HR FOR NEURA SURAJMAL MR.	3.150	₹ 11,777.44
9	BRIDGE / FALL (1.220 M)	3.200	₹ 4,432.39
10	FALL (1.220 M)	3.650	₹ 10,808.66
11	BRIDGE / FALL (1.520 M)	4.170	₹ 4,301.47
12	FALL (0.610 M)	4.900	₹ 3,63,047.50
13	BRIDGE	5.280	₹ 7,693.58
14	BRIDGE / FALL (1.220 M)	5.700	₹ 4,29,877.49
15	PROPOSED MR.-1 / H.R.	6.450	₹ 0.00
17	BRIDGE / FALL (1.220 M)	6.600	₹ 9,970.65
18	BRIDGE	7.420	₹ 10,464.78
19	PROPOSED MR.-2 / H.R.	7.735	₹ 0.00
20	BRIDGE / FALL (0.610 M)	8.150	₹ 6,774.89
21	PROPOSED MR.-3 / H.R.	8.700	₹ 0.00
22	BRIDGE / FALL (0.610 M)	9.150	₹ 1,35,782.98
23	PROPOSED MR. 4 & BRIDGE / H.R.	9.565	₹ 0.00
24	PROPOSED MR. 5 / H.R.	11.333	₹ 0.00
25	FALL (0.457 M)	11.360	₹ 1,83,421.00
26	BRIDGE / FALL (1.220 M)	12.350	₹ 4,250.08
27	BRIDGE / FALL (1.524 M)	12.850	₹ 20,299.35
28	BRIDGE	13.230	₹ 0.00
29	FALL (0.915 M)	13.600	₹ 28,347.70
30	FALL (1.680 M)	14.050	₹ 1,947.72
31	BRIDGE	14.490	₹ 1,534.57
32	BRIDGE / FALL (0.914 M)	14.700	₹ 33,651.62
33	BRIDGE / FALL (1.372 M)	15.050	₹ 10,841.17
34	FALL (0.762 M)	16.250	₹ 93,471.75
35	FALL (0.915 M)	16.860	₹ 9,031.28
36	CULVERT	17.275	₹ 6,774.46
37	FALL (0.457 M)	17.975	₹ 6,622.35
38	CULVERT / FALL (0.457 M)	18.035	₹ 1,534.57
39	HR FOR SHUSHNAR MR.	18.342	₹ 3,816.51
40	FALL (1.372 M)	18.600	₹ 9,154.31
41	CULVERT	19.400	₹ 0.00
42	FALL (0.915 M)	19.480	₹ 0.00
43	PIPE CULVERT	19.740	₹ 33,481.67
44	CULVERT / FALL (0.610 M)	19.850	₹ 0.00
45	PROPOSED MR.-7 / H.R.	20.058	₹ 0.00

46	CULVERT / FALL (1.067 M)	21.350	₹ 2,801.38
47	FALL (0.457 M)	22.150	₹ 9,913.64
48	CULVERT / FALL (0.915 M)	23.050	₹ 2,163.89
49	CULVERT / FALL (1.220 M)	23.300	₹ 11,348.46
Total In Rs.			**₹ 21,06,630.84**
Total In Lakhs.			**₹ 21.07**

DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF CHAUHARA MR.			
Sl. No.	**Structure Type**	**Chainage In Km**	**Amount (In Rs.)**
1	CULVERT	1.230	₹ 12,481.03
2	BRIDGE	1.920	₹ 6,990.18
3	BRIDGE / FALL (0.305 M)	2.340	₹ 12,357.62
4	BRIDGE	2.780	₹ 6,291.16
5	FALL (1.830 M)	3.130	₹ 38,365.77
6	NEW FALL (0.914 M)	3.190	₹ 0.00
7	BRIDGE	3.445	₹ 7,703.02
8	FALL (0.457 M)	4.175	₹ 7,817.48
9	FALL (0.762 M)	4.240	₹ 37,680.67
10	NEW FALL (0.305 M)	4.800	₹ 0.00
11	CULVERT	5.165	₹ 5,592.14
12	FALL (0.610 M)	5.380	₹ 32,674.97
13	NEW FALL (0.305 M)	6.000	₹ 0.00
14	FALL (0.915 M)	6.400	₹ 2,19,628.85
15	BRIDGE / FALL (1.670 M)	6.520	₹ 1,999.30
16	NEW FALL (0.457 M)	6.750	₹ 0.00
17	NEW FALL (0.457 M)	7.050	₹ 0.00
18	NEW FALL (0.457 M)	7.200	₹ 0.00
19	NEW FALL (0.457 M)	7.500	₹ 0.00
Total In Rs.			**₹ 3,89,582.20**
Total In Lakhs.			**₹ 3.90**

DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF NEURA SURAJMAL MR.			
Sl. No.	**Structure Type**	**Chainage In Km**	**Amount (In Rs.)**
1	CULVERT	0.065	₹ 71,315.43
2	FALL (0.505 M)	0.180	₹ 34,221.02
3	CULVERT	0.240	₹ 10,684.98
4	FALL (0.914 M)	0.780	₹ 1,416.53
5	FALL (0.970 M)	1.505	₹ 2,360.88
6	NEW FALL (0.457 M)	1.950	₹ 0.00
7	FALL (0.457 M)	2.095	₹ 40,902.85
8	NEW FALL (0.457 M)	2.300	₹ 0.00
9	CULVERT	2.480	₹ 10,684.98
10	FALL (0.305 M)	2.665	₹ 34,836.66
11	CULVERT	2.745	₹ 7,417.99
12	FALL (0.790 M)	3.245	₹ 38,552.32
13	FALL (0.914 M)	4.225	₹ 2,006.75
14	PIPE CULVERT	4.480	₹ 1,416.53
Total In Rs.			**₹ 2,55,816.91**
Total In Lakhs.			**₹ 2.56**

DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF SHUSHNAR MR.			
Sl. No.	**Structure Type**	**Chainage In Km**	**Amount (In Rs.)**
1	BRIDGE / FALL (0.610 M)	0.050	₹ 13,949.09
2	CULVERT / FALL (0.610 M)	0.700	₹ 6,827.73
3	CULVERT / FALL (1.220 M)	0.800	₹ 4,830.77
4	NEW FALL (0.457 M)	1.500	₹ 0.00
5	BRIDGE	1.995	₹ 23,993.22
6	CULVERT / FALL (0.457 M)	2.030	₹ 0.00
7	CULVERT	2.570	₹ 2,212.51
8	FALL (0.610 M)	2.750	₹ 75,888.52
9	BRIDGE	3.065	₹ 64,818.67
10	CULVERT / FALL (0.915 M)	3.700	₹ 22,236.04
11	NEW FALL (0.305 M)	4.075	₹ 0.00
12	CULVERT	4.300	₹ 16,432.63
13	HR FOR PROPOSED MR.-6	4.500	₹ 0.00
Total In Rs.			**₹ 2,31,189.18**
Total In Lakhs.			**₹ 2.31**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND			
DETAILED ESTIMATE FOR C/O OF APPROACH ROAD			
Sl. No.	**APPROACH ROAD**	**NOS.**	**Amount (In Rs.)**
1		20.000	₹ 1,04,20,371.00
Total In Rs.			**₹ 1,04,20,371.00**
Total In Lakhs.			**₹ 104.20**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND									
ABSTRACT OF COST OF REPAIRED STRUCTURES OF KARMA DISTRIBUTARY									
S. No.	**Ref**	**Item of Works**	**Qty.**	**Unit**	**Rate (As per WRD SOR 2025 & PL 2025)**	**Amount (Rs)**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**
AOC FOR BRIDGE (Ch.-0.005Km)									
1	**Structure is in good condition and does not requir any repair works.**								
AOC FOR HR OF CHAUHARA MR (Ch.-0.150 Km)									
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	2.250	Cum	**2492.58**	5608.31			
2	M-181	Structural Steel (Average rate of Angle, Joint and Channel) etc.	0.284	MT	**160035.11**	45484.24			
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		Steel (30 km lead)	0.284	MT	**742.00**	210.89			
TOTAL (In Rs.)						**51303.43**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
AOC FOR BRIDGE (Ch.-0.220 Km)									
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.51	Cum	**5021.30**	7603.49	0.17	0.48	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	8.376	Sqm	**340.20**	2849.48	0.434	0.122	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	1.097	Sqm	**63.20**	69.35	0.0016		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.607	Cum	**1075.00**	652.36			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.610	MT	**742.00**	452.84			
		Brick (30 km lead)	757.000	No.	**3.18**	2407.26			
TOTAL (In Rs.)						**14034.77**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.61	Cum	**584.64**	354.79	35.48		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**35.48**		
AOC FOR BRIDGE/FALL (Ch.-0.435 Km)									
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.71	Cum	**5021.30**	3581.35	0.08	0.23	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	4.542	Sqm	**340.20**	1545.03	0.235	0.066	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	0.914	Sqm	**63.20**	57.79	0.00		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.295	Cum	**1075.00**	316.63			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.319	MT	**742.00**	236.67			
		Brick (30 km lead)	356.000	No.	**3.18**	1132.08			
TOTAL (In Rs.)						**6869.55**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.29	Cum	**584.64**	172.20	17.22		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**17.22**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		AOC FOR BRIDGE/FALL (Ch.-1.350 Km)							
1	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	2.800	Sqm	**340.20**	952.56	0.145	0.041	
2	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	0.480	Sqm	**63.20**	30.34	0.00		
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.041	Cum	**1075.00**	43.95			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.146	MT	**742.00**	108.24			
		TOTAL (In Rs.)				**1135.08**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.04	Cum	**584.64**	23.90	2.39		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**2.39**		
		AOC FOR BRIDGE/FALL (Ch.-2.150 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.45	Cum	**5021.30**	2238.34	0.05	0.14	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	2.667	Sqm	**340.20**	907.31	0.138	0.039	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	0.457	Sqm	**63.20**	28.90	0.00		
4	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	0.81	Cum	**6381.70**	5169.18	0.26	0.36	0.73
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.546	Cum	**1075.00**	587.04			
		Coarse Aggregates (100 Km lead)	0.729	Cum	**1398.00**	1019.14			
		Cement (30 km lead)	0.453	MT	**742.00**	335.93			
		Brick (30 km lead)	222.000	No.	**3.18**	705.96			
		TOTAL (In Rs.)				**10991.80**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.55	Cum	**584.64**	319.26	31.93		
		Coarse Aggregate	0.73	Cum	**944.26**	688.37	68.84		
		Total					**100.76**		
		AOC FOR BRIDGE (Ch.-2.415 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	20.589	Sqm	**340.20**	7004.46	1.067	0.301	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	20.589	Sqm	**63.20**	1301.24	0.03		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.301	Cum	**1075.00**	323.15			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.098	MT	**742.00**	814.89			
		TOTAL (In Rs.)				**10860.26**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.30	Cum	**584.64**	175.74	17.57		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**17.57**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
AOC FOR NEURA SURAJMAL MR (Ch.-3.150 Km)									
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	4.725	Cum	**2492.58**	11777.44			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
TOTAL (In Rs.)						**11777.44**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
AOC FOR BRIDGE/FALL (Ch.-3.200 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	6.401	Sqm	**340.20**	2177.55	0.332	0.093	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	4.572	Sqm	**63.20**	288.95	0.01		
4	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	0.02	Cum	**6381.70**	150.77	0.01	0.01	0.02
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.104	Cum	**1075.00**	111.89			
		Coarse Aggregates (100 Km lead)	0.021	Cum	**1398.00**	29.72			
		Cement (30 km lead)	0.346	MT	**742.00**	256.98			
TOTAL (In Rs.)						**4432.39**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.10	Cum	**584.64**	60.85	6.09		
		Coarse Aggregate	0.02	Cum	**944.26**	20.08	2.01		
		Total					**8.09**		
AOC FOR FALL (Ch.-3.650 Km)									
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.47	Cum	**5021.30**	2339.93	0.05	0.15	
2	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	0.90	Cum	**6381.70**	5743.53	0.29	0.41	0.81
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.554	Cum	**1075.00**	595.68			
		Coarse Aggregates (100 Km lead)	0.810	Cum	**1398.00**	1132.38			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Cement (30 km lead)	0.345	MT	**742.00**	256.20			
		Brick (30 km lead)	233.000	No.	**3.18**	740.94			
		TOTAL (In Rs.)				**10808.66**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.55	Cum	**584.64**	323.96	32.40		
		Coarse Aggregate	0.81	Cum	**944.26**	764.85	76.49		
		Total					**108.88**		
		AOC FOR BRIDGE/FALL (Ch.-4.170 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.40	Cum	**5021.30**	2003.88	0.05	0.13	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	3.256	Sqm	**340.20**	1107.65	0.169	0.048	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	3.256	Sqm	**63.20**	205.77	0.00		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.175	Cum	**1075.00**	188.38			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.220	MT	**742.00**	162.97			
		Brick (30 km lead)	199.000	No.	**3.18**	632.82			
		TOTAL (In Rs.)				**4301.47**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.18	Cum	**584.64**	102.45	10.25		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**10.25**		
		AOC FOR FALL (Ch.-4.900 Km)							
1	5.8.7	Dismantling pucca brick or lime work including stacking serviceable materials in countable stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	**18.56**	Cum	**695.2**	12904.32			
2	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	30.937	Cum	**6914.20**	213902.62	12.76	13.30	26.61
2	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.00	Cum	**6381.70**	57435.30	2.92	4.05	8.10
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	17.353	Cum	**1075.00**	18654.25			
		Coarse Aggregates (100 Km lead)	34.706	Cum	**1398.00**	48518.39			
		Cement (30 km lead)	15.677	MT	**742.00**	11632.63			
		TOTAL (In Rs.)				**363047.50**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	17.35	Cum	**584.64**	10145.13	1014.51		
		Coarse Aggregate	34.71	Cum	**944.26**	32771.08	3277.11		
		Total					**4291.62**		
		AOC FOR BRIDGE (Ch.-5.280 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.64	Cum	**5021.30**	3194.90	0.07	0.20	

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	7.113	Sqm	**340.20**	2419.74	0.369	0.104	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	6.363	Sqm	**63.20**	402.12	0.01		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.307	Cum	**1075.00**	330.51			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.452	MT	**742.00**	335.06			
		Brick (30 km lead)	318.000	No.	**3.18**	1011.24			
		TOTAL (In Rs.)				**7693.58**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.31	Cum	**584.64**	179.75	17.97		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**17.97**		
		AOC FOR BRIDGE/FALL (Ch.-5.700 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.90	Cum	**5021.30**	4514.95	0.10	0.29	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	8.992	Sqm	**340.20**	3058.94	0.466	0.131	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	8.992	Sqm	**63.20**	568.27	0.01		
4	5.8.7	Dismantling pucca brick or lime work including stacking serviceable materials in countable stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	22.71	Cum	**695.2**	15791.3243			
5	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	45.430	Cum	**6914.20**	314109.25	18.74	19.53	39.07
6		**Carriage of materials**							
		Coarse Sand (60 Km lead)	19.954	Cum	**1075.00**	21450.26			
		Coarse Aggregates (100 Km lead)	39.069	Cum	**1398.00**	54619.08			
		Cement (30 km lead)	19.323	MT	**742.00**	14337.59			
		Brick (30 km lead)	449.000	No.	**3.18**	1427.82			
		TOTAL (In Rs.)				**429877.49**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	19.95	Cum	**584.64**	11665.75	1166.57		
		Coarse Aggregate	39.07	Cum	**944.26**	36891.71	3689.17		
		Total					**4855.75**		
		AOC FOR BRIDGE/FALL (Ch.-6.600 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.83	Cum	**5021.30**	4170.59	0.10	0.27	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	8.306	Sqm	**340.20**	2825.63	0.431	0.121	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	8.306	Sqm	**63.20**	524.93	0.01		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
4	5.1.31	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	2.103	Cum	**149.30**	314.00			
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.387	Cum	**1075.00**	416.08			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.539	MT	**742.00**	399.73			
		Brick (30 km lead)	415.000	No.	**3.18**	1319.70			
		TOTAL (In Rs.)				**9970.65**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.39	Cum	**584.64**	226.29	22.63		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**22.63**		
		AOC FOR BRIDGE (Ch.-7.420Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.13	Cum	**5021.30**	627.66	0.01	0.04	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	20.900	Sqm	**340.20**	7110.18	1.083	0.305	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	20.900	Sqm	**63.20**	1320.88	0.03		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.345	Cum	**1075.00**	371.03			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.129	MT	**742.00**	837.87			
		Brick (30 km lead)	62.000	No.	**3.18**	197.16			
		TOTAL (In Rs.)				**10464.78**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.35	Cum	**584.64**	201.78	20.18		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**20.18**		
		AOC FOR BRIDGE/FALL (Ch.-8.150 Km							
1	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	0.81	Cum	**6381.70**	5169.18	0.26	0.36	0.73
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.365	Cum	**1075.00**	391.84			
		Coarse Aggregates (100 Km lead)	0.729	Cum	**1398.00**	1019.14			
		Cement (30 km lead)	0.262	MT	**742.00**	194.73			
		TOTAL (In Rs.)				**6774.89**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.36	Cum	**584.64**	213.10	21.31		
		Coarse Aggregate	0.73	Cum	**944.26**	688.37	68.84		
		Total					**90.15**		
		AOC FOR BRIDGE/FALL (Ch.-9.150 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.79	Cum	**5021.30**	8999.29	0.21	0.57	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	17.325	Sqm	**340.20**	5893.91	0.898	0.253	

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	17.325	Sqm	**63.20**	1094.93	0.03		
4	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	4.97	Cum	**6381.70**	31704.29	1.61	2.24	4.47
5	5.3.19	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	26.22	Sqm	**578.60**	15170.89			
6	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	6.584	Cum	**6914.20**	45520.88	2.72	2.83	5.66
7		**Carriage of materials**							
		Coarse Sand (60 Km lead)	5.893	Cum	**1075.00**	6335.01			
		Coarse Aggregates (100 Km lead)	10.133	Cum	**1398.00**	14166.16			
		Cement (30 km lead)	5.456	MT	**742.00**	4048.33			
		Brick (30 km lead)	896.000	No.	**3.18**	2849.28			
		TOTAL (In Rs.)				**135782.98**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	5.89	Cum	**584.64**	3445.30	344.53		
		Coarse Aggregate	10.13	Cum	**944.26**	9568.34	956.83		
		Total					**1301.36**		
		AOC FOR FALL (Ch.-11.360 Km)							
1	5.8.7	Dismantling pucca brick or lime work including stacking serviceable materials in countable stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	**14.63**	Cum	**695.2**	10167.30			
2	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	19.500	Cum	**6914.20**	134826.90	8.04	8.39	16.77
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	8.385	Cum	**1075.00**	9013.88			
		Coarse Aggregates (100 Km lead)	16.770	Cum	**1398.00**	23444.46			
		Cement (30 km lead)	8.044	MT	**742.00**	5968.46			
		Brick (30 km lead)	0.000	No.	**3.18**	0.00			
		TOTAL (In Rs.)				**183421.00**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	8.39	Cum	**584.64**	4902.21	490.22		
		Coarse Aggregate	16.77	Cum	**944.26**	15835.24	1583.52		
		Total					**2073.74**		
		AOC FOR BRIDGE/FALL (Ch.-12.350 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.37	Cum	**5021.30**	1836.59	0.04	0.12	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	3.658	Sqm	**340.20**	1244.32	0.190	0.053	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	3.658	Sqm	**63.20**	231.16	0.01		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.170	Cum	**1075.00**	183.23			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.237	MT	**742.00**	176.03			
		Brick (30 km lead)	182.000	No.	**3.18**	578.76			
		TOTAL (In Rs.)				**4250.08**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.17	Cum	**584.64**	99.65	9.96		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**9.96**		
		AOC FOR BRIDGE/FALL (Ch.-12.850 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	2.16	Cum	**5021.30**	10846.01	0.25	0.69	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	11.100	Sqm	**340.20**	3776.22	0.575	0.162	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	11.100	Sqm	**63.20**	701.52	0.02		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.853	Cum	**1075.00**	917.25			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.841	MT	**742.00**	623.95			
		Brick (30 km lead)	1080.000	No.	**3.18**	3434.40			
		TOTAL (In Rs.)				**20299.35**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.85	Cum	**584.64**	498.85	49.88		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**49.88**		
		AOC FOR BRIDGE (Ch.-13.230 Km)							
1	**Structure requires no repair work.**								
		AOC FOR FALL (Ch.-13.600 Km)							
1	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	2.700	Cum	**6914.20**	18668.34	1.11	1.16	2.32
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.38	Cum	**5021.30**	1882.99	0.04	0.12	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	3.750	Sqm	**340.20**	1275.75	0.194	0.055	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	3.750	Sqm	**63.20**	237.00	0.01		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.336	Cum	**1075.00**	1435.93			
		Coarse Aggregates (100 Km lead)	2.322	Cum	**1398.00**	3246.16			
		Cement (30 km lead)	1.357	MT	**742.00**	1006.88			
		Brick (30 km lead)	187.000	No.	**3.18**	594.66			
		TOTAL (In Rs.)				**28347.70**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.34	Cum	**584.64**	780.93	78.09		
		Coarse Aggregate	2.32	Cum	**944.26**	2192.57	219.26		
		Total					**297.35**		
		AOC FOR FALL (Ch.-14.050 Km)							

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	165.000	Sqm	**11.80**	1947.72			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		Brick (30 km lead)	0.000	No.	**3.18**	0.00			
		TOTAL (In Rs.)				**1947.72**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR FALL (Ch.-14.490 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	130.000	Sqm	**11.80**	1534.57			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		Brick (30 km lead)	0.000	No.	**3.18**	0.00			
		TOTAL (In Rs.)				**1534.57**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR FALL (Ch.-14.700 Km)							
1	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	4.02	Cum	**6381.70**	25675.88	1.30	1.81	3.62
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.811	Cum	**1075.00**	1946.30			
		Coarse Aggregates (100 Km lead)	3.621	Cum	**1398.00**	5062.19			
		Cement (30 km lead)	1.304	MT	**742.00**	967.25			
		TOTAL (In Rs.)				**33651.62**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.81	Cum	**584.64**	1058.50	105.85		
		Coarse Aggregate	3.62	Cum	**944.26**	3419.19	341.92		
		Total					**447.77**		
		AOC FOR FALL/BRIDGE (Ch.-15.050 Km)							
1	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	1.30	Cum	**6381.70**	8271.72	0.42	0.58	1.17
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.583	Cum	**1075.00**	627.02			
		Coarse Aggregates (100 Km lead)	1.167	Cum	**1398.00**	1630.83			
		Cement (30 km lead)	0.420	MT	**742.00**	311.61			
		TOTAL (In Rs.)				**10841.17**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.58	Cum	**584.64**	341.00	34.10		
		Coarse Aggregate	1.17	Cum	**944.26**	1101.52	110.15		
		Total					**144.25**		
		AOC FOR FALL (Ch.-16.250 Km)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	37.500	Cum	**2492.58**	93471.75			
2		**Carriage of materials**							

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**93471.75**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
AOC FOR FALL (Ch.-16.860 Km)									
1	5.8.7	Dismantling pucca brick or lime work including stacking serviceable materials in countable stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	**12.99**	Cum	**695.2**	9031.28			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
TOTAL (In Rs.)						**9031.28**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
AOC FOR CULVERT (Ch.-17.275 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	165.000	Sqm	**11.80**	1947.72			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.42	Cum	**5021.30**	2085.30	0.05	0.13	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	4.153	Sqm	**340.20**	1412.82	0.215	0.061	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	4.153	Sqm	**63.20**	262.46	0.01		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.194	Cum	**1075.00**	208.04			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.269	MT	**742.00**	199.86			
		Brick (30 km lead)	207.000	No.	**3.18**	658.26			
TOTAL (In Rs.)						**6774.46**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.19	Cum	**584.64**	113.14	11.31		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**11.31**		
AOC FOR CULVERT (Ch.-17.975 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	13.500	Sqm	**340.20**	4592.70	0.700	0.197	
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.197	Cum	**1075.00**	211.88			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.700	MT	**742.00**	519.28			
		Brick (30 km lead)	0.000	No.	**3.18**	0.00			
TOTAL (In Rs.)						**6622.35**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.20	Cum	**584.64**	115.23	11.52		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**11.52**		
AOC FOR PIPE CULVERT (Ch.-18.035 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	130.000	Sqm	**11.80**	1534.57			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		Brick (30 km lead)	0.000	No.	**3.18**	0.00			
TOTAL (In Rs.)						**1534.57**			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR HR OF SHUSNAR MR (Ch.-18.342 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	140.000	Sqm	**11.80**	1652.61			
1	5.8.7	Dismantling pucca brick or lime work including stacking serviceable materials in countable stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	**3.11**	Cum	**695.2**	2163.89			
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		Brick (30 km lead)	0.000	No.	**3.18**	0.00			
		TOTAL (In Rs.)				**3816.51**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR FALL (Ch.-18.600 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	160.000	Sqm	**11.80**	1888.70			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.63	Cum	**5021.30**	3138.31	0.07	0.20	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	6.250	Sqm	**340.20**	2126.25	0.324	0.091	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	6.250	Sqm	**63.20**	395.00	0.01		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.291	Cum	**1075.00**	313.09			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.405	MT	**742.00**	300.79			
		Brick (30 km lead)	312.000	No.	**3.18**	992.16			
		TOTAL (In Rs.)				**9154.31**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.29	Cum	**584.64**	170.28	17.03		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**17.03**		
		Brick (30 km lead)	0.000	No.	**3.18**	0.00			
		TOTAL (In Rs.)				**18478.89**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.29	Cum	**584.64**	170.28	17.03		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**17.03**		
		AOC FOR CULVERT (Ch.-19.400 Km)							
1	**Structure requires no repair work.**								
		AOC FOR FALL(Ch.-19.480 Km)							
1	**Structure requires no repair work.**								
		AOC FOR PIPE CULVERT (Ch.-19.740 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	130.000	Sqm	**11.80**	1534.57			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
2	5.8.7	Dismantling pucca brick or lime work including stacking serviceable materials in countable stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	13.98	Cum	**695.2**	9718.90			
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		Brick (30 km lead)	6990.000	No.	**3.18**	22228.20			
		TOTAL (In Rs.)				**33481.67**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR PIPE CULVERT/FALL (Ch.-19.850 Km)							
1	**Structure requires no repair work.**								
		AOC FOR PIPE CULVERT/FALL (Ch.-21.350 Km)							
1	5.8.7	Dismantling pucca brick or lime work including stacking serviceable materials in countable stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	**4.03**	Cum	**695.2**	2801.38			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**2801.38**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR PIPE CULVERT/FALL (Ch.-22.150 Km)							
1	5.8.7	Dismantling pucca brick or lime work including stacking serviceable materials in countable stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	**14.26**	Cum	**695.2**	**9913.64**			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**9913.64**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR PIPE CULVERT/FALL (Ch.-23.050 Km)							
1	5.8.7	Dismantling pucca brick or lime work including stacking serviceable materials in countable stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	**3.11**	Cum	**695.2**	**2163.89**			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**2163.89**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR PIPE CULVERT/FALL (Ch.-23.300 Km)							
1	5.8.7	Dismantling pucca brick or lime work including stacking serviceable materials in countable stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	**16.32**	Cum	**695.2**	**11348.4553**			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**11348.46**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		ABSTRACT OF COST OF REPAIRED STRUCTURES OF CHAURAHA MINOR							
		AOC FOR CULVERT (Ch.-1.230 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	90.000	Sqm	**11.80**	1062.40			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.80	Cum	**5021.30**	4015.13	0.09	0.26	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	15.392	Sqm	**340.20**	5236.49	0.798	0.225	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	15.392	Sqm	**63.20**	972.80	0.023		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.481	Cum	**1075.00**	516.65			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.913	MT	**742.00**	677.55			
		TOTAL (In Rs.)				**12481.03**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.48	Cum	**584.64**	280.98	28.10		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**28.10**		
		AOC FOR CULVERT (Ch.-1.920 Km)							
1	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	15.240	Sqm	**340.20**	5184.65	0.790	0.223	
2	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	15.240	Sqm	**63.20**	963.17	0.023		
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.223	Cum	**1075.00**	239.19			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.813	MT	**742.00**	603.17			
		TOTAL (In Rs.)				**6990.18**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.22	Cum	**584.64**	130.08	13.01		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**13.01**		
		AOC FOR PIPE PIPE CULVERT (Ch.-2.340 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	90.000	Sqm	**11.80**	1062.40			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.81	Cum	**5021.30**	4067.25	0.09	0.26	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	15.000	Sqm	**340.20**	5103.00	0.778	0.219	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	15.000	Sqm	**63.20**	948.00	0.023		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.478	Cum	**1075.00**	514.07			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.893	MT	**742.00**	662.91			
		TOTAL (In Rs.)				**12357.62**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.48	Cum	**584.64**	279.57	27.96		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**27.96**		
		AOC FOR PIPE BRIDGE (Ch.-2.780 Km)							
1	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	13.716	Sqm	**340.20**	4666.18	0.711	0.200	
2	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	13.716	Sqm	**63.20**	866.85	0.021		
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.200	Cum	**1075.00**	215.27			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.732	MT	**742.00**	542.86			
		TOTAL (In Rs.)				**6291.16**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.20	Cum	**584.64**	117.08	11.71		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**11.71**		
		AOC FOR PIPE FALL (Ch.-3.130 Km)							
1	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	4.318	Cum	**6914.20**	29856.44	1.78	1.86	3.71
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.857	Cum	**1075.00**	1996.06			
		Coarse Aggregates (100 Km lead)	3.714	Cum	**1398.00**	5191.61			
		Cement (30 km lead)	1.781	MT	**742.00**	1321.67			
		Brick (30 km lead)	0.000	No.	**3.18**	0.00			
		TOTAL (In Rs.)				**38365.77**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.86	Cum	**584.64**	1085.56	108.56		
		Coarse Aggregate	3.71	Cum	**944.26**	3506.60	350.66		
		Total					**459.22**		
		AOC FOR BRIDGE (Ch.-3.445 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.50	Cum	**5021.30**	2522.90	0.06	0.16	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	9.083	Sqm	**340.20**	3090.05	0.471	0.133	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	9.083	Sqm	**63.20**	574.05	0.01		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.293	Cum	**1075.00**	315.40			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.542	MT	**742.00**	402.44			
		Brick (30 km lead)	251.000	No.	**3.18**	798.18			
		TOTAL (In Rs.)				**7703.02**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.29	Cum	**584.64**	171.53	17.15		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Total					**17.15**		
		AOC FOR BRIDGE (Ch.-4.175Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.28	Cum	**5021.30**	1408.05	0.03	0.09	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	12.741	Sqm	**340.20**	4334.37	0.660	0.186	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	12.741	Sqm	**63.20**	805.21	0.02		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.276	Cum	**1075.00**	296.43			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.712	MT	**742.00**	528.22			
		Brick (30 km lead)	140.000	No.	**3.18**	445.20			
		TOTAL (In Rs.)				**7817.48**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.28	Cum	**584.64**	161.21	16.12		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**16.12**		
		AOC FOR FALL (Ch.-4.240 Km)							
1	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	4.241	Cum	**6914.20**	29323.29	1.75	1.82	3.65
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.824	Cum	**1075.00**	1960.41			
		Coarse Aggregates (100 Km lead)	3.647	Cum	**1398.00**	5098.90			
		Cement (30 km lead)	1.749	MT	**742.00**	1298.07			
		TOTAL (In Rs.)				**37680.67**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.82	Cum	**584.64**	1066.17	106.62		
		Coarse Aggregate	3.65	Cum	**944.26**	3443.98	344.40		
		Total					**451.02**		
		AOC FOR PIPE FALL/BRIDGE (Ch.-4.800 Km)							
1	**Structure requires no repair work.**								
		AOC FOR PIPE BRIDGE (Ch.-5.165 Km)							
1	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	12.192	Sqm	**340.20**	4147.72	0.632	0.178	
2	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	12.192	Sqm	**63.20**	770.53	0.018		
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.178	Cum	**1075.00**	191.35			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.650	MT	**742.00**	482.54			
		TOTAL (In Rs.)				**5592.14**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.18	Cum	**584.64**	104.07	10.41		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**10.41**		
		AOC FOR FALL (Ch.-5.380 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
4	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	2.16	Cum	**6381.70**	13784.47	0.70	0.97	1.94
5	**5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	22.80	Sqm	**578.60**	13192.08			
7		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.972	Cum	**1075.00**	1044.90			
		Coarse Aggregates (100 Km lead)	1.944	Cum	**1398.00**	2717.71			
		Cement (30 km lead)	0.700	MT	**742.00**	519.28			
		TOTAL (In Rs.)				**32674.97**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.97	Cum	**584.64**	568.27	56.83		
		Coarse Aggregate	1.94	Cum	**944.26**	1835.64	183.56		
		Total					**240.39**		
		AOC FOR FALL (Ch.-6.400 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto	120.000	Sqm	**11.80**	1416.53			
4	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	19.44	Cum	**6381.70**	124060.25	6.30	8.75	17.50
5	**5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	96.12	Sqm	**578.60**	55615.03			
7		**Carriage of materials**							
		Coarse Sand (60 Km lead)	8.748	Cum	**1075.00**	9404.10			
		Coarse Aggregates (100 Km lead)	17.496	Cum	**1398.00**	24459.41			
		Cement (30 km lead)	6.299	MT	**742.00**	4673.53			
		TOTAL (In Rs.)				**219628.85**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	8.75	Cum	**584.64**	5114.43	511.44		
		Coarse Aggregate	17.50	Cum	**944.26**	16520.77	1652.08		
		Total					**2163.52**		
		AOC FOR FALL/BRIDGE (Ch.-6.520 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	80.000	Sqm	**11.80**	944.35			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	2.300	Sqm	**340.20**	782.46	0.119	0.034	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	2.300	Sqm	**63.20**	145.36	0.00		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.034	Cum	**1075.00**	36.10			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.123	MT	**742.00**	91.03			
		TOTAL (In Rs.)				**1999.30**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.03	Cum	**584.64**	19.63	1.96		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**1.96**		
		ABSTRACT OF COST OF REPAIRED STRUCTURES OF NEURA SURAJMAL MINOR							
		AOC FOR CULVERT (Ch.-0.065 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	90.000	Sqm	**11.80**	1062.40			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.59	Cum	**5021.30**	2976.23	0.07	0.19	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	10.783	Sqm	**340.20**	3668.24	0.559	0.157	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	10.783	Sqm	**63.20**	681.46	0.02		
5	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	5.40	Cum	**6381.70**	34461.18	1.75	2.43	4.86
6	**5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	27.60	Sqm	**578.60**	15969.36			
7		**Carriage of materials**							
		Coarse Sand (60 Km lead)	2.777	Cum	**1075.00**	2985.38			
		Coarse Aggregates (100 Km lead)	4.860	Cum	**1398.00**	6794.28			
		Cement (30 km lead)	2.393	MT	**742.00**	1775.63			
		Brick (30 km lead)	296.000	No.	**3.18**	941.28			
		TOTAL (In Rs.)				**71315.43**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	2.78	Cum	**584.64**	1623.60	162.36		
		Coarse Aggregate	4.86	Cum	**944.26**	4589.10	458.91		
		Total					**621.27**		
		AOC FOR FALL (Ch.-0.180 Km)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	2.320	Cum	**2492.58**	5783.51	0.00		
2	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	3.200	Cum	**6914.20**	22128.21	1.32	1.38	2.75
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.376	Cum	**1075.00**	1479.38			
		Coarse Aggregates (100 Km lead)	2.752	Cum	**1398.00**	3847.78			
		Cement (30 km lead)	1.324	MT	**742.00**	982.14			
		TOTAL (In Rs.)				**34221.02**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.38	Cum	**584.64**	804.57	80.46		
		Coarse Aggregate	2.75	Cum	**944.26**	2598.93	259.89		
		Total					**340.35**		
		AOC FOR CULVERT (Ch.-0.240 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	90.000	Sqm	**11.80**	1062.40			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.63	Cum	**5021.30**	3148.83	0.07	0.20	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	11.357	Sqm	**340.20**	3863.60	0.589	0.166	

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	11.357	Sqm	**63.20**	717.75	0.02		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.366	Cum	**1075.00**	393.97			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.678	MT	**742.00**	503.09			
		Brick (30 km lead)	313.000	No.	**3.18**	995.34			
		TOTAL (In Rs.)				**10684.98**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.37	Cum	**584.64**	214.26	21.43		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**21.43**		
		AOC FOR FALL (Ch.-0.780 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**1416.53**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR FALL (Ch.-1.505 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	200.000	Sqm	**11.80**	2360.88			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**2360.88**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR PIPE CULVERT (Ch.-1.850 Km)							
1	**Structure requires no repair work.**								
		AOC FOR FALL (Ch.-2.095 Km)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	1.842	Cum	**2492.58**	4590.34	0.00		
2	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	4.087	Cum	**6914.20**	28256.99	1.69	1.76	3.51
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.757	Cum	**1075.00**	1889.13			
		Coarse Aggregates (100 Km lead)	3.515	Cum	**1398.00**	4913.48			
		Cement (30 km lead)	1.689	MT	**742.00**	1252.92			
		TOTAL (In Rs.)				**40902.85**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.76	Cum	**584.64**	1027.40	102.74		
		Coarse Aggregate	3.51	Cum	**944.26**	3318.75	331.87		
		Total					**434.61**		
		AOC FOR CULVERT (Ch.-2.480 Km)							

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	90.000	Sqm	**11.80**	1062.40			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.63	Cum	**5021.30**	3148.83	0.07	0.20	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	11.357	Sqm	**340.20**	3863.60	0.589	0.166	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	11.357	Sqm	**63.20**	717.75	0.02		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.366	Cum	**1075.00**	393.97			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.678	MT	**742.00**	503.09			
		Brick (30 km lead)	313.000	No.	**3.18**	995.34			
		TOTAL (In Rs.)				**10684.98**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.37	Cum	**584.64**	214.26	21.43		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**21.43**		
		AOC FOR FALL (Ch.-2.665 Km)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	1.061	Cum	**2492.58**	2643.89	0.00		
2	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	3.623	Cum	**6914.20**	25051.66	1.49	1.56	3.12
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.558	Cum	**1075.00**	1674.83			
		Coarse Aggregates (100 Km lead)	3.116	Cum	**1398.00**	4356.12			
		Cement (30 km lead)	1.496	MT	**742.00**	1110.16			
		TOTAL (In Rs.)				**34836.66**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.56	Cum	**584.64**	910.86	91.09		
		Coarse Aggregate	3.12	Cum	**944.26**	2942.28	294.23		
		Total					**385.31**		
		AOC FOR CULVERT (Ch.-2.745 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.000	Sqm	**11.80**	1180.44			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.56	Cum	**5021.30**	2798.96	0.06	0.18	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	5.047	Sqm	**340.20**	1717.16	0.262	0.074	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	5.047	Sqm	**63.20**	319.00	0.01		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.252	Cum	**1075.00**	270.97			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.333	MT	**742.00**	247.42			
		Brick (30 km lead)	278.000	No.	**3.18**	884.04			
		TOTAL (In Rs.)				**7417.99**			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.25	Cum	**584.64**	147.37	14.74		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**14.74**		
		AOC FOR FALL (Ch.-3.245 Km)							
1	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	2.70	Cum	**6381.70**	17230.59	0.87	1.22	2.43
2	5.3.19	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	27.60	Sqm	**578.60**	15969.36			
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.215	Cum	**1075.00**	1306.13			
		Coarse Aggregates (100 Km lead)	2.430	Cum	**1398.00**	3397.14			
		Cement (30 km lead)	0.875	MT	**742.00**	649.10			
		TOTAL (In Rs.)				**38552.32**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.22	Cum	**584.64**	710.34	71.03		
		Coarse Aggregate	2.43	Cum	**944.26**	2294.55	229.46		
		Total					**300.49**		
		AOC FOR FALL (Ch.-4.225 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	170.000	Sqm	**11.80**	2006.75			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**2006.75**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR PIPE CULVERT (Ch.-4.480 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		TOTAL (In Rs.)				**1416.53**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		ABSTRACT OF COST OF REPAIRED STRUCTURES OF SHUSHNAR MINOR							
		AOC FOR FALL/BRIDGE (Ch.-0.050 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	160.000	Sqm	**11.80**	1888.70			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.91	Cum	**5021.30**	4591.48	0.11	0.29	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	12.820	Sqm	**340.20**	4361.36	0.665	0.187	

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	8.820	Sqm	**63.20**	557.42	0.01		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.480	Cum	**1075.00**	515.76			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.783	MT	**742.00**	581.10			
		Brick (30 km lead)	457.000	No.	**3.18**	1453.26			
		TOTAL (In Rs.)				**13949.09**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.48	Cum	**584.64**	280.50	28.05		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**28.05**		
		AOC FOR FALL/BRIDGE (Ch.-0.700 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.33	Cum	**5021.30**	1679.38	0.04	0.11	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	7.226	Sqm	**340.20**	2458.29	0.375	0.105	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	3.226	Sqm	**63.20**	203.88	0.00		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.213	Cum	**1075.00**	228.46			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.418	MT	**742.00**	310.13			
		Brick (30 km lead)	167.000	No.	**3.18**	531.06			
		TOTAL (In Rs.)				**6827.73**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.21	Cum	**584.64**	124.25	12.43		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**12.43**		
		AOC FOR FALL/BRIDGE (Ch.-0.800 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	130.000	Sqm	**11.80**	1534.57			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.29	Cum	**5021.30**	1443.80	0.03	0.09	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	2.778	Sqm	**340.20**	945.06	0.144	0.041	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	2.778	Sqm	**63.20**	175.57	0.00		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.133	Cum	**1075.00**	142.51			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.181	MT	**742.00**	134.52			
		Brick (30 km lead)	143.000	No.	**3.18**	454.74			
		TOTAL (In Rs.)				**4830.77**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.13	Cum	**584.64**	77.51	7.75		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**7.75**		
		AOC FOR BRIDGE (Ch.-1.995 Km)							

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	2.03	Cum	**5021.30**	10181.23	0.23	0.65	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	18.360	Sqm	**340.20**	6246.15	0.952	0.268	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	18.360	Sqm	**63.20**	1160.37	0.03		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.917	Cum	**1075.00**	985.66			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.213	MT	**742.00**	899.98			
		Brick (30 km lead)	1013.000	No.	**3.18**	3221.34			
		TOTAL (In Rs.)				**23993.22**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.92	Cum	**584.64**	536.05	53.61		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**53.61**		
		AOC FOR BOX CULVERT (Ch.-2.030 Km)							
1	**Structure requires no repair work.**								
		AOC FOR BRIDGE (Ch.-2.570 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	0.900	Sqm	**340.20**	306.18	0.047	0.013	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	6.858	Sqm	**63.20**	433.43	0.01		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.013	Cum	**1075.00**	14.13			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.057	MT	**742.00**	42.25			
		TOTAL (In Rs.)				**2212.51**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.01	Cum	**584.64**	7.68	0.77		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.77**		
		AOC FOR FALL (Ch.-2.750 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.000	Sqm	**11.80**	1180.44			
2	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	18.294	Cum	**2492.58**	45600.26	0.03		
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.027	MT	**742.00**	20.36			
		Brick (30 km lead)	9147.000	No.	**3.18**	29087.46			
		TOTAL (In Rs.)				**75888.52**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR BRIDGE (Ch.-3.065 Km)							

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	25.425	Cum	**2492.58**	63373.85	0.04		
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.038	MT	**742.00**	28.30			
		TOTAL (In Rs.)				**64818.67**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR CULVERT/FALL (Ch.-3.700 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	2.34	Cum	**5021.30**	11755.65	0.27	0.75	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	12.546	Sqm	**340.20**	4268.00	0.650	0.183	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	12.546	Sqm	**63.20**	792.88	0.02		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.932	Cum	**1075.00**	1002.26			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.939	MT	**742.00**	696.65			
		Brick (30 km lead)	1170.000	No.	**3.18**	3720.60			
		TOTAL (In Rs.)				**22236.04**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.93	Cum	**584.64**	545.08	54.51		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**54.51**		
		AOC FOR CULVERT (Ch.-4.300 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	1.13	Cum	**6381.70**	7222.36	0.37	0.51	1.02
3	**5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	9.59	Sqm	**578.60**	5550.25			
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.509	Cum	**1075.00**	547.47			
		Coarse Aggregates (100 Km lead)	1.019	Cum	**1398.00**	1423.94			
		Cement (30 km lead)	0.367	MT	**742.00**	272.08			
		TOTAL (In Rs.)				**16432.63**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.51	Cum	**584.64**	297.74	29.77		
		Coarse Aggregate	1.02	Cum	**944.26**	961.78	96.18		
		Total					**125.95**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF KARMA DISTRIBUTARY								
S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-0.005Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK OF HR FOR CHAUHARA MR (Ch.-0.150 Km)								
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.						
		Gate Abutment	1	2.50	2.00	0.45	*2.25*	*Cum*
		TOTAL					**2.25**	***Cum***
2	M-181	**Structural Steel (Average rate of Angle, Joint and Channel) etc.**		**Area**	**Height**	**Density**		
		Spindle 25 mm dia	*1*	*0.000491*	*1.29*	*7850.00*	*4.97*	*Kg*
			1	*0.000491*	*0.24*	*7850.00*	*0.92*	*Kg*
		1.5 X1.5 M MS GATE	*1*	*2.250000*	*0.02*	*7850.00*	*264.94*	*Kg*
		I.M.C. Grove (100 x 50) 9.56 kg/m	*2*	*9.56*		*0.70*	*13.38*	*Kg*
		TOTAL (In Kg)					**284.21**	**Kg**
		TOTAL					**0.28**	**MT**
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-0.220 Km)								
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.						
		Parapet Wall	1	3.6576	0.45	0.92	*1.51*	*Cum*
		TOTAL					**1.51**	**Cum**
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.						
		Parapet Wall	1	3.66		2.29	*8.38*	*Sqm*
		TOTAL					**8.38**	***Sqm***
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.						
		Parapet Wall	1	3.66		0.3	*1.10*	*Sqm*
		TOTAL					**1.10**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.-0.435 Km)								
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.						
		Parapet Wall	1	3.048	0.45	0.52	*0.71*	*Cum*
		TOTAL					**0.71**	**Cum**
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.						
		Parapet Wall	1	3.05		1.49	*4.54*	*Sqm*

