

TENDER DOCUMENT

FOR

Distribution Network for Madanpur Division of Right Main Canal (RMC), Bihar Portion under North Koel Reservoir Project, Jharkhand and Bihar

Estimated Cost (Rs. 50.95 Crores)

TENDER NO: WAP/NK/RMC/DIST/MADANPUR/2025

PRICE SCHEDULE

Issued to M/s



(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 'Paisha' 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 brought in the notice of WAPCOS on or before Pre-BID meeting.

PRICE SCHEDULE

WAPCOS LIMITED						
Quoting Sheet for the Bidder						
NIT No:	WAP/NK/RMC/DIST/MADANPUR/2025					
Name of Work:	Distribution Network for Madanpur Division of RMC, Bihar Portion					
Name of the Firm:						
	BOQ Amount(in Rs)	Above or Below or At par	% in Figures	% In Words	Amount Above or Below or At par	Total Cost
I	II	I	IV	V	VI= (II*IV)	VII= (II+VI)
PERCENTAGE RATE	₹ 50,95,35,698/-					
• Total Amount						
Total in figure						
Total in words						

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.

Bihar Distribution Network- Madanpur Division
(Total Cost – Rs. 50.95 Crores)

Summary of Cost

Sr. No.	Name of Canal	Cost Approved in Crores
1	Chain Nawada Dy.	12.07
2	Kotwara Dy.	38.88
Total		50.95

Madanpur Division – Chain Nawada Dy.
(Total Cost – Rs. 12.07 Crores)

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
ABSTRACT OF COST (CHAIN NAWADA SUB DY.)								
S. No.	Items	Qty.	Unit	Rate	Seigniorage Charges	Amount (Rs.) Including Seigniorage Charges	Reference for Rate	Page No.
1	Earthwork							
	CHAIN NAWADA SUB DY.	1	Job	50300307.00	0.00	₹ 5,03,00,307.00	AOC Earthwork Chain Nawada Sub Dy.	24
	PARANPUR MINOR	1	Job	8011273.04	0.00	₹ 80,11,273.04	AOC Earthwork Paranpur Minor	26
	SALAIYA MINOR	1	Job	4856208.44	0.00	₹ 48,56,208.44	AOC Earthwork Salaiya Minor	28
	DHAMANI SUB DY.	1	Job	10291902.61	0.00	₹ 1,02,91,902.61	AOC Earthwork Dhamani Sub Dy.	30
2	Head Regulator							
	PARANPUR MINOR	1	No.	2007082.92	14295.67	₹ 20,21,378.59	HR (AOC) Paranpur mr.	36
	SALAIYA MINOR	1	No.	1723270.54	12039.86	₹ 17,35,310.40	HR (AOC) Salaiya mr.	40
	DHAMANI SUB-DY.	1	No.	2944042.54	18488.31	₹ 29,62,530.85	HR (AOC) Dhamani Sub Dy.	43
3	Falls							
	CHAIN NAWADA SUB DY.							
	0.762 m Fall at Ch. 9.150 Km	1	No.	1715467.07	15317.09	₹ 17,30,784.16	Fall (AOC) Chain Nawada Sub Dy.	61
	0.762 m Fall at Ch. 9.330 Km	1	No.	1442960.23	12831.77	₹ 14,55,792.00		64
	1.520 m Fall at Ch. 12.900 Km	1	No.	2319068.59	20693.76	₹ 23,39,762.34		67
	0.914 m Fall at Ch. 13.325 Km	1	No.	1516936.10	13491.08	₹ 15,30,427.18		70
	PARANPUR MINOR							
	0.762 m Fall at Ch. 0.200 Km	1	No.	1111946.08	9418.12	₹ 11,21,364.20	Fall (AOC) Paranpur Mr.	73
	1.220 m Fall at Ch. 0.400 Km	1	No.	1410823.97	11954.11	₹ 14,22,778.09		76
	1.220 m Fall at Ch. 0.550 Km	1	No.	1420076.79	11954.11	₹ 14,32,030.90		79
	0.914 m Fall at Ch. 0.950 Km	1	No.	1105559.74	9318.63	₹ 11,14,878.37		82
	1.220 m Fall at Ch. 1.050 Km	1	No.	1293170.28	10859.66	₹ 13,04,029.94		85
	1.524 m Fall at Ch. 1.150 Km	1	No.	1610616.09	13657.56	₹ 16,24,273.65		88
	1.828 m Fall at Ch. 1.950 Km	1	No.	913460.67	7929.44	₹ 9,21,390.11		91
	0.457 m Fall at Ch.2.100 Km	1	No.	500067.75	4135.19	₹ 5,04,202.94		94
	1.828 m Fall at Ch.2.215 Km	1	No.	1611875.51	13617.37	₹ 16,25,492.88		97
	2.134 m Fall at Ch.2.525 Km	1	No.	1236392.53	10554.78	₹ 12,46,947.32		100
	1.524 m Fall at Ch.2.810 Km	1	No.	471956.59	3864.58	₹ 4,75,821.17		102
	1.830 m Fall at Ch.2.870 Km	1	No.	1199811.89	9880.92	₹ 12,09,692.82		104
	SALAIYA MINOR							
	2.134