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		TOTAL					**4.54**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	1	3.05		0.3	*0.91*	*Sqm*
		TOTAL					**0.91**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.-1.350 Km)						
1	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Wing wall	1	0.80		2	*1.60*	*Sqm*
		Abutment	1	0.40		3	*1.20*	*Sqm*
		TOTAL					**2.80**	***Sqm***
2	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Wing wall	1	0.80		0.45	*0.36*	*Sqm*
		Abutment	1	0.40		0.3	*0.12*	*Sqm*
		TOTAL					**0.48**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.-2.150 Km)						
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	1	1.524	0.45	0.65	*0.45*	*Cum*
		TOTAL					**0.45**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	1	1.52		1.75	*2.67*	*Sqm*
		TOTAL					**2.67**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	1	1.52		0.3	*0.46*	*Sqm*
		TOTAL					**0.46**	***Sqm***
4	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Wing Wall D/S top	2	6.00	0.45	0.15	*0.81*	*Cum*
		TOTAL					**0.81**	***Cum***
		QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-2.415 Km)						
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		TOTAL					**120.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	1	10.67		1.93	*20.59*	*Sqm*
		TOTAL					**20.59**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	1	10.67		1.93	*20.59*	*Sqm*
		TOTAL					**20.59**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR HR OF NEAURA SRAJMAL MR (Ch.-3.150 Km)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Abutment	1	3.00	0.45	1.5	*2.03*	*Cum*
		Wing wall	2	2.00	0.45	1.5	*2.70*	*Cum*
		TOTAL					**4.73**	***Cum***
QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.-3.200 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**
		TOTAL					**120.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	2.13		0.7	*1.49*	*Sqm*
		Parapet Wall D/S	1	7.01		0.7	*4.91*	*Sqm*
		TOTAL					**6.40**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	1	2.13		0.5	*1.07*	*Sqm*
		Parapet Wall	1	7.01		0.5	*3.51*	*Sqm*
		TOTAL					**4.57**	***Sqm***
4	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Peir Notch	1	0.35	0.45	0.15	*0.02*	*Cum*
		TOTAL					**0.02**	***Cum***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-3.650 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Crest	1	0.67056	2.3165	0.3	*0.47*	*Cum*

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		TOTAL					**0.47**	**Cum**
2	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Side Slope Pitching	1	3.00	2.00	0.15	*0.90*	*Cum*
		TOTAL					**0.90**	***Cum***
		QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.-4.170 Km)						
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S	1	2.19456	0.1	0.5	*0.11*	*Cum*
		Parapet Wall D/S	1	0.79248	0.1	0.5	*0.04*	*Cum*
		Crest	1	0.48768	1.7069	0.3	*0.25*	*Cum*
		TOTAL					**0.40**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	2.19		1.09	*2.39*	*Sqm*
		Parapet Wall D/S	1	0.79		1.09	*0.86*	*Sqm*
		TOTAL					**3.26**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	1	2.19		1.09	*2.39*	*Sqm*
		Parapet Wall D/S	1	0.79		1.09	*0.86*	*Sqm*
		TOTAL					**3.26**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-4.900 Km)						
1	**5.8.7**	**Dismantling pucca brick or lime work including stacking serviceable materials in countable stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		D/S Floor	1	13.72	4.51	0.3	*18.56*	*Cum*
		TOTAL					**18.56**	***Cum***
2	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		D/S Floor	1	13.72	4.51	0.5	*30.94*	*Cum*
		TOTAL					**30.94**	**Cum**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
3	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Side Slope Pitching	2	10.00	3.00	0.15	*9.00*	*Cum*
		TOTAL					**9.00**	***Cum***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-5.280 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S	1	1.24968	0.25	0.5	*0.16*	*Cum*
		Parapet Wall D/S	1	3.84048	0.25	0.5	*0.48*	*Cum*
		TOTAL					**0.64**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	1.25		1.25	*1.56*	*Sqm*
		Parapet Wall D/S	1	3.84		1.25	*4.80*	*Sqm*
		Wing wall D/S	1	1.50		0.5	*0.75*	*Sqm*
		TOTAL					**7.11**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	1	1.25		1.25	*1.56*	*Sqm*
		Parapet Wall D/S	1	3.84		1.25	*4.80*	*Sqm*
		TOTAL					**6.36**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.-5.700 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S	1	0.82296	0.25	0.5	*0.10*	*Cum*
		Parapet Wall D/S	1	6.37032	0.25	0.5	*0.80*	*Cum*
		TOTAL					**0.90**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	0.82		1.25	*1.03*	*Sqm*
		Parapet Wall D/S	1	6.37		1.25	*7.96*	*Sqm*
		TOTAL					**8.99**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	1	0.82		1.25	*1.03*	*Sqm*
		Parapet Wall D/S	1	6.37		1.25	*7.96*	*Sqm*

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		TOTAL					**8.99**	***Sqm***
4	**5.8.7**	**Dismantling pucca brick or lime work including stacking serviceable materials in countable stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		D/S Floor	1	9.14	9.94	0.25	*22.71*	*Cum*
		TOTAL					**22.71**	***Cum***
5	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		D/S Floor	1	9.14	9.94	0.5	*45.43*	*Cum*
		TOTAL					**45.43**	**Cum**
		QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.-6.600 Km)						
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S	1	6.64	0.25	0.5	*0.83*	*Cum*
		TOTAL					**0.83**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	6.64		1.25	*8.31*	*Sqm*
		TOTAL					**8.31**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	1	6.64		1.25	*8.31*	*Sqm*
		TOTAL					**8.31**	***Sqm***
4	**5.1.31**	**Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I**						
		Ramp	2	4.21		0.25	*2.10*	*Cum*
		TOTAL					**2.10**	**Cum**
		QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-7.420Km)						
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Middle Pier	1	0.25	0.25	2	*0.13*	*Cum*
		Parapet Wall U/S & D/S	2	5.00	0.25	0.92	*2.30*	*Cum*
		TOTAL					**0.13**	**Cum**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	2	5.00		2.09	*20.90*	*Sqm*
		TOTAL					**20.90**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	2	5.00		2.09	*20.90*	*Sqm*
		TOTAL					**20.90**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.-8.150 Km)						
1	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Wing Wall	4	3.00	0.45	0.15	*0.81*	*Cum*
		TOTAL					**0.81**	***Cum***
		QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.-9.150 Km)						
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S & D/S	2	5.97	0.25	0.6	*1.79*	*Cum*
		TOTAL					**1.79**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	2	5.97		1.45	*17.32*	*Sqm*
		TOTAL					**17.32**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	2	5.97		1.45	*17.32*	*Sqm*
		TOTAL					**17.32**	***Sqm***
4	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		U/S Wing Wall	2	2.40	0.45	2.3	*4.97*	*Cum*
		TOTAL					**4.97**	***Cum***
5	**5.3.18**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		U/S Wing Wall	4	2.40		2.3	*22.08*	Sqm
			4		0.45	2.3	*4.14*	Sqm

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		TOTAL					**26.22**	**Sqm**
6	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		D/S Floor	1	4.00	3.29	0.5	*6.58*	*Cum*
		TOTAL					**6.58**	**Cum**
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-11.360 Km)								
1	**5.8.7**	**Dismantling pucca brick or lime work including stacking serviceable materials in countable stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		D/S Floor	1	12.50	3.90	0.3	*14.63*	*Cum*
		TOTAL					**14.63**	***Cum***
2	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		D/S Floor	1	12.50	3.90	0.4	*19.50*	*Cum*
		TOTAL					**19.50**	**Cum**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.-12.350 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall D/S	1	2.93	0.25	0.5	*0.37*	*Cum*
		TOTAL					**0.37**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	2.93		1.25	*3.66*	*Sqm*
		TOTAL					**3.66**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	1	2.93		1.25	*3.66*	*Sqm*
		TOTAL					**3.66**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.-12.850 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall D/S	2	3.00	0.45	0.8	*2.16*	*Cum*
		TOTAL					**2.16**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	2	3.00		1.85	*11.10*	*Sqm*
		TOTAL					**11.10**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	2	3.00		1.85	*11.10*	*Sqm*
		TOTAL					**11.10**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-13.230 Km)								
1		**Structure requires no repair work.**						
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-13.600 Km)								
1	**5.3.11**	**Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Slab	1	3.00	3	0.3	*2.70*	*Cum*
		TOTAL					**2.70**	**Cum**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	1	3.00	0.25	0.5	*0.38*	*Cum*
		TOTAL					**0.38**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	1	3.00		1.25	*3.75*	*Sqm*
		TOTAL					**3.75**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	1	3.00		1.25	*3.75*	*Sqm*
		TOTAL					**3.75**	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-14.050 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**165.00**	**Sqm**
		TOTAL					**165.00**	**Sqm**
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-14.490 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**130.00**	**Sqm**
		TOTAL					**130.00**	**Sqm**
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-14.700 Km)								
1	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Pitching in D/S Floor	1	4.00	3.05	0.15	*1.83*	*Cum*
		Pitching in Slope	2	4.00	1.83	0.15	*2.19*	*Cum*
		TOTAL					**4.02**	***Cum***
QUANTITIES OF REPAIRING WORK FOR FALL/BRIDGE (Ch.-15.050 Km)								
1	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Pitching in D/S Floor	1	3.50	2.47	0.15	*1.30*	*Cum*
		TOTAL					**1.30**	***Cum***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-16.250 Km)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Abutment	2	8.00	0.45	1.25	*20.00*	*Cum*
		Wing wall	4	3.50	0.45	1.25	*17.50*	*Cum*
		TOTAL					**37.50**	***Cum***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-16.860 Km)								
1	**5.8.7**	**Dismantling pucca brick or lime work including stacking serviceable materials in countable stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Abutment	1	3.05	0.45	2.5	*3.43*	*Cum*
		Wing wall	2	3.96	0.45	2	*7.13*	*Cum*
		Crest	3	1.52	0.79	0.67	*2.43*	*Cum*
		TOTAL					**12.99**	***Cum***
2		**New Structure Proposed.**						
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-17.275 Km)								

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**165.00**	**Sqm**
		TOTAL					**165.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S & D/S	1	3.32	0.25	0.5	*0.42*	*Cum*
		TOTAL					**0.42**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S & D/S	1	3.32		1.25	*4.15*	*Sqm*
		TOTAL					**4.15**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	1	3.32		1.25	*4.15*	*Sqm*
		TOTAL					**4.15**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-17.975 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**110.00**	**Sqm**
		TOTAL					**110.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Abutment	1	3.00		2	*6.00*	*Sqm*
		Wing wall	2	3.00		1.25	*7.50*	*Sqm*
		TOTAL					**13.50**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-18.035 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**130.00**	**Sqm**
		TOTAL					**130.00**	**Sqm**
QUANTITIES OF REPAIRING WORK FOR HR OF SHUSNAR MR (Ch.-18.342 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**140.00**	**Sqm**
		TOTAL					**140.00**	**Sqm**
1	**5.8.7**	**Dismantling pucca brick or lime work including stacking serviceable materials in countable stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Parapet	2	2.44	0.55	1.01	*2.69*	*Cum*
		Abutment of Gate	2	0.35	0.50	1.22	*0.42*	*Cum*
		TOTAL					**3.11**	***Cum***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-18.600 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**160.00**	**Sqm**
		TOTAL					**160.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	1	5.00	0.25	0.5	*0.63*	*Cum*
		TOTAL					**0.63**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	1	5.00		1.25	*6.25*	*Sqm*
		TOTAL					**6.25**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	1	5.00		1.25	*6.25*	*Sqm*
		TOTAL					**6.25**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-19.400 Km)								
1		**Structure requires no repair work.**						
QUANTITIES OF REPAIRING WORK FOR FALL(Ch.-19.480 Km)								
1		**Structure requires no repair work.**						
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-19.740 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**130.00**	**Sqm**
		TOTAL					**130.00**	**Sqm**
2	**5.8.7**	**Dismantling pucca brick or lime work including stacking serviceable materials in countable stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Wing wall	4	3.00	0.45	1.20	*6.48*	*Cum*
		Abutment	2	5.00	0.50	1.50	*7.50*	*Cum*
		TOTAL					**13.98**	***Cum***
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT/FALL (Ch.-19.850 Km)								
1		**Structure requires no repair work.**						
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT/FALL (Ch.-21.350 Km)								
1	**5.8.7**	**Dismantling pucca brick or lime work including stacking serviceable materials in countable stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Parapet	1	4.57	0.34	1.40	*2.15*	*Cum*

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		Wing wall	2	2.00	0.34	1.40	*1.88*	*Cum*
		TOTAL					**4.03**	***Cum***
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT/FALL (Ch.-22.150 Km)								
1	**5.8.7**	**Dismantling pucca brick or lime work including stacking serviceable materials in countable stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Abutment	2	3.66	0.55	1.77	*7.10*	*Cum*
		Parapet	1	2.44	0.55	1.01	*1.35*	*Cum*
		Wing wall	2	3.00	0.55	1.77	*5.82*	*Cum*
		TOTAL					**14.26**	***Cum***
2		**New Structure Proposed**						
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT/FALL (Ch.-23.050 Km)								
1	**5.8.7**	**Dismantling pucca brick or lime work including stacking serviceable materials in countable stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Parapet	2	2.44	0.55	1.01	*2.69*	*Cum*
		Well	1	0.35		1.22	*0.42*	*Cum*
		TOTAL					**3.11**	***Cum***
2		**New Structure Proposed**						
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT/FALL (Ch.-23.300 Km)								
1	**5.8.7**	**Dismantling pucca brick or lime work including stacking serviceable materials in countable stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Abutment	2	3.05	0.49	1.80	*5.35*	*Cum*
		Wing wall	3	5.00	0.49	1.50	*10.97*	*Cum*
		TOTAL					**16.32**	***Cum***
2		**New Structure Proposed**						
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF CHAURAHA MINOR								
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-1.230 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**90.00**	**Sqm**
		TOTAL					**90.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	3.08	0.25	0.5	*0.77*	*Cum*
		Cracks in Abutment	1	1.00	0.15	0.2	*0.03*	*Cum*
		TOTAL					**0.80**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	4	3.08		1.25	*15.39*	*Sqm*
		TOTAL					**15.39**	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	4	3.08		1.25	*15.39*	*Sqm*
		TOTAL					**15.39**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-1.920 Km)								
1	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	4	3.05		1.25	*15.24*	*Sqm*
		TOTAL					**15.24**	***Sqm***
2	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	4	3.05		1.25	*15.24*	*Sqm*
		TOTAL					**15.24**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-2.340 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**90.00**	**Sqm**
		TOTAL					**90.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royalty as per specification and direction of E/I.**						
		Parapet Wall	2	3.00	0.25	0.5	*0.75*	*Cum*
		Cracks in Abutment	2	1.00	0.15	0.2	*0.06*	*Cum*
		TOTAL					**0.81**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	4	3.00		1.25	*15.00*	*Sqm*
		TOTAL					**15.00**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	4	3.00		1.25	*15.00*	*Sqm*
		TOTAL					**15.00**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-2.780 Km)								
1	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	4	2.74		1.25	*13.72*	*Sqm*
		TOTAL					**13.72**	***Sqm***
2	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	4	2.74		1.25	*13.72*	*Sqm*
		TOTAL					**13.72**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-3.130 Km)								

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
1	5.3.5	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		D/S Floor	1	5.06	1.71	0.5	*4.32*	*Cum*
		TOTAL					**4.32**	**Cum**
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-3.445 Km)								
1	5.4.6	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall D/S	1	3.05	0.25	0.62	*0.47*	*Cum*
		Cracks in Abutment	1	1.00	0.15	0.2	*0.03*	*Cum*
		TOTAL					**0.50**	**Cum**
2	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall D/S	2	3.05		1.49	*9.08*	*Sqm*
		TOTAL					**9.08**	***Sqm***
3	5.5.10	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall D/S	2	3.05		1.49	*9.08*	*Sqm*
		TOTAL					**9.08**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-4.175Km)								
1	5.4.6	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S & D/S	1	3.05	0.1	0.92	*0.28*	*Cum*
		TOTAL					**0.28**	**Cum**
2	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S & D/S	2	3.05		2.09	*12.74*	*Sqm*
		TOTAL					**12.74**	***Sqm***
3	5.5.10	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S & D/S	2	3.05		2.09	*12.74*	*Sqm*
		TOTAL					**12.74**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-4.240 Km)								

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
1	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		D/S Floor	1	5.06	1.68	0.5	*4.24*	*Cum*
		TOTAL					**4.24**	**Cum**
QUANTITIES OF REPAIRING WORK FOR FALL/BRIDGE (Ch.-4.800 Km)								
1		**Structure requires no repair work.**						
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-5.165 Km)								
1	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	4	2.44		1.25	*12.19*	*Sqm*
		TOTAL					**12.19**	***Sqm***
2	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	4	2.44		1.25	*12.19*	*Sqm*
		TOTAL					**12.19**	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-5.380 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**
		TOTAL					**120.00**	**Sqm**
2	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		U/S Abutment	1	2.40	0.45	2	*2.16*	*Cum*
		TOTAL					**2.16**	***Cum***
3	**5.3.18**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		U/S Abutment	4	2.40		2	*19.20*	Sqm
			4		0.45	2	*3.60*	Sqm
		TOTAL					**22.80**	**Sqm**
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-6.400 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**
		TOTAL					**120.00**	**Sqm**
2	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		U/S Abutment	2	6.00	0.45	1.8	*9.72*	*Cum*
		U/S Wing wall	4	3.00	0.45	1.8	*9.72*	*Cum*
		TOTAL					**19.44**	***Cum***
3	**5.3.18**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		U/S Abutment	4	6.00		1.8	*43.20*	Sqm
			4		0.45	1.8	*3.24*	Sqm
		U/S Wing wall	8	3.00		1.8	*43.20*	Sqm
			8		0.45	1.8	*6.48*	Sqm
		TOTAL					**96.12**	**Sqm**
QUANTITIES OF REPAIRING WORK FOR FALL/BRIDGE (Ch.-6.520 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**80.00**	**Sqm**
		TOTAL					**80.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	2	1.00		1.15	*2.30*	*Sqm*
		TOTAL					**2.30**	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	2	1.00		1.15	*2.30*	*Sqm*
		TOTAL					**2.30**	***Sqm***
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF NEURA SURAJMAL MINOR								
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-0.065 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**90.00**	**Sqm**
		TOTAL					**90.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall D/S	1	2.68	0.25	0.88	*0.59*	*Cum*
		TOTAL					**0.59**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall D/S	2	2.68		2.01	*10.78*	*Sqm*
		TOTAL					**10.78**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall D/S	2	2.68		2.01	*10.78*	*Sqm*
		TOTAL					**10.78**	***Sqm***
5	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		D/S Wing wall	2	3.00	0.45	2	*5.40*	*Cum*
		TOTAL					**5.40**	***Cum***
6	**5.3.18**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		U/S Abutment	4	3.00		2	*24.00*	Sqm
			4		0.45	2	*3.60*	Sqm
		TOTAL					**27.60**	**Sqm**
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.180 Km)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		D/S Floor	1	5.00	1.60	0.29	*2.32*	*Cum*
		TOTAL					**2.32**	***Cum***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
2	5.3.5	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		D/S Floor	1	5.00	1.60	0.4	*3.20*	*Cum*
		TOTAL					**3.20**	**Cum**
		QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-0.240 Km)						
1	5.1.3	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**90.00**	**Sqm**
		TOTAL					**90.00**	**Sqm**
2	5.4.6	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall D/S	1	2.74	0.25	0.91	*0.63*	*Cum*
		TOTAL					**0.63**	**Cum**
3	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall D/S	2	2.74		2.07	*11.36*	*Sqm*
		TOTAL					**11.36**	***Sqm***
4	5.5.10	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall D/S	2	2.74		2.07	*11.36*	*Sqm*
		TOTAL					**11.36**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.780 Km)						
1	5.1.3	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**
		TOTAL					**120.00**	**Sqm**
		QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-1.505 Km)						
1	5.1.3	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**200.00**	**Sqm**
		TOTAL					**200.00**	**Sqm**
		QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-1.850 Km)						
1		**Structure requires no repair work.**						
		QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-2.095 Km)						
1	5.8.9	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		D/S Floor	1	3.80	1.62	0.3	*1.84*	*Cum*
		TOTAL					**1.84**	***Cum***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
2	5.3.5	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		D/S Floor	1	5.06	1.62	0.5	*4.09*	*Cum*
		TOTAL					**4.09**	**Cum**
		QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-2.480 Km)						
1	5.1.3	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**90.00**	**Sqm**
		TOTAL					**90.00**	**Sqm**
2	5.4.6	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall D/S	1	2.74	0.25	0.91	*0.63*	*Cum*
		TOTAL					**0.63**	**Cum**
3	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall D/S	2	2.74		2.07	*11.36*	*Sqm*
		TOTAL					**11.36**	***Sqm***
4	5.5.10	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall D/S	2	2.74		2.07	*11.36*	*Sqm*
		TOTAL					**11.36**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-2.665 Km)						
1	5.8.9	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		D/S Floor	1	2.40	1.52	0.29	*1.06*	*Cum*
		TOTAL					**1.06**	***Cum***
2	5.3.5	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		D/S Floor	1	4.75	1.52	0.5	*3.62*	*Cum*
		TOTAL					**3.62**	**Cum**
		QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-2.745 Km)						
1	5.1.3	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**100.00**	**Sqm**
		TOTAL					**100.00**	**Sqm**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S	1	1.52	0.25	0.91	*0.35*	*Cum*
		Parapet Wall D/S	1	0.91	0.25	0.91	*0.21*	*Cum*
		TOTAL					**0.56**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	1.52		2.07	*3.15*	*Sqm*
		Parapet Wall D/S	1	0.91		2.07	*1.89*	*Sqm*
		TOTAL					**5.05**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	1	1.52		2.07	*3.15*	*Sqm*
		Parapet Wall D/S	1	0.91		2.07	*1.89*	*Sqm*
		TOTAL					**5.05**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-3.245 Km)						
1	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		U/S Abutment	1	3.00	0.45	2	*2.70*	*Cum*
		TOTAL					**2.70**	***Cum***
2	**5.3.18**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		U/S Abutment	4	3.00		2	*24.00*	Sqm
			4		0.45	2	*3.60*	Sqm
		TOTAL					**27.60**	**Sqm**
		QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-4.225 Km)						
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and**						
			1				**170.00**	**Sqm**
		TOTAL					**170.00**	**Sqm**
		QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-4.480 Km)						
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**
		TOTAL					**120.00**	**Sqm**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF SHUSHNAR MINOR								
QUANTITIES OF REPAIRING WORK FOR FALL/BRIDGE (Ch.-0.050 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**160.00**	**Sqm**
		TOTAL					**160.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S	1	3.00	0.25	0.61	*0.46*	*Cum*
		Parapet Wall D/S	1	3.00	0.25	0.61	*0.46*	*Cum*
		TOTAL					**0.91**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	3.00		1.47	*4.41*	*Sqm*
		Parapet Wall D/S	1	3.00		1.47	*4.41*	*Sqm*
		Below Slab	1	4.00		1	*4.00*	*Sqm*
		TOTAL					**12.82**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	1	3.00		1.47	*4.41*	*Sqm*
		Parapet Wall D/S	1	3.00		1.47	*4.41*	*Sqm*
		TOTAL					**8.82**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL/BRIDGE (Ch.-0.700 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**
		TOTAL					**120.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S	1	1.22	0.25	0.61	*0.19*	*Cum*
		Parapet Wall D/S	1	0.98	0.25	0.61	*0.15*	*Cum*
		TOTAL					**0.33**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	1.22		1.47	*1.79*	*Sqm*
		Parapet Wall D/S	1	0.98		1.47	*1.43*	*Sqm*
		Below Slab	1	4.00		1	*4.00*	*Sqm*
		TOTAL					**7.23**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	1	1.22		1.47	*1.79*	*Sqm*
		Parapet Wall D/S	1	0.98		1.47	*1.43*	*Sqm*
		TOTAL					**3.23**	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		QUANTITIES OF REPAIRING WORK FOR FALL/BRIDGE (Ch.-0.800 Km)						
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**130.00**	**Sqm**
		TOTAL					**130.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S	1	0.91	0.25	0.64	*0.15*	*Cum*
		Parapet Wall D/S	1	0.98	0.25	0.58	*0.14*	*Cum*
		TOTAL					**0.29**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	0.91		1.47	*1.34*	*Sqm*
		Parapet Wall D/S	1	0.98		1.47	*1.43*	*Sqm*
		TOTAL					**2.78**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	1	0.91		1.47	*1.34*	*Sqm*
		Parapet Wall D/S	1	0.98		1.47	*1.43*	*Sqm*
		TOTAL					**2.78**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-1.995 Km)						
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**110.00**	**Sqm**
		TOTAL					**110.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S	1	4.45	0.25	0.91	*1.02*	*Cum*
		Parapet Wall D/S	1	4.42	0.25	0.91	*1.01*	*Cum*
		TOTAL					**2.03**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	4.45		2.07	*9.21*	*Sqm*
		Parapet Wall D/S	1	4.42		2.07	*9.15*	*Sqm*
		TOTAL					**18.36**	***Sqm***
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	1	4.45		2.07	*9.21*	*Sqm*
		Parapet Wall D/S	1	4.42		2.07	*9.15*	*Sqm*
		TOTAL					**18.36**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR BOX CULVERT (Ch.-2.030 Km)						
1		**Structure requires no repair work.**						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-2.570 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**
		TOTAL					**120.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Abutment Crack	1	0.45		2	*0.90*	*Sqm*
		TOTAL					**0.90**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Abutment Top	2	7.62		0.45	*6.86*	*Sqm*
		TOTAL					**6.86**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-2.750 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and**						
			1				**100.00**	**Sqm**
		TOTAL					**100.00**	**Sqm**
2	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Wing wall	4	3.00	0.30	1.2	*4.39*	*Cum*
		Abutment	2	6.71	0.30	1.2	*4.91*	*Cum*
		Crest	1	3.00	0.50	1	*1.50*	*Cum*
		Floor	1	5.00	3.00	0.5	*7.50*	*Cum*
		TOTAL					**18.29**	***Cum***
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-3.065 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**
		TOTAL					**120.00**	**Sqm**
2	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Wing Wall	4	3.00	0.45	1.5	*8.10*	*Cum*
		Abutment	2	5.50	0.45	1.5	*7.43*	*Cum*
		Slab	1	5.50	6.00	0.3	*9.90*	*Cum*
		TOTAL					**25.43**	***Cum***
QUANTITIES OF REPAIRING WORK FOR CULVERT/FALL (Ch.-3.700 Km)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S	1	4.27	0.3	0.91	*1.17*	*Cum*
		Parapet Wall D/S	1	4.27	0.3	0.91	*1.17*	*Cum*

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		TOTAL					**2.34**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	4.27		1.47	*6.27*	*Sqm*
		Parapet Wall D/S	1	4.27		1.47	*6.27*	*Sqm*
		TOTAL					**12.55**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	1	4.27		1.47	*6.27*	*Sqm*
		Parapet Wall D/S	1	4.27		1.47	*6.27*	*Sqm*
		TOTAL					**12.55**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-4.300 Km)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**120.00**	**Sqm**
		TOTAL					**120.00**	**Sqm**
2	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Parapet wall U/S	1	4.51	0.25	0.67056	*0.77*	*Cum*
		Parapet wall D/S	1	2.13	0.25	0.67056	*0.36*	*Cum*
		TOTAL					**1.13**	***Cum***
3	**5.3.18**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		Parapet wall U/S	2	4.51		0.67056	*6.05*	Sqm
			2		0.25	0.67056	*0.34*	Sqm
		Parapet wall D/S	2	2.13		0.67056	*2.86*	Sqm
			2		0.25	0.67056	*0.34*	Sqm
		TOTAL					**9.59**	**Sqm**

ABSTRACT OF QUANTITIES FOR CONSTRUCTION OF APPROACH ROAD								
S. No.	Item of Works	Qty.	Unit	Rate (As per RCD 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
1	Excavation for road work in soil with hydraulic excavator including cutting and loading in tipper, trimming bottom and side slopes in accordance with requirements of lines grades and cross sections, and tranporting to the embankment location within all lifts and lead upto 1000m. (RCD SSR Item no. 301)	60.00	Cum	**78.40**	4704.00			
2	Construction of granular sub-base by providing closegraded material, spreading in uniform layers with motorgrader on prepared surface, mixing by mix in placemethod with front end loader at OMC, and compactingwith vibratory roller to achieve the desired density,complete as per clause 401.	60.00	Cum	**1044.90**	62694.00			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	15.00	Cum	**6381.70**	95725.50	4.86	6.75	13.50
4	RCC Grade M-30 using Batching plant, Transit Mixer and Concrete Pump	30.00	Cum	**6217.20**	186516.00	20.94	10.80	21.90
5	**Carriage of materials**							
	Grading Material (26.5 mm & below)(40 Km lead)	60.000	Cum	**1398.00**	83880.00			
	Coarse Sand (60 Km lead)	17.550	Cum	**1075.00**	18866.25			
	Coarse Aggregates (100 Km lead)	35.400	Cum	**1398.00**	49489.20			
	Cement (30 km lead)	25.800	MT	**742.00**	19143.60			
	TOTAL (In Rs.)				**521018.55**			
	TOTAL (In Rs.)				**₹ 5,21,018.55**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	26.50 mm to 9.50 mm	21.00	Cum	**913.48**	19183.08	1918.31		
	9.50 mm TO 4.75 mm	7.50	Cum	**602.28**	4517.10	451.71		
	4.75 mm below	31.50	Cum	**266.62**	8398.53	839.85		
	Coarse Sand	17.55	Cum	**584.64**	10260.43	1026.04		
	Coarse Aggregate	35.40	Cum	**944.26**	33426.80	3342.68		
	Total					**7578.59**		
	For 20 no., Total Seigniorage charges					**151571.89**		

QUANTITIES OF CONSTRUCTION OF GSB ROAD FOR APPROACH ROAD								
S.No.	**Reference Clause**	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
1	RCD SSR Item no. 301	Excavation for road work in soil with hydraulic excavator including cutting and loading in tipper, trimming bottom and side slopes in accordance with requirements of lines grades and cross sections, and tranporting to the embankment location within all lifts and lead upto 1000m.						
		For Making RAMP						
		U/S	1	20.00	5.00	0.30	30.00	Cum
		D/S	1	20.00	5.00	0.30	30.00	Cum
		Total					**60.00**	**Cum**
2	RCD 4.01 B-II	Construction of granular sub-base by providing closegraded material, spreading in uniform layers with motorgrader on prepared surface, mixing by mix in placemethod with front end loader at OMC, and compactingwith vibratory roller to achieve the desired density,complete as per clause 401.						
		U/S	1	20.00	5.00	0.30	30.00	Cum
		D/S	1	20.00	5.00	0.30	30.00	Cum
		Total					**60.00**	**Cum**
3	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
		U/S	1	20.00	5.00	0.08	7.50	Cum
		D/S	1	20.00	5.00	0.08	7.50	Cum
		Total					**15.00**	**Cum**
4	RCD 14.01 C	RCC Grade M-30 using Batching plant, Transit Mixer and Concrete Pump						
		U/S	1	20.00	5.00	0.15	15.00	Cum
		D/S	1	20.00	5.00	0.15	15.00	Cum
		Total					**30.00**	**Cum**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND ANALYSIS OF RATE OF OUTLET GATE			
1	Cost of material **(A)** (Structural Steel WRD M-181)	Rs.	55116.67
2	Wastage **5%** =	Rs.	2755.83
3	Cost of miscellaneous material like electrodes,oxygen, acetylene nut bolt, rope as per site conditions, etc **65 % of (A)**	Rs.	35825.84
	Total 1+2+3= ***(B)*** =	Rs.	93698.34
4	Labour charge 30%(B) =	Rs.	28109.50
5	Overhead charge + Contractor profit **@15% A**	Rs.	8267.50
6	Workshop and energy charge ,**12 % of (B)**	Rs.	11243.80
7	Transportation and erection charge ,**15 % of B**	Rs.	14054.75
	Total = B+4+5+6+7 = ***C***	Rs.	155373.89
8	Other incidental charge , **3 % = of C**	Rs.	4661.22
	Total C+8 = D	Rs.	**160035.11**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND ABSTRACT OF COST FOR CONSTRUCTION OF OUTLET										
Sl. No.	Reference	Name of Item	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount in Rs.	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)	Boulders (cum)
1	**WRD 5.3.9**	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.	7.61	Cum	**6381.70**	48564.42	2.47	3.42	6.85	
2	**WRD 5.4.10**	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.	8.60	Cum	**3391.40**	29172.74	1.24	3.44		8.60
3	**M-1701**	Providing 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	RM	**220.00**	1650.00				

Sl. No.	Reference	Name of Item	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount in Rs.	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)	Boulders (cum)
4	**WRD 5.6.1**	Labour Charges for Laying of 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	RM	**238.00**	1785.03				
5	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.								
a.		TMT Grade Fe-500 - 16 mm	0.03	M.T.	**73574.90**	2254.92				
6	**M-181**	Structural Steel (Average rate of Angle, Joint and Channel) etc.	0.08	MT	**160035.11**	12687.05				
7	**WRD 5.1.37**	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .	0.89	Cum	**339.90**	302.80				
8		**Carriage of materials**								
		Coarse Sand (60 Km lead)	7.76	Cum	**1075.00**	**8337.83**				
		Coarse Aggregates (100 Km lead)	6.85	Cum	**1398.00**	**9574.84**				
		Cement (30 km lead)	3.70	MT	**742.00**	**2748.60**				
		Boulders (60 km lead)	8.60	Cum	**1159.00**	**9969.69**				
		Steel (30 Km lead)	0.11	M.T.	**742.00**	**81.56**				
		Hume Pipe (30 Km)	7.50	RM	**82.00**	**615.00**				
TOTAL (In Rs.)						**127744.47**				
		Seigniorage @10%			Rate	Amount in Rs.	10%			

Sl. No.	Reference	Name of Item	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount in Rs.	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)	Boulders (cum)
		Coarse Sand	7.76	Cum	**584.64**	4534.54	453.45			
		Coarse Aggregate	6.85	Cum	**944.26**	6467.19	646.72			
		Total					1100.17			
		For 119 nos. outlet, Total Seigniorage charges					**130920.60**			

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
BILL OF QUANTITIES FOR CONSTRUCTION OF OUTLET							
Sl. No.	**Name of Item**	**No.**	**Length (m)**	**Width (m)**	**Height (m)**	**Qty.**	**Unit**
1	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification &						
	Toe Wall Base in Canal Portion	*1*	*1.5*	*0.75*	*0.15*	*0.17*	*Cum*
	Coping on Stem of Toe Wall	*1*	*1.50*	*0.45*	*0.075*	*0.05*	*Cum*
	Gate Structure (Section A-B)	*1*	*1.80*	*0.75*	*0.15*	*0.20*	*Cum*
	Coping (Section A-B)	*1*	*1.5*	*0.45*	*0.075*	*0.05*	*Cum*
	Water Course (Section C-D)	*1*	*15.00*	*1.50*	*0.15*	*3.38*	*Cum*
	Water Course Floor (Section C-D)	*1*	*15.00*	*0.40*	*0.075*	*0.45*	*Cum*
	Coping above Walls(Section C-D)	*2*	*15*	*0.40*	*0.075*	*0.90*	*Cum*
	Below transition walls	*1*	*1.5*	*1.2*	*0.15*	*0.27*	*Cum*
		1	*1.5*	*0.75*	*0.15*	*0.17*	*Cum*
	Gate Structure (Section A-B)	*2*	*1.50*	*0.45*	*1.21*	*1.63*	*Cum*
	Toe Wall stem	*1*	*1.50*	*0.45*	*0.51*	*0.35*	*Cum*
	TOTAL					***7.61***	*Cum*
2	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.						
	Transition Walls in U/S	*2*	*1.50*	*0.45*	*1.04*	*1.40*	*Cum*
	Water Course (Section C-D)	*2*	*15.00*	*0.40*	*0.60*	*7.20*	*Cum*
	2					**8.60**	Cum
3	Providing 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .						
	150 mm Dia R.C.C. Pipe	1			7.5	**7.5**	**RM**
4	Structural Steel (Average rate of Angle, Joint and Channel) etc.						
	Spindle 25 mm dia	*1*	*0.000491*	*7850.00*	*1.29*	*4.97*	*Kg*
		1	*0.000491*	*7850.00*	*0.24*	*0.92*	*Kg*
	300 X300 MM MS GATE	*1*		*60.00*		*60.00*	*Kg*
	I.M.C. Grove (100 x 50) 9.56 kg/m	*2*		*9.56*	*0.70*	*13.38*	*Kg*
	TOTAL (In Kg)					**79.28**	**Kg**
	TOTAL					**0.08**	**MT**
5	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .						
	Toe Wall Base in Canal Portion	*1*	*1.50*	*0.75*	*0.10*	*0.11*	*Cum*
	Water Course Floor (Section C-D)	*1*	*15.00*	*0.40*	*0.10*	*0.60*	*Cum*
	Below transition walls	*1*	*1.50*	*1.19*	*0.10*	*0.18*	*Cum*
	TOTAL					**0.89**	**Cum**
6	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-15 (Providing Reinforcement @ 0.24%)	*1.63*	*0.0024*	*0.004*	*7850.00*	*30.648*	*Kg*
	TOTAL					**30.65**	**Kg**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
ANALYSIS OF RATES							
Sl. No.	**Refrences SOR No.**	**Description**	**Quantity**	**Unit**	**Rate**	**Amount**	**Ref**
1	**5.1.3**	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 92.94 Sqm					
		Unskilled mazdoor for cutting shrubs, weed	1.50	nos	424.00	₹ 636.00	
		Unskilled mazdoor for removing grass roots and leveling	0.75	nos	424.00	₹ 318.00	
						₹ 954.00	
		Add Overhead charge &c.P @ 15 %				₹ 143.10	
					Total	₹ 1,097.10	
		Rate per Sqm			**Say, Rs**	**₹ 11.80**	**Per M^2**
2	**5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting ,carrying	9.09	nos	424.00	₹ 3,854.16	Sl-1
					Total	₹ 3,854.16	
		Add Overhead charge &c.P @ 15 %				₹ 578.12	
						₹ 4,432.28	
		Rate per Cum			**Say, Rs**	**₹ 156.50**	**Per M^3**
	NOTE:-	Add royalty of earth Rs. 33.00 where needed without overhead charges & C.P.					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
3	**5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	4.50	nos	424.00	₹ 1,908.00	SI-1
		Unskilled mazdoor for carrying	4.00	nos	424.00	₹ 1,696.00	
		Head Mason	0.13	nos	569.00	₹ 71.13	
					Total	₹ 3,675.13	
		Add Overhead charge & C.P @ 15 %				₹ 551.27	
						₹ 4,226.39	
		Rate per Cum			**Say, Rs**	**₹ 149.30**	**Per M^3**
4	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	4.00	nos	424.00	₹ 1,696.00	SI-1
		Unskilled mazdoor for carrying	4.00	nos	424.00	₹ 1,696.00	SI-1
		Unskilled mazdoor for controlling Slope and fine dressing	2.00	nos	424.00	₹ 848.00	SI-2
		Skilled Mazdoor	0.25	nos	536.00	₹ 134.00	SII-70
		Mate	1.00	nos	455.00	₹ 455.00	SII-2
					Total	₹ 4,829.00	
		Add Overhead charge &c.P @ 15 %				₹ 724.35	
						₹ 5,553.35	
		Rate per Cum			**Say, Rs**	**₹ 196.10**	**Per M^3**
5	**5.1.22**	Extra for wet earth all complete as per specifications and direction of E/I.					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Unit: per Cum					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	1.00	nos	424.00	₹ 424.00	Sl-1
		Add Overhead charge &C.P @ 15 %				₹ 63.60	
						₹ 487.60	
		Rate per Cum			**Say, Rs**	**₹ 17.22**	**Per M^3**
6	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.					
		As per Labour rate (19.06.2024)					
		Unit: per Cum					
		Taking Output :- 28.32 cum					
		Labour					
		Unskilled mazdoor for cutting, carrying	9.09	nos	424.00	₹ 3,854.16	Sl-1
		Add extra wages of 1/2 no. unskilled labour per 28.32 m3	0.50	nos	424.00	₹ 212.00	Sl-1
						₹ 4,066.16	
		Add Overhead charge &C.P @ 15 %				₹ 609.92	
						₹ 4,676.08	
					Say, Rs	**₹ 165.12**	**Per M^3**
7	**5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.					
		As per Labour rate (19.06.2024)					
		Unit: per Cum					
		Taking Output :- 28.32 cum					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Cost of water	LS			15.00	
		Bhisti for carriage of water and sprinkling	3.00	nos	417.00	₹ 1,251.00	S II-13
		Hire charges of sheep foot roller assuming 1450 cum to be rolled in 8 hr vide item no. 3.16	0.16	hr	1612.00	₹ 257.92	PM8001
						₹ 1,523.92	
		Add Overhead charge &C.P @ 15 %				₹ 228.59	
						₹ 1,752.51	
					Say, Rs	**₹ 61.88**	**Per M^3**
8	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)					
	5.1.46.1	Beyond 150m but upto 1/2 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				0.65	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				3.9	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				12.7	
	9	Number of trip per hour taken as 50 minutes N=50/T				3.937	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				17.323	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				83.18	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 16.29	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 152.08	
	16	Add overhead charges and CP 15%				₹ 22.81	
	17	**Rate per cubic metre**				**₹ 174.89**	
	5.1.46.2	Beyond 1/2 km but upto 1 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				1.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				9	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				17.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				2.809	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				12.36	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				116.59	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 20.30	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 189.50	
	16	Add overhead charges and CP 15%				₹ 28.42	
	17	**Rate per cubic metre**				**₹ 217.92**	
	5.1.46.3	Beyond 1.00 km but upto 1.50 km					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				2.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				15	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				23.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				2.101	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				9.244	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				155.88	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 25.02	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 233.50	
	16	Add overhead charges and CP 15%				₹ 35.03	
	17	**Rate per cubic metre**				**₹ 268.53**	
	5.1.46.4	Beyond 1.50 km but upto 2.00 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				3.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				21	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				29.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				1.678	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				7.383	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				195.18	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 29.73	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 277.52	
	16	Add overhead charges and CP 15% I like the coffee				₹ 41.63	
	17	**Rate per cubic metre**				**₹ 319.14**	
	5.1.46.5	Beyond 2.00 km but upto 2.50 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				4.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				27	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				35.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				1.397	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				6.15	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441.00	
	12	Carriage cost per metre M^3 = Tr/Q				234.50	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 34.45	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 321.56	
	16	Add overhead charges and CP 15%				₹ 48.24	
	17	**Rate per cubic metre**				**₹ 369.80**	
	5.1.46.6	Beyond 2.50 km but upto 3.00 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				5.5	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				33	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				41.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				1.196	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				5.263	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				273.80	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 39.17	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 365.57	
	16	Add overhead charges and CP 15%				₹ 54.84	
	17	**Rate per cubic metre**				**₹ 420.40**	
9	**5.1.24**	Earthwork in filling in flood embankment, canals banks (Canal Discharge Above 28 Cumecs) as well as special repair of embankments and canal banks in ordinary soil in proper profile obtain from borrow area or any other source free from logs, roots or any other ingredients etc. with intial lead of 30m and initial lift of 1.5m including breaking the clods to maximum 60 mm cube, placing the earth in layers not exceeding 225 mm thicka ll complete as per specification and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	9.00	nos	424.00	₹ 3,816.00	SI-1
		Skilled Mazdoor	1.00	nos	536.00	₹ 536.00	SI-3
		Mate	0.25	nos	455.00	₹ 113.75	SII-2
					Total	₹ 4,465.75	
		Add Overhead charge & C.P @ 15 %				₹ 669.86	
						₹ 5,135.61	
		Rate per Cum			**Say, Rs**	**₹ 181.30**	**Per M^3**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
10	**5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting and carrying	11.00	nos	424.00	₹ 4,664.00	SI-1
		Head Mason	0.25	nos	569.00	₹ 142.25	SII -3
					Total	₹ 4,806.25	
		Add Overhead charge & C.P @ 15 %				₹ 720.94	
						₹ 5,527.19	
		Rate per Cum			**Say, Rs**	**₹ 195.20**	**Per M^3**
11	**5.3.8**	Providing & laying **P.C.C. M-100** with nominal mix of (1:3:6) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A.	**MATERIALS**					
		Coarse aggregates Gr IV **(Rate of approved quality of aggregate as per Design)**	2.66	M^3	1115.24	₹ 2,966.54	M047
		Sand	1.330	M^3	584.64	₹ 777.57	M-004
		Cement	0.443	M^3	8264.70	₹ 3,661.26	M-1P
		Total				₹ 7,405.37	
	B.	**LABOUR**					
		Head mason	0.5	nos	569.00	₹ 284.50	S II -3
		Mason Gr II	1	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor	12	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	C.	**HIRE CHARGES OF MACHINE**					
		(i)Concrete mixer (10 H.P) for 2.832 cum consists	**1.43**	hr	351	₹ 501.93	
		on the basic of mixer production capacity 1.98 m3					
		per hour. Used rate per hourx2.832/1.98					
		(ii) Vibrator 1no. To vibrate 2.832 cum on the	**1.43**	hr	405	₹ 579.15	
		basic of vibrator capacity 1.98 cum per hour.					
		Used rate per hourx2.832/1.98					
		Total				₹ 14,783.95	
		Add Overhead charge & C.P	15	%		₹ 2,217.59	
						₹ 17,001.55	**Per M^3**
					Say, Rs	**₹ 6,003.37**	**Per M^3**
12	**5.3.4**	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		Course Aggregate (20mm & 10mm) **(Taking Rate of approved quality as per design)**	2.55	m^3	913.48	₹ 2,327.55	M044
		Sand	1.27	m^3	584.64	₹ 744.83	M-004
		Cement	0.64	m^3	8264.70	₹ 5,264.62	M-1P
		Total				₹ 8,337.00	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor for controlling Slope and fine dressing	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					Total	₹ 15,715.58	
		Add Overhead charge &c.P @ 15 %				₹ 2,357.34	
						₹ 18,072.92	
		Rate per Cum			**Say, Rs**	**₹ 6,381.70**	**Per M^3**
13	**5.3.5**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		Course Aggregate (20mm & 10mm) **(Taking Rate of approved quality as per design)**	2.44	m^3	913.48	₹ 2,225.24	M044
		Sand	1.22	m^3	584.64	₹ 712.09	M-004
		Cement	0.81	m^3	8264.70	₹ 6,710.94	M-1P
		Total				₹ 9,648.27	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor for controlling Slope and fine dressing	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					Total	₹ 17,026.85	
		Add Overhead charge &c.P @ 15 %				₹ 2,554.03	
						₹ 19,580.88	
		Rate per Cum			**Say, Rs**	**₹ 6,914.20**	**Per M^3**
14	**5.3.5**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		Course Aggregate (20mm & 10mm) **(Taking Rate of approved quality as per design)**	2.436	m^3	913.48	₹ 2,225.24	M044
		Sand	1.218	m^3	584.64	₹ 712.09	M-004
		Cement	0.812	m^3	8264.70	₹ 6,710.94	M-1P
		Total				₹ 9,648.27	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					Total	₹ 17,026.85	
		Add Overhead charge &c.P @ 15 %				₹ 2,554.03	
						₹ 19,580.88	
		Rate per Cum			**Say, Rs**	**₹ 6,914.20**	**Per M^3**
15	**5.3.11**	Providing & laying P.C.C. or R.C.C. **M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		coarse Aggregate (20mm & 10mm) (Cost of coarse aggregates as per design)	2.38	m^3	913.48	₹ 2,173.17	M044
		Sand	1.19	m^4	584.64	₹ 695.14	M-004
		Cement	1.19	m^5	8264.70	₹ 9,826.73	M-1P
		Total				₹ 12,695.04	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor for controlling Slope and fine dressing	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					total	₹ 20,073.62	
		Add Overhead charge &c.P @ 15 %				₹ 3,011.04	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
						₹ 23,084.66	
		Rate per Cum			**Say, Rs**	**₹ 8,151.40**	**Per M^3**
16	**5.3.22**	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.					
		Unit :- **Per M.T**					
		Taking Output :- 1 M.T					
	(a)	TMT grade Fe-500 ***8 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	52450	₹ 55,072.50	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 66,025.70	
		Add Overhead charge &c.P @ 15 %				₹ 9,903.86	
						₹ 75,929.56	
		Rate per M.T			**Say, Rs**	**₹ 75,929.60**	**Per M.T**
	(B)	TMT grade Fe-500 ***10 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	51094	₹ 53,648.70	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 64,601.90	
		Add Overhead charge &c.P @ 15 %				₹ 9,690.29	
						₹ 74,292.19	
		Rate per M.T			**Say, Rs**	**₹ 74,292.20**	**Per M.T**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	(C)	TMT grade Fe-500 ***12 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
	(C)	TMT grade Fe-500 ***16 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
	(C)	TMT grade Fe-500 ***20 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
	(C)	TMT grade Fe-500 ***25 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
17	**5.3.18**	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 Sqm					
	A	**Material**					
		Local wood planks. 38 mm thick =9.3x38x1000	0.35	m^3			
		Add 5% wastage	0.02	m^3			
		Cost of 0.37 cum local wood planks.	0.37	m^3	26000.00	₹ 9,620.00	code no 1198 (RCD)
		Add cost for shattering and propping @ 10% of above				₹ 962.00	
					Total	₹ 10,582.00	
		Assuming 4 uses to calculate	4.00	use			
		Cost of shattering for 2.832 cum total cost /4				₹ 2,645.50	
		Add 1% for cost of nails and spikes on total cost of wood				₹ 105.82	
					Total	₹ 2,751.32	A
	B	**Labour**					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Carpenter Gr-II	1.50	nos	508.00	₹ 762.00	S II-17
		Unskilled mazdoor	2.50	nos	424.00	₹ 1,060.00	S I-1
					Total	₹ 1,822.00	B
	C	**Carriage of materials**					
		Cost of carriage of material from godown and back to godown after use, including loading, unloading and stacking @ 1% of total cost of food materials				₹ 105.82	C
		Total cost for 9.3 sqm=A+B+C				₹ 4,679.14	
		Add Overhead charge &c.P @ 15 %				₹ 701.87	
						₹ 5,381.01	
		Rate per Sqm			**Say, Rs**	**₹ 578.60**	**Per M2**
18	**5.3.20**	Providing centering including strutting, proping etc. and its removal after use indeck slab as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 22.326 Sqm					
		(Assuming size in slab 7.32 x 3.05 =22.326 sqm)					
	A	**MATERIALS**					
		a. 40 mm thick local wood planks (22.326x 40)/1000 = 0.893					
		Add 5% wastages = 0.045					
		0.938	0.94	m^3	**26000.00**	**₹ 24,440.00**	**Code no. 1197 (BCD)**
		Assuming 4 uses to calculate	4.00	use			
		Cost of planks per use = 0.89 x rate of local wood/4				**₹ 6,110.00**	
		b. Assuming avg. height of slab from GL = 3.66 m					
		150 mm sal bullah required = 78 nos.					
		Length of sal bullah = 78X3.66 =285.48	285.48	M	**75.00**	**₹ 21,411.00**	**M SL No. 223**
		(Assuming sal bullah to be used 10 times for centering					
		= 285.48 x Rate per mtr/10				**₹ 2,141.10**	
		c. Salwood scanting required (75 mm * 63 mmsize) = 0.311 cum	0.31	m^3	**60000.00**	**₹ 18,660.00**	**Code no. 1199 (BCD)**
		(Assuming 10 uses)					
		Cost per use = 0.311 x Rate per mtr/10				**₹ 1,866.00**	
		Total				**₹ 10,117.10**	
		Add 1% for cost of nails and spikes				**₹ 101.17**	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
						₹ 10,218.27	**(A)**
	B	**LABOUR**					
		Carpenter Gr-II	4.00	nos	508.00	₹ 2,032.00	S I-17
		Unskilled Majdoor	7.00	nos	424.00	₹ 2,968.00	S I-1
					Total	₹ 5,000.00	**(B)**
	C	Carriage of Materials					
		Cost of carriage of material from godown and back to godown after use, including loading, unloading and stacking @ 1% of total cost of food materials				₹ 101.17	
		Total cost for 22.326 sqm=A+B+C				₹ 15,319.44	
		Add Overhead charge & C.P @ 15 %				₹ 2,297.92	
		Total				₹ 17,617.36	
		Rate per Sqm			**Say, Rs**	**₹ 789.10**	**Per M2**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
17	**5.5.10**	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 Sqm					
		Material					
		Cement	0.01	m^4	8264.70	₹ 115.71	M-1P
					Total	₹ 115.71	
	B	**Labour**					
		Head mason	0.06	nos	569.00	₹ 35.56	S II-3
		Mason Gr-II	0.50	nos	508.00	₹ 254.00	S II-4
		Unskilled mazdoor	0.25	nos	424.00	₹ 106.00	S II-1
					Total	₹ 395.56	
		Total				₹ 511.27	
		Add Overhead charge &c.P @ 15 %				₹ 76.69	
						₹ 587.96	
		Rate per Cum			**Say, Rs**	**₹ 63.20**	**Per M^3**
18	**5.2.2**	Providing filter of stone chips 20 mm and down well graded as per design for lined canal, drains including hand packing etc all complete as per specification and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Material					
		Sone chips (M-040 +M -045)/2	2.83	nos	673.97	₹ 1,908.68	M-004
		Labour					
		Unskilled mazdoor for Screening and grading Filter	2.00	nos	424.00	₹ 848.00	SI-1
		Unskilled mazdoor for laying and hand packing	1.50	nos	424.00	₹ 636.00	SI-1
					Total	₹ 3,392.68	
		Add Overhead charge &c.P @ 15 %				₹ 508.90	
						₹ 3,901.59	
		Rate per Cum			**Say, Rs**	**₹ 1,377.70**	**Per M^3**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
19	**5.7.13**	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Unskilled Mazdoor	3	nos.	424.00	1272.00	
						1272.00	
		Add Overhead charge & C.P. @15%				190.80	
						1462.80	
					Say, Rs	**₹ 516.50**	**Per M^3**
20	**5.7.18.1**	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Unskilled Mazdoor	6	nos.	424.00	2544.00	
		Mason Gr II	0.5	nos.	508.00	254.00	
		Mate	0.25	nos.	455.00	113.75	
		Stone Dresser	0.25	nos.	538.00	134.50	
						3046.25	
		Add Overhead charge & C.P. @15%				456.94	
						3503.19	
					Say, Rs	**₹ 1,237.00**	**Per M^3**
21	**5.1.37**	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Unskilled Mazdoor for cutting	1	nos.	424.00	424.00	
		Local Sand	2.832	nos.	145.87	413.10	
						837.10	
		Add Overhead charge & C.P. @15%				125.57	
						962.67	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
					Say, Rs	₹ 339.90	Per M^3

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
20	**5.5.5**	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 cum					
		Materials					
		Cement	0.07	m^3	8264.70	₹ 562.00	M-1 P
		Sand	0.27	m^3	584.64	₹ 159.02	M044
		Total				₹ 721.02	
		Labour					
		Mason Gr II	1.50	nos	508.00	₹ 762.00	SII-4
		Unskilled Mazdoor	2.50	nos	424.00	₹ 1,060.00	SII-1
		Bhisti	0.50	nos	417.00	₹ 208.50	SI-13
					total	₹ 2,030.50	
		Add Overhead charge &c.P @ 15 %				₹ 412.73	
						₹ 3,164.25	
		Rate per Cum			**Say, Rs**	**₹ 340.20**	**Per M^3**
21	**5.6.1**	Labour Charges for Laying of 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .					
	5.6.1.1	**150 mm dia NP2 H.P.**					
		Unit: per m					
		Taking Output =	**8**	**m**			
		(Assuming 4 pipes of 2m length and three collars)					
		Materials					
		Cement	0.011	cum	8264.70	90.91	**M-1 P**
		Sand	0.011	cum	584.64	6.43	**M-004**
		Jute	1.5	Kg	20.89	31.34	**M Sl. No. 257**
		Total				128.68	
		Labour					
		Head Mason	0.50	nos	569.00	284.50	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Unskilled Mazdoor	2.25	nos	424.00	954.00	
		Fitter Gr I	0.50	nos	577.00	288.50	
		Total				1527.00	
						1655.68	
		Add Overhead charge & C.P @ 15 %				₹ 248.35	
						₹ 1,904.03	
					Say, Rs	**₹ 238.00**	**Per M**
	5.6.2	Labour Charges for Laying, fitting and fixing NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .					
	5.6.2.2	**600 mm dia NP3 H.P.**					
		Unit: per m					
		Taking Output =	**7.5**	**m**			
		(Assuming 3 pipes of 2.5 m length and two collars)					
		Materials					
		Cement	0.034	cum	8264.70	281.00	**M-1 P**
		Sand	0.034	cum	584.64	19.88	**M-004**
		Jute	4	Kg	20.89	83.56	**M Sl. No. 257**
		Total				384.44	
		Labour					
		Head Mason	1.5	nos	569.00	853.50	
		Unskilled Mazdoor	7	nos	424.00	2968.00	
		Fitter Gr I	0.75	nos	577.00	432.75	
		Total				4254.25	
						4638.69	
		Add Overhead charge & C.P @ 15 %				₹ 695.80	
						₹ 5,334.49	
					Say, Rs	**₹ 711.27**	**Per M**
	5.6.2.4	**1000 mm dia NP3 H.P.**					
		Unit: per m					
		Taking Output =	**7.5**	**m**			
		(Assuming 3 pipes of 2.5 m length and two collars)					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Materials					
		Cement	0.045	cum	8264.70	371.91	**M-1 P**
		Sand	0.045	cum	584.64	26.31	**M-004**
		Jute	7.5	Kg	20.89	156.68	**M Sl. No. 257**
		Total				554.90	
		Labour					
		Head Mason	2	nos	569.00	1138.00	
		Unskilled Mazdoor	21	nos	424.00	8904.00	
		Fitter Gr I	1	nos	577.00	577.00	
		Total				10619.00	
						11173.90	
		Add Overhead charge & C.P @ 15 %				₹ 1,676.08	
						₹ 12,849.98	
					Say, Rs	**₹ 1,713.33**	**Per M**
	5.6.2.5	**Labour Charges for Laying of 1200 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .**					
		Unit: per m					
		Taking Output =	**7.5**	**m**			
		(Assuming 3 pipes of 2.5 m length and two collars)					
		Materials					
		Cement	0.057	cum	8264.70	471.09	**M-1 P**
		Sand	0.057	cum	584.64	33.32	**M-004**
		Jute	12	Kg	20.89	250.68	**M Sl. No. 257**
		Total				755.09	
		Labour					
		Head Mason	2.5	nos	569.00	1422.50	
		Unskilled Mazdoor	25	nos	424.00	10600.00	
		Fitter Gr I	1	nos	577.00	577.00	
		Total				12599.50	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
						13354.59	
		Add Overhead charge & C.P @ 15 %				₹ 2,003.19	
						₹ 15,357.78	
					Say, Rs	**₹ 2,047.70**	**Per M**
22	**5.4.10**	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 2.832 cum					
		Materials					
		Stone Boulder	2.832	cum	694.61	1967.14	
		Sand	1.12	cum	584.64	654.80	
		Cement	0.28	cum	8264.70	2314.12	
		Labour				4936.05	
		Head Mason	0.125	nos	569.00	71.13	
		Mason Gr II	2	nos	508.00	1016.00	
		Unskilled Mazdoor	5	nos	424.00	2120.00	
		Bhisti	0.5	nos	417.00	208.50	
						3415.63	
						8351.67	
		Add Overhead charge & C.P @ 15 %				₹ 1,252.75	
						₹ 9,604.43	
					Say, Rs	**₹ 3,391.40**	**Per M^3**
23	**5.7.16**	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 cum					
		Materials					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Bricks	800	per 1000 nos	4891.00	3912.80	
		Local Sand	0.425	cum	145.87	61.99	
		Total				3974.79	
		Labour					
		Mason Gr II	1.125	nos	508.00	571.50	
		Unskilled Mazdoor	2.25	nos	424.00	954.00	
						1525.50	
						5500.29	
		Add Overhead charge & C.P @ 15 %				₹ 825.04	
						₹ 6,325.34	
					Say, Rs	**₹ 680.10**	**Per M^3**
24	**5.8.9**	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 2.832 cum					
		Hammer man	2.25	nos	445.00	₹ 1,001.25	SII-17
		Skilled Mazdoor	2.25	nos	536.00	₹ 1,206.00	SII-18
		Unskilled mazdoor	7.00	nos	424.00	₹ 2,968.00	SI-1
		Blacksmith GR II	1.00	nos	508.00	₹ 508.00	SII-10
		Mate	1.00	nos	455.00	₹ 455.00	SII-2
					total	₹ 6,138.25	
		Add Overhead charge & C.P @ 15 %				₹ 920.74	
						₹ 7,058.99	
		Rate per Cum			**Say, Rs**	**₹ 2,492.58**	**Per M^3**
25	**5.4.6**	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Unit :- **Per Sqm**					
		Taking Output :- 2.832 cum					
		Materials					
		Bricks	1150	per 1000 nos	4891.00	5624.65	
		Sand	0.92	cum	584.64	537.87	
		Cement	0.23	cum	8264.70	1900.88	
		Total				8063.40	
		Labour					
		Head Mason	0.125	nos	569.00	71.13	
		Mason Gr II	2.5	nos	508.00	1270.00	
		Unskilled Mazdoor	6	nos	424.00	2544.00	
		Bhisti	1	nos	417.00	417.00	
						4302.13	
						12365.53	
		Add Overhead charge & C.P @ 15 %				₹ 1,854.83	
						₹ 14,220.35	
					Say, Rs	**₹ 5,021.30**	**Per M^3**

26	**5.8.7**	Dismantling pucca brick or lime work including stacking serviceable materials in countable stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 2.832 cum					
		Semi Skilled Mazdoor	1.00	nos	440.00	₹ 440.00	SII-18
		Unskilled mazdoor	3.00	nos	424.00	₹ 1,272.00	SI-1
					total	₹ 1,712.00	
		Add Overhead charge & C.P @ 15 %				₹ 256.80	
						₹ 1,968.80	
		Rate per Cum			**Say, Rs**	**₹ 695.20**	**Per M^3**

ITEM RATES					
Sl. No.	Reference		Particular	Unit	Rate (in Rs.)
1	WRD SOR 2025 & PL MARCH 2025	WRD 5.1.3	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	Sqm	11.80
2	WRD SOR 2025 & PL MARCH 2025	WRD 5.1.8	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.	Cum	156.50
3	WRD SOR 2025 & PL MARCH 2025	WRD 5.1.31	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	Cum	149.30
4	WRD SOR 2025 & PL MARCH 2025	5.1.21	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.	Cum	196.10
5	WRD SOR 2025 & PL MARCH 2025	5.1.22	Extra for wet earth all complete as per specifications and direction of E/I.	Cum	17.22
6	WRD SOR 2025 & PL MARCH 2025	5.1.25	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	Cum	165.12
7	WRD SOR 2025 & PL MARCH 2025	WRD 5.1.39	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	Cum	61.88

8	**WRD SOR 2023 & PL JUNE 2025**	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)		
		5.1.46.1	Beyond 150m but upto 1/2 km	**174.89**	**Cum**
		5.1.46.2	Beyond 1/2 km but upto 1 km	**217.92**	**Cum**
		5.1.46.3	Beyond 1 km but upto 1.50 km	**268.53**	**Cum**
		5.1.46.4	Beyond 1.50 km but upto 2.00 km	**319.14**	**Cum**
		5.1.46.5	Beyond 2.00 km but upto 2.50 km	**369.80**	**Cum**
		5.1.46.6	Beyond 2.50 km but upto 3.00 km	**420.40**	**Cum**
9	**WRD SOR 2025 & PL MARCH 2025**	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	**195.20**	**Cum**
10	**WRD SOR 2025 & PL 2025**	**WRD 5.5.10**	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	**Sqm**	**63.20**
11	**WRD SOR 2023 & PL JUNE 2025**	**5.5.5**	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of D/I.	**Cum**	**340.20**
12	**WRD SOR 2025 & PL 2025**	**5.3.8**	Providing & laying **P.C.C. M-100** with nominal mix of (1:3:6) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.	**Cum**	**6003.37**
13	**WRD SOR 2025 & PL 2025**	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	**Cum**	**6381.70**

14	**WRD SOR 2025 & PL 2025**	**5.3.5**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	**Cum**	**6914.20**
15	**WRD SOR 2025 & PL 2025**	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	**Cum**	**6914.20**
16	**WRD SOR 2025 & PL 2025**	**5.3.11**	Providing & laying **P.C.C. or R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	**Cum**	**8151.40**
17	**RCD 2025**	**RCD 14.09**	Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	**NO.**	5588.70
18	**WRD SOR 2025 & PL 2025**	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.		
			TMT Grade FE-500 - 8 mm	**MT**	**75929.60**
			TMT Grade FE-500 - 10 mm	**MT**	**74292.20**
			TMT Grade FE-500 - 12 mm	**MT**	**73574.90**
			TMT Grade FE-500 - 16 mm	**MT**	**73574.90**
			TMT Grade FE-500 - 20 mm	**MT**	**73574.90**
			TMT Grade FE-500 - 25mm	**MT**	**73574.90**
19	**WRD SOR 2025 & PL 2025**	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	**Cum**	**578.60**
20	**WRD SOR 2025 & PL 2025**	**WRD 5.3.20**	Providing centering including strutting, propping etc. and its removal after use in deck slab as per specifications and direction of E/I.	**Cum**	**789.10**
21	**WRD SOR 2025 & PL 2025**	**WRD 5.2.2**	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	**Cum**	**1377.70**
22	**WRD SOR 2025 & PL 2025**	**WRD 5.7.13**	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	**Cum**	**516.50**
23	**WRD SOR 2025 & PL 2025**	**WRD M-002**	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	**Cum**	694.61

24	**WRD SOR 2025 & PL 2025**	**WRD 5.7.18.1**	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	**Cum**	**1237.00**
25	**WRD SOR 2025 & PL 2025**	**WRD 5.1.37**	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .	**Cum**	**339.90**
26	**WRD SOR 2025 & PL 2025**	**WRD 5.5.5**	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	**Cum**	**340.20**
27	**WRD SOR 2025 & PL 2025**	**M-1701**	Providing 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**RM**	220.00
28	**WRD SOR 2025 & PL 2025**	**WRD 5.6.1.1**	Labour Charges for Laying of 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**RM**	**238.00**
29	**RCD 2025**	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	**R.M.**	6002.82
30	**WRD SOR 2025 & PL 2025**	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**R.M.**	**1713.33**
31	**RCD 2025**	**RCD M-149**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1200 mm dia with spigot	**R.M.**	7015.86
32	**WRD SOR 2025 & PL 2025**	**WRD 5.6.2.5**	Labour for laying 1200mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**R.M.**	**2047.70**
33	**WRD SOR 2025 & PL 2025**	**5.4.10**	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.	**Cum**	**3391.40**
34	**WRD SOR 2025 & PL 2025**	**M-181**	Structural Steel (Average rate of Angle, Joint and Channel) etc.	**MT**	**160035.11**
35	**WRD SOR 2025 & PL 2025**	**5.7.16**	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	**Sqm**	**680.10**
36	**RCD 2025**	**RCD 15.22**	Providing and fixing in position 20 mm thick compressible fibre board in expansion joint complete as per drawing & Technical specification.	**RM**	499.80
37	**RCD 2025**	**RCD M-151**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 600 mm dia with spigot	**RM**	2532.61

38	**WRD SOR 2025 & PL 2025**	**5.6.2.2**	Labour Charges for Laying, fitting and fixing NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**RM**	**711.27**
39	**WRD SOR 2025**	**M-126**	Modular Strip/box seal expansion joint	**RM**	36993.21
40	**PWD NH SOR CHHATISGARH 2025**	**3.18 PWD NH SOR CHHATISGARH 2025**	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (3.18 PWD NH SOR CHHATISGARH 2025)	**RM**	66.00
41	**RCD 2025**	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 900 mm dia with spigot	**R.M.**	4849.67
42	**RCD 2025**	**13.08**	Weepholes	**No.**	152.60
43	**RCD 2025**	**3.06 - 301**	Excavation for road work in soil with hydraulic excavator including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and tranporting to the embankment location within all lifts and lead upto 1000 m	**Cum**	78.40
44	**RCD 2025**	**4.01 B - 401**	Construction of granular sub-base by providing closegraded material, spreading in uniform layers with motorgrader on prepared surface, mixing by mix in placemethod with front end loader at OMC, and compactingwith vibratory roller to achieve the desired density,complete as per clause 401.	**Cum**	1044.90
45	**RCD 2025**	**14.01 C**	RCC Grade M-30 using Batching plant, Transit Mixer and Concrete Pump	**Cum**	6217.20
46	**RCD 2025**	**8.14**	Kilometer Stone M-15	**Nos.**	3853.40

	MATERIAL RATE:				
1	**WRD SOR 2025**	**M-004**	Coarse Sand	**Cum**	584.64
2	**WRD SOR 2025**	**M-012**	Coarse Aggregate	**Cum**	944.26
3	**WRD SOR 2025**	**M-001**	Boulder	**Cum**	694.61
4	**WRD SOR 2025**	**M-11 9(ii)**	Brick	**Cum**	4891
5	**WRD SOR 2025**	**M-006**	Fine Sand	**Cum**	145.87
6	**WRD SOR 2025**	**M1**	Cement (Gaya)	**per bag of 50 Kg**	281.00
7	**WRD SOR 2025**	**M-025**	Aggregate 26.5 mm to 4.75 mm	**Cum**	913.48
8	**WRD SOR 2025**	**M-015**	Aggregate 9.5 mm to 4.75 mm	**Cum**	602.28
9	**WRD SOR 2025**	**M-017**	Aggregate 4.75 mm and below	**Cum**	266.62
10	**WRD SOR 2025**	**M-181**	Structural Steel	**MT**	55116.67

Amba Division – Karma Basantpur Minor
(Total Cost – Rs. 2.24 Crores)

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND ABSTRACT OF COST (KARMA BASANTPUR MINOR)								
S. No.	**Items**	**Qty.**	**Unit**	**Rate**	**Seigniorage Charges**	**Amount (Rs.) Including Seigniorage Charges**	**Reference for Rate**	**Page no.**
1	Earthwork							
	KARMA BASANTPUR MINOR	1	Job	10203504.50	0.00	₹ 1,02,03,504.50	AOC Earthwork Karma Basantpur	8
2	Falls							
	KARMA BASANTPUR MINOR :							
	0.762 m Fall at Ch. 0.550 Km	1	No.	747308.45	6527.93	₹ 7,53,836.38	Fall (AOC) karma Basantpur	11
	0.762 m Fall at Ch. 1.150 Km	1	No.	741939.19	6527.93	₹ 7,48,467.12		13
	0.610 m Fall at Ch. 1.340 Km	1	No.	698758.62	6144.42	₹ 7,04,903.04		15
	1.830 m Fall at Ch. 2.680 Km	1	No.	1405515.90	12328.11	₹ 14,17,844.01		17
	0.457 m Fall at Ch. 3.250 Km	1	No.	580859.58	4935.27	₹ 5,85,794.86		19
	0.914 m Fall at Ch. 4.400 Km	1	No.	646488.04	5447.37	₹ 6,51,935.40		21
	0.610 m Fall at Ch. 4.792 Km	1	No.	558381.02	4755.26	₹ 5,63,136.28		23
	0.610 m Fall at Ch. 5.200 Km	1	No.	538637.04	4536.06	₹ 5,43,173.10		25
3	*Repair of Structures*							
	KARMA BASANTPUR MINOR	8	No.	608015.3189	2914.91	₹ 6,10,930.23	Abstract (Repair St.) Karma Basantpur	51
	Approach Road	6	No.	521018.55	7578.59	₹ 31,71,582.87	Approach Road AOC	52
4	Outlets							
	KARMA BASANTPUR MINOR	19	No.	127744.47	1100.17	₹ 24,48,048.17	Outlet-AOC	66
5	Kilometer Stone	7	No.	3853.40	0.00	₹ 26,973.80	Rates	99
	TOTAL (In Rs.)					**22430129.76**		
	TOTAL (In Lacs)					**224.30**		

	Carriage of Material - Abstract		
1	Steel & Cement (30 Km)	M.T.	**742.00**
2	RCC Hume Pipe (30 Km)	Per Meter	
	150 mm dia	Per Meter	**82.00**
	600 mm dia	Per Meter	**919.00**
	1000 mm dia	Per Meter	**1470.00**
	1200 mm dia	Per Meter	**1838.00**
3	Bricks (15 Km)	Per 1000 no	**3.18**
4	Boulder (60 Km)	Cumecs	**1159.0**
5	Coarse Sand (60 Km)	Cumecs	**1075.00**
6	Stone Chips/Aggregate (100 Km)	Cumecs	**1398.0**

CARRIAGE OF MATERIAL BY TIPPER OF 18 CUM CAPACITY INCLUDING OVER HEAD CHARGES & C.P																		
Sr No	Name Of Materials	Unit	Gross Tipper Capacity Per Trip	(For Void) Multiplying Factor	Net Tipper capacity (Payable Quantity) Per Trip	Cost of Loading,Unloading & Stacking Per Trip of Tipper (Tipperr capacity 18 cum x Xa_1	Cost of Haulage Per cum			Cost of Haulage Per Tipper of 18 cum capacity (Tipper capacity 18 Cum x H)			Lead in KM			Carriage of Cost =[(18Hsa.Ls+18Hua.Lu+18Hka.Lk)+18 X_a	Per Unit Rate =(col 17 / Net Payable capacity)
							For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed		
						$18X_a$	H_{Sa}	H_{ua}	H_{ka}	$18H_{Sa}$	$18H_{Ua}$	$18H_{Ka}$	L_S	L_U	L_K		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Boulder (60 Kms)	M^3	18	0.80	14.4	6507.00	9.10	11.10	22.20	163.80	199.80	399.60	50	10	0	16695	1159.00
2	Stone Aggregate (100 Kms)	M^3	18	0.924	16.63	6507.00	9.10	11.10	22.20	163.80	199.80	399.60	90	10	0	23247	1398.00
3	Sand (60 Kms)	M^3	18	0.924	16.63	6507.00	9.10	11.10	22.20	163.80	199.80	399.60	45	10	5	17874	1075.00

CARRIAGE OF MATERIAL BY TIPPER OF 25 TONNES CAPACITY INCLUDING OVER HEAD CHARGES & C.P																	
Sr No	Name Of Materials	Unit	Gross Tipper Capacity Per Trip	(For Void) Multiplying Factor	Net Tipper capacity (Payable Quantity) Per Trip	Cost of Loading,Unloading & Stacking Per Trip of Tipper (Tipperr capacity 25 t x X_b)	Cost of Haulage Per cum			Cost of Haulage Per Tipper of 8 tonne capacity (Tipper capacity 8x H)			Lead in KM			Carriage of Cost =[(25Hsa.Ls+25Hua.Lu+25Hka.Lk)+25 X_a	Per Unit Rate =(col 17 / Net Payable capacity)
							For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed		
						$25X_b$	H_{Sb}	Hub	H_{Kb}	$25H_{Sb}$	$25H_{Ub}$	$25H_{Kb}$	L_S	L_U	L_K		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	**Cement & Steel (30 Kms)**	M.T	25	1	25	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	20	10	0	18550	742.00
2	**Brick ($9^{3/4}$x$4^{3/4}$x$2^{3/4}$) (15 Kms)**	Per % 0	5000	1	5000	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	10	5	0	15900	3180.00
3	**R.C.C hume, A.C. pipe (30 Km)**																
a	**150 mm dia**	mtr	225	1	225	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	82.00
b	**500 mm & 600 mm dia**	mtr	20	1	20	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	919.00
c	**900mm & 1000 mm dia**	mtr	12.5	1	12.5	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	1470.00
d	**1100 & 1200 m dia**	mtr	10	1	10	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	1838.00

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND						
CONCRETE MIX RATIO TABLE						
Sl. No.	Mixes	Unit by Volume (Cum)	Crushed Aggregate			
			Cement (bags of 50 kg)	Sand (Cum)	Coarse Aggregate (Cum)	Boulder (Cum)
1	M -10 (1:3:6)	1.00	4.49	0.47	0.94	
2	M -15 (1:2:4)	1.00	6.48	0.45	0.90	
3	M -20 (1:1.5:3)	1.00	8.25	0.43	0.86	
4	M -25 (1:1:2)	1.00	11.34	0.39	0.79	
5	M-30 (1:0.75:1.5)	1.00	13.96	0.36	0.73	
6	RR Masonary (1:4)	1.00	2.880	0.40		1.00
7	Brick Work (1:4)	1.00	2.304	0.320		
8	Cement Plaster (1:4)	1.00	1.037	0.015		
9	Cement Punning	1.00	0.0015			

DETAIL QUANTITIES OF EARTHWORK

KARMA BASANTPUR MINOR - KM 0.000 TO KM 6.096 KM

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
0		0.000	0	0	0.000	0	0.000
100	100	0.657	0.329	32.850	2.176	1.088	108.800
200	100	0.504	0.581	58.050	2.647	2.412	241.150
300	100	0.000	0.252	25.200	2.435	2.541	254.100
400	100	0.000	0.000	0.000	3.395	2.915	291.500
500	100	2.077	1.039	103.850	2.299	2.847	284.700
600	100	1.762	1.920	191.950	1.864	2.082	208.150
700	100	0.511	1.137	113.650	1.233	1.549	154.850
800	100	0.739	0.625	62.500	3.592	2.413	241.250
900	100	0.522	0.631	63.050	3.917	3.755	375.450
1000	100	1.486	1.004	100.400	1.531	2.724	272.400
1100	100	0.966	1.226	122.600	3.207	2.369	236.900
1200	100	2.487	1.727	172.650	4.068	3.638	363.750
1300	100	1.379	1.933	193.300	1.353	2.711	271.050
1400	100	1.852	1.616	161.550	1.678	1.516	151.550
1500	100	4.619	3.236	323.550	1.228	1.453	145.300
1600	100	0.304	2.462	246.150	5.499	3.364	336.350
1700	100	3.169	1.737	173.650	2.338	3.919	391.850
1800	100	1.256	2.213	221.250	1.531	1.935	193.450
1900	100	0.238	0.747	74.700	3.841	2.686	268.600
2000	100	0.006	0.122	12.200	3.400	3.621	362.050
2100	100	0.000	0.003	0.300	3.583	3.492	349.150
2200	100	1.103	0.552	55.150	4.200	3.892	389.150
2300	100	0.807	0.955	95.500	2.994	3.597	359.700
2400	100	0.442	0.625	62.450	3.051	3.023	302.250
2500	100	0.000	0.221	22.100	3.464	3.258	325.750
2600	100	0.000	0.000	0.000	6.733	5.099	509.850
2700	100	1.928	0.964	96.400	3.876	5.305	530.450
2800	100	0.908	1.418	141.800	6.442	5.159	515.900
2900	100	0.647	0.778	77.750	5.986	6.214	621.400
3000	100	0.294	0.471	47.050	6.324	6.155	615.500
3100	100	0.000	0.147	14.700	6.378	6.351	635.100
3200	100	0.000	0.000	0.000	6.338	6.358	635.800
3300	100	0.232	0.116	11.600	5.551	5.945	594.450
3400	100	0.147	0.190	18.950	5.318	5.435	543.450
3500	100	0.081	0.114	11.400	4.676	4.997	499.700
3600	100	0.075	0.078	7.800	4.284	4.480	448.000
3700	100	0.131	0.103	10.300	3.380	3.832	383.200
3800	100	0.067	0.099	9.900	4.763	4.072	407.150
3900	100	0.051	0.059	5.900	2.661	3.712	371.200
4000	100	0.034	0.043	4.250	2.901	2.781	278.100
4100	100	0.018	0.026	2.600	3.524	3.213	321.250
4200	100	3.223	1.621	162.050	0.620	2.072	207.200
4300	100	0.044	1.634	163.350	1.892	1.256	125.600

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
4400	100	0.000	0.022	2.200	5.936	3.914	391.400
4500	100	0.036	0.018	1.800	1.881	3.909	390.850
4600	100	0.076	0.056	5.600	3.153	2.517	251.700
4700	100	0.000	0.038	3.800	5.205	4.179	417.900
4800	100	0.365	0.183	18.250	2.478	3.842	384.150
4900	100	0.184	0.275	27.450	2.902	2.690	269.000
5000	100	0.028	0.106	10.600	4.145	3.524	352.350
5100	100	0.000	0.014	1.400	4.400	4.273	427.250
5200	100	0.415	0.208	20.750	2.590	3.495	349.500
5300	100	0.279	0.347	34.700	1.882	2.236	223.600
5400	100	0.164	0.222	22.150	1.786	1.834	183.400
5500	100	0.303	0.234	23.350	1.175	1.481	148.050
5600	100	0.000	0.152	15.150	3.859	2.517	251.700
5700	100	0.402	0.201	20.100	2.828	3.344	334.350
5800	100	0.042	0.222	22.200	4.819	3.824	382.350
5900	100	0.000	0.021	2.100	5.556	5.188	518.750
6000	100	0.000	0.000	0.000	9.569	7.563	756.250
6050	50	0.000	0.000	0.000	12.579	11.074	553.700
Total				**3706.000**			**21708.750**
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							**3706.000**
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							**21708.750**
NET QUANTITY OF EARTHWORK IN FILLING							**18002.75**

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND				
KARMA BASANTPUR MINOR				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Quantity**	
0.00 - 1.950	1950	3.95	7702.50	Sqm
1.950 - 3.250	1300	3.21	4173.00	Sqm
3.250 -4.400	1150	2.78	3197.00	Sqm
4.400 - 5.200	800	2.33	1864.00	Sqm
5.200 - 5.690	490	2.12	1038.80	Sqm
5.690 - 6.050	360	1.85	666.00	Sqm
6.050 - 6.075	25	1.64	41.00	Sqm
6.075 - 6.096	21	1.41	29.61	Sqm
	TOTAL		**18711.91**	**Sqm**

LIP CUTTING QUANTITY					
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Thickness (m)**	**Quantity**	
0.00 - 1.950	1950	3.95	0.15	1155.38	Cum
1.950 - 3.250	1300	3.21	0.15	625.95	Cum
3.250 -4.400	1150	2.78	0.15	479.55	Cum
4.400 - 5.200	800	2.33	0.15	279.60	Cum
5.200 - 5.690	490	2.12	0.15	155.82	Cum
5.690 - 6.050	360	1.85	0.15	99.90	Cum
6.050 - 6.075	25	1.64	0.15	6.15	Cum
6.075 - 6.096	21	1.41	0.15	4.44	Cum
	TOTAL			**2806.79**	**Cum**

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND						
ABSTRACT OF QUANTITY OF EARTHWORK FOR KARMA BASANTPUR MINOR						
Sl. No.	**Reference Clause no.**	**Particular**	**Quantity**	**Unit**	**Rate (in Rs.)**	**Amount in Rs.**
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	18711.91	Sqm	**11.80**	220882.682
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	3706.00	Cum	**156.50**	579989
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	1482.40	Cum	**17.22**	25523.24294
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	18002.75	Cum	**165.12**	2972541.36
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	5400.83	Cum	**174.89**	944550.28
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (25% of net filling)	4500.69	Cum	**217.92**	980789.82
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	8101.24	Cum	**319.14**	2585428.94
6	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.				
			2806.79	Cum	**196.10**	550410.83
7	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	21708.75	Cum	**61.88**	1343388.35
TOTAL COST OF EARTHWORK (in Rs.)						**10203504.50**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**102.035**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND				
DETAILS OF QUANTITIES FOR EARTH WORK FOR KARMA BASANTPUR MINOR				
S.No.	**Items**	**No.**	**Quantity**	**Unit**
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	*18711.91*	*Sqm*
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	3706.000	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	1482.4	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	18002.750	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	5400.83	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	4500.69	Cum

S.No.	Items	No.	Quantity	Unit
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	8101.24	Cum
6	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.	1	2806.79	Cum
7	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	21708.75	Cum

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR KARMA BASANTPUR MINOR								
S. No.	**Item of Works**	**Qty.**	**Unit**	**Rate (As per WRD SOR 2025 & PL 2025)**	**Amount (Rs)**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**
SHARDA TYPE FALL OF HEIGHT 0.762 METER AT CH. 0.550 KM								
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	101.841	Cum	**195.20**	19879.37			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	11.69	Cum	**6381.70**	74613.78	3.79	5.26	10.52
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	46.59	Cum	**6914.20**	322135.25	19.22	20.03	40.07
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.78	Cum	**8151.40**	6389.39	0.44	0.31	0.62
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.10	MT	**73574.90**	80726.65			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	163.81	Sqm	**578.60**	94778.07			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	9.00	Sqm	**680.10**	6120.90			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.19	Cum	**694.61**	829.36			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.19	Cum	**1237.00**	1476.98			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.19	Cum	**1377.70**	1644.97			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.19	Cum	**516.50**	616.70			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.46	Sqm	**63.20**	597.92			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	28.30	Cum	**149.30**	4224.57			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	25.601	Cum	**1075.00**	27520.96			
	Coarse Aggregates (100 Km lead)	52.404	Cum	**1398.00**	73260.26			
	Cement (30 km lead)	23.451	MT	**742.00**	17400.74			
	Boulder (60 Km lead)	1.19	Cum	**1159.00**	1383.85			
	Brick (15 km lead)	540.00	No.	**3.18**	1717.20			
	Steel (30 Km lead)	1.10	MT	**742.00**	814.13			
	TOTAL (In Rs.)				**747308.45**			
	TOTAL (In Rs.)				**747308.45**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	25.60	Cum	**584.64**	14967.30	1496.73		
	Coarse Aggregate	52.40	Cum	**944.26**	49482.64	4948.26		
	Boulders	1.19	Cum	**694.61**	829.36	82.94		
	Total					6527.93		
	For 1 nos. fall, Total Seigniorage charges					**6527.93**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.762 METER AT CH. 1.150 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	79.977	Cum	**195.20**	15611.47			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	11.69	Cum	**6381.70**	74613.78	3.79	5.26	10.52
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	46.59	Cum	**6914.20**	322135.25	19.22	20.03	40.07
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.78	Cum	**8151.40**	6389.39	0.44	0.31	0.62
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.10	MT	**73574.90**	80726.65			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	163.81	Sqm	**578.60**	94778.07			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	9.00	Sqm	**680.10**	6120.90			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.19	Cum	**694.61**	829.36			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.19	Cum	**1237.00**	1476.98			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.19	Cum	**1377.70**	1644.97			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.19	Cum	**516.50**	616.70			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.46	Sqm	**63.20**	597.92			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	20.92	Cum	**149.30**	3123.21			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	25.601	Cum	**1075.00**	27520.96			
	Coarse Aggregates (100 Km lead)	52.404	Cum	**1398.00**	73260.26			
	Cement (30 km lead)	23.451	MT	**742.00**	17400.74			
	Boulder (60 Km lead)	1.19	Cum	**1159.00**	1383.85			
	Brick (15 km lead)	540.00	No.	**3.18**	1717.20			
	Steel (30 Km lead)	1.10	MT	**742.00**	814.13			
	TOTAL (In Rs.)				**741939.19**			
	TOTAL (In Rs.)				**741939.19**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	25.60	Cum	**584.64**	14967.30	1496.73		
	Coarse Aggregate	52.40	Cum	**944.26**	49482.64	4948.26		
	Boulders	1.19	Cum	**694.61**	829.36	82.94		
	Total					6527.93		
	For 1 nos. fall, Total Seigniorage charges					**6527.93**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 1.340 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	78.191	Cum	**195.20**	15262.85			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	11.56	Cum	**6381.70**	73756.07	3.74	5.20	10.40
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	43.15	Cum	**6914.20**	298324.78	17.80	18.55	37.11
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.76	Cum	**8151.40**	6194.37	0.43	0.30	0.60
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.02	MT	**73574.90**	74759.78			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	155.46	Sqm	**578.60**	89946.80			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	9.00	Sqm	**680.10**	6120.90			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.19	Cum	**694.61**	829.36			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.19	Cum	**1237.00**	1476.98			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.19	Cum	**1377.70**	1644.97			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.19	Cum	**516.50**	616.70			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.37	Sqm	**63.20**	592.23			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	20.88	Cum	**149.30**	3117.62			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	24.050	Cum	**1075.00**	25854.06			
	Coarse Aggregates (100 Km lead)	49.302	Cum	**1398.00**	68924.43			
	Cement (30 km lead)	21.973	MT	**742.00**	16304.33			
	Boulder (60 Km lead)	1.19	Cum	**1159.00**	1383.85			
	Brick (15 km lead)	540.00	No.	**3.18**	1717.20			
	Steel (30 Km lead)	1.02	MT	**742.00**	753.95			
	TOTAL (In Rs.)				**698758.62**			
	TOTAL (In Rs.)				**698758.62**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	24.05	Cum	**584.64**	14060.76	1406.08		
	Coarse Aggregate	49.30	Cum	**944.26**	46554.07	4655.41		
	Boulders	1.19	Cum	**694.61**	829.36	82.94		
	Total					6144.42		
	For 1 nos. fall, Total Seigniorage charges					**6144.42**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.830 METER AT CH. 2.680 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	161.425	Cum	**195.20**	31510.12			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	14.25	Cum	**6381.70**	90934.96	4.62	6.41	12.82
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	99.03	Cum	**6914.20**	684727.73	40.85	42.58	85.17
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.90	Cum	**8151.40**	7339.93	0.51	0.35	0.71
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.33	MT	**73574.90**	171591.82			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	279.87	Sqm	**578.60**	161934.23			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	9.00	Sqm	**680.10**	6120.90			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.75	Cum	**694.61**	520.96			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.75	Cum	**1237.00**	927.75			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.75	Cum	**1377.70**	1033.28			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.75	Cum	**516.50**	387.38			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	13.01	Sqm	**63.20**	822.48			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	39.99	Cum	**149.30**	5970.28			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	49.347	Cum	**1075.00**	53048.22			
	Coarse Aggregates (100 Km lead)	99.453	Cum	**1398.00**	139035.80			
	Cement (30 km lead)	45.978	MT	**742.00**	34115.73			
	Boulder (60 Km lead)	0.75	Cum	**1159.00**	869.25			
	Brick (15 km lead)	540.00	No.	**3.18**	1717.20			
	Steel (30 Km lead)	2.33	MT	**742.00**	1730.50			
	TOTAL (In Rs.)				**1405515.90**			
	TOTAL (In Rs.)				**1405515.90**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	49.35	Cum	**584.64**	28850.33	2885.03		
	Coarse Aggregate	99.45	Cum	**944.26**	93909.83	9390.98		
	Boulders	0.75	Cum	**694.61**	520.96	52.10		
	Total					12328.11		
	For 1 nos. fall, Total Seigniorage charges					**12328.11**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 3.250 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	75.055	Cum	**195.20**	14650.82			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.53	Cum	**6381.70**	60825.13	3.09	4.29	8.58
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	35.09	Cum	**6914.20**	242594.12	14.47	15.09	30.17
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.64	Cum	**8151.40**	5239.43	0.36	0.25	0.51
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.83	MT	**73574.90**	60793.75			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	139.54	Sqm	**578.60**	80735.66			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	9.00	Sqm	**680.10**	6120.90			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.49	Cum	**694.61**	341.75			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.49	Cum	**1237.00**	608.60			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.49	Cum	**1377.70**	677.83			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.49	Cum	**516.50**	254.12			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.45	Sqm	**63.20**	597.07			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	22.57	Cum	**149.30**	3369.30			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	19.627	Cum	**1075.00**	21098.86			
	Coarse Aggregates (100 Km lead)	39.752	Cum	**1398.00**	55573.46			
	Cement (30 km lead)	17.926	MT	**742.00**	13300.85			
	Boulder (60 Km lead)	0.49	Cum	**1159.00**	570.23			
	Brick (15 km lead)	540.00	No.	**3.18**	1717.20			
	Steel (30 Km lead)	0.83	MT	**742.00**	613.10			
	TOTAL (In Rs.)				**580859.58**			
	TOTAL (In Rs.)				**580859.58**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	19.63	Cum	**584.64**	11474.64	1147.46		
	Coarse Aggregate	39.75	Cum	**944.26**	37536.33	3753.63		
	Boulders	0.49	Cum	**694.61**	341.75	34.17		
	Total					4935.27		
	For 1 nos. fall, Total Seigniorage charges					**4935.27**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 4.400 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	91.075	Cum	**195.20**	17777.78			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.31	Cum	**6381.70**	59405.17	3.02	4.19	8.38
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	40.54	Cum	**6914.20**	280296.22	16.72	17.43	34.86
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.66	Cum	**8151.40**	5341.33	0.37	0.26	0.52
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.95	MT	**73574.90**	70241.84			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	153.50	Sqm	**578.60**	88815.60			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	9.00	Sqm	**680.10**	6120.90			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.22	Cum	**694.61**	154.20			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.22	Cum	**1237.00**	274.61			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.22	Cum	**1377.70**	305.85			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.22	Cum	**516.50**	114.66			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.81	Sqm	**63.20**	619.82			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	21.67	Cum	**149.30**	3235.44			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	21.876	Cum	**1075.00**	23517.04			
	Coarse Aggregates (100 Km lead)	43.981	Cum	**1398.00**	61485.70			
	Cement (30 km lead)	20.110	MT	**742.00**	14921.60			
	Boulder (60 Km lead)	0.22	Cum	**1159.00**	257.30			
	Brick (15 km lead)	540.00	No.	**3.18**	1717.20			
	Steel (30 Km lead)	0.95	MT	**742.00**	708.39			
	TOTAL (In Rs.)				**646488.04**			
	TOTAL (In Rs.)				**646488.04**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	21.88	Cum	**584.64**	12789.77	1278.98		
	Coarse Aggregate	43.98	Cum	**944.26**	41529.68	4152.97		
	Boulders	0.22	Cum	**694.61**	154.20	15.42		
	Total					5447.37		
	For 1 nos. fall, Total Seigniorage charges					**5447.37**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 4.792 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	40.020	Cum	**195.20**	7811.93			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.82	Cum	**6381.70**	56303.73	2.86	3.97	7.94
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	34.58	Cum	**6914.20**	239076.98	14.26	14.87	29.74
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.61	Cum	**8151.40**	5003.45	0.35	0.24	0.48
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.81	MT	**73574.90**	59912.36			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	139.68	Sqm	**578.60**	80818.07			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	9.00	Sqm	**680.10**	6120.90			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.22	Cum	**694.61**	154.20			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.22	Cum	**1237.00**	274.61			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.22	Cum	**1377.70**	305.85			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.22	Cum	**516.50**	114.66			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.37	Sqm	**63.20**	591.95			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	6.72	Cum	**149.30**	1003.71			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	19.078	Cum	**1075.00**	20508.85			
	Coarse Aggregates (100 Km lead)	38.384	Cum	**1398.00**	53661.02			
	Cement (30 km lead)	17.470	MT	**742.00**	12962.65			
	Boulder (60 Km lead)	0.22	Cum	**1159.00**	257.30			
	Brick (15 km lead)	540.00	No.	**3.18**	1717.20			
	Steel (30 Km lead)	0.81	MT	**742.00**	604.21			
	TOTAL (In Rs.)				**558381.02**			
	TOTAL (In Rs.)				**558381.02**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	19.08	Cum	**584.64**	11153.76	1115.38		
	Coarse Aggregate	38.38	Cum	**944.26**	36244.60	3624.46		
	Boulders	0.22	Cum	**694.61**	154.20	15.42		
	Total					4755.26		
	For 1 nos. fall, Total Seigniorage charges					**4755.26**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 5.200 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	53.027	Cum	**195.20**	10350.78			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.50	Cum	**6381.70**	54229.96	2.75	3.82	7.65
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	32.96	Cum	**6914.20**	227916.14	13.60	14.17	28.35
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.58	Cum	**8151.40**	4710.65	0.33	0.23	0.46
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.78	MT	**73574.90**	57115.47			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	135.52	Sqm	**578.60**	78410.34			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.57	Sqm	**680.10**	5827.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.17	Cum	**694.61**	120.86			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.17	Cum	**1237.00**	215.24			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.17	Cum	**1377.70**	239.72			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.17	Cum	**516.50**	89.87			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.24	Sqm	**63.20**	584.21			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	13.84	Cum	**149.30**	2066.65			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	18.224	Cum	**1075.00**	19590.43			
	Coarse Aggregates (100 Km lead)	36.627	Cum	**1398.00**	51204.67			
	Cement (30 km lead)	16.678	MT	**742.00**	12375.35			
	Boulder (60 Km lead)	0.17	Cum	**1159.00**	201.67			
	Brick (15 km lead)	514.00	No.	**3.18**	1634.52			
	Steel (30 Km lead)	0.78	MT	**742.00**	576.01			
	TOTAL (In Rs.)				**538637.04**			
	TOTAL (In Rs.)				**538637.04**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	18.22	Cum	**584.64**	10654.28	1065.43		
	Coarse Aggregate	36.63	Cum	**944.26**	34585.50	3458.55		
	Boulders	0.17	Cum	**694.61**	120.86	12.09		
	Total					4536.06		
	For 1 nos. fall, Total Seigniorage charges					**4536.06**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR KARMA BASANTPUR MINOR							
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
	SHARDA TYPE FALL OF HEIGHT 0.762 METER AT CH. 0.550 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.22*	*1.69*	*2.741*	*11.309*	*Cum*
	Section 2-2	*2*	*3.00*	*1.24*	*2.741*	*20.327*	*Cum*
	Section 3-3	*2*	*1.70*	*1.12*	*2.541*	*9.642*	*Cum*
	Section 5-5	*2*	*2.64*	*1.84*	*2.741*	*26.718*	*Cum*
	Section 6-6	*2*	*1.10*	*1.12*	*2.541*	*6.233*	*Cum*
	U/S Key Floor	*1*	*0.625*	*2.590*	*0.850*	*1.376*	*Cum*
	U/S Floor	*1*	*2.000*	*2.590*	*1.612*	*8.350*	*Cum*
	D/S Floor	*1*	*3.000*	*2.590*	*0.850*	*6.605*	*Cum*
		1	*2.000*	*2.590*	*0.650*	*3.367*	*Cum*
	D/S Key Floor	*1*	*0.625*	*2.590*	*0.850*	*1.376*	*Cum*
	Toe Wall D/S Portion	*1*	*7.020*	*0.750*	*0.900*	*4.739*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.000*	*0.600*	*0.750*	*1.800*	*Cum*
						101.84	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*2.59*	*0.15*	*0.21*	*Cum*
		1	*0.783*	*2.59*	*0.15*	*0.30*	*Cum*
		1	*4.377*	*2.59*	*0.15*	*1.70*	*Cum*
		1	*0.283*	*2.59*	*0.15*	*0.11*	*Cum*
		1	*0.638*	*2.59*	*0.15*	*0.25*	*Cum*
		1	*0.782*	*2.59*	*0.15*	*0.30*	*Cum*
		1	*0.542*	*2.59*	*0.15*	*0.21*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.22*	*1.69*	*0.15*	*0.62*	*Cum*
	Section 2-2	*2*	*3.00*	*1.24*	*0.15*	*1.11*	*Cum*
	Section 3-3	*2*	*1.70*	*1.12*	*0.15*	*0.57*	*Cum*
	Section 5-5	*2*	*2.64*	*1.84*	*0.15*	*1.46*	*Cum*
	Section 6-6	*2*	*1.10*	*1.12*	*0.15*	*0.37*	*Cum*
	Toe Wall D/S Portion	*1*	*7.02*	*0.75*	*0.30*	*1.58*	*Cum*
	Toe Wall D/S Portion	*1*	*6.72*	*0.45*	*0.60*	*1.81*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**11.69**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.99*	*0.45*	*0.45*	*0.40*	*Cum*
		2	*0.99*	*0.92*	*1.57*	*2.88*	*Cum*
		2	*0.99*	*1.54*	*0.50*	*1.53*	*Cum*
	Section 2-2	*2*	*3.00*	*0.45*	*0.45*	*1.22*	*Cum*
		2	*3.00*	*0.69*	*0.81*	*3.37*	*Cum*
		2	*3.00*	*1.09*	*0.50*	*3.26*	*Cum*
	Section 3-3	*2*	*1.75*	*0.45*	*0.45*	*0.71*	*Cum*
		2	*1.75*	*0.63*	*0.61*	*1.35*	*Cum*
		2	*1.75*	*0.97*	*0.50*	*1.69*	*Cum*
	Section 5-5	*2*	*2.60*	*0.45*	*0.45*	*1.05*	*Cum*
		2	*2.60*	*0.92*	*1.57*	*7.53*	*Cum*
		2	*2.60*	*1.54*	*0.50*	*4.01*	*Cum*
	Section 6-6	*2*	*1.58*	*0.45*	*0.45*	*0.64*	*Cum*
		2	*1.58*	*0.63*	*0.61*	*1.22*	*Cum*
		2	*1.58*	*0.97*	*0.50*	*1.53*	*Cum*
	Floor	*1*	*0.63*	*2.59*	*0.70*	*1.13*	*Cum*
		1	*5.00*	*2.59*	*0.50*	*6.48*	*Cum*
		1	*0.31*	*2.59*	*0.20*	*0.16*	*Cum*
		1	*0.20*	*2.59*	*0.40*	*0.21*	*Cum*
		1	*1.80*	*2.59*	*0.50*	*2.33*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.63*	*2.59*	*0.70*	*1.13*	*Cum*
	Crest	*1*	*0.98*	*2.59*	*1.09*	*2.77*	*Cum*
	TOTAL					**46.59**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.80*	*2.59*	*0.15*	*0.31*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.51*	*0.45*	*0.05*	*0.24*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.51*	*0.45*	*0.05*	*0.24*	*Cum*
	TOTAL					**0.78**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**46.59**	**0.30%**	**0.14**	**7850**	**1097.20**	**Kg**
	Total Weight in Metric Tonne					**1.10**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.99*		*0.45*	*1.79*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.99*		*1.57*	*6.24*	*Sqm*
		4		*0.92*	*1.57*	*5.79*	*Sqm*
		4	*0.99*		*0.50*	*1.99*	*Sqm*
		4		*1.54*	*0.50*	*3.09*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.45*	*5.40*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.00*		*0.81*	*9.72*	*Sqm*
		4		*0.69*	*0.81*	*2.25*	*Sqm*
		4	*3.00*		*0.50*	*6.00*	*Sqm*
		4		*1.09*	*0.50*	*2.17*	*Sqm*
	Section 3-3	*4*	*1.75*		*0.45*	*3.14*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.75*		*0.61*	*4.26*	*Sqm*
		4		*0.63*	*0.61*	*1.54*	*Sqm*
		4	*1.75*		*0.50*	*3.49*	*Sqm*
		4		*0.97*	*0.50*	*1.93*	*Sqm*
	Section 5-5	*4*	*2.60*		*0.45*	*4.68*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.60*		*1.57*	*16.34*	*Sqm*
		4		*0.92*	*1.57*	*5.79*	*Sqm*
		4	*2.60*		*0.50*	*5.20*	*Sqm*
		4		*1.54*	*0.50*	*3.09*	*Sqm*
	Section 6-6	*4*	*1.58*		*0.45*	*2.85*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.58*		*0.61*	*3.86*	*Sqm*
		4		*0.63*	*0.61*	*1.54*	*Sqm*
		4	*1.58*		*0.50*	*3.16*	*Sqm*
		4		*0.97*	*0.50*	*1.93*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*2.59*	*0.70*	*3.63*	*Sqm*
		2	*5.00*		*0.50*	*5.00*	*Sqm*
		2		*2.59*	*0.50*	*2.59*	*Sqm*
		2	*0.31*		*0.20*	*0.12*	*Sqm*
		2		*2.59*	*0.20*	*1.04*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*2.59*	*0.40*	*2.07*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*2.59*	*0.50*	*2.59*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*2.59*	*0.70*	*3.63*	*Sqm*
	Crest	*2*	*0.9815*		*1.09*	*2.14*	*Sqm*
		2		*2.59*	*1.09*	*5.65*	*Sqm*
	Toe Wall D/S Portion	*2*	*7.02*		*0.30*	*4.21*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.72*		*0.60*	*8.06*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**163.81**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.25*		*9.00*	*Sqm*
	TOTAL					**9.00**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*1.99*	*0.30*	**1.19**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*1.99*	*0.15*	**1.19**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.51*	*0.45*		*4.73*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.51*	*0.45*		*4.73*	*Sqm*
	TOTAL					**9.46**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		2.72		2.72	**Cum**
	Abutment						
	Section 1-1	2	*1.22*	*1.91*		*4.655*	*Cum*
	Section 2-2	2	*3.00*	*0.91*		*5.460*	*Cum*
	Section 3-3	2	*1.70*	*0.70*		*2.390*	*Cum*
	Section 5-5	2	*2.64*	*1.91*		*10.102*	*Cum*
	Section 6-6	2	*1.10*	*0.70*		*1.545*	*Cum*
	D/S protection	2					
	Toe wall	2	*2.59*	*0.09*		*0.466*	*Cum*
		2	0.60	0.80		*0.960*	*Cum*
	TOTAL					**28.30**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.762 METER AT CH. 1.150 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.22*	*1.69*	*1.947*	*8.033*	*Cum*
	Section 2-2	*2*	*3.00*	*1.24*	*1.947*	*14.439*	*Cum*
	Section 3-3	*2*	*1.70*	*1.12*	*1.747*	*6.629*	*Cum*
	Section 5-5	*2*	*2.64*	*1.84*	*1.947*	*18.979*	*Cum*
	Section 6-6	*2*	*1.10*	*1.12*	*1.747*	*4.285*	*Cum*
	U/S Key Floor	*1*	*0.625*	*2.590*	*0.850*	*1.376*	*Cum*
	U/S Floor	*1*	*2.000*	*2.590*	*1.612*	*8.350*	*Cum*
	D/S Floor	*1*	*3.000*	*2.590*	*0.850*	*6.605*	*Cum*
		1	*2.000*	*2.590*	*0.650*	*3.367*	*Cum*
	D/S Key Floor	*1*	*0.625*	*2.590*	*0.850*	*1.376*	*Cum*
	Toe Wall D/S Portion	*1*	*7.020*	*0.750*	*0.900*	*4.739*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.000*	*0.600*	*0.750*	*1.800*	*Cum*
						79.98	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*2.59*	*0.15*	*0.21*	*Cum*
		1	*0.783*	*2.59*	*0.15*	*0.30*	*Cum*
		1	*4.377*	*2.59*	*0.15*	*1.70*	*Cum*
		1	*0.283*	*2.59*	*0.15*	*0.11*	*Cum*
		1	*0.638*	*2.59*	*0.15*	*0.25*	*Cum*
		1	*0.782*	*2.59*	*0.15*	*0.30*	*Cum*
		1	*0.542*	*2.59*	*0.15*	*0.21*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.22*	*1.69*	*0.15*	*0.62*	*Cum*
	Section 2-2	*2*	*3.00*	*1.24*	*0.15*	*1.11*	*Cum*
	Section 3-3	*2*	*1.70*	*1.12*	*0.15*	*0.57*	*Cum*
	Section 5-5	*2*	*2.64*	*1.84*	*0.15*	*1.46*	*Cum*
	Section 6-6	*2*	*1.10*	*1.12*	*0.15*	*0.37*	*Cum*
	Toe Wall D/S Portion	*1*	*7.02*	*0.75*	*0.30*	*1.58*	*Cum*
	Toe Wall D/S Portion	*1*	*6.72*	*0.45*	*0.60*	*1.81*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**11.69**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.99*	*0.45*	*0.45*	*0.40*	*Cum*
		2	*0.99*	*0.92*	*1.57*	*2.88*	*Cum*
		2	*0.99*	*1.54*	*0.50*	*1.53*	*Cum*
	Section 2-2	*2*	*3.00*	*0.45*	*0.45*	*1.22*	*Cum*
		2	*3.00*	*0.69*	*0.81*	*3.37*	*Cum*
		2	*3.00*	*1.09*	*0.50*	*3.26*	*Cum*
	Section 3-3	*2*	*1.75*	*0.45*	*0.45*	*0.71*	*Cum*
		2	*1.75*	*0.63*	*0.61*	*1.35*	*Cum*
		2	*1.75*	*0.97*	*0.50*	*1.69*	*Cum*
	Section 5-5	*2*	*2.60*	*0.45*	*0.45*	*1.05*	*Cum*
		2	*2.60*	*0.92*	*1.57*	*7.53*	*Cum*
		2	*2.60*	*1.54*	*0.50*	*4.01*	*Cum*
	Section 6-6	*2*	*1.58*	*0.45*	*0.45*	*0.64*	*Cum*
		2	*1.58*	*0.63*	*0.61*	*1.22*	*Cum*
		2	*1.58*	*0.97*	*0.50*	*1.53*	*Cum*
	Floor	*1*	*0.63*	*2.59*	*0.70*	*1.13*	*Cum*
		1	*5.00*	*2.59*	*0.50*	*6.48*	*Cum*
		1	*0.31*	*2.59*	*0.20*	*0.16*	*Cum*
		1	*0.20*	*2.59*	*0.40*	*0.21*	*Cum*
		1	*1.80*	*2.59*	*0.50*	*2.33*	*Cum*
		1	*0.63*	*2.59*	*0.70*	*1.13*	*Cum*
	Crest	*1*	*0.98*	*2.59*	*1.09*	*2.77*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**46.59**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.80*	*2.59*	*0.15*	*0.31*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.51*	*0.45*	*0.05*	*0.24*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.51*	*0.45*	*0.05*	*0.24*	*Cum*
	TOTAL					**0.78**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**46.59**	**0.30%**	**0.14**	**7850**	**1097.20**	**Kg**
	Total Weight in Metric Tonne					**1.10**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.99*		*0.45*	*1.79*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.99*		*1.57*	*6.24*	*Sqm*
		4		*0.92*	*1.57*	*5.79*	*Sqm*
		4	*0.99*		*0.50*	*1.99*	*Sqm*
		4		*1.54*	*0.50*	*3.09*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.45*	*5.40*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.00*		*0.81*	*9.72*	*Sqm*
		4		*0.69*	*0.81*	*2.25*	*Sqm*
		4	*3.00*		*0.50*	*6.00*	*Sqm*
		4		*1.09*	*0.50*	*2.17*	*Sqm*
	Section 3-3	*4*	*1.75*		*0.45*	*3.14*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.75*		*0.61*	*4.26*	*Sqm*
		4		*0.63*	*0.61*	*1.54*	*Sqm*
		4	*1.75*		*0.50*	*3.49*	*Sqm*
		4		*0.97*	*0.50*	*1.93*	*Sqm*
	Section 5-5	*4*	*2.60*		*0.45*	*4.68*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.60*		*1.57*	*16.34*	*Sqm*
		4		*0.92*	*1.57*	*5.79*	*Sqm*
		4	*2.60*		*0.50*	*5.20*	*Sqm*
		4		*1.54*	*0.50*	*3.09*	*Sqm*
	Section 6-6	*4*	*1.58*		*0.45*	*2.85*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.58*		*0.61*	*3.86*	*Sqm*
		4		*0.63*	*0.61*	*1.54*	*Sqm*
		4	*1.58*		*0.50*	*3.16*	*Sqm*
		4		*0.97*	*0.50*	*1.93*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*2.59*	*0.70*	*3.63*	*Sqm*
		2	*5.00*		*0.50*	*5.00*	*Sqm*
		2		*2.59*	*0.50*	*2.59*	*Sqm*
		2	*0.31*		*0.20*	*0.12*	*Sqm*
		2		*2.59*	*0.20*	*1.04*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*2.59*	*0.40*	*2.07*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*2.59*	*0.50*	*2.59*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*2.59*	*0.70*	*3.63*	*Sqm*
	Crest	*2*	*0.9815*		*1.09*	*2.14*	*Sqm*
		2		*2.59*	*1.09*	*5.65*	*Sqm*
	Toe Wall D/S Portion	*2*	*7.02*		*0.30*	*4.21*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.72*		*0.60*	*8.06*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**163.81**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.25*		*9.00*	*Sqm*
	TOTAL					**9.00**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*1.99*	*0.30*	**1.19**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*1.99*	*0.15*	**1.19**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.51*	*0.45*		*4.73*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.51*	*0.45*		*4.73*	*Sqm*
	TOTAL					**9.46**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		2.72		2.72	**Cum**
	Abutment						
	Section 1-1	2	*1.22*	*0.97*		*2.364*	*Cum*
	Section 2-2	2	*3.00*	*0.90*		*5.390*	*Cum*
	Section 3-3	2	*1.70*	*0.70*		*2.363*	*Cum*
	Section 5-5	2	*2.64*	*0.97*		*5.130*	*Cum*
	Section 6-6	2	*1.10*	*0.70*		*1.528*	*Cum*
	D/S protection	2					
	Toe wall	2	*2.59*	*0.09*		*0.466*	*Cum*
		2	0.60	0.80		*0.960*	*Cum*
	TOTAL					**20.92**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 1.340 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.14*	*1.60*	*1.975*	*7.198*	*Cum*
	Section 2-2	*2*	*3.00*	*1.24*	*1.975*	*14.647*	*Cum*
	Section 3-3	*2*	*1.70*	*1.12*	*1.775*	*6.735*	*Cum*
	Section 5-5	*2*	*2.66*	*1.75*	*1.975*	*18.432*	*Cum*
	Section 6-6	*2*	*1.10*	*1.12*	*1.775*	*4.354*	*Cum*
	U/S Key Floor	*1*	*0.625*	*2.590*	*0.850*	*1.376*	*Cum*
	U/S Floor	*1*	*2.000*	*2.590*	*1.460*	*7.563*	*Cum*
	D/S Floor	*1*	*3.000*	*2.590*	*0.850*	*6.605*	*Cum*
		1	*2.000*	*2.590*	*0.650*	*3.367*	*Cum*
	D/S Key Floor	*1*	*0.625*	*2.590*	*0.850*	*1.376*	*Cum*
	Toe Wall D/S Portion	*1*	*7.020*	*0.750*	*0.900*	*4.739*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.000*	*0.600*	*0.750*	*1.800*	*Cum*
						78.19	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*2.59*	*0.15*	*0.21*	*Cum*
		1	*0.783*	*2.59*	*0.15*	*0.30*	*Cum*
		1	*4.377*	*2.59*	*0.15*	*1.70*	*Cum*
		1	*0.283*	*2.59*	*0.15*	*0.11*	*Cum*
		1	*0.638*	*2.59*	*0.15*	*0.25*	*Cum*
		1	*0.782*	*2.59*	*0.15*	*0.30*	*Cum*
		1	*0.542*	*2.59*	*0.15*	*0.21*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.14*	*1.60*	*0.15*	*0.55*	*Cum*
	Section 2-2	*2*	*3.00*	*1.24*	*0.15*	*1.11*	*Cum*
	Section 3-3	*2*	*1.70*	*1.12*	*0.15*	*0.57*	*Cum*
	Section 5-5	*2*	*2.66*	*1.75*	*0.15*	*1.40*	*Cum*
	Section 6-6	*2*	*1.10*	*1.12*	*0.15*	*0.37*	*Cum*
	Toe Wall D/S Portion	*1*	*7.02*	*0.75*	*0.30*	*1.58*	*Cum*
	Toe Wall D/S Portion	*1*	*6.72*	*0.45*	*0.60*	*1.81*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**11.56**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.91*	*0.45*	*0.45*	*0.37*	*Cum*
		2	*0.91*	*0.88*	*1.42*	*2.27*	*Cum*
		2	*0.91*	*1.45*	*0.50*	*1.32*	*Cum*
	Section 2-2	*2*	*3.00*	*0.45*	*0.45*	*1.22*	*Cum*
		2	*3.00*	*0.69*	*0.81*	*3.37*	*Cum*
		2	*3.00*	*1.09*	*0.50*	*3.26*	*Cum*
	Section 3-3	*2*	*1.37*	*0.45*	*0.45*	*0.55*	*Cum*
		2	*1.37*	*0.63*	*0.61*	*1.06*	*Cum*
		2	*1.37*	*0.97*	*0.50*	*1.32*	*Cum*
	Section 5-5	*2*	*2.62*	*0.45*	*0.45*	*1.06*	*Cum*
		2	*2.62*	*0.88*	*1.42*	*6.51*	*Cum*
		2	*2.62*	*1.45*	*0.50*	*3.80*	*Cum*
	Section 6-6	*2*	*1.58*	*0.45*	*0.45*	*0.64*	*Cum*
		2	*1.58*	*0.63*	*0.61*	*1.22*	*Cum*
		2	*1.58*	*0.97*	*0.50*	*1.53*	*Cum*
	Floor	*1*	*0.63*	*2.59*	*0.70*	*1.13*	*Cum*
		1	*5.00*	*2.59*	*0.50*	*6.48*	*Cum*
		1	*0.31*	*2.59*	*0.20*	*0.16*	*Cum*
		1	*0.20*	*2.59*	*0.40*	*0.21*	*Cum*
		1	*1.80*	*2.59*	*0.50*	*2.33*	*Cum*
		1	*0.63*	*2.59*	*0.70*	*1.13*	*Cum*
	Crest	*1*	*0.91*	*2.59*	*0.94*	*2.21*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**43.15**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*2.59*	*0.15*	*0.29*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.41*	*0.45*	*0.05*	*0.23*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.41*	*0.45*	*0.05*	*0.23*	*Cum*
	TOTAL					**0.76**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**43.15**	**0.30%**	**0.13**	**7850**	**1016.10**	**Kg**
	Total Weight in Metric Tonne					**1.02**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.91*		*0.45*	*1.64*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.91*		*1.42*	*5.18*	*Sqm*
		4		*0.88*	*1.42*	*4.97*	*Sqm*
		4	*0.91*		*0.50*	*1.83*	*Sqm*
		4		*1.45*	*0.50*	*2.90*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.45*	*5.40*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.00*		*0.81*	*9.72*	*Sqm*
		4		*0.69*	*0.81*	*2.25*	*Sqm*
		4	*3.00*		*0.50*	*6.00*	*Sqm*
		4		*1.09*	*0.50*	*2.17*	*Sqm*
	Section 3-3	*4*	*1.37*		*0.45*	*2.46*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.37*		*0.61*	*3.34*	*Sqm*
		4		*0.63*	*0.61*	*1.54*	*Sqm*
		4	*1.37*		*0.50*	*2.73*	*Sqm*
		4		*0.97*	*0.50*	*1.93*	*Sqm*
	Section 5-5	*4*	*2.62*		*0.45*	*4.72*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.62*		*1.42*	*14.87*	*Sqm*
		4		*0.88*	*1.42*	*4.97*	*Sqm*
		4	*2.62*		*0.50*	*5.24*	*Sqm*
		4		*1.45*	*0.50*	*2.90*	*Sqm*
	Section 6-6	*4*	*1.58*		*0.45*	*2.85*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.58*		*0.61*	*3.86*	*Sqm*
		4		*0.63*	*0.61*	*1.54*	*Sqm*
		4	*1.58*		*0.50*	*3.16*	*Sqm*
		4		*0.97*	*0.50*	*1.93*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*2.59*	*0.70*	*3.63*	*Sqm*
		2	*5.00*		*0.50*	*5.00*	*Sqm*
		2		*2.59*	*0.50*	*2.59*	*Sqm*
		2	*0.31*		*0.20*	*0.12*	*Sqm*
		2		*2.59*	*0.20*	*1.04*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*2.59*	*0.40*	*2.07*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*2.59*	*0.50*	*2.59*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*2.59*	*0.70*	*3.63*	*Sqm*
	Crest	*2*	*0.9065*		*0.94*	*1.70*	*Sqm*
		2		*2.59*	*0.94*	*4.87*	*Sqm*
	Toe Wall D/S Portion	*2*	*7.02*		*0.30*	*4.21*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.72*		*0.60*	*8.06*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**155.46**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.25*		*9.00*	*Sqm*
	TOTAL					**9.00**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*1.99*	*0.30*	**1.19**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*1.99*	*0.15*	**1.19**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.41*	*0.45*		*4.69*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.41*	*0.45*		*4.69*	*Sqm*
	TOTAL					**9.37**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		2.48		2.48	**Cum**
	Abutment						
	Section 1-1	2	*1.14*	*1.00*		*2.275*	*Cum*
	Section 2-2	2	*3.00*	*0.91*		*5.442*	*Cum*
	Section 3-3	2	*1.70*	*0.70*		*2.390*	*Cum*
	Section 5-5	2	*2.66*	*1.00*		*5.327*	*Cum*
	Section 6-6	2	*1.10*	*0.70*		*1.545*	*Cum*
	D/S protection	2					
	Toe wall	2	*2.59*	*0.09*		*0.466*	*Cum*
		2	0.60	0.80		*0.960*	*Cum*
	TOTAL					**20.88**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.830 METER AT CH. 2.680 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.53*	*2.33*	*2.930*	*20.988*	*Cum*
	Section 2-2	*2*	*4.25*	*1.24*	*2.930*	*30.783*	*Cum*
	Section 3-3	*2*	*3.95*	*1.12*	*2.730*	*24.069*	*Cum*
	Section 5-5	*2*	*2.51*	*2.48*	*2.930*	*36.558*	*Cum*
	Section 6-6	*2*	*1.10*	*1.12*	*2.730*	*6.697*	*Cum*
	U/S Key Floor	*1*	*0.725*	*1.850*	*1.250*	*1.677*	*Cum*
	U/S Floor	*1*	*1.880*	*1.850*	*2.479*	*8.622*	*Cum*
	D/S Floor	*1*	*5.862*	*1.850*	*1.300*	*14.098*	*Cum*
		1	*4.250*	*1.850*	*1.100*	*8.649*	*Cum*
	D/S Key Floor	*1*	*0.900*	*1.850*	*1.950*	*3.247*	*Cum*
	Toe Wall D/S Portion	*1*	*6.280*	*0.750*	*0.900*	*4.239*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.000*	*0.600*	*0.750*	*1.800*	*Cum*
						161.42	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.85*	*0.15*	*0.15*	*Cum*
		1	*1.229*	*1.85*	*0.15*	*0.34*	*Cum*
		1	*0.283*	*1.85*	*0.15*	*0.08*	*Cum*
		1	*0.636*	*1.85*	*0.15*	*0.18*	*Cum*
		1	*5.986*	*1.85*	*0.15*	*1.66*	*Cum*
		1	*0.565*	*1.85*	*0.15*	*0.16*	*Cum*
		1	*0.600*	*1.85*	*0.15*	*0.17*	*Cum*
		1	*0.070*	*1.85*	*0.15*	*0.02*	*Cum*
		1	*1.695*	*1.85*	*0.15*	*0.47*	*Cum*
		1	*2.012*	*1.85*	*0.15*	*0.56*	*Cum*
		1	*0.542*	*1.85*	*0.15*	*0.15*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.53*	*2.33*	*0.15*	*1.07*	*Cum*
	Section 2-2	*2*	*4.25*	*1.24*	*0.15*	*1.58*	*Cum*
	Section 3-3	*2*	*3.95*	*1.12*	*0.15*	*1.32*	*Cum*
	Section 5-5	*2*	*2.51*	*2.48*	*0.15*	*1.87*	*Cum*
	Section 6-6	*2*	*1.10*	*1.12*	*0.15*	*0.37*	*Cum*
	Toe Wall D/S Portion	*1*	*6.28*	*0.75*	*0.30*	*1.41*	*Cum*
	Toe Wall D/S Portion	*1*	*5.98*	*0.45*	*0.60*	*1.61*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**14.25**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.38*	*0.45*	*0.45*	*0.56*	*Cum*
		2	*1.38*	*1.24*	*2.64*	*9.08*	*Cum*
		2	*1.38*	*2.18*	*0.95*	*5.75*	*Cum*
	Section 2-2	*2*	*4.25*	*0.45*	*0.45*	*1.72*	*Cum*
		2	*4.25*	*0.69*	*0.81*	*4.77*	*Cum*
		2	*4.25*	*1.09*	*0.95*	*8.77*	*Cum*
	Section 3-3	*2*	*3.62*	*0.45*	*0.45*	*1.46*	*Cum*
		2	*3.62*	*0.63*	*0.61*	*2.79*	*Cum*
		2	*3.62*	*0.97*	*0.70*	*4.89*	*Cum*
	Section 5-5	*2*	*2.47*	*0.45*	*0.45*	*1.00*	*Cum*
		2	*2.47*	*1.24*	*2.64*	*16.18*	*Cum*
		2	*2.47*	*2.18*	*0.95*	*10.24*	*Cum*
	Section 6-6	*2*	*1.73*	*0.45*	*0.45*	*0.70*	*Cum*
		2	*1.73*	*0.63*	*0.61*	*1.34*	*Cum*
		2	*1.73*	*0.97*	*0.70*	*2.34*	*Cum*
	Floor	*1*	*0.73*	*1.85*	*1.10*	*1.48*	*Cum*
		1	*1.37*	*1.85*	*0.50*	*1.27*	*Cum*
		1	*0.73*	*1.85*	*0.45*	*0.60*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*5.86*	*1.85*	*0.95*	*10.30*	*Cum*
		1	*0.65*	*1.85*	*0.20*	*0.24*	*Cum*
		1	*0.08*	*1.85*		*0.15*	*Cum*
		1	*0.80*	*1.85*	*0.75*	*1.11*	*Cum*
		1	*0.73*	*1.85*	*0.05*	*0.07*	*Cum*
		1	*3.20*	*1.85*	*0.70*	*4.14*	*Cum*
		1	*0.90*	*1.85*	*1.80*	*3.00*	*Cum*
	Crest	*1*	*1.26*	*1.85*	*2.19*	*5.08*	*Cum*
	TOTAL					**99.03**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.90*	*1.85*	*0.15*	*0.25*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*14.46*	*0.45*	*0.05*	*0.33*	*Cum*
	On Abutment Top (Right Side)	*1*	*14.46*	*0.45*	*0.05*	*0.33*	*Cum*
	TOTAL					**0.90**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**99.03**	**0.30%**	**0.30**	**7850**	**2332.21**	**Kg**
	Total Weight in Metric Tonne					**2.33**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.38*		*0.45*	*2.49*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.38*		*2.64*	*14.62*	*Sqm*
		4		*1.24*	*2.64*	*13.12*	*Sqm*
		4	*1.38*		*0.95*	*5.26*	*Sqm*
		4		*2.18*	*0.95*	*8.30*	*Sqm*
	Section 2-2	*4*	*4.25*		*0.45*	*7.65*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*4.25*		*0.81*	*13.77*	*Sqm*
		4		*0.69*	*0.81*	*2.25*	*Sqm*
		4	*4.25*		*0.95*	*16.15*	*Sqm*
		4		*1.09*	*0.95*	*4.13*	*Sqm*
	Section 3-3	*4*	*3.62*		*0.45*	*6.51*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.62*		*0.61*	*8.83*	*Sqm*
		4		*0.63*	*0.61*	*1.54*	*Sqm*
		4	*3.62*		*0.70*	*10.13*	*Sqm*
		4		*0.97*	*0.70*	*2.70*	*Sqm*
	Section 5-5	*4*	*2.47*		*0.45*	*4.44*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.47*		*2.64*	*26.06*	*Sqm*
		4		*1.24*	*2.64*	*13.12*	*Sqm*
		4	*2.47*		*0.95*	*9.38*	*Sqm*
		4		*2.18*	*0.95*	*8.30*	*Sqm*
	Section 6-6	*4*	*1.73*		*0.45*	*3.12*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.73*		*0.61*	*4.23*	*Sqm*
		4		*0.63*	*0.61*	*1.54*	*Sqm*
		4	*1.73*		*0.70*	*4.85*	*Sqm*
		4		*0.97*	*0.70*	*2.70*	*Sqm*
	Floor	*2*	*0.73*		*1.10*	*1.60*	*Sqm*
		2		*1.85*	*1.10*	*4.07*	*Sqm*
		2	*1.37*		*0.50*	*1.37*	*Sqm*
		2		*1.85*	*0.50*	*1.85*	*Sqm*
		2	*0.73*		*0.45*	*0.65*	*Sqm*
		2		*1.85*	*0.45*	*1.67*	*Sqm*
		2	*5.86*		*0.95*	*11.14*	*Sqm*
		2		*1.85*	*0.95*	*3.52*	*Sqm*
		2	*0.65*		*0.20*	*0.26*	*Sqm*
		2		*1.85*	*0.20*	*0.74*	*Sqm*
		2	*0.80*		*0.75*	*1.20*	*Sqm*
		2		*1.85*	*0.75*	*2.78*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	*0.73*		*0.05*	*0.07*	*Sqm*
		2		*1.85*	*0.05*	*0.19*	*Sqm*
		2	*3.20*		*0.70*	*4.48*	*Sqm*
		2		*1.85*	*0.70*	*2.59*	*Sqm*
		2	*0.90*		*1.80*	*3.24*	*Sqm*
		2		*1.85*	*1.80*	*6.66*	*Sqm*
	Crest	*2*	*1.26*		*2.19*	*5.49*	*Sqm*
		2		*1.85*	*2.19*	*8.08*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.28*		*0.30*	*3.77*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.98*		*0.60*	*7.18*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**279.87**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.25*		*9.00*	*Sqm*
	TOTAL					**9.00**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*1.25*	*0.30*	**0.75**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*1.25*	*0.15*	**0.75**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*14.46*	*0.45*		*6.51*	*Sqm*
	On Abutment Top (Right Side)	*1*	*14.46*	*0.45*		*6.51*	*Sqm*
	TOTAL					**13.01**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		14.87		14.87	**Cum**
	Abutment						
	Section 1-1	2	*1.53*	*1.13*		*3.456*	*Cum*
	Section 2-2	2	*4.25*	*0.98*		*8.305*	*Cum*
	Section 3-3	2	*3.95*	*0.73*		*5.783*	*Cum*
	Section 5-5	2	*2.51*	*1.13*		*5.656*	*Cum*
	Section 6-6	2	*1.10*	*0.73*		*1.609*	*Cum*
	D/S protection	2					
	Toe wall	2	*2.00*	*0.08*		*0.307*	*Cum*
	TOTAL					**39.99**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 3.250 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.94*	*1.51*	*2.291*	*6.486*	*Cum*
	Section 2-2	*2*	*2.50*	*1.24*	*2.291*	*14.158*	*Cum*
	Section 3-3	*2*	*2.20*	*1.12*	*2.091*	*10.268*	*Cum*
	Section 5-5	*2*	*2.99*	*1.66*	*2.291*	*22.719*	*Cum*
	Section 6-6	*2*	*1.10*	*1.12*	*2.091*	*5.129*	*Cum*
	U/S Key Floor	*1*	*0.625*	*1.420*	*0.850*	*0.754*	*Cum*
	U/S Floor	*1*	*2.000*	*1.420*	*1.307*	*3.712*	*Cum*
	D/S Floor	*1*	*2.500*	*1.420*	*0.850*	*3.018*	*Cum*
		1	*2.500*	*1.420*	*0.650*	*2.308*	*Cum*
	D/S Key Floor	*1*	*0.625*	*1.420*	*0.850*	*0.754*	*Cum*
	Toe Wall D/S Portion	*1*	*5.850*	*0.750*	*0.900*	*3.949*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.000*	*0.600*	*0.750*	*1.800*	*Cum*
						75.06	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.42*	*0.15*	*0.12*	*Cum*
		1	*0.783*	*1.42*	*0.15*	*0.17*	*Cum*
		1	*3.877*	*1.42*	*0.15*	*0.83*	*Cum*
		1	*0.283*	*1.42*	*0.15*	*0.06*	*Cum*
		1	*1.138*	*1.42*	*0.15*	*0.24*	*Cum*
		1	*0.782*	*1.42*	*0.15*	*0.17*	*Cum*
		1	*0.542*	*1.42*	*0.15*	*0.12*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.94*	*1.51*	*0.15*	*0.42*	*Cum*
	Section 2-2	*2*	*2.50*	*1.24*	*0.15*	*0.93*	*Cum*
	Section 3-3	*2*	*2.20*	*1.12*	*0.15*	*0.74*	*Cum*
	Section 5-5	*2*	*2.99*	*1.66*	*0.15*	*1.49*	*Cum*
	Section 6-6	*2*	*1.10*	*1.12*	*0.15*	*0.37*	*Cum*
	Toe Wall D/S Portion	*1*	*5.85*	*0.75*	*0.30*	*1.32*	*Cum*
	Toe Wall D/S Portion	*1*	*5.55*	*0.45*	*0.60*	*1.50*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**9.53**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.71*	*0.45*	*0.45*	*0.29*	*Cum*
		2	*0.71*	*0.83*	*1.27*	*1.50*	*Cum*
		2	*0.71*	*1.36*	*0.50*	*0.97*	*Cum*
	Section 2-2	*2*	*2.50*	*0.45*	*0.45*	*1.01*	*Cum*
		2	*2.50*	*0.69*	*0.81*	*2.81*	*Cum*
		2	*2.50*	*1.09*	*0.50*	*2.72*	*Cum*
	Section 3-3	*2*	*1.87*	*0.45*	*0.45*	*0.76*	*Cum*
		2	*1.87*	*0.63*	*0.61*	*1.44*	*Cum*
		2	*1.87*	*0.97*	*0.50*	*1.80*	*Cum*
	Section 5-5	*2*	*2.94*	*0.45*	*0.45*	*1.19*	*Cum*
		2	*2.94*	*0.83*	*1.27*	*6.19*	*Cum*
		2	*2.94*	*1.36*	*0.50*	*4.00*	*Cum*
	Section 6-6	*2*	*1.58*	*0.45*	*0.45*	*0.64*	*Cum*
		2	*1.58*	*0.63*	*0.61*	*1.22*	*Cum*
		2	*1.58*	*0.97*	*0.50*	*1.53*	*Cum*
	Floor	*1*	*0.63*	*1.42*	*0.70*	*0.62*	*Cum*
		1	*4.50*	*1.42*	*0.50*	*3.20*	*Cum*
		1	*0.31*	*1.42*	*0.20*	*0.09*	*Cum*
		1	*0.20*	*1.42*	*0.40*	*0.11*	*Cum*
		1	*2.30*	*1.42*	*0.50*	*1.63*	*Cum*
		1	*0.63*	*1.42*	*0.70*	*0.62*	*Cum*
	Crest	*1*	*0.72*	*1.42*	*0.73*	*0.75*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**35.09**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*1.42*	*0.20*	*0.17*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.50*	*0.45*	*0.05*	*0.24*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.50*	*0.45*	*0.05*	*0.24*	*Cum*
	TOTAL					**0.64**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**35.09**	**0.30%**	**0.11**	**7850**	**826.28**	**Kg**
	Total Weight in Metric Tonne					**0.83**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.71*		*0.45*	*1.28*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.71*		*1.27*	*3.61*	*Sqm*
		4		*0.83*	*1.27*	*4.21*	*Sqm*
		4	*0.71*		*0.50*	*1.43*	*Sqm*
		4		*1.36*	*0.50*	*2.72*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.45*	*4.50*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.50*		*0.81*	*8.10*	*Sqm*
		4		*0.69*	*0.81*	*2.25*	*Sqm*
		4	*2.50*		*0.50*	*5.00*	*Sqm*
		4		*1.09*	*0.50*	*2.17*	*Sqm*
	Section 3-3	*4*	*1.87*		*0.45*	*3.36*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.87*		*0.61*	*4.56*	*Sqm*
		4		*0.63*	*0.61*	*1.54*	*Sqm*
		4	*1.87*		*0.50*	*3.73*	*Sqm*
		4		*0.97*	*0.50*	*1.93*	*Sqm*
	Section 5-5	*4*	*2.94*		*0.45*	*5.30*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.94*		*1.27*	*14.91*	*Sqm*
		4		*0.83*	*1.27*	*4.21*	*Sqm*
		4	*2.94*		*0.50*	*5.89*	*Sqm*
		4		*1.36*	*0.50*	*2.72*	*Sqm*
	Section 6-6	*4*	*1.58*		*0.45*	*2.85*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.58*		*0.61*	*3.86*	*Sqm*
		4		*0.63*	*0.61*	*1.54*	*Sqm*
		4	*1.58*		*0.50*	*3.16*	*Sqm*
		4		*0.97*	*0.50*	*1.93*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.42*	*0.70*	*1.99*	*Sqm*
		2	*4.50*		*0.50*	*4.50*	*Sqm*
		2		*1.42*	*0.50*	*1.42*	*Sqm*
		2	*0.31*		*0.20*	*0.12*	*Sqm*
		2		*1.42*	*0.20*	*0.57*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*1.42*	*0.40*	*1.14*	*Sqm*
		2	*2.30*		*0.50*	*2.30*	*Sqm*
		2		*1.42*	*0.50*	*1.42*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.42*	*0.70*	*1.99*	*Sqm*
	Crest	*2*	*0.722*		*0.732*	*1.06*	*Sqm*
		2		*1.42*	*0.732*	*2.08*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.85*		*0.30*	*3.51*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.55*		*0.60*	*6.66*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**139.54**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.25*		*9.00*	*Sqm*
	TOTAL					**9.00**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*0.82*	*0.30*	**0.49**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*0.82*	*0.15*	**0.49**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.50*	*0.45*		*4.72*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.50*	*0.45*		*4.72*	*Sqm*
	TOTAL					**9.45**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.72		1.72	**Cum**
	Abutment						
	Section 1-1	2	*0.94*	*1.33*		*2.499*	*Cum*
	Section 2-2	2	*2.50*	*0.91*		*4.535*	*Cum*
	Section 3-3	2	*2.20*	*0.70*		*3.093*	*Cum*
	Section 5-5	2	*2.99*	*1.33*		*7.963*	*Cum*
	Section 6-6	2	*1.10*	*0.70*		*1.545*	*Cum*
	D/S protection	2					
	Toe wall	2	*1.42*	*0.09*		*0.256*	*Cum*
		2	0.60	0.80		*0.960*	*Cum*
	TOTAL					**22.57**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 4.400 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.10*	*1.78*	*2.664*	*10.427*	*Cum*
	Section 2-2	*2*	*3.17*	*1.24*	*2.664*	*20.889*	*Cum*
	Section 3-3	*2*	*1.70*	*1.12*	*2.464*	*9.349*	*Cum*
	Section 5-5	*2*	*2.94*	*1.93*	*2.664*	*30.321*	*Cum*
	Section 6-6	*2*	*1.10*	*1.12*	*2.464*	*6.044*	*Cum*
	U/S Key Floor	*1*	*0.625*	*0.970*	*0.850*	*0.515*	*Cum*
	U/S Floor	*1*	*2.000*	*0.970*	*1.764*	*3.422*	*Cum*
	D/S Floor	*1*	*3.500*	*0.970*	*0.850*	*2.886*	*Cum*
		1	*2.000*	*0.970*	*0.650*	*1.261*	*Cum*
	D/S Key Floor	*1*	*0.625*	*0.970*	*0.850*	*0.515*	*Cum*
	Toe Wall D/S Portion	*1*	*5.400*	*0.750*	*0.900*	*3.645*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.000*	*0.600*	*0.750*	*1.800*	*Cum*
						91.07	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*0.97*	*0.15*	*0.08*	*Cum*
		1	*0.783*	*0.97*	*0.15*	*0.11*	*Cum*
		1	*4.877*	*0.97*	*0.15*	*0.71*	*Cum*
		1	*0.283*	*0.97*	*0.15*	*0.04*	*Cum*
		1	*0.638*	*0.97*	*0.15*	*0.09*	*Cum*
		1	*0.782*	*0.97*	*0.15*	*0.11*	*Cum*
		1	*0.542*	*0.97*	*0.15*	*0.08*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.10*	*1.78*	*0.15*	*0.59*	*Cum*
	Section 2-2	*2*	*3.17*	*1.24*	*0.15*	*1.18*	*Cum*
	Section 3-3	*2*	*1.70*	*1.12*	*0.15*	*0.57*	*Cum*
	Section 5-5	*2*	*2.94*	*1.93*	*0.15*	*1.71*	*Cum*
	Section 6-6	*2*	*1.10*	*1.12*	*0.15*	*0.37*	*Cum*
	Toe Wall D/S Portion	*1*	*5.40*	*0.75*	*0.30*	*1.22*	*Cum*
	Toe Wall D/S Portion	*1*	*5.10*	*0.45*	*0.60*	*1.38*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**9.31**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.87*	*0.45*	*0.45*	*0.35*	*Cum*
		2	*0.87*	*0.97*	*1.72*	*2.90*	*Cum*
		2	*0.87*	*1.63*	*0.50*	*1.42*	*Cum*
	Section 2-2	*2*	*3.17*	*0.45*	*0.45*	*1.28*	*Cum*
		2	*3.17*	*0.69*	*0.81*	*3.56*	*Cum*
		2	*3.17*	*1.09*	*0.50*	*3.44*	*Cum*
	Section 3-3	*2*	*1.37*	*0.45*	*0.45*	*0.55*	*Cum*
		2	*1.37*	*0.63*	*0.61*	*1.06*	*Cum*
		2	*1.37*	*0.97*	*0.50*	*1.32*	*Cum*
	Section 5-5	*2*	*2.90*	*0.45*	*0.45*	*1.17*	*Cum*
		2	*2.90*	*0.97*	*1.72*	*9.67*	*Cum*
		2	*2.90*	*1.63*	*0.50*	*4.74*	*Cum*
	Section 6-6	*2*	*1.58*	*0.45*	*0.45*	*0.64*	*Cum*
		2	*1.58*	*0.63*	*0.61*	*1.22*	*Cum*
		2	*1.58*	*0.97*	*0.50*	*1.53*	*Cum*
	Floor	*1*	*0.63*	*0.97*	*0.70*	*0.42*	*Cum*
		1	*5.50*	*0.97*	*0.50*	*2.67*	*Cum*
		1	*0.31*	*0.97*	*0.20*	*0.06*	*Cum*
		1	*0.20*	*0.97*	*0.40*	*0.08*	*Cum*
		1	*1.80*	*0.97*	*0.50*	*0.87*	*Cum*
		1	*0.63*	*0.97*	*0.70*	*0.42*	*Cum*
	Crest	*1*	*1.04*	*0.97*	*1.14*	*1.15*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**40.54**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.85*	*0.97*	*0.20*	*0.16*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.90*	*0.45*	*0.05*	*0.25*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.90*	*0.45*	*0.05*	*0.25*	*Cum*
	TOTAL					**0.66**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**40.54**	**0.30%**	**0.12**	**7850**	**954.70**	**Kg**
	Total Weight in Metric Tonne					**0.95**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.87*		*0.45*	*1.57*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.87*		*1.72*	*6.00*	*Sqm*
		4		*0.97*	*1.72*	*6.67*	*Sqm*
		4	*0.87*		*0.50*	*1.74*	*Sqm*
		4		*1.63*	*0.50*	*3.27*	*Sqm*
	Section 2-2	*4*	*3.17*		*0.45*	*5.71*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.17*		*0.81*	*10.28*	*Sqm*
		4		*0.69*	*0.81*	*2.25*	*Sqm*
		4	*3.17*		*0.50*	*6.34*	*Sqm*
		4		*1.09*	*0.50*	*2.17*	*Sqm*
	Section 3-3	*4*	*1.37*		*0.45*	*2.46*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.37*		*0.61*	*3.34*	*Sqm*
		4		*0.63*	*0.61*	*1.54*	*Sqm*
		4	*1.37*		*0.50*	*2.73*	*Sqm*
		4		*0.97*	*0.50*	*1.93*	*Sqm*
	Section 5-5	*4*	*2.90*		*0.45*	*5.22*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.90*		*1.72*	*20.00*	*Sqm*
		4		*0.97*	*1.72*	*6.67*	*Sqm*
		4	*2.90*		*0.50*	*5.80*	*Sqm*
		4		*1.63*	*0.50*	*3.27*	*Sqm*
	Section 6-6	*4*	*1.58*		*0.45*	*2.85*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.58*		*0.61*	*3.86*	*Sqm*
		4		*0.63*	*0.61*	*1.54*	*Sqm*
		4	*1.58*		*0.50*	*3.16*	*Sqm*
		4		*0.97*	*0.50*	*1.93*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.97*	*0.70*	*1.36*	*Sqm*
		2	*5.50*		*0.50*	*5.50*	*Sqm*
		2		*0.97*	*0.50*	*0.97*	*Sqm*
		2	*0.31*		*0.20*	*0.12*	*Sqm*
		2		*0.97*	*0.20*	*0.39*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*0.97*	*0.40*	*0.78*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*0.97*	*0.50*	*0.97*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.97*	*0.70*	*1.36*	*Sqm*
	Crest	*2*	*1.0395*		*1.138*	*2.37*	*Sqm*
		2		*0.97*	*1.138*	*2.21*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.40*		*0.30*	*3.24*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.10*		*0.60*	*6.12*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**153.50**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.25*		*9.00*	*Sqm*
	TOTAL					**9.00**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*0.37*	*0.30*	**0.22**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*0.37*	*0.15*	**0.22**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.90*	*0.45*		*4.90*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.90*	*0.45*		*4.90*	*Sqm*
	TOTAL					**9.81**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		3.26		3.26	**Cum**
	Abutment						
	Section 1-1	2	*1.10*	*0.96*		*2.106*	*Cum*
	Section 2-2	2	*3.17*	*0.89*		*5.659*	*Cum*
	Section 3-3	2	*1.70*	*0.69*		*2.343*	*Cum*
	Section 5-5	2	*2.94*	*0.96*		*5.650*	*Cum*
	Section 6-6	2	*1.10*	*0.69*		*1.514*	*Cum*
	D/S protection	2					
	Toe wall	2	*0.97*	*0.09*		*0.175*	*Cum*
		2	0.60	0.80		*0.960*	*Cum*
	TOTAL					**21.67**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 4.792 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.14*	*1.60*	*1.060*	*3.855*	*Cum*
	Section 2-2	*2*	*3.00*	*1.24*	*1.060*	*7.861*	*Cum*
	Section 3-3	*2*	*1.70*	*1.12*	*0.860*	*3.263*	*Cum*
	Section 5-5	*2*	*2.66*	*1.75*	*1.060*	*9.889*	*Cum*
	Section 6-6	*2*	*1.10*	*1.12*	*0.860*	*2.110*	*Cum*
	U/S Key Floor	*1*	*0.625*	*0.970*	*0.850*	*0.515*	*Cum*
	U/S Floor	*1*	*2.000*	*0.970*	*1.460*	*2.832*	*Cum*
	D/S Floor	*1*	*3.000*	*0.970*	*0.850*	*2.474*	*Cum*
		1	*2.000*	*0.970*	*0.650*	*1.261*	*Cum*
	D/S Key Floor	*1*	*0.625*	*0.970*	*0.850*	*0.515*	*Cum*
	Toe Wall D/S Portion	*1*	*5.400*	*0.750*	*0.900*	*3.645*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.000*	*0.600*	*0.750*	*1.800*	*Cum*
						40.02	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*0.97*	*0.15*	*0.08*	*Cum*
		1	*0.783*	*0.97*	*0.15*	*0.11*	*Cum*
		1	*4.377*	*0.97*	*0.15*	*0.64*	*Cum*
		1	*0.283*	*0.97*	*0.15*	*0.04*	*Cum*
		1	*0.638*	*0.97*	*0.15*	*0.09*	*Cum*
		1	*0.782*	*0.97*	*0.15*	*0.11*	*Cum*
		1	*0.542*	*0.97*	*0.15*	*0.08*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.14*	*1.60*	*0.15*	*0.55*	*Cum*
	Section 2-2	*2*	*3.00*	*1.24*	*0.15*	*1.11*	*Cum*
	Section 3-3	*2*	*1.70*	*1.12*	*0.15*	*0.57*	*Cum*
	Section 5-5	*2*	*2.66*	*1.75*	*0.15*	*1.40*	*Cum*
	Section 6-6	*2*	*1.10*	*1.12*	*0.15*	*0.37*	*Cum*
	Toe Wall D/S Portion	*1*	*5.40*	*0.75*	*0.30*	*1.22*	*Cum*
	Toe Wall D/S Portion	*1*	*5.10*	*0.45*	*0.60*	*1.38*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**8.82**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.91*	*0.45*	*0.45*	*0.37*	*Cum*
		2	*0.91*	*0.88*	*1.42*	*2.26*	*Cum*
		2	*0.91*	*1.45*	*0.50*	*1.32*	*Cum*
	Section 2-2	*2*	*3.00*	*0.45*	*0.45*	*1.22*	*Cum*
		2	*3.00*	*0.69*	*0.81*	*3.37*	*Cum*
		2	*3.00*	*1.09*	*0.50*	*3.26*	*Cum*
	Section 3-3	*2*	*1.37*	*0.45*	*0.45*	*0.55*	*Cum*
		2	*1.37*	*0.63*	*0.61*	*1.06*	*Cum*
		2	*1.37*	*0.97*	*0.50*	*1.32*	*Cum*
	Section 5-5	*2*	*2.62*	*0.45*	*0.45*	*1.06*	*Cum*
		2	*2.62*	*0.88*	*1.42*	*6.52*	*Cum*
		2	*2.62*	*1.45*	*0.50*	*3.80*	*Cum*
	Section 6-6	*2*	*1.58*	*0.45*	*0.45*	*0.64*	*Cum*
		2	*1.58*	*0.63*	*0.61*	*1.22*	*Cum*
		2	*1.58*	*0.97*	*0.50*	*1.53*	*Cum*
	Floor	*1*	*0.63*	*0.97*	*0.70*	*0.42*	*Cum*
		1	*5.00*	*0.97*	*0.50*	*2.43*	*Cum*
		1	*0.31*	*0.97*	*0.20*	*0.06*	*Cum*
		1	*0.20*	*0.97*	*0.40*	*0.08*	*Cum*
		1	*1.80*	*0.97*	*0.50*	*0.87*	*Cum*
		1	*0.63*	*0.97*	*0.70*	*0.42*	*Cum*
	Crest	*1*	*0.90*	*0.97*	*0.92*	*0.81*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**34.58**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*0.97*	*0.20*	*0.15*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.41*	*0.45*	*0.05*	*0.23*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.41*	*0.45*	*0.05*	*0.23*	*Cum*
	TOTAL					**0.61**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**34.58**	**0.30%**	**0.10**	**7850**	**814.30**	**Kg**
	Total Weight in Metric Tonne					**0.81**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.91*		*0.45*	*1.63*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.91*		*1.42*	*5.15*	*Sqm*
		4		*0.88*	*1.42*	*4.98*	*Sqm*
		4	*0.91*		*0.50*	*1.81*	*Sqm*
		4		*1.45*	*0.50*	*2.90*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.45*	*5.40*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.00*		*0.81*	*9.72*	*Sqm*
		4		*0.69*	*0.81*	*2.25*	*Sqm*
		4	*3.00*		*0.50*	*6.00*	*Sqm*
		4		*1.09*	*0.50*	*2.17*	*Sqm*
	Section 3-3	*4*	*1.37*		*0.45*	*2.46*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.37*		*0.61*	*3.34*	*Sqm*
		4		*0.63*	*0.61*	*1.54*	*Sqm*
		4	*1.37*		*0.50*	*2.73*	*Sqm*
		4		*0.97*	*0.50*	*1.93*	*Sqm*
	Section 5-5	*4*	*2.62*		*0.45*	*4.72*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.62*		*1.42*	*14.88*	*Sqm*
		4		*0.88*	*1.42*	*4.98*	*Sqm*
		4	*2.62*		*0.50*	*5.24*	*Sqm*
		4		*1.45*	*0.50*	*2.90*	*Sqm*
	Section 6-6	*4*	*1.58*		*0.45*	*2.85*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.58*		*0.61*	*3.86*	*Sqm*
		4		*0.63*	*0.61*	*1.54*	*Sqm*
		4	*1.58*		*0.50*	*3.16*	*Sqm*
		4		*0.97*	*0.50*	*1.93*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.97*	*0.70*	*1.36*	*Sqm*
		2	*5.00*		*0.50*	*5.00*	*Sqm*
		2		*0.97*	*0.50*	*0.97*	*Sqm*
		2	*0.31*		*0.20*	*0.12*	*Sqm*
		2		*0.97*	*0.20*	*0.39*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*0.97*	*0.40*	*0.78*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*0.97*	*0.50*	*0.97*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.97*	*0.70*	*1.36*	*Sqm*
	Crest	*2*	*0.904*		*0.924*	*1.67*	*Sqm*
		2		*0.97*	*0.924*	*1.79*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.40*		*0.30*	*3.24*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.10*		*0.60*	*6.12*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**139.68**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.25*		*9.00*	*Sqm*
	TOTAL					**9.00**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*0.37*	*0.30*	**0.22**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*0.37*	*0.15*	**0.22**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.41*	*0.45*		*4.68*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.41*	*0.45*		*4.68*	*Sqm*
	TOTAL					**9.37**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.35		1.35	**Cum**
	Abutment						
	Section 1-1	2	*1.14*	*0.25*		*0.565*	*Cum*
	Section 2-2	2	*3.00*	*0.25*		*1.494*	*Cum*
	Section 3-3	2	*1.70*	*0.15*		*0.517*	*Cum*
	Section 5-5	2	*2.66*	*0.25*		*1.326*	*Cum*
	Section 6-6	2	*1.10*	*0.15*		*0.334*	*Cum*
	D/S protection	2					
	Toe wall	2	*0.97*	*0.09*		*0.175*	*Cum*
		2	0.60	0.80		*0.960*	*Cum*
	TOTAL					**6.72**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 5.200 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.03*	*1.60*	*1.617*	*5.336*	*Cum*
	Section 2-2	*2*	*3.00*	*1.20*	*1.617*	*11.642*	*Cum*
	Section 3-3	*2*	*1.70*	*1.08*	*1.417*	*5.203*	*Cum*
	Section 5-5	*2*	*2.72*	*1.75*	*1.617*	*15.406*	*Cum*
	Section 6-6	*2*	*1.05*	*1.08*	*1.417*	*3.198*	*Cum*
	U/S Key Floor	*1*	*0.625*	*0.890*	*0.850*	*0.473*	*Cum*
	U/S Floor	*1*	*2.000*	*0.890*	*1.460*	*2.599*	*Cum*
	D/S Floor	*1*	*3.000*	*0.890*	*0.850*	*2.270*	*Cum*
		1	*2.000*	*0.890*	*0.650*	*1.157*	*Cum*
	D/S Key Floor	*1*	*0.625*	*0.890*	*0.850*	*0.473*	*Cum*
	Toe Wall D/S Portion	*1*	*5.140*	*0.750*	*0.900*	*3.470*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.000*	*0.600*	*0.750*	*1.800*	*Cum*
						53.03	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*0.89*	*0.15*	*0.07*	*Cum*
		1	*0.783*	*0.89*	*0.15*	*0.10*	*Cum*
		1	*4.568*	*0.89*	*0.15*	*0.61*	*Cum*
		1	*0.283*	*0.89*	*0.15*	*0.04*	*Cum*
		1	*0.447*	*0.89*	*0.15*	*0.06*	*Cum*
		1	*0.782*	*0.89*	*0.15*	*0.10*	*Cum*
		1	*0.542*	*0.89*	*0.15*	*0.07*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.03*	*1.60*	*0.15*	*0.50*	*Cum*
	Section 2-2	*2*	*3.00*	*1.20*	*0.15*	*1.08*	*Cum*
	Section 3-3	*2*	*1.70*	*1.08*	*0.15*	*0.55*	*Cum*
	Section 5-5	*2*	*2.72*	*1.75*	*0.15*	*1.43*	*Cum*
	Section 6-6	*2*	*1.05*	*1.08*	*0.15*	*0.34*	*Cum*
	Toe Wall D/S Portion	*1*	*5.14*	*0.75*	*0.30*	*1.16*	*Cum*
	Toe Wall D/S Portion	*1*	*4.84*	*0.45*	*0.60*	*1.31*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**8.50**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.81*	*0.45*	*0.45*	*0.33*	*Cum*
		2	*0.81*	*0.88*	*1.42*	*2.00*	*Cum*
		2	*0.81*	*1.45*	*0.50*	*1.17*	*Cum*
	Section 2-2	*2*	*3.00*	*0.45*	*0.45*	*1.22*	*Cum*
		2	*3.00*	*0.68*	*0.75*	*3.04*	*Cum*
		2	*3.00*	*1.05*	*0.50*	*3.15*	*Cum*
	Section 3-3	*2*	*1.39*	*0.45*	*0.45*	*0.56*	*Cum*
		2	*1.39*	*0.62*	*0.55*	*0.94*	*Cum*
		2	*1.39*	*0.93*	*0.50*	*1.29*	*Cum*
	Section 5-5	*2*	*2.67*	*0.45*	*0.45*	*1.08*	*Cum*
		2	*2.67*	*0.88*	*1.42*	*6.65*	*Cum*
		2	*2.67*	*1.45*	*0.50*	*3.88*	*Cum*
	Section 6-6	*2*	*1.51*	*0.45*	*0.45*	*0.61*	*Cum*
		2	*1.51*	*0.62*	*0.55*	*1.02*	*Cum*
		2	*1.51*	*0.93*	*0.50*	*1.40*	*Cum*
	Floor	*1*	*0.63*	*0.89*	*0.70*	*0.39*	*Cum*
		1	*5.00*	*0.89*	*0.50*	*2.23*	*Cum*
		1	*0.31*	*0.89*	*0.20*	*0.05*	*Cum*
		1	*0.20*	*0.89*	*0.40*	*0.07*	*Cum*
		1	*1.80*	*0.89*	*0.50*	*0.80*	*Cum*
		1	*0.63*	*0.89*	*0.70*	*0.39*	*Cum*
	Crest	*1*	*0.80*	*0.89*	*0.97*	*0.69*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**32.96**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.65*	*0.89*	*0.20*	*0.12*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.27*	*0.45*	*0.05*	*0.23*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.27*	*0.45*	*0.05*	*0.23*	*Cum*
	TOTAL					**0.58**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**32.96**	**0.30%**	**0.10**	**7850**	**776.29**	**Kg**
	Total Weight in Metric Tonne					**0.78**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.81*		*0.45*	*1.45*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.81*		*1.42*	*4.57*	*Sqm*
		4		*0.88*	*1.42*	*4.98*	*Sqm*
		4	*0.81*		*0.50*	*1.61*	*Sqm*
		4		*1.45*	*0.50*	*2.90*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.45*	*5.40*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.00*		*0.75*	*9.00*	*Sqm*
		4		*0.68*	*0.75*	*2.03*	*Sqm*
		4	*3.00*		*0.50*	*6.00*	*Sqm*
		4		*1.05*	*0.50*	*2.10*	*Sqm*
	Section 3-3	*4*	*1.39*		*0.45*	*2.49*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.39*		*0.55*	*3.05*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*1.39*		*0.50*	*2.77*	*Sqm*
		4		*0.93*	*0.50*	*1.86*	*Sqm*
	Section 5-5	*4*	*2.67*		*0.45*	*4.81*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.67*		*1.42*	*15.19*	*Sqm*
		4		*0.88*	*1.42*	*4.98*	*Sqm*
		4	*2.67*		*0.50*	*5.35*	*Sqm*
		4		*1.45*	*0.50*	*2.90*	*Sqm*
	Section 6-6	*4*	*1.51*		*0.45*	*2.72*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.51*		*0.55*	*3.32*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*1.51*		*0.50*	*3.02*	*Sqm*
		4		*0.93*	*0.50*	*1.86*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.89*	*0.70*	*1.25*	*Sqm*
		2	*5.00*		*0.50*	*5.00*	*Sqm*
		2		*0.89*	*0.50*	*0.89*	*Sqm*
		2	*0.31*		*0.20*	*0.12*	*Sqm*
		2		*0.89*	*0.20*	*0.36*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*0.89*	*0.40*	*0.71*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*0.89*	*0.50*	*0.89*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.89*	*0.70*	*1.25*	*Sqm*
	Crest	*2*	*0.8025*		*0.965*	*1.55*	*Sqm*
		2		*0.89*	*0.965*	*1.72*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.14*		*0.30*	*3.08*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.84*		*0.60*	*5.81*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**135.52**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.14*		*8.57*	*Sqm*
	TOTAL					**8.57**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*0.29*	*0.30*	**0.17**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*0.29*	*0.15*	**0.17**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.27*	*0.45*		*4.62*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.27*	*0.45*		*4.62*	*Sqm*
	TOTAL					**9.24**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.52		1.52	**Cum**
	Abutment						
	Section 1-1	2	*1.03*	*0.65*		*1.331*	*Cum*
	Section 2-2	2	*3.00*	*0.63*		*3.792*	*Cum*
	Section 3-3	2	*1.70*	*0.47*		*1.591*	*Cum*
	Section 5-5	2	*2.72*	*0.65*		*3.513*	*Cum*
	Section 6-6	2	*1.05*	*0.47*		*0.978*	*Cum*
	D/S protection	2					
	Toe wall	2	*0.89*	*0.09*		*0.160*	*Cum*
		2	0.60	0.80		*0.960*	*Cum*
	TOTAL					**13.84**	**Cum**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND			
DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF KARMA BASANTPUR			
Sl. No.	**Structure Type**	**Chainage In Km**	**Amount (In Rs.)**
1	FALL	0.460	₹ 95,508.03
2	BRIDGE/ FALL	0.730	₹ 19,904.52
3	FALL	1.340	₹ 78,171.61
4	BRIDGE	1.480	₹ 24,906.04
5	FALL	1.650	₹ 28,101.73
6	FALL	2.160	₹ 87,956.06
7	BRIDGE/ FALL	2.680	₹ 57,642.08
8	BRIDGE/ FALL	4.180	₹ 32,397.78
9	FALL	4.792	₹ 79,277.49
10	FALL	5.200	₹ 40,206.36
11	BRIDGE	5.330	₹ 29,373.77
12	BRIDGE/ FALL	5.690	₹ 34,569.86
Total In Rs.			**₹ 6,08,015.32**
Total In Lakhs.			**₹ 6.08**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND			
DETAILED ESTIMATE FOR C/O OF APPROACH ROAD			
Sl. No.	**APPROACH ROAD**	**NOS.**	**Amount (In Rs.)**
1		6.000	₹ 31,26,111.30
Total In Rs.			**₹ 31,26,111.30**
Total In Lakhs.			**₹ 31.26**

ABSTRACT OF QUANTITIES FOR CONSTRUCTION OF APPROACH ROAD								
S. No.	Item of Works	Qty.	Unit	Rate (As per RCD 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
1	Excavation for road work in soil with hydraulic excavator including cutting and loading in tipper, trimming bottom and side slopes in accordance with requirements of lines grades and cross sections, and tranporting to the embankment location within all lifts and lead upto 1000m. (RCD SSR Item no. 301)	60.00	Cum	**78.40**	4704.00			
2	Construction of granular sub-base by providing closegraded material, spreading in uniform layers with motorgrader on prepared surface, mixing by mix in placemethod with front end loader at OMC, and compactingwith vibratory roller to achieve the desired density,complete as per clause 401.	60.00	Cum	**1044.90**	62694.00			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	15.00	Cum	**6381.70**	95725.50	4.86	6.75	13.50
4	RCC Grade M-30 using Batching plant, Transit Mixer and Concrete Pump	30.00	Cum	**6217.20**	186516.00	20.94	10.80	21.90
5	**Carriage of materials**							
	Grading Material (26.5 mm & below)(40 Km lead)	60.000	Cum	**1398.00**	83880.00			
	Coarse Sand (60 Km lead)	17.550	Cum	**1075.00**	18866.25			
	Coarse Aggregates (100 Km lead)	35.400	Cum	**1398.00**	49489.20			
	Cement (30 km lead)	25.800	MT	**742.00**	19143.60			
	TOTAL (In Rs.)				**521018.55**			
	TOTAL (In Rs.)				**₹ 5,21,018.55**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	26.50 mm to 9.50 mm	21.00	Cum	**913.48**	19183.08	1918.31		
	9.50 mm TO 4.75 mm	7.50	Cum	**602.28**	4517.10	451.71		
	4.75 mm below	31.50	Cum	**266.62**	8398.53	839.85		
	Coarse Sand	17.55	Cum	**584.64**	10260.43	1026.04		
	Coarse Aggregate	35.40	Cum	**944.26**	33426.80	3342.68		
	Total					**7578.59**		
	For 6 no., Total Seigniorage charges					**45471.57**		

QUANTITIES OF CONSTRUCTION OF GSB ROAD FOR APPROACH ROAD								
S.No.	**Reference Clause**	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
1	RCD SSR Item no. 301	Excavation for road work in soil with hydraulic excavator including cutting and loading in tipper, trimming bottom and side slopes in accordance with requirements of lines grades and cross sections, and tranporting to the embankment location within all lifts and lead upto 1000m.						
		For Making RAMP						
		U/S	1	20.00	5.00	0.30	30.00	Cum
		D/S	1	20.00	5.00	0.30	30.00	Cum
		Total					**60.00**	**Cum**
2	RCD 4.01 B-II	Construction of granular sub-base by providing closegraded material, spreading in uniform layers with motorgrader on prepared surface, mixing by mix in placemethod with front end loader at OMC, and compactingwith vibratory roller to achieve the desired density,complete as per clause 401.						
		U/S	1	20.00	5.00	0.30	30.00	Cum
		D/S	1	20.00	5.00	0.30	30.00	Cum
		Total					**60.00**	**Cum**
3	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
		U/S	1	20.00	5.00	0.08	7.50	Cum
		D/S	1	20.00	5.00	0.08	7.50	Cum
		Total					**15.00**	**Cum**
4	RCD 14.01 C	RCC Grade M-30 using Batching plant, Transit Mixer and Concrete Pump						
		U/S	1	20.00	5.00	0.15	15.00	Cum
		D/S	1	20.00	5.00	0.15	15.00	Cum
		Total					**30.00**	**Cum**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND									
ABSTRACT OF COST OF REPAIRED STRUCTURES OF KARMA BASANTPUR MINOR									
S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		AOC FOR FOR FALL AT (CH.0.460 KM)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.00	Sqm	**11.80**	1416.53			
2	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	1.87	Cum	**6381.70**	11952.45	0.61	0.84	1.69
3	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	8.83	Cum	**6914.20**	61031.70	3.64	3.80	7.59
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	4.638	Cum	**1075.00**	4986.31			
		Coarse Aggregates (100 Km lead)	9.277	Cum	**1398.00**	12969.05			
		Cement (30 km lead)	4.248	MT	**742.00**	3151.99			
		TOTAL (In Rs.)				**95508.03**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	4.64	Cum	**584.64**	2711.81	271.18		
		Coarse Aggregate	9.28	Cum	**944.26**	8759.77	875.98		
		Total					**1147.16**		
		AOC FOR BRIDGE/FALL AT (CH.0.730 KM)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.64	Cum	**5021.30**	3233.72	0.07	0.21	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	13.58	Sqm	**340.20**	4619.92	14.08	0.20	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	1.400	Sqm	**63.20**	88.48	0.002		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.404	Cum	1075.00	434.67			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	14.156	MT	742.00	10503.78			
		Brick (15 km lead)	322.00	No.	3.18	1023.96			
		Steel (30 Km lead)	0.00	MT	742.00	0.00			
		TOTAL (In Rs.)				**19904.52**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.40	Cum	**584.64**	236.40	23.64		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**23.64**		
		AOC FOR FALL AT (CH.1.340 KM)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	31.36	Cum	**2492.58**	78171.61			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	1075.00	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	0.000	MT	742.00	0.00			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
		Steel (30 Km lead)	0.00	MT	742.00	0.00			
		TOTAL (In Rs.)				**78171.61**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR BRIDGE AT (CH.1.480 KM)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.81	Cum	**5021.30**	4046.77	0.09	0.26	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	16.99	Sqm	**340.20**	5781.49	17.62	0.25	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	1.752	Sqm	**63.20**	110.73	0.003		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.506	Cum	1075.00	543.96			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	17.715	MT	742.00	13144.73			
		Brick (15 km lead)	402.00	No.	3.18	1278.36			
		Steel (30 Km lead)	0.00	MT	742.00	0.00			
		TOTAL (In Rs.)				**24906.04**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.51	Cum	**584.64**	295.84	29.58		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**29.58**		
		AOC FOR FALL AT (CH.1.650 KM)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.00	Sqm	**11.80**	1180.44			
2	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	3.22	Cum	**6381.70**	20540.70	1.04	1.45	2.90
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.448	Cum	1075.00	1557.04			
		Coarse Aggregates (100 Km lead)	2.897	Cum	1398.00	4049.75			
		Cement (30 km lead)	1.043	MT	742.00	773.80			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
		TOTAL (In Rs.)				**28101.73**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.45	Cum	**584.64**	846.80	84.68		
		Coarse Aggregate	2.90	Cum	**944.26**	2735.35	273.54		
		Total					**358.21**		
		AOC FOR FALL AT (CH.2.160 KM)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.00	Sqm	**11.80**	1180.44			
2	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	2.69	Cum	**6381.70**	17179.50	0.87	1.21	2.42
3	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	5.84	Cum	**6914.20**	40399.78	2.41	2.51	5.02
4	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	14.551	Sqm	**578.60**	8419.38			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
5	WRD 5.3.22	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.05	Mt	**73574.90**	3886.99			
6		**Carriage of materials**							
		Coarse Sand (60 Km lead)	3.724	Cum	1075.00	4003.19			
		Coarse Aggregates (100 Km lead)	7.448	Cum	1398.00	10412.01			
		Cement (30 km lead)	3.282	MT	742.00	2435.58			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
		Steel (30 Km lead)	0.05	MT	742.00	39.20			
		TOTAL (In Rs.)				**87956.06**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	3.72	Cum	**584.64**	2177.14	217.71		
		Coarse Aggregate	7.45	Cum	**944.26**	7032.65	703.26		
		Total					**920.98**		
		AOC FOR BRIDGE/FALL AT (CH.2.680 KM)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	23.13	Cum	**2492.58**	57642.08			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	1075.00	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	0.000	MT	742.00	0.00			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
		Steel (30 Km lead)	0.00	MT	742.00	0.00			
		TOTAL (In Rs.)				**57642.08**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR BRIDGE/FALL AT (CH.4.180 KM)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.45	Cum	**5021.30**	2252.88	0.05	0.14	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	9.46	Sqm	**340.20**	3218.63	9.81	0.14	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	0.975	Sqm	**63.20**	61.64	0.001		
4	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	2.22	Cum	**6381.70**	14139.47	0.72	1.00	1.99
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.279	Cum	1075.00	1374.64			
		Coarse Aggregates (100 Km lead)	1.994	Cum	1398.00	2787.70			
		Cement (30 km lead)	10.580	MT	742.00	7850.49			
		Brick (15 km lead)	224.00	No.	3.18	712.32			
		Steel (30 Km lead)	0.00	MT	742.00	0.00			
		TOTAL (In Rs.)				**32397.78**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.28	Cum	**584.64**	747.60	74.76		
		Coarse Aggregate	1.99	Cum	**944.26**	1882.92	188.29		
		Total					**263.05**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		AOC FOR FALL AT (CH.4.792 KM)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	31.81	Cum	**2492.58**	79277.49			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	1075.00	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	0.000	MT	742.00	0.00			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
		Steel (30 Km lead)	0.00	MT	742.00	0.00			
		TOTAL (In Rs.)				**79277.49**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR FALL AT (CH.5.200 KM)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	16.13	Cum	**2492.58**	40206.36			
2		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	1075.00	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	0.000	MT	742.00	0.00			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
		Steel (30 Km lead)	0.00	MT	742.00	0.00			
		TOTAL (In Rs.)				**40206.36**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR BRIDGE AT (CH.5.330 KM)							
1	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	25.52	Sqm	**340.20**	8681.90	26.46	0.37	
2	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	10.241	Sqm	**63.20**	647.25	0.015		
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.373	Cum	1075.00	400.54			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	26.474	MT	742.00	19644.08			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
		Steel (30 Km lead)	0.00	MT	742.00	0.00			
		TOTAL (In Rs.)				**29373.77**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.37	Cum	**584.64**	217.83	21.78		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**21.78**		
		AOC FOR BRIDGE/FALL AT (CH.5.690 KM)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	130.00	Sqm	**11.80**	1534.57			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.38	Cum	**5021.30**	6929.39	0.16	0.44	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	12.54	Sqm	**340.20**	4266.11	13.00	0.18	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	10.000	Sqm	**63.20**	632.00	0.015		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
5	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	1.02	Cum	**6381.70**	6535.68	0.33	0.46	0.92
6		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.086	Cum	1075.00	1166.96			
		Coarse Aggregates (100 Km lead)	0.922	Cum	1398.00	1288.56			
		Cement (30 km lead)	13.507	MT	742.00	10022.39			
		Brick (15 km lead)	690.00	No.	3.18	2194.20			
		Steel (30 Km lead)	0.00	MT	742.00	0.00			
TOTAL (In Rs.)						**34569.86**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.09	Cum	**584.64**	634.65	63.47		
		Coarse Aggregate	0.92	Cum	**944.26**	870.34	87.03		
		Total					**150.50**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF KARMA BASANTPUR MINOR								
S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR FALL AT (CH.0.460 KM)								
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.						
			1				120.00	Sqm
		TOTAL					120.00	Sqm
2	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
		Abutment Top	2	12.80	0.49	0.15	*1.87*	*Cum*
		TOTAL					1.87	*Cum*
3	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
		Floor	1	7.00	2.44	0.5	*8.53*	*Cum*
		Crest	1	2.44	0.60	0.2	*0.29*	*Cum*
		TOTAL					8.83	Cum
QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL AT (CH.0.730 KM)								
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.						
		Parapet Wall	2	3.50	0.1	0.92	*0.64*	*Cum*
		TOTAL					0.64	Cum
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.						
		Parapet Wall U/S	1	3.50		1.94	*6.79*	*Sqm*
		Parapet Wall D/S	1	3.50		1.94	*6.79*	*Sqm*
		TOTAL					13.58	*Sqm*
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.						
		Parapet Wall U/S	1	3.50		0.2	*0.70*	*Sqm*
		Parapet Wall D/S	1	3.50		0.2	*0.70*	*Sqm*
		TOTAL					1.40	*Sqm*

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR FALL AT (CH.1.340 KM)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Abutment	2	13.11	0.5	1.2	*15.73*	*Cum*
		Crest	1	2.56	0.6096	1.2	*1.87*	*Cum*
		Floor	1	7.00	2.5603	0.5	*8.96*	*Cum*
		Wing wall U/S & D/S	4	2.00	0.50	1.2	*4.80*	*Cum*
		TOTAL					**31.36**	**Cum**
2		**New fall is proposed at this location.**						
QUANTITIES OF REPAIRING WORK FOR BRIDGE AT (CH.1.480 KM)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Wing Wall	2	4.38	0.1	0.92	*0.81*	*Cum*
		TOTAL					**0.81**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Wing Wall U/S	1	4.38		1.94	*8.50*	*Sqm*
		Wing Wall D/S	1	4.38		1.94	*8.50*	*Sqm*
		TOTAL					**16.99**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Wing Wall U/S	1	4.38		0.2	*0.88*	*Sqm*
		Wing Wall D/S	1	4.38		0.2	*0.88*	*Sqm*
		TOTAL					**1.75**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR FALL AT (CH.1.650 KM)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**100.00**	**Sqm**
		TOTAL					**100.00**	**Sqm**
2	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Abutment	1	3.50	0.49	1.2	*2.05*	*Cum*
		Wing Wall	2	1.00	0.49	1.2	*1.17*	*Cum*
		TOTAL					**3.22**	***Cum***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR FALL AT (CH.2.160 KM)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**100.00**	**Sqm**
		TOTAL					**100.00**	**Sqm**
2	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Abutment	1	3.00	0.49	1.2	*1.76*	*Cum*
		Wing Wall	2	0.80	0.49	1.2	*0.94*	*Cum*
		TOTAL					**2.69**	***Cum***
3	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		Floor	1	6.00	2.16	0.45	*5.84*	*Cum*
		TOTAL					**5.84**	**Cum**
4	**WRD 5.3.22**	**Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.**						
		0.25% skin Reinforcement for Transition Walls	2.69	0.0025	0.007	7850	*52.83*	kg
		TOTAL Weight of Steel (in Kg)					**52.83**	**kg**
		TOTAL Weight of Steel (in Tonne)					**0.05**	**MT**
5	**5.3.18**	**Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.**						
		Abutment	2	3.00		1.2	*7.20*	Sqm
			2		0.49	1.2	*1.17*	Sqm
		Wing Wall	4	0.80		1.2	*3.84*	Sqm
			4		0.49	1.2	*2.34*	Sqm
		TOTAL					**14.55**	**Sqm**
QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL AT (CH.2.680 KM)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Abutment	2	7.90	0.5	1.2	*9.48*	*Cum*
		Crest	1	2.44	0.4572	0.8	*0.89*	*Cum*
		Floor	1	8.00	2.44	0.5	*9.75*	*Cum*
		Wing wall U/S & D/S	2	2.50	0.50	1.2	*3.00*	*Cum*
		TOTAL					**23.13**	**Cum**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
2		**New fall is proposed at this location.**						
QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL AT (CH.4.180 KM)								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	2.44	0.1	0.92	*0.45*	*Cum*
		TOTAL					**0.45**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	2.44		1.94	*4.73*	*Sqm*
		Parapet Wall D/S	1	2.44		1.94	*4.73*	*Sqm*
		TOTAL					**9.46**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	1	2.44		0.2	*0.49*	*Sqm*
		Parapet Wall D/S	1	2.44		0.2	*0.49*	*Sqm*
		TOTAL					**0.98**	***Sqm***
4	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Abutment	2	9.14	0.49	0.15	*1.34*	*Cum*
		Wing wall	4	3.00	0.49	0.15	*0.88*	*Cum*
		TOTAL					**2.22**	***Cum***
QUANTITIES OF REPAIRING WORK FOR FALL AT (CH.4.792 KM)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Abutment	2	12.19	0.5	1.2	*14.63*	*Cum*
		Crest	1	1.65	0.4877	0.8	*0.64*	*Cum*
		Floor	1	5.00	1.65	0.5	*4.11*	*Cum*
		Wing wall U/S & D/S	2	3.00	0.50	1.2	*3.60*	*Cum*
		Parapet	1	3.00	0.50	0.8	*1.20*	*Cum*
		Slab	2	5.00	3.05	0.25	*7.62*	*Cum*
		TOTAL					**31.81**	**Cum**
2		**New fall is proposed at this location.**						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR FALL AT (CH.5.200 KM)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Abutment	2	7.62	0.5	1.2	*9.14*	*Cum*
		Crest	1	1.52	0.4572	0.8	*0.56*	*Cum*
		Floor	1	4.50	1.52	0.5	*3.43*	*Cum*
		Wing wall U/S & D/S	2	2.50	0.50	1.2	*3.00*	*Cum*
		TOTAL					**16.13**	**Cum**
2		**New fall is proposed at this location.**						
QUANTITIES OF REPAIRING WORK FOR BRIDGE AT (CH.5.330 KM)								
1	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Wing wall	4	2.50		2	*20.00*	*Sqm*
		Parapet	2	3.00		0.92	*5.52*	*Sqm*
		TOTAL					**25.52**	***Sqm***
2	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Wing Wall U/S & D/S	4	2.50		0.7315	*7.32*	*Sqm*
		Parapet Wall U/S & D/S	2	3.00		0.4877	*2.93*	*Sqm*
		TOTAL					**10.24**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL AT (CH.5.690 KM)								
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**130.00**	**Sqm**
		TOTAL					**130.00**	**Sqm**
2	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	3.00	0.25	0.92	*1.38*	*Cum*
		TOTAL					**1.38**	**Cum**
3	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	3.00		2.09	*6.27*	*Sqm*
		Parapet Wall D/S	1	3.00		2.09	*6.27*	*Sqm*
		TOTAL					**12.54**	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
4	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	1	3.00		0.5	*1.50*	*Sqm*
		Parapet Wall D/S	1	3.00		0.5	*1.50*	*Sqm*
		Wing Wall	2	2.50		0.5	*2.50*	*Sqm*
		Abutment	2	4.50		0.5	*4.50*	*Sqm*
		TOTAL					**10.00**	***Sqm***
5	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		Abutment top	2	4.50	0.49	0.15	*0.66*	*Cum*
		Wing wall top	2	2.50	0.49	0.15	*0.37*	*Cum*
		TOTAL					**1.02**	***Cum***

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND ANALYSIS OF RATE OF OUTLET GATE			
1	Cost of material **(A)** (Structural Steel WRD M-181)	Rs.	55116.67
2	Wastage **5%** =	Rs.	2755.83
3	Cost of miscellaneous material like electrodes,oxygen, acetylene nut bolt, rope as per site conditions, etc **65 % of (A)**	Rs.	35825.84
	Total 1+2+3= ***(B)*** =	Rs.	93698.34
4	Labour charge 30%(B) =	Rs.	28109.50
5	Overhead charge + Contractor profit **@15% A**	Rs.	8267.50
6	Workshop and energy charge ,**12 % of (B)**	Rs.	11243.80
7	Transportation and erection charge ,**15 % of B**	Rs.	14054.75
	Total = B+4+5+6+7 = ***C***	Rs.	155373.89
8	Other incidental charge , **3 % = of C**	Rs.	4661.22
	Total C+8 = D	Rs.	**160035.11**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND ABSTRACT OF COST FOR CONSTRUCTION OF OUTLET										
Sl. No.	Reference	Name of Item	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount in Rs.	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)	Boulders (cum)
1	**WRD 5.3.9**	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.	7.61	Cum	**6381.70**	48564.42	2.47	3.42	6.85	
2	**WRD 5.4.10**	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.	8.60	Cum	**3391.40**	29172.74	1.24	3.44		8.60
3	**M-1701**	Providing 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	RM	**220.00**	1650.00				
4	**WRD 5.6.1**	Labour Charges for Laying of 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	RM	**238.00**	1785.03				

Sl. No.	Reference	Name of Item	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount in Rs.	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)	Boulders (cum)
5	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.								
a.		TMT Grade Fe-500 - 16 mm	0.03	M.T.	**73574.90**	2254.92				
6	**M-181**	Structural Steel (Average rate of Angle, Joint and Channel) etc.	0.08	MT	**160035.11**	12687.05				
7	**WRD 5.1.37**	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .	0.89	Cum	**339.90**	302.80				
8		**Carriage of materials**								
		Coarse Sand (60 Km lead)	7.76	Cum	**1075.00**	**8337.83**				
		Coarse Aggregates (100 Km lead)	6.85	Cum	**1398.00**	**9574.84**				
		Cement (30 km lead)	3.70	MT	**742.00**	**2748.60**				
		Boulders (60 km lead)	8.60	Cum	**1159.00**	**9969.69**				
		Steel (30 Km lead)	0.11	M.T.	**742.00**	**81.56**				
		Hume Pipe (30 Km)	7.50	RM	**82.00**	**615.00**				
TOTAL (In Rs.)						**127744.47**				
		Seigniorage @10%			Rate	Amount in Rs.	10%			
		Coarse Sand	7.76	Cum	**584.64**	4534.54	453.45			
		Coarse Aggregate	6.85	Cum	**944.26**	6467.19	646.72			
		Total					1100.17			
		For 19 nos. outlet, Total Seigniorage charges					**20903.29**			

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
BILL OF QUANTITIES FOR CONSTRUCTION OF OUTLET							
Sl. No.	**Name of Item**	**No.**	**Length (m)**	**Width (m)**	**Height (m)**	**Qty.**	**Unit**
1	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification &						
	Toe Wall Base in Canal Portion	*1*	*1.5*	*0.75*	*0.15*	*0.17*	*Cum*
	Coping on Stem of Toe Wall	*1*	*1.50*	*0.45*	*0.075*	*0.05*	*Cum*
	Gate Structure (Section A-B)	*1*	*1.80*	*0.75*	*0.15*	*0.20*	*Cum*
	Coping (Section A-B)	*1*	*1.5*	*0.45*	*0.075*	*0.05*	*Cum*
	Water Course (Section C-D)	*1*	*15.00*	*1.50*	*0.15*	*3.38*	*Cum*
	Water Course Floor (Section C-D)	*1*	*15.00*	*0.40*	*0.075*	*0.45*	*Cum*
	Coping above Walls(Section C-D)	*2*	*15*	*0.40*	*0.075*	*0.90*	*Cum*
	Below transition walls	*1*	*1.5*	*1.2*	*0.15*	*0.27*	*Cum*
		1	*1.5*	*0.75*	*0.15*	*0.17*	*Cum*
	Gate Structure (Section A-B)	*2*	*1.50*	*0.45*	*1.21*	*1.63*	*Cum*
	Toe Wall stem	*1*	*1.50*	*0.45*	*0.51*	*0.35*	*Cum*
	TOTAL					***7.61***	*Cum*
2	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.						
	Transition Walls in U/S	*2*	*1.50*	*0.45*	*1.04*	*1.40*	*Cum*
	Water Course (Section C-D)	*2*	*15.00*	*0.40*	*0.60*	*7.20*	*Cum*
	2					**8.60**	Cum
3	Providing 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .						
	150 mm Dia R.C.C. Pipe	1			7.5	**7.5**	**RM**
4	Structural Steel (Average rate of Angle, Joint and Channel) etc.						
	Spindle 25 mm dia	*1*	*0.000491*	*7850.00*	*1.29*	*4.97*	*Kg*
		1	*0.000491*	*7850.00*	*0.24*	*0.92*	*Kg*
	300 X300 MM MS GATE	*1*		*60.00*		*60.00*	*Kg*
	I.M.C. Grove (100 x 50) 9.56 kg/m	*2*		*9.56*	*0.70*	*13.38*	*Kg*
	TOTAL (In Kg)					**79.28**	**Kg**
	TOTAL					**0.08**	**MT**
5	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .						
	Toe Wall Base in Canal Portion	*1*	*1.50*	*0.75*	*0.10*	*0.11*	*Cum*
	Water Course Floor (Section C-D)	*1*	*15.00*	*0.40*	*0.10*	*0.60*	*Cum*
	Below transition walls	*1*	*1.50*	*1.19*	*0.10*	*0.18*	*Cum*
	TOTAL					**0.89**	**Cum**
6	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-15 (Providing Reinforcement @ 0.24%)	*1.63*	*0.0024*	*0.004*	*7850.00*	*30.648*	*Kg*
	TOTAL					**30.65**	**Kg**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
ANALYSIS OF RATES							
Sl. No.	**Refrences SOR No.**	**Description**	**Quantity**	**Unit**	**Rate**	**Amount**	**Ref**
1	**5.1.3**	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 92.94 Sqm					
		Unskilled mazdoor for cutting shrubs, weed	1.50	nos	424.00	₹ 636.00	
		Unskilled mazdoor for removing grass roots and leveling	0.75	nos	424.00	₹ 318.00	
						₹ 954.00	
		Add Overhead charge &c.P @ 15 %				₹ 143.10	
					Total	₹ 1,097.10	
		Rate per Sqm			**Say, Rs**	**₹ 11.80**	**Per M^2**
2	**5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting ,carrying	9.09	nos	424.00	₹ 3,854.16	Sl-1
					Total	₹ 3,854.16	
		Add Overhead charge &c.P @ 15 %				₹ 578.12	
						₹ 4,432.28	
		Rate per Cum			**Say, Rs**	**₹ 156.50**	**Per M^3**
	NOTE:-	Add royalty of earth Rs. 33.00 where needed without overhead charges & C.P.					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
3	**5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	4.50	nos	424.00	₹ 1,908.00	SI-1
		Unskilled mazdoor for carrying	4.00	nos	424.00	₹ 1,696.00	
		Head Mason	0.13	nos	569.00	₹ 71.13	
					Total	₹ 3,675.13	
		Add Overhead charge & C.P @ 15 %				₹ 551.27	
						₹ 4,226.39	
		Rate per Cum			**Say, Rs**	**₹ 149.30**	**Per M^3**
4	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	4.00	nos	424.00	₹ 1,696.00	SI-1
		Unskilled mazdoor for carrying	4.00	nos	424.00	₹ 1,696.00	SI-1
		Unskilled mazdoor for controlling Slope and fine dressing	2.00	nos	424.00	₹ 848.00	SI-2
		Skilled Mazdoor	0.25	nos	536.00	₹ 134.00	SII-70
		Mate	1.00	nos	455.00	₹ 455.00	SII-2
					Total	₹ 4,829.00	
		Add Overhead charge &c.P @ 15 %				₹ 724.35	
						₹ 5,553.35	
		Rate per Cum			**Say, Rs**	**₹ 196.10**	**Per M^3**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
5	**5.1.22**	Extra for wet earth all complete as per specifications and direction of E/I.					
		Unit: per Cum					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	1.00	nos	424.00	₹ 424.00	Sl-1
		Add Overhead charge &C.P @ 15 %				₹ 63.60	
						₹ 487.60	
		Rate per Cum			**Say, Rs**	**₹ 17.22**	**Per M^3**
6	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.					
		As per Labour rate (19.06.2024)					
		Unit: per Cum					
		Taking Output :- 28.32 cum					
		Labour					
		Unskilled mazdoor for cutting, carrying	9.09	nos	424.00	₹ 3,854.16	Sl-1
		Add extra wages of 1/2 no. unskilled labour per 28.32 m3	0.50	nos	424.00	₹ 212.00	Sl-1
						₹ 4,066.16	
		Add Overhead charge &C.P @ 15 %				₹ 609.92	
						₹ 4,676.08	
					Say, Rs	**₹ 165.12**	**Per M^3**
7	**5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.					
		As per Labour rate (19.06.2024)					
		Unit: per Cum					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Taking Output :- 28.32 cum					
		Cost of water	LS			15.00	
		Bhisti for carriage of water and sprinkling	3.00	nos	417.00	₹ 1,251.00	S II-13
		Hire charges of sheep foot roller assuming 1450 cum to be rolled in 8 hr vide item no. 3.16	0.16	hr	1612.00	₹ 257.92	PM8001
						₹ 1,523.92	
		Add Overhead charge &C.P @ 15 %				₹ 228.59	
						₹ 1,752.51	
					Say, Rs	**₹ 61.88**	**Per M^3**
8	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)					
	5.1.46.1	Beyond 150m but upto 1/2 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				0.65	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				3.9	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				12.7	
	9	Number of trip per hour taken as 50 minutes N=50/T				3.937	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				17.323	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				83.184	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 16.29	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 152.08	
	16	Add overhead charges and CP 15%				₹ 22.81	
	17	**Rate per cubic metre**				**₹ 174.89**	
	5.1.46.2	Beyond 1/2 km but upto 1 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				1.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				9	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				17.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				2.809	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				12.36	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				116.59	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 20.30	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 189.50	
	16	Add overhead charges and CP 15%				₹ 28.42	
	17	**Rate per cubic metre**				**₹ 217.92**	
	5.1.46.3	Beyond 1.00 km but upto 1.50 km					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				2.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				15	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				23.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				2.101	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				9.244	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				155.88	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 25.02	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 233.50	
	16	Add overhead charges and CP 15%				₹ 35.03	
	17	**Rate per cubic metre**				**₹ 268.53**	
	5.1.46.4	Beyond 1.50 km but upto 2.00 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				3.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				21	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				29.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				1.678	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				7.383	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				195.18	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 29.73	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 277.52	
	16	Add overhead charges and CP 15%				₹ 41.63	
	17	**Rate per cubic metre**				**₹ 319.14**	
	5.1.46.5	Beyond 2.00 km but upto 2.50 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				4.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				27	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				35.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				1.397	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				6.147	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				234.50	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 34.45	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 321.56	
	16	Add overhead charges and CP 15%				₹ 48.24	
	17	**Rate per cubic metre**				**₹ 369.80**	
	5.1.46.6	Beyond 2.50 km but upto 3.00 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				5.5	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				33	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				41.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				1.196	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				5.263	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				273.80	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 39.17	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 365.57	
	16	Add overhead charges and CP 15%				₹ 54.84	
	17	**Rate per cubic metre**				**₹ 420.41**	
9	**5.1.24**	Earthwork in filling in flood embankment, canals banks (Canal Discharge Above 28 Cumecs) as well as special repair of embankments and canal banks in ordinary soil in proper profile obtain from borrow area or any other source free from logs, roots or any other ingredients etc. with intial lead of 30m and initial lift of 1.5m including breaking the clods to maximum 60 mm cube, placing the earth in layers not exceeding 225 mm thicka ll complete as per specification and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	9.00	nos	424.00	₹ 3,816.00	SI-1
		Skilled Mazdoor	1.00	nos	536.00	₹ 536.00	SI-3
		Mate	0.25	nos	455.00	₹ 113.75	SII-2
					Total	₹ 4,465.75	
		Add Overhead charge & C.P @ 15 %				₹ 669.86	
						₹ 5,135.61	
		Rate per Cum			**Say, Rs**	**₹ 181.30**	**Per M^3**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
10	**5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting and carrying	11.00	nos	424.00	₹ 4,664.00	SI-1
		Head Mason	0.25	nos	569.00	₹ 142.25	SII -3
					Total	₹ 4,806.25	
		Add Overhead charge & C.P @ 15 %				₹ 720.94	
						₹ 5,527.19	
		Rate per Cum			**Say, Rs**	**₹ 195.20**	**Per M^3**
11	**5.3.8**	Providing & laying **P.C.C. M-100** with nominal mix of (1:3:6) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A.	**MATERIALS**					
		Coarse aggregates Gr IV **(Rate of approved quality of aggregate as per Design)**	2.66	M^3	1115.24	₹ 2,966.54	M047
		Sand	1.330	M^3	584.64	₹ 777.57	M-004
		Cement	0.443	M^3	8264.70	₹ 3,661.26	M-1P
		Total				₹ 7,405.37	
	B.	**LABOUR**					
		Head mason	0.5	nos	569.00	₹ 284.50	S II -3
		Mason Gr II	1	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor	12	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	C.	**HIRE CHARGES OF MACHINE**					
		(i)Concrete mixer (10 H.P) for 2.832 cum consists	**1.43**	hr	351	₹ 501.93	
		on the basic of mixer production capacity 1.98 m3					
		per hour. Used rate per hourx2.832/1.98					
		(ii) Vibrator 1no. To vibrate 2.832 cum on the	**1.43**	hr	405	₹ 579.15	
		basic of vibrator capacity 1.98 cum per hour.					
		Used rate per hourx2.832/1.98					
		Total				₹ 14,783.95	
		Add Overhead charge & C.P	15	%		₹ 2,217.59	
						₹ 17,001.55	**Per M^3**
					Say, Rs	**₹ 6,003.37**	**Per M^3**
12	**5.3.4**	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		Course Aggregate (20mm & 10mm) **(Taking Rate of approved quality as per design)**	2.55	m^3	913.48	₹ 2,327.55	M044
		Sand	1.27	m^3	584.64	₹ 744.83	M-004
		Cement	0.64	m^3	8264.70	₹ 5,264.62	M-1P
		Total				₹ 8,337.00	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor for controlling Slope and fine dressing	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					Total	₹ 15,715.58	
		Add Overhead charge &c.P @ 15 %				₹ 2,357.34	
						₹ 18,072.92	
		Rate per Cum			**Say, Rs**	**₹ 6,381.70**	**Per M^3**
13	**5.3.5**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		Course Aggregate (20mm & 10mm) **(Taking Rate of approved quality as per design)**	2.44	m^3	913.48	₹ 2,225.24	M044
		Sand	1.22	m^3	584.64	₹ 712.09	M-004
		Cement	0.81	m^3	8264.70	₹ 6,710.94	M-1P
		Total				₹ 9,648.27	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor for controlling Slope and fine dressing	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					Total	₹ 17,026.85	
		Add Overhead charge &c.P @ 15 %				₹ 2,554.03	
						₹ 19,580.88	
		Rate per Cum			**Say, Rs**	**₹ 6,914.20**	**Per M^3**
14	**5.3.5**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		Course Aggregate (20mm & 10mm) **(Taking Rate of approved quality as per design)**	2.436	m^3	913.48	₹ 2,225.24	M044
		Sand	1.218	m^3	584.64	₹ 712.09	M-004
		Cement	0.812	m^3	8264.70	₹ 6,710.94	M-1P
		Total				₹ 9,648.27	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					Total	₹ 17,026.85	
		Add Overhead charge &c.P @ 15 %				₹ 2,554.03	
						₹ 19,580.88	
		Rate per Cum			**Say, Rs**	**₹ 6,914.20**	**Per M^3**
15	**5.3.11**	Providing & laying P.C.C. or R.C.C. **M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		coarse Aggregate (20mm & 10mm) (Cost of coarse aggregates as per design)	2.38	m^3	913.48	₹ 2,173.17	M044
		Sand	1.19	m^4	584.64	₹ 695.14	M-004
		Cement	1.19	m^5	8264.70	₹ 9,826.73	M-1P
		Total				₹ 12,695.04	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor for controlling Slope and fine dressing	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					total	₹ 20,073.62	
		Add Overhead charge &c.P @ 15 %				₹ 3,011.04	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
						₹ 23,084.66	
		Rate per Cum			**Say, Rs**	**₹ 8,151.40**	**Per M^3**
16	**5.3.22**	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.					
		Unit :- **Per M.T**					
		Taking Output :- 1 M.T					
	(a)	TMT grade Fe-500 ***8 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	52450	₹ 55,072.50	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 66,025.70	
		Add Overhead charge &c.P @ 15 %				₹ 9,903.86	
						₹ 75,929.56	
		Rate per M.T			**Say, Rs**	**₹ 75,929.60**	**Per M.T**
	(B)	TMT grade Fe-500 ***10 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	51094	₹ 53,648.70	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 64,601.90	
		Add Overhead charge &c.P @ 15 %				₹ 9,690.29	
						₹ 74,292.19	
		Rate per M.T			**Say, Rs**	**₹ 74,292.20**	**Per M.T**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	(C)	TMT grade Fe-500 ***12 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
	(C)	TMT grade Fe-500 ***16 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
	(C)	TMT grade Fe-500 ***20 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
	(C)	TMT grade Fe-500 ***25 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
17	**5.3.18**	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 Sqm					
	A	**Material**					
		Local wood planks. 38 mm thick =9.3x38x1000	0.35	m^3			
		Add 5% wastage	0.02	m^3			
		Cost of 0.37 cum local wood planks.	0.37	m^3	26000.00	₹ 9,620.00	code no 1198 (RCD)
		Add cost for shattering and propping @ 10% of above				₹ 962.00	
					Total	₹ 10,582.00	
		Assuming 4 uses to calculate	4.00	use			
		Cost of shattering for 2.832 cum total cost /4				₹ 2,645.50	
		Add 1% for cost of nails and spikes on total cost of wood				₹ 105.82	
					Total	₹ 2,751.32	A
	B	**Labour**					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Carpenter Gr-II	1.50	nos	508.00	₹ 762.00	S II-17
		Unskilled mazdoor	2.50	nos	424.00	₹ 1,060.00	S I-1
					Total	₹ 1,822.00	B
	C	**Carriage of materials**					
		Cost of carriage of material from godown and back to godown after use, including loading, unloading and stacking @ 1% of total cost of food materials				₹ 105.82	C
		Total cost for 9.3 sqm=A+B+C				₹ 4,679.14	
		Add Overhead charge &c.P @ 15 %				₹ 701.87	
						₹ 5,381.01	
		Rate per Sqm			**Say, Rs**	**₹ 578.60**	**Per M2**
18	**5.3.20**	Providing centering including strutting, proping etc. and its removal after use indeck slab as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 22.326 Sqm					
		(Assuming size in slab 7.32 x 3.05 =22.326 sqm)					
	A	**MATERIALS**					
		a. 40 mm thick local wood planks (22.326x 40)/1000 = 0.893					
		Add 5% wastages = 0.045					
		0.938	0.94	m^3	**26000.00**	**₹ 24,440.00**	**Code no. 1197 (BCD)**
		Assuming 4 uses to calculate	4.00	use			
		Cost of planks per use = 0.89 x rate of local wood/4				**₹ 6,110.00**	
		b. Assuming avg. height of slab from GL = 3.66 m					
		150 mm sal bullah required = 78 nos.					
		Length of sal bullah = 78X3.66 =285.48	285.48	M	**75.00**	**₹ 21,411.00**	**M SL No. 223**
		(Assuming sal bullah to be used 10 times for centering					
		= 285.48 x Rate per mtr/10				**₹ 2,141.10**	
		c. Salwood scanting required (75 mm * 63 mmsize) = 0.311 cum	0.31	m^3	**60000.00**	**₹ 18,660.00**	**Code no. 1199 (BCD)**
		(Assuming 10 uses)					
		Cost per use = 0.311 x Rate per mtr/10				**₹ 1,866.00**	
		Total				**₹ 10,117.10**	
		Add 1% for cost of nails and spikes				**₹ 101.17**	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
						₹ 10,218.27	**(A)**
	B	**LABOUR**					
		Carpenter Gr-II	4.00	nos	508.00	₹ 2,032.00	S I-17
		Unskilled Majdoor	7.00	nos	424.00	₹ 2,968.00	S I-1
					Total	₹ 5,000.00	**(B)**
	C	Carriage of Materials					
		Cost of carriage of material from godown and back to godown after use, including loading, unloading and stacking @ 1% of total cost of food materials				₹ 101.17	
		Total cost for 22.326 sqm=A+B+C				₹ 15,319.44	
		Add Overhead charge & C.P @ 15 %				₹ 2,297.92	
		Total				₹ 17,617.36	
		Rate per Sqm			**Say, Rs**	**₹ 789.10**	**Per M2**
17	**5.5.10**	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 Sqm					
		Material					
		Cement	0.01	m^4	8264.70	₹ 115.71	M-1P
					Total	₹ 115.71	
	B	**Labour**					
		Head mason	0.06	nos	569.00	₹ 35.56	S II-3
		Mason Gr-II	0.50	nos	508.00	₹ 254.00	S II-4
		Unskilled mazdoor	0.25	nos	424.00	₹ 106.00	S II-1
					Total	₹ 395.56	
		Total				₹ 511.27	
		Add Overhead charge &c.P @ 15 %				₹ 76.69	
						₹ 587.96	
		Rate per Cum			**Say, Rs**	**₹ 63.20**	**Per M^3**
18	**5.2.2**	Providing filter of stone chips 20 mm and down well graded as per design for lined canal, drains including hand packing etc all complete as per specification and direction of E/I.					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Material					
		Sone chips (M-040 +M -045)/2	2.83	nos	673.97	₹ 1,908.68	M-004
		Labour					
		Unskilled mazdoor for Screening and grading Filter	2.00	nos	424.00	₹ 848.00	Sl-1
		Unskilled mazdoor for laying and hand packing	1.50	nos	424.00	₹ 636.00	Sl-1
					Total	₹ 3,392.68	
		Add Overhead charge &c.P @ 15 %				₹ 508.90	
						₹ 3,901.59	
		Rate per Cum			**Say, Rs**	**₹ 1,377.70**	**Per M^3**
19	**5.7.13**	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Unskilled Mazdoor	3	nos.	424.00	1272.00	
						1272.00	
		Add Overhead charge & C.P. @15%				190.80	
						1462.80	
					Say, Rs	**₹ 516.50**	**Per M^3**
20	**5.7.18.1**	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Unskilled Mazdoor	6	nos.	424.00	2544.00	
		Mason Gr II	0.5	nos.	508.00	254.00	
		Mate	0.25	nos.	455.00	113.75	
		Stone Dresser	0.25	nos.	538.00	134.50	
						3046.25	
		Add Overhead charge & C.P. @15%				456.94	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
						3503.19	
					Say, Rs	**₹ 1,237.00**	**Per M^3**
21	**5.1.37**	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Unskilled Mazdoor for cutting	1	nos.	424.00	424.00	
		Local Sand	2.832	nos.	145.87	413.10	
						837.10	
		Add Overhead charge & C.P. @15%				125.57	
						962.67	
					Say, Rs	**₹ 339.90**	**Per M^3**
20	**5.5.5**	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.				**Page -261**	
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 cum					
		Materials					
		Cement	0.07	m^3	8264.70	₹ 562.00	M-1 P
		Sand	0.27	m^3	584.64	₹ 159.02	M044
		Total				₹ 721.02	
		Labour					
		Mason Gr II	1.50	nos	508.00	₹ 762.00	SII-4
		Unskilled Mazdoor	2.50	nos	424.00	₹ 1,060.00	SII-1
		Bhisti	0.50	nos	417.00	₹ 208.50	SI-13
					total	₹ 2,030.50	
		Add Overhead charge &c.P @ 15 %				₹ 412.73	
						₹ 3,164.25	
		Rate per Cum			**Say, Rs**	**₹ 340.20**	**Per M^3**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
21	**5.6.1**	Labour Charges for Laying of 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .					
	5.6.1.1	**150 mm dia NP2 H.P.**					
		Unit: per m					
		Taking Output =	**8**	**m**			
		(Assuming 4 pipes of 2m length and three collars)					
		Materials					
		Cement	0.011	cum	8264.70	90.91	**M-1 P**
		Sand	0.011	cum	584.64	6.43	**M-004**
		Jute	1.5	Kg	20.89	31.34	**M Sl. No. 257**
		Total				128.68	
		Labour					
		Head Mason	0.50	nos	569.00	284.50	
		Unskilled Mazdoor	2.25	nos	424.00	954.00	
		Fitter Gr I	0.50	nos	577.00	288.50	
		Total				1527.00	
						1655.68	
		Add Overhead charge & C.P @ 15 %				₹ 248.35	
						₹ 1,904.03	
					Say, Rs	**₹ 238.00**	**Per M**
	5.6.2	Labour Charges for Laying, fitting and fixing NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .					
	5.6.2.2	**600 mm dia NP3 H.P.**					
		Unit: per m					
		Taking Output =	**7.5**	**m**			
		(Assuming 3 pipes of 2.5 m length and two collars)					
		Materials					
		Cement	0.034	cum	8264.70	281.00	**M-1 P**
		Sand	0.034	cum	584.64	19.88	**M-004**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Jute	4	Kg	20.89	83.56	**M Sl. No. 257**
		Total				384.44	
		Labour					
		Head Mason	1.5	nos	569.00	853.50	
		Unskilled Mazdoor	7	nos	424.00	2968.00	
		Fitter Gr I	0.75	nos	577.00	432.75	
		Total				4254.25	
						4638.69	
		Add Overhead charge & C.P @ 15 %				₹ 695.80	
						₹ 5,334.49	
					Say, Rs	**₹ 711.27**	**Per M**
	5.6.2.4	**1000 mm dia NP3 H.P.**					
		Unit: per m					
		Taking Output =	**7.5**	**m**			
		(Assuming 3 pipes of 2.5 m length and two collars)					
		Materials					
		Cement	0.045	cum	8264.70	371.91	**M-1 P**
		Sand	0.045	cum	584.64	26.31	**M-004**
		Jute	7.5	Kg	20.89	156.68	**M Sl. No. 257**
		Total				554.90	
		Labour					
		Head Mason	2	nos	569.00	1138.00	
		Unskilled Mazdoor	21	nos	424.00	8904.00	
		Fitter Gr I	1	nos	577.00	577.00	
		Total				10619.00	
						11173.90	
		Add Overhead charge & C.P @ 15 %				₹ 1,676.08	
						₹ 12,849.98	
					Say, Rs	**₹ 1,713.33**	**Per M**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	5.6.2.5	**Labour Charges for Laying of 1200 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .**					
		Unit: per m					
		Taking Output =	**7.5**	**m**			
		(Assuming 3 pipes of 2.5 m length and two collars)					
		Materials					
		Cement	0.057	cum	8264.70	471.09	**M-1 P**
		Sand	0.057	cum	584.64	33.32	**M-004**
		Jute	12	Kg	20.89	250.68	**M Sl. No. 257**
		Total				755.09	
		Labour					
		Head Mason	2.5	nos	569.00	1422.50	
		Unskilled Mazdoor	25	nos	424.00	10600.00	
		Fitter Gr I	1	nos	577.00	577.00	
		Total				12599.50	
						13354.59	
		Add Overhead charge & C.P @ 15 %				₹ 2,003.19	
						₹ 15,357.78	
					Say, Rs	**₹ 2,047.70**	**Per M**
22	**5.4.10**	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 2.832 cum					
		Materials					
		Stone Boulder	2.832	cum	694.61	1967.14	
		Sand	1.12	cum	584.64	654.80	
		Cement	0.28	cum	8264.70	2314.12	
		Labour				4936.05	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Head Mason	0.125	nos	569.00	71.13	
		Mason Gr II	2	nos	508.00	1016.00	
		Unskilled Mazdoor	5	nos	424.00	2120.00	
		Bhisti	0.5	nos	417.00	208.50	
						3415.63	
						8351.67	
		Add Overhead charge & C.P @ 15 %				₹ 1,252.75	
						₹ 9,604.43	
					Say, Rs	**₹ 3,391.40**	**Per M^3**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
23	**5.7.16**	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 cum					
		Materials					
		Bricks	800	per 1000 nos	4891.00	3912.80	
		Local Sand	0.425	cum	145.87	61.99	
		Total				3974.79	
		Labour					
		Mason Gr II	1.125	nos	508.00	571.50	
		Unskilled Mazdoor	2.25	nos	424.00	954.00	
						1525.50	
						5500.29	
		Add Overhead charge & C.P @ 15 %				₹ 825.04	
						₹ 6,325.34	
					Say, Rs	**₹ 680.10**	**Per M^3**
24	**5.8.9**	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 2.832 cum					
		Hammer man	2.25	nos	445.00	₹ 1,001.25	SII-17
		Skilled Mazdoor	2.25	nos	536.00	₹ 1,206.00	SII-18
		Unskilled mazdoor	7.00	nos	424.00	₹ 2,968.00	SI-1
		Blacksmith GR II	1.00	nos	508.00	₹ 508.00	SII-10
		Mate	1.00	nos	455.00	₹ 455.00	SII-2
					total	₹ 6,138.25	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Add Overhead charge & C.P @ 15 %				₹ 920.74	
						₹ 7,058.99	
		Rate per Cum			**Say, Rs**	**₹ 2,492.58**	**Per M^3**
25	**5.4.6**	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 2.832 cum					
		Materials					
		Bricks	1150	per 1000 nos	4891.00	5624.65	
		Sand	0.92	cum	584.64	537.87	
		Cement	0.23	cum	8264.70	1900.88	
		Total				8063.40	
		Labour					
		Head Mason	0.125	nos	569.00	71.13	
		Mason Gr II	2.5	nos	508.00	1270.00	
		Unskilled Mazdoor	6	nos	424.00	2544.00	
		Bhisti	1	nos	417.00	417.00	
						4302.13	
						12365.52	
		Add Overhead charge & C.P @ 15 %				₹ 1,854.83	
						₹ 14,220.35	
					Say, Rs	**₹ 5,021.30**	**Per M^3**

ITEM RATES					
Sl. No.	Reference		Particular	Unit	Rate (in Rs.)
1	**WRD SOR 2023 & PL JUNE 2024**	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	**Sqm**	**11.80**
2	**WRD SOR 2023 & PL JUNE 2024**	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.	**Cum**	**156.50**
3	**WRD SOR 2023 & PL JUNE 2024**	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	**Cum**	**149.30**
4	**WRD SOR 2023 & PL JUNE 2024**	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.	**Cum**	**196.10**
5	**WRD SOR 2023 & PL JUNE 2024**	**5.1.22**	Extra for wet earth all complete as per specifications and direction of E/I.	**Cum**	**17.22**
6	**WRD SOR 2023 & PL JUNE 2024**	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	**Cum**	**165.12**
7	**WRD SOR 2023 & PL JUNE 2024**	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	**Cum**	**61.88**

8	**WRD SOR 2023 & PL JUNE 2025**	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)		
		5.1.46.1	Beyond 150m but upto 1/2 km	**174.89**	**Cum**
		5.1.46.2	Beyond 1/2 km but upto 1 km	**217.92**	**Cum**
		5.1.46.3	Beyond 1 km but upto 1.50 km	**268.53**	**Cum**
		5.1.46.4	Beyond 1.50 km but upto 2.00 km	**319.14**	**Cum**
		5.1.46.5	Beyond 2.00 km but upto 2.50 km	**369.80**	**Cum**
		5.1.46.6	Beyond 2.50 km but upto 3.00 km	**420.41**	**Cum**
9	**WRD SOR 2023 & PL JUNE 2024**	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	**195.20**	**Cum**
10	**WRD SOR 2025 & PL 2025**	**WRD 5.5.10**	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	**Sqm**	**63.20**
11	**WRD SOR 2023 & PL JUNE 2025**	**5.5.5**	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of D/I.	**Cum**	**340.20**
12	**WRD SOR 2025 & PL 2025**	**5.3.8**	Providing & laying **P.C.C. M-100** with nominal mix of (1:3:6) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.	**Cum**	**6003.37**
13	**WRD SOR 2025 & PL 2025**	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	**Cum**	**6381.70**

14	**WRD SOR 2025 & PL 2025**	**5.3.5**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	**Cum**	**6914.20**
15	**WRD SOR 2025 & PL 2025**	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	**Cum**	**6914.20**
16	**WRD SOR 2025 & PL 2025**	**5.3.11**	Providing & laying **P.C.C. or R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	**Cum**	**8151.40**
17	**RCD 2025**	**RCD 14.09**	Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	**NO.**	5588.70
18	**WRD SOR 2025 & PL 2025**	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.		
			TMT Grade FE-500 - 8 mm	**MT**	**75929.60**
			TMT Grade FE-500 - 10 mm	**MT**	**74292.20**
			TMT Grade FE-500 - 12 mm	**MT**	**73574.90**
			TMT Grade FE-500 - 16 mm	**MT**	**73574.90**
			TMT Grade FE-500 - 20 mm	**MT**	**73574.90**
			TMT Grade FE-500 - 25mm	**MT**	**73574.90**
19	**WRD SOR 2025 & PL 2025**	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	**Cum**	**578.60**
20	**WRD SOR 2025 & PL 2025**	**WRD 5.3.20**	Providing centering including strutting, propping etc. and its removal after use in deck slab as per specifications and direction of E/I.	**Cum**	**789.10**
21	**WRD SOR 2025 & PL 2025**	**WRD 5.2.2**	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	**Cum**	**1377.70**
22	**WRD SOR 2025 & PL 2025**	**WRD 5.7.13**	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	**Cum**	**516.50**
23	**WRD SOR 2025 & PL 2025**	**WRD M-002**	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	**Cum**	694.61

24	**WRD SOR 2025 & PL 2025**	**WRD 5.7.18.1**	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	**Cum**	**1237.00**
25	**WRD SOR 2025 & PL 2025**	**WRD 5.1.37**	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .	**Cum**	**339.90**
26	**WRD SOR 2025 & PL 2025**	**WRD 5.5.5**	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	**Cum**	**340.20**
27	**WRD SOR 2025 & PL 2025**	**M-1701**	Providing 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**RM**	220.00
28	**WRD SOR 2025 & PL 2025**	**WRD 5.6.1.1**	Labour Charges for Laying of 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**RM**	**238.00**
29	**RCD 2025**	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	**R.M.**	6002.82
30	**WRD SOR 2025 & PL 2025**	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**R.M.**	**1713.33**
31	**RCD 2025**	**RCD M-149**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1200 mm dia with spigot	**R.M.**	7015.86
32	**WRD SOR 2025 & PL 2025**	**WRD 5.6.2.5**	Labour for laying 1200mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**R.M.**	**2047.70**
33	**WRD SOR 2025 & PL 2025**	**5.4.10**	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.	**Cum**	**3391.40**
34	**WRD SOR 2025 & PL 2025**	**M-181**	Structural Steel (Average rate of Angle, Joint and Channel) etc.	**MT**	**160035.11**
35	**WRD SOR 2025 & PL 2025**	**5.7.16**	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	**Sqm**	**680.10**
36	**RCD 2025**	**RCD 15.22**	Providing and fixing in position 20 mm thick compressible fibre board in expansion joint complete as per drawing & Technical specification.	**RM**	499.80
37	**RCD 2025**	**RCD M-151**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 600 mm dia with spigot	**RM**	2532.61

38	**WRD SOR 2025 & PL 2025**	**5.6.2.2**	Labour Charges for Laying, fitting and fixing NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**RM**	**711.27**
39	**WRD SOR 2025**	**M-126**	Modular Strip/box seal expansion joint	**RM**	36993.21
40	**PWD NH SOR CHHATISGARH 2025**	**3.18 PWD NH SOR CHHATISGARH 2025**	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (3.18 PWD NH SOR CHHATISGARH 2025)	**RM**	66.00
41	**RCD 2025**	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 900 mm dia with spigot	**R.M.**	4849.67
42	**RCD 2025**	**13.08**	Weepholes	**No.**	152.60
43	**RCD 2025**	**3.06 - 301**	Excavation for road work in soil with hydraulic excavator including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and tranporting to the embankment location within all lifts and lead upto 1000 m	**Cum**	78.40
44	**RCD 2025**	**4.01 B - 401**	Construction of granular sub-base by providing closegraded material, spreading in uniform layers with motorgrader on prepared surface, mixing by mix in placemethod with front end loader at OMC, and compactingwith vibratory roller to achieve the desired density,complete as per clause 401.	**Cum**	1044.90
45	**RCD 2025**	**14.01 C**	RCC Grade M-30 using Batching plant, Transit Mixer and Concrete Pump	**Cum**	6217.20
46	**RCD 2025**	**8.14**	Kilometer Stone M-15	**Nos.**	3853.40

	MATERIAL RATE:				
1	**WRD SOR 2025**	**M-004**	Coarse Sand	**Cum**	584.64
2	**WRD SOR 2025**	**M-012**	Coarse Aggregate	**Cum**	944.26
3	**WRD SOR 2025**	**M-001**	Boulder	**Cum**	694.61
4	**WRD SOR 2025**	**M-11 9(ii)**	Brick	**Cum**	4891
5	**WRD SOR 2025**	**M-006**	Fine Sand	**Cum**	145.87
6	**WRD SOR 2025**	**M1**	Cement (Gaya)	**per bag of 50 Kg**	281.00
7	**WRD SOR 2025**	**M-025**	Aggregate 26.5 mm to 4.75 mm	**Cum**	913.48
8	**WRD SOR 2025**	**M-015**	Aggregate 9.5 mm to 4.75 mm	**Cum**	602.28
9	**WRD SOR 2025**	**M-017**	Aggregate 4.75 mm and below	**Cum**	266.62
10	**WRD SOR 2025**	**M-181**	Structural Steel	**MT**	55116.67

Amba Division – Ratanpur Minor
(Total Cost – Rs. 1.50 Crores)

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND
ABSTRACT OF COST (RATANPUR MINOR)

S. No.	Items	Qty.	Unit	Rate	Seigniorage Charges	Amount (Rs.) including Seigniorage Charges	Reference for Rate	Page no.
1	Earthwork							
	RATANPUR MINOR	1	Job	5996410.36	0.00	₹ 59,96,410.36	AOC Earthwork Ratanpur Mr.	8
2	Falls							
	RATANPUR MINOR :							
	1.524 m Fall at Ch. 0.900 Km	1	No.	921223.78	7928.61	₹ 9,29,152.39	Fall (AOC) Ratanpur Mr.	12
	0.610 m Fall at Ch. 2.325 Km	1	No.	452511.30	3811.81	₹ 4,56,323.11		14
	0.914 m Fall at Ch. 3.000 Km	1	No.	334722.29	2679.53	₹ 3,37,401.82		15
3	Pipe Culvert (1.445 Km)	1	No.	499017.03	4358.96	₹ 5,03,375.99	Pipe Culvert AOC	26
4	Brick Section	1	No.	3802020.34	10102.58	₹ 38,12,122.92	Brick Sec	31
5	*Repair of Structures*							
	RATANPUR MINOR	6	No.	206560.22	1301.54	₹ 2,07,861.76	Abstract (Repair St.) Ratanpur mr.	32
	Approach Road	3	No.	521018.55	7578.59	₹ 15,85,791.43	Approach Road AOC	39
6	Outlets							
	RATANPUR MINOR	9	No.	127744.47	1100.17	₹ 11,59,601.77	Outlet-AOC	43
7	Kilometer Stone	5	No.	3853.40	0.00	₹ 19,267.00	Rates	75
	TOTAL (In Rs.)					**₹ 1,50,07,308.55**		
	TOTAL (In Lacs)					**150.07**		

	Carriage of Material Abstract		
1	Steel & Cement (30 Km)	M.T.	**742.00**
2	RCC Hume Pipe (30 Km)	Per Meter	
	150 mm dia	Per Meter	**82.00**
	600 mm dia	Per Meter	**919.00**
	1000 mm dia	Per Meter	**1470.00**
	1200 mm dia	Per Meter	**1838.00**
3	Bricks (15 Km)	Per 1000 no	**3.18**
4	Boulder (60 Km)	Cumecs	**1159.0**
5	Coarse Sand (60 Km)	Cumecs	**1075.00**
6	Stone Chips/Aggregate (100 Km)	Cumecs	**1398.0**

CARRIAGE OF MATERIAL BY TIPPER OF 18 CUM CAPACITY INCLUDING OVER HEAD CHARGES & C.P

Sr No	Name Of Materials	Unit	Gross Tipper Capacity Per Trip	(For Void) Multiplying Factor	Net Tipper capacity (Payable Quantity) Per Trip	Cost of Loading,Unloading & Stacking Per Trip of Tipper (Tipperr capacity 18 cum x Xa_1)	Cost of Haulage Per cum			Cost of Haulage Per Tipper of 18 cum capacity (Tipper capacity 18 Cum x H)			Lead in KM			Carriage Cost =[(18Hsa.Ls+18Hua.Lu+18Hka.Lk)+18 X_a	Per Unit Rate =(col 17 / Net Payable capacity)
							For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed		
						$18X_a$	H_{Sa}	H_{ua}	H_{ka}	$18H_{Sa}$	$18H_{Ua}$	$18H_{Ka}$	L_S	L_U	L_K		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Boulder (60 Kms)	M^3	18	0.80	14.4	6507.00	9.10	11.10	22.20	163.80	199.80	399.60	50	10	0	16695	1159.00
2	Stone Aggregate (100 Kms)	M^3	18	0.924	16.63	6507.00	9.10	11.10	22.20	163.80	199.80	399.60	90	10	0	23247	1398.00
3	Sand (60 Kms)	M^3	18	0.924	16.63	6507.00	9.10	11.10	22.20	163.80	199.80	399.60	45	10	5	17874	1075.00

CARRIAGE OF MATERIAL BY TIPPER OF 25 TONNES CAPACITY INCLUDING OVER HEAD CHARGES & C.P																	
Sr No	Name Of Materials	Unit	Gross Tipper Capacity Per Trip	(For Void) Multiplying Factor	Net Tipper capacity (Payable Quantity) Per Trip	Cost of Loading,Unloading & Stacking Per Trip of Tipper (Tipperr capacity 25 t x X_b)	Cost of Haulage Per cum			Cost of Haulage Per Tipper of 8 tonne capacity (Tipper capacity 8x H)			Lead in KM			Carriage of Cost =[(25Hsa.Ls+25Hua.Lu+25Hka.Lk)+25 X_a	Per Unit Rate =(col 17 / Net Payable capacity)
							For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed		
						$25X_b$	H_{Sb}	Hub	H_{Kb}	$25H_{Sb}$	$25H_{Ub}$	$25H_{Kb}$	L_S	L_U	L_K		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	**Cement & Steel (30 Kms)**	M.T	25	1	25	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	20	10	0	18550	742.00
2	**Brick ($9^{3/4}$x$4^{3/4}$x$2^{3/4}$) (15 Kms)**	Per % 0	5000	1	5000	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	10	5	0	15900	3180.00
3	**R.C.C hume, A.C. pipe (30 Km)**																
a	**150 mm dia**	mtr	225	1	225	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	82.00
b	**500 mm & 600 mm dia**	mtr	20	1	20	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	919.00
c	**900mm & 1000 mm dia**	mtr	12.5	1	12.5	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	1470.00
d	**1100 & 1200 m dia**	mtr	10	1	10	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	1838.00

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND						
CONCRETE MIX RATIO TABLE						
Sl. No.	Mixes	Unit by Volume (Cum)	Crushed Aggregate			
			Cement (bags of 50 kg)	Sand (Cum)	Coarse Aggregate (Cum)	Boulder (Cum)
1	M -10 (1:3:6)	1.00	4.49	0.47	0.94	
2	M -15 (1:2:4)	1.00	6.48	0.45	0.90	
3	M -20 (1:1.5:3)	1.00	8.25	0.43	0.86	
4	M -25 (1:1:2)	1.00	11.34	0.39	0.79	
5	M-30 (1:0.75:1.5)	1.00	13.96	0.36	0.73	
6	RR Masonary (1:4)	1.00	2.880	0.40		1.00
7	Brick Work (1:4)	1.00	2.304	0.320		
8	Cement Plaster (1:4)	1.00	1.037	0.015		
9	Cement Punning	1.00	0.0015			

DETAIL QUANTITIES OF EARTHWORK

RATANPUR MINOR - KM 0.000 TO KM 3.650 KM

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
0		0.000	0	0	0.000	0	0.000
100	100	0.000	0.000	0.000	6.305	3.153	315.250
200	100	0.466	0.233	23.300	3.686	4.996	499.550
300	100	0.000	0.233	23.300	5.270	4.478	447.800
400	100	1.259	0.630	62.950	2.106	3.688	368.800
500	100	0.761	1.010	101.000	2.352	2.229	222.900
600	100	0.416	0.589	58.850	3.256	2.804	280.400
700	100	0.182	0.299	29.900	2.378	2.817	281.700
800	100	0.041	0.112	11.150	4.169	3.274	327.350
900	100	6.178	3.110	310.950	3.305	3.737	373.700
1000	100	0.441	3.310	330.950	2.735	3.020	302.000
1100	100	1.906	1.174	117.350	1.588	2.162	216.150
1200	100	0.285	1.096	109.550	3.624	2.606	260.600
1300	100	0.225	0.255	25.500	3.976	3.800	380.000
1400	100	0.155	0.190	19.000	4.551	4.264	426.350
1500	100	0.000	0.078	7.750	7.405	5.978	597.800
1600	100	0.000	0.000	0.000	10.876	9.141	914.050
1700	100	0.830	0.415	41.500	1.605	6.241	624.050
1800	100	0.801	0.816	81.550	1.144	1.375	137.450
1900	100	0.376	0.589	58.850	3.550	2.347	234.700
2000	100	0.179	0.278	27.750	6.788	5.169	516.900
2100	100	5.344	2.762	276.150	4.464	5.626	562.600
2200	100	0.109	2.727	272.650	2.327	3.396	339.550
2300	100	0.000	0.055	5.450	3.394	2.861	286.050
2400	100	0.516	0.258	25.800	1.908	2.651	265.100
2500	100	0.291	0.404	40.350	2.138	2.023	202.300
2600	100	0.120	0.206	20.550	2.165	2.152	215.150
2700	100	2.142	1.131	113.100	0.805	1.485	148.500
2800	100	0.474	1.308	130.800	4.124	2.465	246.450
2900	100	0.392	0.433	43.300	3.995	4.060	405.950
3000	100	1.194	0.793	79.300	3.360	3.678	367.750
3100	100	0.978	1.086	108.600	3.628	3.494	349.400
3200	100	0.769	0.874	87.350	3.970	3.799	379.900
3300	100	0.560	0.665	66.450	4.178	4.074	407.400
3400	100	0.350	0.455	45.500	4.272	4.225	422.500
3500	100	0.141	0.246	24.550	4.356	4.314	431.400
3600	100	0.000	0.071	7.050	4.402	4.379	437.900
3650	50	0.000	0.000	0.000	4.430	4.416	220.800
Total				**2788.100**			**13416.200**
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							**2788.100**
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							**13416.200**
NET QUANTITY OF EARTHWORK IN FILLING							**10628.10**

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND				
RATANPUR MINOR				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Quantity**	
0.00 - 0.060	60	2.76	165.60	Sqm
0.060 - 0.850	790	2.44	1927.60	Sqm
0.850 -1.675	825	2.18	1798.50	Sqm
1.675 - 2.175	500	1.97	985.00	Sqm
2.175- 2.743	568	1.73	982.64	Sqm
2.743 - 3.700	957	1.30	1244.10	Sqm
	TOTAL		**7103.44**	**Sqm**

LIP CUTTING QUANTITY					
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Thickness (m)**	**Quantity**	
0.00 - 0.060	60	2.760	0.15	24.84	Cum
0.060 - 0.850	790	2.440	0.15	289.14	Cum
0.850 -1.675	825	2.180	0.15	269.78	Cum
1.675 - 2.175	500	1.970	0.15	147.75	Cum
2.175- 2.743	568	1.730	0.15	147.40	Cum
2.743 - 3.700	957	1.300	0.15	186.62	Cum
	TOTAL			**1065.52**	**Cum**

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND						
ABSTRACT OF QUANTITY OF EARTHWORK FOR RATANPUR MINOR						
Sl. No.	**Reference Clause no.**	**Particular**	**Quantity**	**Unit**	**Rate (in Rs.)**	**Amount in Rs.**
1	**5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	7103.44	Sqm	**11.80**	83851.7756
2	**5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	2788.10	Cum	**156.50**	436337.65
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	1115.24	Cum	**17.22**	19201.66045
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	10628.10	Cum	**165.12**	1754868.94
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	3188.43	Cum	**174.89**	557624.52
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (25% of net filling)	2657.03	Cum	**217.92**	579018.89
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	4782.65	Cum	**319.14**	1526333.33

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
6	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.				
			1065.52	Cum	**196.10**	208947.69
7	**5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	13416.20	Cum	**61.88**	830225.91
TOTAL COST OF EARTHWORK (in Rs.)						**5996410.36**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**59.964**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND				
DETAILS OF QUANTITIES FOR EARTH WORK FOR RATANPUR MINOR				
S.No.	**Items**	**No.**	**Quantity**	**Unit**
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	*7103.44*	*Sqm*
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	2788.100	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	1115.24	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	10628.100	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	3188.43	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	2657.03	Cum

S.No.	Items	No.	Quantity	Unit
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	4782.65	Cum
6	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.	1	1065.52	Cum
7	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	13416.20	Cum

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR RATANPUR MINOR								
S. No.	**Item of Works**	**Qty.**	**Unit**	**Rate (As per WRD SOR 2025 & PL MARCH 2025)**	**Amount (Rs)**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**
SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH. 0.900 KM								
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	98.117	Cum	**195.20**	19152.47			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	10.87	Cum	**6381.70**	69361.21	3.52	4.89	9.78
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	62.28	Cum	**6914.20**	430618.95	25.69	26.78	53.56
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.79	Cum	**8151.40**	6442.70	0.45	0.31	0.62
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.47	MT	**73574.90**	107912.51			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	203.28	Sqm	**578.60**	117619.79			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.83	Sqm	**680.10**	3966.34			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.27	Cum	**694.61**	187.54			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.27	Cum	**1237.00**	333.99			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.27	Cum	**1377.70**	371.98			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.27	Cum	**516.50**	139.46			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	11.49	Sqm	**63.20**	726.02			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	32.75	Cum	**149.30**	4889.77			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	31.980	Cum	**1075.00**	34378.23			
	Coarse Aggregates (100 Km lead)	63.967	Cum	**1398.00**	89426.44			
	Cement (30 km lead)	29.660	MT	**742.00**	22007.93			
	Boulder (60 Km lead)	0.27	Cum	**1159.00**	312.93			
	Brick (15 km lead)	349.00	No.	**3.18**	1109.82			
	Steel (30 Km lead)	1.47	MT	**742.00**	1088.29			
	TOTAL (In Rs.)				**921223.78**			
	TOTAL (In Rs.)				**921223.78**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	31.98	Cum	**584.64**	18696.64	1869.66		
	Coarse Aggregate	63.97	Cum	**944.26**	60401.87	6040.19		
	Boulders	0.27	Cum	**694.61**	187.54	18.75		
	Total					7928.61		
	For 1 nos. fall, Total Seigniorage charges					**7928.61**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 2.325 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	32.393	Cum	**195.20**	6323.12			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	7.47	Cum	**6381.70**	47649.45	2.42	3.36	6.72
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	27.45	Cum	**6914.20**	189788.46	11.32	11.80	23.61
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.52	Cum	**8151.40**	4251.24	0.30	0.20	0.41
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.65	MT	**73574.90**	47560.72			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	116.36	Sqm	**578.60**	67328.54			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.35	Sqm	**680.10**	3635.81			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.16	Cum	**694.61**	109.40			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.16	Cum	**1237.00**	194.83			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.16	Cum	**1377.70**	216.99			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.16	Cum	**516.50**	81.35			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.44	Sqm	**63.20**	533.14			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	13.89	Cum	**149.30**	2074.26			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	15.366	Cum	**1075.00**	16518.95			
	Coarse Aggregates (100 Km lead)	30.738	Cum	**1398.00**	42971.93			
	Cement (30 km lead)	14.038	MT	**742.00**	10415.92			
	Boulder (60 Km lead)	0.16	Cum	**1159.00**	182.54			
	Brick (15 km lead)	320.00	No.	**3.18**	1017.60			
	Steel (30 Km lead)	0.65	MT	**742.00**	479.65			
	TOTAL (In Rs.)				**452511.30**			
	TOTAL (In Rs.)				**452511.30**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	15.37	Cum	**584.64**	8983.85	898.39		
	Coarse Aggregate	30.74	Cum	**944.26**	29024.80	2902.48		
	Boulders	0.16	Cum	**694.61**	109.40	10.94		
	Total					3811.81		
	For 1 nos. fall, Total Seigniorage charges					**3811.81**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 3.000 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	41.682	Cum	**195.20**	8136.31			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	5.10	Cum	**6381.70**	32535.49	1.65	2.29	4.59
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	19.36	Cum	**6914.20**	133853.16	7.99	8.32	16.65
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.39	Cum	**8151.40**	3158.38	0.22	0.15	0.31
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.46	MT	**73574.90**	33543.42			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	96.99	Sqm	**578.60**	56118.04			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	4.05	Sqm	**680.10**	2754.41			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.23	Cum	**694.61**	156.29			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.23	Cum	**1237.00**	278.33			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.23	Cum	**1377.70**	309.98			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.23	Cum	**516.50**	116.21			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	6.28	Sqm	**63.20**	396.85			
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	12.10	Cum	**149.30**	1807.02			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	10.770	Cum	**1075.00**	11577.50			
	Coarse Aggregates (100 Km lead)	21.543	Cum	**1398.00**	30117.68			
	Cement (30 km lead)	9.857	MT	**742.00**	7314.03			
	Boulder (60 Km lead)	0.23	Cum	**1159.00**	260.78			
	Brick (15 km lead)	243.00	No.	**3.18**	772.74			
	Steel (30 Km lead)	0.46	MT	**742.00**	338.28			
	TOTAL (In Rs.)				**334722.29**			
	TOTAL (In Rs.)				**334722.29**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	10.77	Cum	**584.64**	6296.44	629.64		
	Coarse Aggregate	21.54	Cum	**944.26**	20342.58	2034.26		
	Boulders	0.23	Cum	**694.61**	156.29	15.63		
	Total					2679.53		
	For 1 nos. fall, Total Seigniorage charges					**2679.53**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR RATANPUR MINOR							
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
	SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH. 0.900 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.46*	*2.08*	*2.411*	*14.697*	*Cum*
	Section 2-2	*2*	*4.00*	*1.13*	*2.411*	*21.873*	*Cum*
	Section 3-3	*2*	*2.70*	*1.01*	*2.211*	*12.107*	*Cum*
	Section 5-5	*2*	*2.42*	*2.23*	*2.411*	*26.015*	*Cum*
	Section 6-6	*2*	*1.28*	*1.01*	*2.211*	*5.721*	*Cum*
	U/S Key Floor	*1*	*0.625*	*1.200*	*0.850*	*0.638*	*Cum*
	U/S Floor	*1*	*3.500*	*1.200*	*0.450*	*1.890*	*Cum*
	D/S Floor	*1*	*4.000*	*1.200*	*0.850*	*4.080*	*Cum*
		1	*5.605*	*1.200*	*0.300*	*2.018*	*Cum*
		1	*3.000*	*1.200*	*0.650*	*2.340*	*Cum*
	D/S Key Floor	*1*	*0.800*	*1.200*	*1.550*	*1.488*	*Cum*
	Toe Wall D/S Portion	*1*	*5.780*	*0.750*	*0.900*	*3.902*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*0.600*	*0.750*	*1.350*	*Cum*
						98.12	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.20*	*0.15*	*0.10*	*Cum*
		1	*0.783*	*1.20*	*0.15*	*0.14*	*Cum*
		1	*6.842*	*1.20*	*0.15*	*1.23*	*Cum*
		1	*0.566*	*1.20*	*0.15*	*0.10*	*Cum*
		1	*1.246*	*1.20*	*0.15*	*0.22*	*Cum*
		1	*1.565*	*1.20*	*0.15*	*0.28*	*Cum*
		1	*0.542*	*1.20*	*0.15*	*0.10*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.46*	*2.08*	*0.15*	*0.91*	*Cum*
	Section 2-2	*2*	*4.00*	*1.13*	*0.15*	*1.36*	*Cum*
	Section 3-3	*2*	*2.70*	*1.01*	*0.15*	*0.82*	*Cum*
	Section 5-5	*2*	*2.42*	*2.23*	*0.15*	*1.62*	*Cum*
	Section 6-6	*2*	*1.28*	*1.01*	*0.15*	*0.39*	*Cum*
	Toe Wall D/S Portion	*1*	*5.78*	*0.75*	*0.30*	*1.30*	*Cum*
	Toe Wall D/S Portion	*1*	*5.48*	*0.45*	*0.60*	*1.48*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.60*	*0.15*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**10.87**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.24*	*0.45*	*0.45*	*0.50*	*Cum*
		2	*1.24*	*1.12*	*2.22*	*6.15*	*Cum*
		2	*1.24*	*1.93*	*0.80*	*3.83*	*Cum*
	Section 2-2	*2*	*4.00*	*0.45*	*0.45*	*1.62*	*Cum*
		2	*4.00*	*0.64*	*0.64*	*3.29*	*Cum*
		2	*4.00*	*0.98*	*0.80*	*6.30*	*Cum*
	Section 3-3	*2*	*2.42*	*0.45*	*0.45*	*0.98*	*Cum*
		2	*2.42*	*0.58*	*0.44*	*1.24*	*Cum*
		2	*2.42*	*0.86*	*0.50*	*2.09*	*Cum*
	Section 5-5	*2*	*2.37*	*0.45*	*0.45*	*0.96*	*Cum*
		2	*2.37*	*1.12*	*2.22*	*11.78*	*Cum*
		2	*2.37*	*1.93*	*0.80*	*7.34*	*Cum*
	Section 6-6	*2*	*1.71*	*0.45*	*0.45*	*0.69*	*Cum*
		2	*1.71*	*0.58*	*0.44*	*0.87*	*Cum*
		2	*1.71*	*0.86*	*0.50*	*1.48*	*Cum*
	Floor	*1*	*0.63*	*1.20*	*0.70*	*0.53*	*Cum*
		1	*7.50*	*1.20*	*0.50*	*4.50*	*Cum*
		1	*5.60*	*1.20*	*0.30*	*2.02*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.25*	*1.20*	*0.40*	*0.12*	*Cum*
		1	*0.20*	*1.20*	*0.50*	*0.12*	*Cum*
		1	*2.80*	*1.20*	*0.60*	*2.02*	*Cum*
		1	*0.80*	*1.20*	*1.40*	*1.34*	*Cum*
	Crest	*1*	*1.19*	*1.20*	*1.77*	*2.53*	*Cum*
	TOTAL					**62.28**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.90*	*1.20*	*0.20*	*0.22*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*12.76*	*0.45*	*0.05*	*0.29*	*Cum*
	On Abutment Top (Right Side)	*1*	*12.76*	*0.45*	*0.05*	*0.29*	*Cum*
	TOTAL					**0.79**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**62.28**	**0.30%**	**0.19**	**7850**	**1466.70**	**Kg**
	Total Weight in Metric Tonne					**1.47**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.24*		*0.45*	*2.23*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.24*		*2.22*	*11.01*	*Sqm*
		4		*1.12*	*2.22*	*9.94*	*Sqm*
		4	*1.24*		*0.80*	*3.96*	*Sqm*
		4		*1.93*	*0.80*	*6.19*	*Sqm*
	Section 2-2	*4*	*4.00*		*0.45*	*7.20*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*4.00*		*0.64*	*10.24*	*Sqm*
		4		*0.64*	*0.64*	*1.64*	*Sqm*
		4	*4.00*		*0.80*	*12.80*	*Sqm*
		4		*0.98*	*0.80*	*3.15*	*Sqm*
	Section 3-3	*4*	*2.42*		*0.45*	*4.35*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.42*		*0.44*	*4.26*	*Sqm*
		4		*0.58*	*0.44*	*1.02*	*Sqm*
		4	*2.42*		*0.50*	*4.84*	*Sqm*
		4		*0.86*	*0.50*	*1.73*	*Sqm*
	Section 5-5	*4*	*2.37*		*0.45*	*4.27*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.37*		*2.22*	*21.09*	*Sqm*
		4		*1.12*	*2.22*	*9.94*	*Sqm*
		4	*2.37*		*0.80*	*7.59*	*Sqm*
		4		*1.93*	*0.80*	*6.19*	*Sqm*
	Section 6-6	*4*	*1.71*		*0.45*	*3.07*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.71*		*0.44*	*3.01*	*Sqm*
		4		*0.58*	*0.44*	*1.02*	*Sqm*
		4	*1.71*		*0.50*	*3.42*	*Sqm*
		4		*0.86*	*0.50*	*1.73*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.20*	*0.70*	*1.68*	*Sqm*
		2	*7.50*		*0.50*	*7.50*	*Sqm*
		2		*1.20*	*0.50*	*1.20*	*Sqm*
		2	*5.60*		*0.30*	*3.36*	*Sqm*
		2		*1.20*	*0.30*	*0.72*	*Sqm*
		2	*0.25*		*0.40*	*0.20*	*Sqm*
		2		*1.20*	*0.40*	*0.96*	*Sqm*
		2	*0.20*		*0.50*	*0.20*	*Sqm*
		2		*1.20*	*0.50*	*1.20*	*Sqm*
		2	*2.80*		*0.60*	*3.36*	*Sqm*
		2		*1.20*	*0.60*	*1.44*	*Sqm*
		2	*0.80*		*1.40*	*2.24*	*Sqm*
		2		*1.20*	*1.40*	*3.36*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Crest	*2*	*1.194*		*1.765*	*4.21*	*Sqm*
		2		*1.2*	*1.765*	*4.24*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.78*		*0.30*	*3.47*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.48*		*0.60*	*6.58*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**203.28**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.94*		*5.83*	*Sqm*
	TOTAL					**5.83**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.60*	*0.30*	**0.27**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.60*	*0.15*	**0.27**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*12.76*	*0.45*		*5.74*	*Sqm*
	On Abutment Top (Right Side)	*1*	*12.76*	*0.45*		*5.74*	*Sqm*
	TOTAL					**11.49**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		11.40		11.40	**Cum**
	Abutment						
	Section 1-1	2	*1.46*	*1.20*		*3.516*	*Cum*
	Section 2-2	2	*4.00*	*0.78*		*6.216*	*Cum*
	Section 3-3	2	*2.70*	*0.56*		*3.035*	*Cum*
	Section 5-5	2	*2.42*	*1.20*		*5.806*	*Cum*
	Section 6-6	2	*1.28*	*0.56*		*1.434*	*Cum*
	D/S protection	2					
	Toe wall	2	*1.20*	*0.09*		*0.216*	*Cum*
		2	0.60	0.94		*1.128*	*Cum*
	TOTAL					**32.75**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 2.325 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*2.28*	*1.45*	*1.047*	*6.913*	*Cum*
	Section 2-2	*2*	*1.50*	*1.08*	*1.047*	*3.392*	*Cum*
	Section 3-3	*2*	*2.00*	*0.96*	*0.847*	*3.252*	*Cum*
	Section 5-5	*2*	*2.14*	*1.60*	*1.047*	*7.167*	*Cum*
	Section 6-6	*2*	*0.87*	*0.96*	*0.847*	*1.407*	*Cum*
	U/S Key Floor	*1*	*0.625*	*0.950*	*0.850*	*0.505*	*Cum*
	U/S Floor	*1*	*2.000*	*0.950*	*0.650*	*1.235*	*Cum*
	D/S Floor	*1*	*2.500*	*0.950*	*0.850*	*2.019*	*Cum*
		1	*2.500*	*0.950*	*0.650*	*1.544*	*Cum*
	D/S Key Floor	*1*	*0.625*	*0.950*	*0.850*	*0.505*	*Cum*
	Toe Wall D/S Portion	*1*	*4.600*	*0.750*	*0.900*	*3.105*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*0.600*	*0.750*	*1.350*	*Cum*
						32.39	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*0.95*	*0.15*	*0.08*	*Cum*
		1	*0.783*	*0.95*	*0.15*	*0.11*	*Cum*
		1	*3.876*	*0.95*	*0.15*	*0.55*	*Cum*
		1	*0.283*	*0.95*	*0.15*	*0.04*	*Cum*
		1	*1.138*	*0.95*	*0.15*	*0.16*	*Cum*
		1	*0.782*	*0.95*	*0.15*	*0.11*	*Cum*
		1	*0.542*	*0.95*	*0.15*	*0.08*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*2.28*	*1.45*	*0.15*	*0.99*	*Cum*
	Section 2-2	*2*	*1.50*	*1.08*	*0.15*	*0.49*	*Cum*
	Section 3-3	*2*	*2.00*	*0.96*	*0.15*	*0.58*	*Cum*
	Section 5-5	*2*	*2.14*	*1.60*	*0.15*	*1.03*	*Cum*
	Section 6-6	*2*	*0.87*	*0.96*	*0.15*	*0.25*	*Cum*
	Toe Wall D/S Portion	*1*	*4.60*	*0.75*	*0.30*	*1.04*	*Cum*
	Toe Wall D/S Portion	*1*	*4.30*	*0.45*	*0.60*	*1.16*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.60*	*0.15*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**7.47**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*2.05*	*0.45*	*0.45*	*0.83*	*Cum*
		2	*2.05*	*0.80*	*1.16*	*3.79*	*Cum*
		2	*2.05*	*1.30*	*0.50*	*2.65*	*Cum*
	Section 2-2	*2*	*1.50*	*0.45*	*0.45*	*0.61*	*Cum*
		2	*1.50*	*0.62*	*0.55*	*1.01*	*Cum*
		2	*1.50*	*0.93*	*0.50*	*1.40*	*Cum*
	Section 3-3	*2*	*1.75*	*0.45*	*0.45*	*0.71*	*Cum*
		2	*1.75*	*0.56*	*0.35*	*0.68*	*Cum*
		2	*1.75*	*0.81*	*0.50*	*1.41*	*Cum*
	Section 5-5	*2*	*2.10*	*0.45*	*0.45*	*0.85*	*Cum*
		2	*2.10*	*0.80*	*1.16*	*3.89*	*Cum*
		2	*2.10*	*1.30*	*0.50*	*2.72*	*Cum*
	Section 6-6	*2*	*1.27*	*0.45*	*0.45*	*0.51*	*Cum*
		2	*1.27*	*0.56*	*0.35*	*0.49*	*Cum*
		2	*1.27*	*0.81*	*0.50*	*1.03*	*Cum*
	Floor	*1*	*0.63*	*0.95*	*0.70*	*0.42*	*Cum*
		1	*4.50*	*0.95*	*0.50*	*2.14*	*Cum*
		1	*0.31*	*0.95*	*0.20*	*0.06*	*Cum*
		1	*0.20*	*0.95*	*0.40*	*0.08*	*Cum*
		1	*2.30*	*0.95*	*0.50*	*1.09*	*Cum*
		1	*0.63*	*0.95*	*0.70*	*0.42*	*Cum*
	Crest	*1*	*0.83*	*0.95*	*0.85*	*0.67*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**27.45**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*0.95*	*0.15*	*0.10*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.37*	*0.45*	*0.05*	*0.21*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.37*	*0.45*	*0.05*	*0.21*	*Cum*
	TOTAL					**0.52**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**27.45**	**0.30%**	**0.08**	**7850**	**646.43**	**Kg**
	Total Weight in Metric Tonne					**0.65**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*2.05*		*0.45*	*3.68*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.05*		*1.16*	*9.50*	*Sqm*
		4		*0.80*	*1.16*	*3.70*	*Sqm*
		4	*2.05*		*0.50*	*4.09*	*Sqm*
		4		*1.30*	*0.50*	*2.59*	*Sqm*
	Section 2-2	*4*	*1.50*		*0.45*	*2.70*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.50*		*0.55*	*3.30*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*1.50*		*0.50*	*3.00*	*Sqm*
		4		*0.93*	*0.50*	*1.86*	*Sqm*
	Section 3-3	*4*	*1.75*		*0.45*	*3.14*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.75*		*0.35*	*2.44*	*Sqm*
		4		*0.56*	*0.35*	*0.78*	*Sqm*
		4	*1.75*		*0.50*	*3.49*	*Sqm*
		4		*0.81*	*0.50*	*1.62*	*Sqm*
	Section 5-5	*4*	*2.10*		*0.45*	*3.78*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.10*		*1.16*	*9.75*	*Sqm*
		4		*0.80*	*1.16*	*3.70*	*Sqm*
		4	*2.10*		*0.50*	*4.20*	*Sqm*
		4		*1.30*	*0.50*	*2.59*	*Sqm*
	Section 6-6	*4*	*1.27*		*0.45*	*2.29*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.27*		*0.35*	*1.78*	*Sqm*
		4		*0.56*	*0.35*	*0.78*	*Sqm*
		4	*1.27*		*0.50*	*2.54*	*Sqm*
		4		*0.81*	*0.50*	*1.62*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.95*	*0.70*	*1.33*	*Sqm*
		2	*4.50*		*0.50*	*4.50*	*Sqm*
		2		*0.95*	*0.50*	*0.95*	*Sqm*
		2	*0.31*		*0.20*	*0.12*	*Sqm*
		2		*0.95*	*0.20*	*0.38*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*0.95*	*0.40*	*0.76*	*Sqm*
		2	*2.30*		*0.50*	*2.30*	*Sqm*
		2		*0.95*	*0.50*	*0.95*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.95*	*0.70*	*1.33*	*Sqm*
	Crest	*2*	*0.8325*		*0.845*	*1.41*	*Sqm*
		2		*0.95*	*0.845*	*1.61*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.60*		*0.30*	*2.76*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.30*		*0.60*	*5.16*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**116.36**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.78*		*5.35*	*Sqm*
	TOTAL					**5.35**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.35*	*0.30*	**0.16**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.35*	*0.15*	**0.16**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.37*	*0.45*		*4.22*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.37*	*0.45*		*4.22*	*Sqm*
	TOTAL					**8.44**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.54		1.54	**Cum**
	Abutment						
	Section 1-1	2	*2.28*	*0.74*		*3.383*	*Cum*
	Section 2-2	2	*1.50*	*0.65*		*1.950*	*Cum*
	Section 3-3	2	*2.00*	*0.47*		*1.892*	*Cum*
	Section 5-5	2	*2.14*	*0.74*		*3.178*	*Cum*
	Section 6-6	2	*0.87*	*0.47*		*0.818*	*Cum*
	D/S protection	2					
	Toe wall	2	*0.95*	*0.09*		*0.171*	*Cum*
		2	0.60	0.80		*0.960*	*Cum*
	TOTAL					**13.89**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 3.000 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.24*	*1.60*	*2.235*	*8.857*	*Cum*
	Section 2-2	*2*	*2.50*	*1.05*	*2.235*	*11.734*	*Cum*
	Section 3-3	*2*	*1.27*	*0.93*	*2.035*	*4.807*	*Cum*
	Section 5-5	*2*	*0.59*	*1.75*	*2.235*	*4.630*	*Cum*
	Section 6-6	*2*	*1.08*	*0.93*	*2.035*	*4.088*	*Cum*
	U/S Key Floor	*1*	*0.625*	*0.700*	*0.850*	*0.372*	*Cum*
	U/S Floor	*1*	*2.500*	*0.700*	*0.650*	*1.138*	*Cum*
	D/S Floor	*1*	*2.500*	*0.700*	*0.850*	*1.488*	*Cum*
		1	*2.500*	*0.700*	*0.650*	*1.138*	*Cum*
	D/S Key Floor	*1*	*0.625*	*0.700*	*0.850*	*0.372*	*Cum*
	Toe Wall D/S Portion	*1*	*2.200*	*0.750*	*0.900*	*1.485*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*1.500*	*1.400*	*0.750*	*1.575*	*Cum*
						41.68	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*0.70*	*0.15*	*0.06*	*Cum*
		1	*0.783*	*0.70*	*0.15*	*0.08*	*Cum*
		1	*4.418*	*0.70*	*0.15*	*0.46*	*Cum*
		1	*0.283*	*0.70*	*0.15*	*0.03*	*Cum*
		1	*1.096*	*0.70*	*0.15*	*0.12*	*Cum*
		1	*0.783*	*0.70*	*0.15*	*0.08*	*Cum*
		1	*0.542*	*0.70*	*0.15*	*0.06*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.24*	*1.60*	*0.15*	*0.59*	*Cum*
	Section 2-2	*2*	*2.50*	*1.05*	*0.15*	*0.79*	*Cum*
	Section 3-3	*2*	*1.27*	*0.93*	*0.15*	*0.35*	*Cum*
	Section 5-5	*2*	*0.59*	*1.75*	*0.15*	*0.31*	*Cum*
	Section 6-6	*2*	*1.08*	*0.93*	*0.15*	*0.30*	*Cum*
	Toe Wall D/S Portion	*1*	*2.20*	*0.75*	*0.30*	*0.50*	*Cum*
	Toe Wall D/S Portion	*1*	*1.90*	*0.45*	*0.60*	*0.51*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.50*	*1.40*	*0.15*	*0.32*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**5.10**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.02*	*0.45*	*0.45*	*0.41*	*Cum*
		2	*1.02*	*0.87*	*1.41*	*2.51*	*Cum*
		2	*1.02*	*1.45*	*0.50*	*1.47*	*Cum*
	Section 2-2	*2*	*2.50*	*0.45*	*0.45*	*1.01*	*Cum*
		2	*2.50*	*0.60*	*0.50*	*1.50*	*Cum*
		2	*2.50*	*0.90*	*0.50*	*2.25*	*Cum*
	Section 3-3	*2*	*1.96*	*0.45*	*0.45*	*0.79*	*Cum*
		2	*1.96*	*0.54*	*0.30*	*0.64*	*Cum*
		2	*1.96*	*0.78*	*0.50*	*1.53*	*Cum*
	Section 5-5	*2*	*0.55*	*0.45*	*0.45*	*0.22*	*Cum*
		2	*0.55*	*0.87*	*1.41*	*1.36*	*Cum*
		2	*0.55*	*1.45*	*0.50*	*0.79*	*Cum*
	Section 6-6	*2*	*0.54*	*0.45*	*0.45*	*0.22*	*Cum*
		2	*0.54*	*0.54*	*0.30*	*0.17*	*Cum*
		2	*0.54*	*0.78*	*0.50*	*0.42*	*Cum*
	Floor	*1*	*0.63*	*0.70*	*0.70*	*0.31*	*Cum*
		1	*5.00*	*0.70*	*0.50*	*1.75*	*Cum*
		1	*0.35*	*0.70*	*0.20*	*0.05*	*Cum*
		1	*0.20*	*0.70*	*0.40*	*0.06*	*Cum*
		1	*2.30*	*0.70*	*0.50*	*0.81*	*Cum*
		1	*0.63*	*0.70*	*0.70*	*0.31*	*Cum*
	Crest	*1*	*0.98*	*0.70*	*1.15*	*0.79*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**19.36**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*0.70*	*0.15*	*0.07*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*6.98*	*0.45*	*0.05*	*0.16*	*Cum*
	On Abutment Top (Right Side)	*1*	*6.98*	*0.45*	*0.05*	*0.16*	*Cum*
	TOTAL					**0.39**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**19.36**	**0.30%**	**0.06**	**7850**	**455.91**	**Kg**
	Total Weight in Metric Tonne					**0.46**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.02*		*0.45*	*1.83*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.02*		*1.41*	*5.74*	*Sqm*
		4		*0.87*	*1.41*	*4.94*	*Sqm*
		4	*1.02*		*0.50*	*2.03*	*Sqm*
		4		*1.45*	*0.50*	*2.90*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.45*	*4.50*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.50*		*0.50*	*5.00*	*Sqm*
		4		*0.60*	*0.50*	*1.20*	*Sqm*
		4	*2.50*		*0.50*	*5.00*	*Sqm*
		4		*0.90*	*0.50*	*1.80*	*Sqm*
	Section 3-3	*4*	*1.96*		*0.45*	*3.53*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.96*		*0.30*	*2.35*	*Sqm*
		4		*0.54*	*0.30*	*0.65*	*Sqm*
		4	*1.96*		*0.50*	*3.92*	*Sqm*
		4		*0.78*	*0.50*	*1.56*	*Sqm*
	Section 5-5	*4*	*0.55*		*0.45*	*0.99*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.55*		*1.41*	*3.11*	*Sqm*
		4		*0.87*	*1.41*	*4.94*	*Sqm*
		4	*0.55*		*0.50*	*1.10*	*Sqm*
		4		*1.45*	*0.50*	*2.90*	*Sqm*
	Section 6-6	*4*	*0.54*		*0.45*	*0.97*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.54*		*0.30*	*0.65*	*Sqm*
		4		*0.54*	*0.30*	*0.65*	*Sqm*
		4	*0.54*		*0.50*	*1.08*	*Sqm*
		4		*0.78*	*0.50*	*1.56*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.70*	*0.70*	*0.98*	*Sqm*
		2	*5.00*		*0.50*	*5.00*	*Sqm*
		2		*0.70*	*0.50*	*0.70*	*Sqm*
		2	*0.35*		*0.20*	*0.14*	*Sqm*
		2		*0.70*	*0.20*	*0.28*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*0.70*	*0.40*	*0.56*	*Sqm*
		2	*2.30*		*0.50*	*2.30*	*Sqm*
		2		*0.70*	*0.50*	*0.70*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.70*	*0.70*	*0.98*	*Sqm*
	Crest	*2*	*0.9825*		*1.146*	*2.25*	*Sqm*
		2		*0.7*	*1.146*	*1.60*	*Sqm*
	Toe Wall D/S Portion	*2*	*2.20*		*0.30*	*1.32*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*1.90*		*0.60*	*2.28*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*1.40*	*0.15*	*0.84*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**96.99**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*1*	*1.50*	*2.70*		*4.05*	*Sqm*
	TOTAL					**4.05**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.50*	*0.30*	**0.23**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.50*	*0.15*	**0.23**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*6.98*	*0.45*		*3.14*	*Sqm*
	On Abutment Top (Right Side)	*1*	*6.98*	*0.45*		*3.14*	*Sqm*
	TOTAL					**6.28**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.54		1.54	**Cum**
	Abutment						
	Section 1-1	2	*1.24*	*1.30*		*3.224*	*Cum*
	Section 2-2	2	*2.50*	*0.62*		*3.120*	*Cum*
	Section 3-3	2	*1.27*	*0.43*		*1.097*	*Cum*
	Section 5-5	2	*0.59*	*1.30*		*1.541*	*Cum*
	Section 6-6	2	*1.08*	*0.43*		*0.933*	*Cum*
	D/S protection	2					
	Toe wall	2	*0.70*	*0.09*		*0.126*	*Cum*
		2	0.60	0.44		*0.522*	*Cum*
	TOTAL					**12.10**	**Cum**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND									
ABSTRACT OF COST OF PIPE CULVERT OF 1.445 KM OF RATANPUR MR.									
S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	5.1.8	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.	53.134	Cum	**156.50**	8315.48			
3	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	16.28	Cum	**6381.70**	103914.24	5.28	7.33	14.65
4	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	21.883	Cum	**6914.20**	151300.06	9.03	9.41	18.82
5	5.3.18	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	120.567	Sqm	**578.60**	69760.10			
6	5.3.22	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.43	MT	**73574.90**	31596.32			
7	WRD M-002	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	2.88	Cum	**694.61**	2000.48			
8	WRD 5.7.18.1	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	2.88	Cum	**1237.00**	3562.56			
9	M-151 RCD	Supplying 600 mm NP3 Pipe	7.50	Rm	**2532.61**	18994.58			
10	5.6.2.2	Labour Charges for Laying of 600 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP3 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	Rm	**711.27**	5334.49			
11	13.08 RCD	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	Rm	**152.60**	1220.80			
12	5.7.16	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	7.72	Sqm	**680.10**	5253.09			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
13	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	0.77	Cum	**5021.30**	3886.49	0.09	0.25	
14	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	4.386	Sqm	**340.20**	1492.12	0.066	0.088	
15	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	1.806	Sqm	**63.20**	114.14	0.003		
16	5.1.31	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	29.66	Cum	**149.30**	4428.12			
17		**Carriage of materials**							
		Coarse Sand (60 Km lead)	17.072	Cum	**1075.00**	18352.72			
		Coarse Aggregates (100 Km lead)	33.474	Cum	**1398.00**	46796.38			
		Cement (30 km lead)	14.460	MT	**742.00**	10729.28			
		Steel (30 km lead)	0.429	MT	**742.00**	318.65			
		Boulder (60 km lead)	2.880	Cum	**1159.00**	3337.92			
		Hume Pipe (30 Km Lead)	7.500	Rm	**919.00**	6892.50			
TOTAL (In Rs.)						**499017.03**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	17.07	Cum	**584.64**	9981.15	998.12		
		Coarse Aggregate	33.47	Cum	**944.26**	31607.97	3160.80		
		Boulder (60 km lead)	2.88	Cum	**694.61**	2000.48	200.05		
		Total					**4358.96**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILS OF QUANTITIES OF PIPE CULVERT AT KM 1.445 OF RATANPUR MR.							
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*120.00*			**120.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	U/S Toe Wall	*1*	*1.13*	*0.85*	*1.20*	*1.15*	*Cum*
	D/S Toe Wall	*1*	*1.13*	*0.85*	*1.20*	*1.15*	*Cum*
	U/S Toe Wall Base (For Resting Brick Pitching)	*2*	*2.00*	*0.45*	*0.90*	*1.62*	*Cum*
	D/S Toe Wall Base (For Resting Brick Pitching)	*2*	*2.00*	*0.45*	*0.90*	*1.62*	*Cum*
	U/S Transitions Floor (Left & Right)	*2*	*0.61*	*1.00*	*1.20*	*1.47*	*Cum*
		2	*2.24*	*1.88*	*1.20*	*10.07*	*Cum*
	Extra for Slope (.5:1)	*2*	*2.24*	*1.07*	*2.14*	*10.24*	*Cum*
	D/S Transitions Floor (Left & Right)	*2*	*0.61*	*1.00*	*1.20*	*1.47*	*Cum*
		2	*2.24*	*1.88*	*1.20*	*10.06*	*Cum*
	Extra for Slope (.5:1)	*2*	*2.24*	*1.07*	*2.14*	*10.24*	*Cum*
	C.C Floor Apron in (U/S Portion)	*1*	*1.55*	*0.83*	*0.45*	*0.58*	*Cum*
	C.C Floor Apron in (D/S Portion)	*1*	*1.55*	*0.83*	*0.45*	*0.58*	*Cum*
	Launching Apron in U/S Portion	*1*	*2.00*	*1.20*	*0.60*	*1.44*	*Cum*
	Launching Apron in D/S Portion	*1*	*2.00*	*1.20*	*0.60*	*1.44*	*Cum*
	TOTAL					**53.13**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below U/S Curtain Wall	*1*	*1.13*	*0.85*	*0.30*	*0.29*	*Cum*
	U/S Curtain Wall Stem	*1*	*1.13*	*0.45*	*0.90*	*0.46*	*Cum*
	PCC Below D/S Curtain Wall	*1*	*1.13*	*0.85*	*0.30*	*0.29*	*Cum*
	D/S Curtain Wall Stem	*1*	*1.13*	*0.45*	*0.90*	*0.46*	*Cum*
	U/S Toe Wall Base (For Resting Brick Pitching)	*2*	*2.00*	*0.45*	*0.30*	*0.54*	*Cum*
	U/S Toe Wall Stem (For Resting Brick Pitching)	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	D/S Toe Wall Base (For Resting Brick Pitching)	*2*	*2.00*	*0.45*	*0.30*	*0.54*	*Cum*
	D/S Toe Wall Stem (For Resting Brick Pitching)	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	Floor Apron (U/S Portion)	*1*	*1.55*	*0.83*	*0.45*	*0.58*	*Cum*
	Floor Apron (D/S Portion)	*1*	*1.55*	*0.83*	*0.45*	*0.58*	*Cum*
	U/S Transitions Floor (Left & Right)	*2*	*0.61*	*1.00*	*0.30*	*0.37*	*Cum*
		2	*2.24*	*1.88*	*0.30*	*2.52*	*Cum*
	D/S Transitions Floor (Left & Right)	*2*	*0.61*	*1.00*	*0.30*	*0.37*	*Cum*
		2	*2.24*	*1.88*	*0.30*	*2.52*	*Cum*
	PCC Below Hume Pipe	*1*	*7.50*	*1.29*	*0.41*	*3.92*	*Cum*
	PCC Below Hume Pipe in (Curve Portion)	*2*	*7.50*	*0.49*	*0.20*	*1.43*	*Cum*
	TOTAL					**16.28**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Transition Walls (Left & Right)						
	Section D-D	*2*	*0.61*	*0.60*	*0.90*	*0.66*	*Cum*
		2	*0.61*	*0.45*	*0.44*	*0.24*	*Cum*
		2	*0.61*	*0.30*	*0.50*	*0.18*	*Cum*
	Average of Section A-A & Section C-C	*2*	*2.24*	*1.48*	*0.90*	*5.94*	*Cum*
		2	*2.24*	*1.21*	*0.44*	*2.38*	*Cum*
		2	*2.24*	*0.76*	*0.50*	*1.70*	*Cum*
	D/S Transition Walls (Left & Right)						
	Section H-H	*2*	*0.61*	*0.60*	*0.90*	*0.66*	*Cum*
		2	*0.61*	*0.45*	*0.44*	*0.24*	*Cum*
		2	*0.61*	*0.30*	*0.50*	*0.18*	*Cum*
	Average of Section E-E & Section G-G	*2*	*2.24*	*1.48*	*0.90*	*5.94*	*Cum*
		2	*2.24*	*1.21*	*0.44*	*2.38*	*Cum*
		2	*2.24*	*0.76*	*0.50*	*1.70*	*Cum*
	Collar Joint	*2*	*1.19*	*0.30*	*1.20*	*0.86*	*Cum*
	Deduct Hume Pipe Area	*1*		*1.19*		*-1.19*	*Cum*
	TOTAL					**21.88**	**Cum**
5	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	U/S Curtain Wall Stem	*2*	*1.13*		*0.90*	*2.04*	*Sqm*
		2		*0.45*	*0.90*	*0.81*	*Sqm*
	D/S Curtain Wall Stem	*2*	*1.13*		*0.90*	*2.04*	*Sqm*
		2		*0.45*	*0.90*	*0.81*	*Sqm*
	U/S Toe Wall Stem (For Resting Brick Pitching)	*4*	*2.00*		*0.90*	*7.20*	*Sqm*
		4		*0.30*	*0.90*	*1.08*	*Sqm*
	D/S Toe Wall Stem (For Resting Brick Pitching)	*4*	*2.00*		*0.90*	*7.20*	*Sqm*
		4		*0.30*	*0.90*	*1.08*	*Sqm*
	Floor Apron (U/S Portion)	*2*	*1.55*		*0.45*	*1.40*	*Sqm*
		2		*0.83*	*0.45*	*0.75*	*Sqm*
	Floor Apron (D/S Portion)	*2*	*1.55*		*0.45*	*1.40*	*Sqm*
		2		*0.83*	*0.45*	*0.75*	*Sqm*
	U/S Transitions Floor (Left & Right)	*4*	*0.61*		*0.30*	*0.73*	*Sqm*
		4		*1.00*	*0.30*	*1.20*	*Sqm*
		4	*2.24*		*0.30*	*2.68*	*Sqm*
		4		*1.88*	*0.30*	*2.25*	*Sqm*
	D/S Transitions Floor (Left & Right)	*4*	*0.61*		*0.30*	*0.73*	*Sqm*
		4		*1.00*	*0.30*	*1.20*	*Sqm*
		4	*2.24*		*0.30*	*2.68*	*Sqm*
		4		*1.88*	*0.30*	*2.25*	*Sqm*
	U/S Transition Walls (Left & Right)						
	Section D-D	*4*	*0.61*		*0.90*	*2.20*	*Sqm*
		4		*0.60*	*0.90*	*2.16*	*Sqm*
		4	*0.61*		*0.44*	*1.08*	*Sqm*
		4		*0.45*	*0.44*	*0.79*	*Sqm*
		4	*0.61*		*0.50*	*1.22*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4		*0.30*	*0.50*	*0.60*	*Sqm*
	Average of Section A-A & Section C-C	*4*	*2.24*		*0.90*	*8.05*	*Sqm*
		4		*1.48*	*0.90*	*5.31*	*Sqm*
		4	*2.24*		*0.44*	*3.94*	*Sqm*
		4		*1.21*	*0.44*	*2.13*	*Sqm*
		4	*2.24*		*0.50*	*4.47*	*Sqm*
		4		*0.76*	*0.50*	*1.52*	*Sqm*
	D/S Transition Walls (Left & Right)						
	Section H-H	*4*	*0.61*		*0.90*	*2.20*	*Sqm*
		4		*0.60*	*0.90*	*2.16*	*Sqm*
		4	*0.61*		*0.44*	*1.08*	*Sqm*
		4		*0.45*	*0.44*	*0.79*	*Sqm*
		4	*0.61*		*0.50*	*1.22*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
	Average of Section E-E & Section G-G	*4*	*2.24*		*0.90*	*8.05*	*Sqm*
		4		*1.48*	*0.90*	*5.31*	*Sqm*
		4	*2.24*		*0.44*	*3.94*	*Sqm*
		4		*1.21*	*0.44*	*2.13*	*Sqm*
		4	*2.24*		*0.50*	*4.47*	*Sqm*
		4		*0.76*	*0.50*	*1.52*	*Sqm*
	PCC Below Hume Pipe	*2*	*7.50*		*0.41*	*6.08*	*Sqm*
		2		*1.29*	*0.41*	*1.04*	*Sqm*
	Deduct Hume Pipe Area	*4*	*7.50*		*0.20*	*5.85*	*Sqm*
		4		*0.49*	*0.20*	*0.38*	*Sqm*
	TOTAL					**120.57**	**Sqm**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
		Quantity	Percent		Density		
	0.25 % Skin Reinforcement for Transition walls	*21.88*	*0.25%*	*0.05*	*7850*	*429.44*	*Kg*
	TOTAL Weight of steel (in kg)					429.44	Kg
	TOTAL Weight of Steel (in Tonne)					**0.43**	**MT**
7	Launching Apron i/c cost of all material, labour and T&P etc. Complete.						
	Launching Apron in U/S Portion	*1*	*2.00*	*1.20*	*0.60*	*1.44*	*Cum*
	Launching Apron in D/S Portion	*1*	*2.00*	*1.20*	*0.60*	*1.44*	*Cum*
	TOTAL					**2.88**	**Cum**
8	Supplying 600 mm NP3 Pipe	3		2.50		7.5	Rm
	TOTAL					**7.50**	**Rm**
9	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
10	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	On Slopes in U/S Portion	*1*	*1.93*	*2.00*		*3.86*	*Sqm*
	On Slopes in D/S Portion	*1*	*1.93*	*2.00*		*3.86*	*Sqm*
	TOTAL					**7.72**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
11	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.						
	Parapet	2	1.29	0.5	0.6	*0.77*	*Cum*
	TOTAL					**0.77**	**Cum**
12	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.						
	Parapet	2	1.29		1.7	**4.39**	*Sqm*
	TOTAL					**4.39**	***Sqm***
13	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.						
	Parapet top	2	1.29		0.7	**1.81**	*Sqm*
	TOTAL					**1.81**	***Sqm***
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*2*	*2.24*	*1.07*	*2.14*	*10.24*	*Cum*
	D/S Transitions Walls	*2*	*2.24*	*1.07*	*2.14*	*10.24*	*Cum*
	U/S Toe Wall	*1*	*1.13*	*0.15*		*0.17*	*Cum*
	D/S Toe Wall	*1*	*1.13*	*0.15*		*0.17*	*Cum*
	Above Hume Pipe	1	1.29	*6.85*		*8.835*	*Cum*
	TOTAL					**29.66**	**Cum**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND

DETAILS OF QUANTITIES OF BRICK WORK OF CANAL

S.No.	Name of Canal	Reaches (m)	Length (m)	Area (m2)	Quantity (m3)	Unit	Rates (As per Bihar SOR 2025)	Amount	Cement (MT)	Coarse Sand (Cum)
1	Ratanpur Minor	2700-3700	1000.000	0.540	540.000	Cum	**5021.30**	₹ 27,11,502.00	62.21	172.80
	Total				***540.00***			***₹ 27,11,502.00***	***62.21***	***172.80***
2	**Carriage of materials**									
	Coarse Sand (60 Km lead)				172.800	Cum	**1075.00**	₹ 1,85,760.00		
	Cement (30 km lead)				62.208	MT	**742.00**	₹ 46,158.34		
	Brick (15 km lead)				270000.00	No.	**3.18**	₹ 8,58,600.00		
	Carriage of materials Total (In Rs.)							**₹ 10,90,518.34**		
	SUB TOTAL (In Rs.)							**₹ 38,02,020.34**		
	Seigniorage @10%				**Rate**	**Amount in Rs.**	**10%**			
	Coarse Sand	172.80	Cum		**584.64**	101025.79	10102.58			
	Total						**₹ 10,102.58**			

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND			
DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF RATANPUR MINOR			
Sl. No.	**Structure Type**	**Chainage In Km**	**Amount (In Rs.)**
1	BRIDGE	0.105	₹ 28,308.88
2	BRIDGE	0.210	₹ 21,680.09
3	FALL (1.067M)	0.305	₹ 17,667.33
4	FALL (1.524 M)	0.900	₹ 25,603.18
5	CULVERT	1.445	₹ 0.00
6	FALL (1.524 M)	1.660	₹ 16,061.00
7	FALL (1.676 M)	2.100	₹ 35,934.04
8	BRIDGE	2.670	₹ 0.00
9	FALL (1.067 M)	2.700	₹ 61,305.71
Total In Rs.			**₹ 2,06,560.22**
Total In Lakhs.			**₹ 2.07**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND			
DETAILED ESTIMATE FOR C/O OF APPROACH ROAD			
Sl. No.	**APPROACH ROAD**	**NOS.**	**Amount (In Rs.)**
1		3.000	₹ 15,63,055.65
Total In Rs.			**₹ 15,63,055.65**
Total In Lakhs.			**₹ 15.63**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND									
ABSTRACT OF COST OF REPAIRED STRUCTURES OF RATANPUR MINOR									
S. No.	**Ref**	**Item of Works**	**Qty.**	**Unit**	**Rate (As per WRD SOR 2025 & PL MARCH 2025)**	**Amount (Rs)**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**
AOC FOR FOR BRIDGE AT (CH.0.105 KM)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.00	Sqm	**11.80**	1416.53			
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	2.14	Cum	**5021.30**	10736.40	0.25	0.68	
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	11.62	Sqm	**340.20**	3953.29	12.05	0.17	
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	2.789	Sqm	**63.20**	176.26	0.004		
5		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.854	Cum	**1075.00**	917.91			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	12.299	MT	**742.00**	9125.59			
		Brick (30 km lead)	1069.00	No.	**3.18**	3399.42			
TOTAL (In Rs.)						**28308.88**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.85	Cum	**584.64**	499.21	49.92		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**49.92**		
AOC FOR BRIDGE AT (CH. 0.210 KM)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.000	Sqm	**11.80**	1180.44			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	19.111	Sqm	**340.20**	6501.55	19.81	0.28	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	2.743	Sqm	**63.20**	173.37	0.004		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.279	Cum	**1075.00**	299.95			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	19.818	MT	**742.00**	14705.22			
TOTAL (In Rs.)						**21680.09**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.28	Cum	**584.64**	163.13	16.31		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**16.31**		
AOC FOR FALL AT CH. 0.305 KM									
1	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.28	Cum	**6914.20**	8867.09	0.53	0.55	1.10
2	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	0.75	Cum	**6381.70**	4786.28	0.24	0.34	0.68
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.889	Cum	**1075.00**	955.62			
		Coarse Aggregates (100 Km lead)	1.778	Cum	**1398.00**	2485.51			
		Cement (30 km lead)	0.772	MT	**742.00**	572.83			
TOTAL (In Rs.)						**17667.33**			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.89	Cum	**584.64**	519.72	51.97		
		Coarse Aggregate	1.78	Cum	**944.26**	1678.80	167.88		
		Total					**219.85**		
		AOC FOR FALL AT (CH. 0.900 KM)							
1	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	10.27	Cum	**2492.58**	25603.18			
		TOTAL (In Rs.)				**25603.18**			
		AOC FOR CULVERT AT CH. 1.445 KM							
1	**Structure is in good condition and does not requir any repair works.**								
		AOC FOR FALL AT CH. 1.660 KM							
1	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	1.92	Cum	**6381.70**	12254.40	0.62	0.86	1.73
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.864	Cum	**1075.00**	928.92			
		Coarse Aggregates (100 Km lead)	1.728	Cum	**1398.00**	2416.05			
		Cement (30 km lead)	0.622	MT	**742.00**	461.64			
		TOTAL (In Rs.)				**16061.00**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.86	Cum	**584.64**	505.19	50.52		
		Coarse Aggregate	1.73	Cum	**944.26**	1631.89	163.19		
		Total					**213.71**		
		AOC FOR FALL AT CH. 2.100 KM							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	3.05	Cum	**5021.30**	15320.74	0.35	0.98	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	12.741	Sqm	**340.20**	4334.37	13.21	0.19	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	1.829	Sqm	**63.20**	115.58	0.003		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.162	Cum	**1075.00**	1249.56			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	13.564	MT	**742.00**	10064.29			
		Brick (30 km lead)	1525.00	No.	**3.18**	4849.50			
		TOTAL (In Rs.)				**35934.04**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.16	Cum	**584.64**	679.57	67.96		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**67.96**		
		AOC FOR BRIDGE AT CH. 2.670 KM							
	Under Construction by RCD								
		AOC FOR FALL AT CH. 2.700 KM							
1	5.3.5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	6.90	Cum	**6914.20**	47708.41	2.85	2.97	5.93
2		**Carriage of materials**							

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Coarse Sand (60 Km lead)	2.967	Cum	**1075.00**	3189.55			
		Coarse Aggregates (100 Km lead)	5.934	Cum	**1398.00**	8295.81			
		Cement (30 km lead)	2.846	MT	**742.00**	2111.94			
		TOTAL (In Rs.)				**61305.71**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	2.97	Cum	**584.64**	1734.64	173.46		
		Coarse Aggregate	5.93	Cum	**944.26**	5603.29	560.33		
		Total					**733.79**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF RATANPUR MINOR								
S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR BRIDGE AT (CH.0.105 KM)								
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.						
			1				120.00	Sqm
		TOTAL					120.00	Sqm
2	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.						
		Parapet Wall	2	4.65	0.25	0.92	*2.14*	*Cum*
		TOTAL					2.14	Cum
3	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.						
		Parapet Wall U/S	1	4.65		1.25	*5.81*	*Sqm*
		Parapet Wall D/S	1	4.65		1.25	*5.81*	*Sqm*
		TOTAL					11.62	*Sqm*
4	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.						
		Parapet Wall U/S	1	4.65		0.3	*1.39*	*Sqm*
		Parapet Wall D/S	1	4.65		0.3	*1.39*	*Sqm*
		TOTAL					2.79	*Sqm*
QUANTITIES OF REPAIRING WORK FOR BRIDGE AT (CH. 0.210 KM)								
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.						
			1				100.00	Sqm
		TOTAL					100.00	Sqm
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.						
		Parapet Wall U/S	1	4.57		2.09	*9.56*	*Sqm*
		Parapet Wall D/S	1	4.57		2.09	*9.56*	*Sqm*
		TOTAL					19.11	*Sqm*
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.						
		Parapet Wall U/S	1	4.57		0.3	*1.37*	*Sqm*
		Parapet Wall D/S	1	4.57		0.3	*1.37*	*Sqm*
		TOTAL					2.74	*Sqm*

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR FALL AT CH. 0.305 KM								
1	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as**						
		FLOOR	1	5.00	1.68	0.153	*1.28*	*Cum*
		TOTAL					**1.28**	**Cum**
2	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		ABUTMENT TOP	2	5.00	0.50	0.15	*0.75*	*Cum*
		TOTAL					**0.75**	***Cum***
QUANTITIES OF REPAIRING WORK FOR FALL AT (CH. 0.900 KM)								
1	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		ABUTMENT	2	13.72	0.25	1	*6.86*	*Cum*
		WING	4	2.00	0.43	1	*3.41*	*Cum*
		TOTAL					**10.27**	**Cum**
2		**New fall is proposed at this location.**						
QUANTITIES OF REPAIRING WORK FOR CULVERT AT CH. 1.445 KM								
1		**Structure requires no repair work.**						
QUANTITIES OF REPAIRING WORK FOR FALL AT CH. 1.660 KM								
1	**5.3.4**	**Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.**						
		ABUTMENT TOP	2	12.80	0.50	0.15	*1.92*	*Cum*
		TOTAL					**1.92**	***Cum***
QUANTITIES OF REPAIRING WORK FOR FALL AT CH. 2.100 KM								
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall U/S	1	2.44	0.56	0.92	*1.26*	*Cum*
		Wing wall U/S	1	3.66	0.5334	0.92	*1.79*	*Cum*
		TOTAL					**3.05**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall U/S	1	2.44		2.09	*5.10*	*Sqm*
		Wing wall U/S	1	3.66		2.09	*7.64*	*Sqm*
		TOTAL					**12.74**	***Sqm***

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall U/S	1	2.44		0.3	*0.73*	*Sqm*
		Wing wall U/S	1	3.66		0.3	*1.10*	*Sqm*
		TOTAL					**1.83**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR CULVERT AT CH. 2.670 KM								
		Under Construction by RCD						
QUANTITIES OF REPAIRING WORK FOR FALL AT CH. 2.700 KM								
1	**5.3.5**	**Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.**						
		FLOOR	1	6.00	1.68	0.686	*6.90*	*Cum*
		TOTAL					**6.90**	**Cum**

ABSTRACT OF QUANTITIES FOR CONSTRUCTION OF APPROACH ROAD								
S. No.	**Item of Works**	**Qty.**	**Unit**	**Rate (As per RCD 2025)**	**Amount (Rs)**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**
1	Excavation for road work in soil with hydraulic excavator including cutting and loading in tipper, trimming bottom and side slopes in accordance with requirements of lines grades and cross sections, and tranporting to the embankment location within all lifts and lead upto 1000m. (RCD SSR Item no. 301)	60.00	Cum	**78.40**	4704.00			
2	Construction of granular sub-base by providing closegraded material, spreading in uniform layers with motorgrader on prepared surface, mixing by mix in placemethod with front end loader at OMC, and compactingwith vibratory roller to achieve the desired density,complete as per clause 401.	60.00	Cum	**1044.90**	62694.00			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	15.00	Cum	**6381.70**	95725.50	4.86	6.75	13.50
4	RCC Grade M-30 using Batching plant, Transit Mixer and Concrete Pump	30.00	Cum	**6217.20**	186516.00	20.94	10.80	21.90
5	**Carriage of materials**							
	Grading Material (26.5 mm & below)(40 Km lead)	60.000	Cum	**1398.00**	83880.00			
	Coarse Sand (60 Km lead)	17.550	Cum	**1075.00**	18866.25			
	Coarse Aggregates (100 Km lead)	35.400	Cum	**1398.00**	49489.20			
	Cement (30 km lead)	25.800	MT	**742.00**	19143.60			
TOTAL (In Rs.)					**521018.55**			
TOTAL (In Rs.)					**₹ 5,21,018.55**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	26.50 mm to 9.50 mm	21.00	Cum	**913.48**	19183.08	1918.31		
	9.50 mm TO 4.75 mm	7.50	Cum	**602.28**	4517.10	451.71		
	4.75 mm below	31.50	Cum	**266.62**	8398.53	839.85		
	Coarse Sand	17.55	Cum	**584.64**	10260.43	1026.04		

	Coarse Aggregate	35.40	Cum	**944.26**	33426.80	3342.68		
	Total					**7578.59**		
	For 3 no., Total Seigniorage charges					**22735.78**		

QUANTITIES OF CONSTRUCTION OF GSB ROAD FOR APPROACH ROAD								
S.No.	**Reference Clause**	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
1	RCD SSR Item no. 301	Excavation for road work in soil with hydraulic excavator including cutting and loading in tipper, trimming bottom and side slopes in accordance with requirements of lines grades and cross sections, and tranporting to the embankment location within all lifts and lead upto 1000m.						
		For Making RAMP						
		U/S	1	20.00	5.00	0.30	30.00	Cum
		D/S	1	20.00	5.00	0.30	30.00	Cum
		Total					**60.00**	**Cum**
2	RCD 4.01 B-II	Construction of granular sub-base by providing closegraded material, spreading in uniform layers with motorgrader on prepared surface, mixing by mix in placemethod with front end loader at OMC, and compactingwith vibratory roller to achieve the desired density,complete as per clause 401.						
		U/S	1	20.00	5.00	0.30	30.00	Cum
		D/S	1	20.00	5.00	0.30	30.00	Cum
		Total					**60.00**	**Cum**
3	5.3.4	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
		U/S	1	20.00	5.00	0.08	7.50	Cum
		D/S	1	20.00	5.00	0.08	7.50	Cum
		Total					**15.00**	**Cum**
4	RCD 14.01 C	RCC Grade M-30 using Batching plant, Transit Mixer and Concrete Pump						
		U/S	1	20.00	5.00	0.15	15.00	Cum
		D/S	1	20.00	5.00	0.15	15.00	Cum
		Total					**30.00**	**Cum**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND ANALYSIS OF RATE OF OUTLET GATE			
1	Cost of material **(A)** (Structural Steel WRD M-181)	Rs.	55116.67
2	Wastage **5%** =	Rs.	2755.83
3	Cost of miscellaneous material like electrodes,oxygen, acetylene nut bolt, rope as per site conditions, etc **65 % of (A)**	Rs.	35825.84
	Total 1+2+3= ***(B)*** =	Rs.	93698.34
4	Labour charge 30%(B) =	Rs.	28109.50
5	Overhead charge + Contractor profit **@15% A**	Rs.	8267.50
6	Workshop and energy charge ,**12 % of (B)**	Rs.	11243.80
7	Transportation and erection charge ,**15 % of B**	Rs.	14054.75
	Total = B+4+5+6+7 = ***C***	Rs.	155373.89
8	Other incidental charge , **3 % = of C**	Rs.	4661.22
	Total C+8 = D	Rs.	**160035.11**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND ABSTRACT OF COST FOR CONSTRUCTION OF OUTLET										
Sl. No.	**Reference**	**Name of Item**	**Qty.**	**Unit**	**Rate (As per WRD SOR 2025 & PL MARCH 2025)**	**Amount in Rs.**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**	**Boulders (cum)**
1	**WRD 5.3.9**	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.	7.61	Cum	**6381.70**	48564.42	2.47	3.42	6.85	
2	**WRD 5.4.10**	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.	8.60	Cum	**3391.40**	29172.74	1.24	3.44		8.60
3	**M-1701**	Providing 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	RM	**220.00**	1650.00				
4	**WRD 5.6.1**	Labour Charges for Laying of 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	RM	**238.00**	1785.03				
5	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.								
a.		TMT Grade Fe-500 - 16 mm	0.03	M.T.	**73574.90**	2254.92				
6	**M-181**	Structural Steel (Average rate of Angle, Joint and Channel) etc.	0.08	MT	**160035.11**	12687.05				
7	**WRD 5.1.37**	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .	0.89	Cum	**339.90**	302.80				
8		**Carriage of materials**								
		Coarse Sand (60 Km lead)	7.76	Cum	**1075.00**	**8337.83**				
		Coarse Aggregates (100 Km lead)	6.85	Cum	**1398.00**	**9574.84**				
		Cement (30 km lead)	3.70	MT	**742.00**	**2748.60**				
		Boulders (60 km lead)	8.60	Cum	**1159.00**	**9969.69**				
		Steel (30 Km lead)	0.11	M.T.	**742.00**	**81.56**				
		Hume Pipe (30 Km)	7.50	RM	**82.00**	**615.00**				
TOTAL (In Rs.)						**127744.47**				
		Seigniorage @10%			Rate	Amount in Rs.	10%			
		Coarse Sand	7.76	Cum	**584.64**	4534.54	453.45			
		Coarse Aggregate	6.85	Cum	**944.26**	6467.19	646.72			
		Total					1100.17			
		For 9 nos. outlet, Total Seigniorage charges					**9901.56**			

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
BILL OF QUANTITIES FOR CONSTRUCTION OF OUTLET							
Sl. No.	**Name of Item**	**No.**	**Length (m)**	**Width (m)**	**Height (m)**	**Qty.**	**Unit**
1	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification &						
	Toe Wall Base in Canal Portion	*1*	*1.5*	*0.75*	*0.15*	*0.17*	*Cum*
	Coping on Stem of Toe Wall	*1*	*1.50*	*0.45*	*0.075*	*0.05*	*Cum*
	Gate Structure (Section A-B)	*1*	*1.80*	*0.75*	*0.15*	*0.20*	*Cum*
	Coping (Section A-B)	*1*	*1.5*	*0.45*	*0.075*	*0.05*	*Cum*
	Water Course (Section C-D)	*1*	*15.00*	*1.50*	*0.15*	*3.38*	*Cum*
	Water Course Floor (Section C-D)	*1*	*15.00*	*0.40*	*0.075*	*0.45*	*Cum*
	Coping above Walls(Section C-D)	*2*	*15*	*0.40*	*0.075*	*0.90*	*Cum*
	Below transition walls	*1*	*1.5*	*1.2*	*0.15*	*0.27*	*Cum*
		1	*1.5*	*0.75*	*0.15*	*0.17*	*Cum*
	Gate Structure (Section A-B)	*2*	*1.50*	*0.45*	*1.21*	*1.63*	*Cum*
	Toe Wall stem	*1*	*1.50*	*0.45*	*0.51*	*0.35*	*Cum*
	TOTAL					***7.61***	*Cum*
2	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.						
	Transition Walls in U/S	*2*	*1.50*	*0.45*	*1.04*	*1.40*	*Cum*
	Water Course (Section C-D)	*2*	*15.00*	*0.40*	*0.60*	*7.20*	*Cum*
	2					**8.60**	Cum
3	Providing 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .						
	150 mm Dia R.C.C. Pipe	1			7.5	**7.5**	**RM**
4	Structural Steel (Average rate of Angle, Joint and Channel) etc.						
	Spindle 25 mm dia	*1*	*0.000491*	*7850.00*	*1.29*	*4.97*	*Kg*
		1	*0.000491*	*7850.00*	*0.24*	*0.92*	*Kg*
	300 X300 MM MS GATE	*1*		*60.00*		*60.00*	*Kg*
	I.M.C. Grove (100 x 50) 9.56 kg/m	*2*		*9.56*	*0.70*	*13.38*	*Kg*
	TOTAL (In Kg)					**79.28**	**Kg**
	TOTAL					**0.08**	**MT**
5	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .						
	Toe Wall Base in Canal Portion	*1*	*1.50*	*0.75*	*0.10*	*0.11*	*Cum*
	Water Course Floor (Section C-D)	*1*	*15.00*	*0.40*	*0.10*	*0.60*	*Cum*
	Below transition walls	*1*	*1.50*	*1.19*	*0.10*	*0.18*	*Cum*
	TOTAL					**0.89**	**Cum**
6	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-15 (Providing Reinforcement @ 0.24%)	*1.63*	*0.0024*	*0.004*	*7850.00*	*30.648*	*Kg*
	TOTAL					**30.65**	**Kg**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
ANALYSIS OF RATES							
Sl. No.	**Refrences SOR No.**	**Description**	**Quantity**	**Unit**	**Rate**	**Amount**	**Ref**
1	**5.1.3**	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 92.94 Sqm					
		Unskilled mazdoor for cutting shrubs, weed	1.50	nos	424.00	₹ 636.00	
		Unskilled mazdoor for removing grass roots and leveling	0.75	nos	424.00	₹ 318.00	
						₹ 954.00	
		Add Overhead charge &c.P @ 15 %				₹ 143.10	
					Total	₹ 1,097.10	
		Rate per Sqm			**Say, Rs**	**₹ 11.80**	**Per M^2**
2	**5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting ,carrying	9.09	nos	424.00	₹ 3,854.16	Sl-1
					Total	₹ 3,854.16	
		Add Overhead charge &c.P @ 15 %				₹ 578.12	
						₹ 4,432.28	
		Rate per Cum			**Say, Rs**	**₹ 156.50**	**Per M^3**
	NOTE:-	Add royalty of earth Rs. 33.00 where needed without overhead charges & C.P.					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
3	**5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	4.50	nos	424.00	₹ 1,908.00	SI-1
		Unskilled mazdoor for carrying	4.00	nos	424.00	₹ 1,696.00	
		Head Mason	0.13	nos	569.00	₹ 71.13	
					Total	₹ 3,675.13	
		Add Overhead charge & C.P @ 15 %				₹ 551.27	
						₹ 4,226.39	
		Rate per Cum			**Say, Rs**	**₹ 149.30**	**Per M^3**
4	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	4.00	nos	424.00	₹ 1,696.00	SI-1
		Unskilled mazdoor for carrying	4.00	nos	424.00	₹ 1,696.00	SI-1
		Unskilled mazdoor for controlling Slope and fine dressing	2.00	nos	424.00	₹ 848.00	SI-2
		Skilled Mazdoor	0.25	nos	536.00	₹ 134.00	SII-70
		Mate	1.00	nos	455.00	₹ 455.00	SII-2
					Total	₹ 4,829.00	
		Add Overhead charge &c.P @ 15 %				₹ 724.35	
						₹ 5,553.35	
		Rate per Cum			**Say, Rs**	**₹ 196.10**	**Per M^3**
5	**5.1.22**	Extra for wet earth all complete as per specifications and direction of E/I.					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Unit: per Cum					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	1.00	nos	424.00	₹ 424.00	Sl-1
		Add Overhead charge &C.P @ 15 %				₹ 63.60	
						₹ 487.60	
		Rate per Cum			**Say, Rs**	**₹ 17.22**	**Per M^3**
6	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.					
		As per Labour rate (19.06.2024)					
		Unit: per Cum					
		Taking Output :- 28.32 cum					
		Labour					
		Unskilled mazdoor for cutting, carrying	9.09	nos	424.00	₹ 3,854.16	Sl-1
		Add extra wages of 1/2 no. unskilled labour per 28.32 m3	0.50	nos	424.00	₹ 212.00	Sl-1
						₹ 4,066.16	
		Add Overhead charge &C.P @ 15 %				₹ 609.92	
						₹ 4,676.08	
					Say, Rs	**₹ 165.12**	**Per M^3**
7	**5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.					
		As per Labour rate (19.06.2024)					
		Unit: per Cum					
		Taking Output :- 28.32 cum					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Cost of water	LS			15.00	
		Bhisti for carriage of water and sprinkling	3.00	nos	417.00	₹ 1,251.00	S II-13
		Hire charges of sheep foot roller assuming 1450 cum to be rolled in 8 hr vide item no. 3.16	0.16	hr	1612.00	₹ 257.92	PM8001
						₹ 1,523.92	
		Add Overhead charge &C.P @ 15 %				₹ 228.59	
						₹ 1,752.51	
					Say, Rs	**₹ 61.88**	**Per M^3**
8	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)					
	5.1.46.1	Beyond 150m but upto 1/2 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				0.65	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				3.9	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes CoI =T				12.7	
	9	Number of trip per hour taken as 50 minutes N=50/T				3.937	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				17.323	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				83.184	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 16.29	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 152.08	
	16	Add overhead charges and CP 15%				₹ 22.81	
	17	**Rate per cubic metre**				**₹ 174.89**	
	5.1.46.2	Beyond 1/2 km but upto 1 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				1.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				9	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				17.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				2.809	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				12.36	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				116.59	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 20.30	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 189.50	
	16	Add overhead charges and CP 15%				₹ 28.42	
	17	**Rate per cubic metre**				**₹ 217.92**	
	5.1.46.3	Beyond 1.00 km but upto 1.50 km					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				2.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				15	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				23.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				2.101	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				9.244	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				155.88	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 25.02	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 233.50	
	16	Add overhead charges and CP 15%				₹ 35.03	
	17	**Rate per cubic metre**				**₹ 268.53**	
	5.1.46.4	Beyond 1.50 km but upto 2.00 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				3.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				21	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				29.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				1.678	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				7.383	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				195.18	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 29.73	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 277.52	
	16	Add overhead charges and CP 15%				₹ 41.63	
	17	**Rate per cubic metre**				**₹ 319.14**	
	5.1.46.5	Beyond 2.00 km but upto 2.50 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				4.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				27	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				35.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				1.397	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				6.147	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				234.50	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 34.45	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 321.56	
	16	Add overhead charges and CP 15%				₹ 48.24	
	17	**Rate per cubic metre**				**₹ 369.80**	
	5.1.46.6	Beyond 2.50 km but upto 3.00 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				5.5	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				33	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				41.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				1.196	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				5.263	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				273.80	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 39.17	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 365.57	
	16	Add overhead charges and CP 15%				₹ 54.84	
	17	**Rate per cubic metre**				**₹ 420.41**	
9	**5.1.24**	Earthwork in filling in flood embankment, canals banks (Canal Discharge Above 28 Cumecs) as well as special repair of embankments and canal banks in ordinary soil in proper profile obtain from borrow area or any other source free from logs, roots or any other ingredients etc. with intial lead of 30m and initial lift of 1.5m including breaking the clods to maximum 60 mm cube, placing the earth in layers not exceeding 225 mm thicka ll complete as per specification and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	9.00	nos	424.00	₹ 3,816.00	SI-1
		Skilled Mazdoor	1.00	nos	536.00	₹ 536.00	SI-3
		Mate	0.25	nos	455.00	₹ 113.75	SII-2
					Total	₹ 4,465.75	
		Add Overhead charge & C.P @ 15 %				₹ 669.86	
						₹ 5,135.61	
		Rate per Cum			**Say, Rs**	**₹ 181.30**	**Per M^3**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
10	**5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting and carrying	11.00	nos	424.00	₹ 4,664.00	SI-1
		Head Mason	0.25	nos	569.00	₹ 142.25	SII -3
					Total	₹ 4,806.25	
		Add Overhead charge & C.P @ 15 %				₹ 720.94	
						₹ 5,527.19	
		Rate per Cum			**Say, Rs**	**₹ 195.20**	**Per M^3**
11	**5.3.8**	Providing & laying **P.C.C. M-100** with nominal mix of (1:3:6) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A.	**MATERIALS**					
		Coarse aggregates Gr IV **(Rate of approved quality of aggregate as per Design)**	2.66	M^3	1115.24	₹ 2,966.54	M047
		Sand	1.330	M^3	584.64	₹ 777.57	M-004
		Cement	0.443	M^3	8264.70	₹ 3,661.26	M-1P
		Total				₹ 7,405.37	
	B.	**LABOUR**					
		Head mason	0.5	nos	569.00	₹ 284.50	S II -3
		Mason Gr II	1	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor	12	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	C.	**HIRE CHARGES OF MACHINE**					
		(i)Concrete mixer (10 H.P) for 2.832 cum consists	**1.43**	hr	351	₹ 501.93	
		on the basic of mixer production capacity 1.98 m3					
		per hour. Used rate per hourx2.832/1.98					
		(ii) Vibrator 1no. To vibrate 2.832 cum on the	**1.43**	hr	405	₹ 579.15	
		basic of vibrator capacity 1.98 cum per hour.					
		Used rate per hourx2.832/1.98					
		Total				₹ 14,783.95	
		Add Overhead charge & C.P	15	%		₹ 2,217.59	
						₹ 17,001.55	**Per M^3**
					Say, Rs	**₹ 6,003.37**	**Per M^3**
12	**5.3.4**	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		Course Aggregate (20mm & 10mm) **(Taking Rate of approved quality as per design)**	2.55	m^3	913.48	₹ 2,327.55	M044
		Sand	1.27	m^3	584.64	₹ 744.83	M-004
		Cement	0.64	m^3	8264.70	₹ 5,264.62	M-1P
		Total				₹ 8,337.00	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor for controlling Slope and fine dressing	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					Total	₹ 15,715.58	
		Add Overhead charge &c.P @ 15 %				₹ 2,357.34	
						₹ 18,072.92	
		Rate per Cum			**Say, Rs**	**₹ 6,381.70**	**Per M^3**
13	**5.3.5**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		Course Aggregate (20mm & 10mm) **(Taking Rate of approved quality as per design)**	2.44	m^3	913.48	₹ 2,225.24	M044
		Sand	1.22	m^3	584.64	₹ 712.09	M-004
		Cement	0.81	m^3	8264.70	₹ 6,710.94	M-1P
		Total				₹ 9,648.27	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor for controlling Slope and fine dressing	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					Total	₹ 17,026.85	
		Add Overhead charge &c.P @ 15 %				₹ 2,554.03	
						₹ 19,580.88	
		Rate per Cum			**Say, Rs**	**₹ 6,914.20**	**Per M^3**
14	**5.3.5**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		Course Aggregate (20mm & 10mm) **(Taking Rate of approved quality as per design)**	2.436	m^3	913.48	₹ 2,225.24	M044
		Sand	1.218	m^3	584.64	₹ 712.09	M-004
		Cement	0.812	m^3	8264.70	₹ 6,710.94	M-1P
		Total				₹ 9,648.27	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					Total	₹ 17,026.85	
		Add Overhead charge &c.P @ 15 %				₹ 2,554.03	
						₹ 19,580.88	
		Rate per Cum			**Say, Rs**	**₹ 6,914.20**	**Per M^3**
15	**5.3.11**	Providing & laying P.C.C. or R.C.C. **M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		coarse Aggregate (20mm & 10mm) (Cost of coarse aggregates as per design)	2.38	m^3	913.48	₹ 2,173.17	M044
		Sand	1.19	m^4	584.64	₹ 695.14	M-004
		Cement	1.19	m^5	8264.70	₹ 9,826.73	M-1P
		Total				₹ 12,695.04	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor for controlling Slope and fine dressing	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					total	₹ 20,073.62	
		Add Overhead charge &c.P @ 15 %				₹ 3,011.04	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
						₹ 23,084.66	
		Rate per Cum			**Say, Rs**	**₹ 8,151.40**	**Per M^3**
16	**5.3.22**	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.					
		Unit :- **Per M.T**					
		Taking Output :- 1 M.T					
	(a)	TMT grade Fe-500 ***8 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	52450	₹ 55,072.50	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 66,025.70	
		Add Overhead charge &c.P @ 15 %				₹ 9,903.86	
						₹ 75,929.56	
		Rate per M.T			**Say, Rs**	**₹ 75,929.60**	**Per M.T**
	(B)	TMT grade Fe-500 ***10 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	51094	₹ 53,648.70	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 64,601.90	
		Add Overhead charge &c.P @ 15 %				₹ 9,690.29	
						₹ 74,292.19	
		Rate per M.T			**Say, Rs**	**₹ 74,292.20**	**Per M.T**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	(C)	TMT grade Fe-500 ***12 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
	(C)	TMT grade Fe-500 ***16 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
	(C)	TMT grade Fe-500 ***20 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
	(C)	TMT grade Fe-500 ***25 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
17	**5.3.18**	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 Sqm					
	A	**Material**					
		Local wood planks. 38 mm thick =9.3x38x1000	0.35	m^3			
		Add 5% wastage	0.02	m^3			
		Cost of 0.37 cum local wood planks.	0.37	m^3	26000.00	₹ 9,620.00	code no 1198 (RCD)
		Add cost for shattering and propping @ 10% of above				₹ 962.00	
					Total	₹ 10,582.00	
		Assuming 4 uses to calculate	4.00	use			
		Cost of shattering for 2.832 cum total cost /4				₹ 2,645.50	
		Add 1% for cost of nails and spikes on total cost of wood				₹ 105.82	
					Total	₹ 2,751.32	A
	B	**Labour**					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Carpenter Gr-II	1.50	nos	508.00	₹ 762.00	S II-17
		Unskilled mazdoor	2.50	nos	424.00	₹ 1,060.00	S I-1
					Total	₹ 1,822.00	B
	C	**Carriage of materials**					
		Cost of carriage of material from godown and back to godown after use, including loading, unloading and stacking @ 1% of total cost of food materials				₹ 105.82	C
		Total cost for 9.3 sqm=A+B+C				₹ 4,679.14	
		Add Overhead charge &c.P @ 15 %				₹ 701.87	
						₹ 5,381.01	
		Rate per Sqm			**Say, Rs**	**₹ 578.60**	**Per M2**
18	**5.3.20**	Providing centering including strutting, proping etc. and its removal after use indeck slab as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 22.326 Sqm					
		(Assuming size in slab 7.32 x 3.05 =22.326 sqm)					
	A	**MATERIALS**					
		a. 40 mm thick local wood planks (22.326x 40)/1000 = 0.893					
		Add 5% wastages = 0.045					
		0.938	0.94	m^3	**26000.00**	**₹ 24,440.00**	**Code no. 1197 (BCD)**
		Assuming 4 uses to calculate	4.00	use			
		Cost of planks per use = 0.89 x rate of local wood/4				**₹ 6,110.00**	
		b. Assuming avg. height of slab from GL = 3.66 m					
		150 mm sal bullah required = 78 nos.					
		Length of sal bullah = 78X3.66 =285.48	285.48	M	**75.00**	**₹ 21,411.00**	**M SL No. 223**
		(Assuming sal bullah to be used 10 times for centering					
		= 285.48 x Rate per mtr/10				**₹ 2,141.10**	
		c. Salwood scanting required (75 mm * 63 mmsize) = 0.311 cum	0.31	m^3	**60000.00**	**₹ 18,660.00**	**Code no. 1199 (BCD)**
		(Assuming 10 uses)					
		Cost per use = 0.311 x Rate per mtr/10				**₹ 1,866.00**	
		Total				**₹ 10,117.10**	
		Add 1% for cost of nails and spikes				**₹ 101.17**	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
						₹ 10,218.27	**(A)**
	B	**LABOUR**					
		Carpenter Gr-II	4.00	nos	508.00	₹ 2,032.00	S I-17
		Unskilled Majdoor	7.00	nos	424.00	₹ 2,968.00	S I-1
					Total	₹ 5,000.00	**(B)**
	C	Carriage of Materials					
		Cost of carriage of material from godown and back to godown after use, including loading, unloading and stacking @ 1% of total cost of food materials				₹ 101.17	
		Total cost for 22.326 sqm=A+B+C				₹ 15,319.44	
		Add Overhead charge & C.P @ 15 %				₹ 2,297.92	
		Total				₹ 17,617.36	
		Rate per Sqm			**Say, Rs**	**₹ 789.10**	**Per M2**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
17	**5.5.10**	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 Sqm					
		Material					
		Cement	0.01	m^4	8264.70	₹ 115.71	M-1P
					Total	₹ 115.71	
	B	**Labour**					
		Head mason	0.06	nos	569.00	₹ 35.56	S II-3
		Mason Gr-II	0.50	nos	508.00	₹ 254.00	S II-4
		Unskilled mazdoor	0.25	nos	424.00	₹ 106.00	S II-1
					Total	₹ 395.56	
		Total				₹ 511.27	
		Add Overhead charge &c.P @ 15 %				₹ 76.69	
						₹ 587.96	
		Rate per Cum			**Say, Rs**	**₹ 63.20**	**Per M^3**
18	**5.2.2**	Providing filter of stone chips 20 mm and down well graded as per design for lined canal, drains including hand packing etc all complete as per specification and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Material					
		Sone chips (M-040 +M -045)/2	2.83	nos	673.97	₹ 1,908.68	M-004
		Labour					
		Unskilled mazdoor for Screening and grading Filter	2.00	nos	424.00	₹ 848.00	SI-1
		Unskilled mazdoor for laying and hand packing	1.50	nos	424.00	₹ 636.00	SI-1
					Total	₹ 3,392.68	
		Add Overhead charge &c.P @ 15 %				₹ 508.90	
						₹ 3,901.59	
		Rate per Cum			**Say, Rs**	**₹ 1,377.70**	**Per M^3**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
19	**5.7.13**	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Unskilled Mazdoor	3	nos.	424.00	1272.00	
						1272.00	
		Add Overhead charge & C.P. @15%				190.80	
						1462.80	
					Say, Rs	**₹ 516.50**	**Per M^3**
20	**5.7.18.1**	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Unskilled Mazdoor	6	nos.	424.00	2544.00	
		Mason Gr II	0.5	nos.	508.00	254.00	
		Mate	0.25	nos.	455.00	113.75	
		Stone Dresser	0.25	nos.	538.00	134.50	
						3046.25	
		Add Overhead charge & C.P. @15%				456.94	
						3503.19	
					Say, Rs	**₹ 1,237.00**	**Per M^3**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
21	**5.1.37**	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Unskilled Mazdoor for cutting	1	nos.	424.00	424.00	
		Local Sand	2.832	nos.	145.87	413.10	
						837.10	
		Add Overhead charge & C.P. @15%				125.57	
						962.67	
					Say, Rs	**₹ 339.90**	**Per M^3**
20	**5.5.5**	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.				**Page -261**	
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 cum					
		Materials					
		Cement	0.07	m^3	8264.70	₹ 562.00	M-1 P
		Sand	0.27	m^3	584.64	₹ 159.02	M044
		Total				₹ 721.02	
		Labour					
		Mason Gr II	1.50	nos	508.00	₹ 762.00	SII-4
		Unskilled Mazdoor	2.50	nos	424.00	₹ 1,060.00	SII-1
		Bhisti	0.50	nos	417.00	₹ 208.50	SI-13
					total	₹ 2,030.50	
		Add Overhead charge &c.P @ 15 %				₹ 412.73	
						₹ 3,164.25	
		Rate per Cum			**Say, Rs**	**₹ 340.20**	**Per M^3**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
21	**5.6.1**	Labour Charges for Laying of 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .					
	5.6.1.1	**150 mm dia NP2 H.P.**					
		Unit: per m					
		Taking Output =	**8**	**m**			
		(Assuming 4 pipes of 2m length and three collars)					
		Materials					
		Cement	0.011	cum	8264.70	90.91	**M-1 P**
		Sand	0.011	cum	584.64	6.43	**M-004**
		Jute	1.5	Kg	20.89	31.34	**M Sl. No. 257**
		Total				128.68	
		Labour					
		Head Mason	0.50	nos	569.00	284.50	
		Unskilled Mazdoor	2.25	nos	424.00	954.00	
		Fitter Gr I	0.50	nos	577.00	288.50	
		Total				1527.00	
						1655.68	
		Add Overhead charge & C.P @ 15 %				₹ 248.35	
						₹ 1,904.03	
					Say, Rs	**₹ 238.00**	**Per M**
	5.6.2	Labour Charges for Laying, fitting and fixing NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .					
	5.6.2.2	**600 mm dia NP3 H.P.**					
		Unit: per m					
		Taking Output =	**7.5**	**m**			
		(Assuming 3 pipes of 2.5 m length and two collars)					
		Materials					
		Cement	0.034	cum	8264.70	281.00	**M-1 P**
		Sand	0.034	cum	584.64	19.88	**M-004**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Jute	4	Kg	20.89	83.56	**M Sl. No. 257**
		Total				384.44	
		Labour					
		Head Mason	1.5	nos	569.00	853.50	
		Unskilled Mazdoor	7	nos	424.00	2968.00	
		Fitter Gr I	0.75	nos	577.00	432.75	
		Total				4254.25	
						4638.69	
		Add Overhead charge & C.P @ 15 %				₹ 695.80	
						₹ 5,334.49	
					Say, Rs	**₹ 711.27**	**Per M**
	5.6.2.4	**1000 mm dia NP3 H.P.**					
		Unit: per m					
		Taking Output =	**7.5**	**m**			
		(Assuming 3 pipes of 2.5 m length and two collars)					
		Materials					
		Cement	0.045	cum	8264.70	371.91	**M-1 P**
		Sand	0.045	cum	584.64	26.31	**M-004**
		Jute	7.5	Kg	20.89	156.68	**M Sl. No. 257**
		Total				554.90	
		Labour					
		Head Mason	2	nos	569.00	1138.00	
		Unskilled Mazdoor	21	nos	424.00	8904.00	
		Fitter Gr I	1	nos	577.00	577.00	
		Total				10619.00	
						11173.90	
		Add Overhead charge & C.P @ 15 %				₹ 1,676.08	
						₹ 12,849.98	
					Say, Rs	**₹ 1,713.33**	**Per M**

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	5.6.2.5	**Labour Charges for Laying of 1200 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .**					
		Unit: per m					
		Taking Output =	**7.5**	**m**			
		(Assuming 3 pipes of 2.5 m length and two collars)					
		Materials					
		Cement	0.057	cum	8264.70	471.09	**M-1 P**
		Sand	0.057	cum	584.64	33.32	**M-004**
		Jute	12	Kg	20.89	250.68	**M Sl. No. 257**
		Total				755.09	
		Labour					
		Head Mason	2.5	nos	569.00	1422.50	
		Unskilled Mazdoor	25	nos	424.00	10600.00	
		Fitter Gr I	1	nos	577.00	577.00	
		Total				12599.50	
						13354.59	
		Add Overhead charge & C.P @ 15 %				₹ 2,003.19	
						₹ 15,357.78	
					Say, Rs	**₹ 2,047.70**	**Per M**
22	**5.4.10**	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 2.832 cum					
		Materials					
		Stone Boulder	2.832	cum	694.61	1967.14	
		Sand	1.12	cum	584.64	654.80	
		Cement	0.28	cum	8264.70	2314.12	
		Labour				4936.05	

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Head Mason	0.125	nos	569.00	71.13	
		Mason Gr II	2	nos	508.00	1016.00	
		Unskilled Mazdoor	5	nos	424.00	2120.00	
		Bhisti	0.5	nos	417.00	208.50	
						3415.63	
						8351.67	
		Add Overhead charge & C.P @ 15 %				₹ 1,252.75	
						₹ 9,604.43	
					Say, Rs	**₹ 3,391.40**	**Per M^3**
23	**5.7.16**	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 cum					
		Materials					
		Bricks	800	per 1000 nos	4891.00	3912.80	
		Local Sand	0.425	cum	145.87	61.99	
		Total				3974.79	
		Labour					
		Mason Gr II	1.125	nos	508.00	571.50	
		Unskilled Mazdoor	2.25	nos	424.00	954.00	
						1525.50	
						5500.29	
		Add Overhead charge & C.P @ 15 %				₹ 825.04	
						₹ 6,325.34	
					Say, Rs	**₹ 680.10**	**Per M^3**
24	**5.8.9**	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.					

Sl. No.	Refrences SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Unit :- **Per Sqm**					
		Taking Output :- 2.832 cum					
		Hammer man	2.25	nos	445.00	₹ 1,001.25	SII-17
		Skilled Mazdoor	2.25	nos	536.00	₹ 1,206.00	SII-18
		Unskilled mazdoor	7.00	nos	424.00	₹ 2,968.00	SI-1
		Blacksmith GR II	1.00	nos	508.00	₹ 508.00	SII-10
		Mate	1.00	nos	455.00	₹ 455.00	SII-2
					total	₹ 6,138.25	
		Add Overhead charge & C.P @ 15 %				₹ 920.74	
						₹ 7,058.99	
		Rate per Cum			**Say, Rs**	**₹ 2,492.58**	**Per M^3**
25	**5.4.6**	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 2.832 cum					
		Materials					
		Bricks	1150	per 1000 nos	4891.00	5624.65	
		Sand	0.92	cum	584.64	537.87	
		Cement	0.23	cum	8264.70	1900.88	
		Total				8063.40	
		Labour					
		Head Mason	0.125	nos	569.00	71.13	
		Mason Gr II	2.5	nos	508.00	1270.00	
		Unskilled Mazdoor	6	nos	424.00	2544.00	
		Bhisti	1	nos	417.00	417.00	
						4302.13	
						12365.52	
		Add Overhead charge & C.P @ 15 %				₹ 1,854.83	
						₹ 14,220.35	
					Say, Rs	**₹ 5,021.30**	**Per M^3**

ITEM RATES					
Sl. No.	Reference		Particular	Unit	Rate (in Rs.)
1	WRD SOR 2023 & PL JUNE 2024	WRD 5.1.3	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	Sqm	11.80
2	WRD SOR 2023 & PL JUNE 2024	WRD 5.1.8	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.	Cum	156.50
3	WRD SOR 2023 & PL JUNE 2024	WRD 5.1.31	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	Cum	149.30
4	WRD SOR 2023 & PL JUNE 2024	5.1.21	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.	Cum	196.10
5	WRD SOR 2023 & PL JUNE 2024	5.1.22	Extra for wet earth all complete as per specifications and direction of E/I.	Cum	17.22
6	WRD SOR 2023 & PL JUNE 2024	5.1.25	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	Cum	165.12
7	WRD SOR 2023 & PL JUNE 2024	WRD 5.1.39	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	Cum	61.88

8	**WRD SOR 2023 & PL JUNE 2025**	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)		
		5.1.46.1	Beyond 150m but upto 1/2 km	**174.89**	**Cum**
		5.1.46.2	Beyond 1/2 km but upto 1 km	**217.92**	**Cum**
		5.1.46.3	Beyond 1 km but upto 1.50 km	**268.53**	**Cum**
		5.1.46.4	Beyond 1.50 km but upto 2.00 km	**319.14**	**Cum**
		5.1.46.5	Beyond 2.00 km but upto 2.50 km	**369.80**	**Cum**
		5.1.46.6	Beyond 2.50 km but upto 3.00 km	**420.41**	**Cum**
9	**WRD SOR 2023 & PL JUNE 2024**	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	**195.20**	**Cum**
10	**WRD SOR 2025 & PL 2025**	**WRD 5.5.10**	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	**Sqm**	**63.20**
11	**WRD SOR 2023 & PL JUNE 2025**	**5.5.5**	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of D/I.	**Cum**	**340.20**
12	**WRD SOR 2025 & PL 2025**	**5.3.8**	Providing & laying **P.C.C. M-100** with nominal mix of (1:3:6) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.	**Cum**	**6003.37**
13	**WRD SOR 2025 & PL 2025**	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	**Cum**	**6381.70**

14	**WRD SOR 2025 & PL 2025**	**5.3.5**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	**Cum**	**6914.20**
15	**WRD SOR 2025 & PL 2025**	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	**Cum**	**6914.20**
16	**WRD SOR 2025 & PL 2025**	**5.3.11**	Providing & laying **P.C.C. or R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	**Cum**	**8151.40**
17	**RCD 2025**	**RCD 14.09**	Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	**NO.**	5588.70
18	**WRD SOR 2025 & PL 2025**	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.		
			TMT Grade FE-500 - 8 mm	**MT**	**75929.60**
			TMT Grade FE-500 - 10 mm	**MT**	**74292.20**
			TMT Grade FE-500 - 12 mm	**MT**	**73574.90**
			TMT Grade FE-500 - 16 mm	**MT**	**73574.90**
			TMT Grade FE-500 - 20 mm	**MT**	**73574.90**
			TMT Grade FE-500 - 25mm	**MT**	**73574.90**
19	**WRD SOR 2025 & PL 2025**	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	**Cum**	**578.60**
20	**WRD SOR 2025 & PL 2025**	**WRD 5.3.20**	Providing centering including strutting, propping etc. and its removal after use in deck slab as per specifications and direction of E/I.	**Cum**	**789.10**
21	**WRD SOR 2025 & PL 2025**	**WRD 5.2.2**	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	**Cum**	**1377.70**
22	**WRD SOR 2025 & PL 2025**	**WRD 5.7.13**	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	**Cum**	**516.50**
23	**WRD SOR 2025 & PL 2025**	**WRD M-002**	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	**Cum**	694.61

24	**WRD SOR 2025 & PL 2025**	**WRD 5.7.18.1**	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	**Cum**	**1237.00**
25	**WRD SOR 2025 & PL 2025**	**WRD 5.1.37**	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .	**Cum**	**339.90**
26	**WRD SOR 2025 & PL 2025**	**WRD 5.5.5**	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	**Cum**	**340.20**
27	**WRD SOR 2025 & PL 2025**	**M-1701**	Providing 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**RM**	220.00
28	**WRD SOR 2025 & PL 2025**	**WRD 5.6.1.1**	Labour Charges for Laying of 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**RM**	**238.00**
29	**RCD 2025**	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	**R.M.**	6002.82
30	**WRD SOR 2025 & PL 2025**	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**R.M.**	**1713.33**
31	**RCD 2025**	**RCD M-149**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1200 mm dia with spigot	**R.M.**	7015.86
32	**WRD SOR 2025 & PL 2025**	**WRD 5.6.2.5**	Labour for laying 1200mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**R.M.**	**2047.70**
33	**WRD SOR 2025 & PL 2025**	**5.4.10**	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.	**Cum**	**3391.40**
34	**WRD SOR 2025 & PL 2025**	**M-181**	Structural Steel (Average rate of Angle, Joint and Channel) etc.	**MT**	**160035.11**
35	**WRD SOR 2025 & PL 2025**	**5.7.16**	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	**Sqm**	**680.10**
36	**RCD 2025**	**RCD 15.22**	Providing and fixing in position 20 mm thick compressible fibre board in expansion joint complete as per drawing & Technical specification.	**RM**	499.80
37	**RCD 2025**	**RCD M-151**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 600 mm dia with spigot	**RM**	2532.61

38	**WRD SOR 2025 & PL 2025**	**5.6.2.2**	Labour Charges for Laying, fitting and fixing NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**RM**	**711.27**
39	**WRD SOR 2025**	**M-126**	Modular Strip/box seal expansion joint	**RM**	36993.21
40	**PWD NH SOR CHHATISGARH 2025**	**3.18 PWD NH SOR CHHATISGARH 2025**	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (3.18 PWD NH SOR CHHATISGARH 2025)	**RM**	66.00
41	**RCD 2025**	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 900 mm dia with spigot	**R.M.**	4849.67
42	**RCD 2025**	**13.08**	Weepholes	**No.**	152.60
43	**RCD 2025**	**3.06 - 301**	Excavation for road work in soil with hydraulic excavator including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and tranporting to the embankment location within all lifts and lead upto 1000 m	**Cum**	78.40
44	**RCD 2025**	**4.01 B - 401**	Construction of granular sub-base by providing closegraded material, spreading in uniform layers with motorgrader on prepared surface, mixing by mix in placemethod with front end loader at OMC, and compactingwith vibratory roller to achieve the desired density,complete as per clause 401.	**Cum**	1044.90
45	**RCD 2025**	**14.01 C**	RCC Grade M-30 using Batching plant, Transit Mixer and Concrete Pump	**Cum**	6217.20
46	**RCD 2025**	**8.14**	Kilometer Stone M-15	**Nos.**	3853.40

	MATERIAL RATE:				
1	**WRD SOR 2025**	**M-004**	Coarse Sand	**Cum**	584.64
2	**WRD SOR 2025**	**M-012**	Coarse Aggregate	**Cum**	944.26
3	**WRD SOR 2025**	**M-001**	Boulder	**Cum**	694.61
4	**WRD SOR 2025**	**M-11 9(ii)**	Brick	**Cum**	4891
5	**WRD SOR 2025**	**M-006**	Fine Sand	**Cum**	145.87
6	**WRD SOR 2025**	**M1**	Cement (Gaya)	**per bag of 50 Kg**	281.00
7	**WRD SOR 2025**	**M-025**	Aggregate 26.5 mm to 4.75 mm	**Cum**	913.48
8	**WRD SOR 2025**	**M-015**	Aggregate 9.5 mm to 4.75 mm	**Cum**	602.28
9	**WRD SOR 2025**	**M-017**	Aggregate 4.75 mm and below	**Cum**	266.62
10	**WRD SOR 2025**	**M-181**	Structural Steel	**MT**	55116.67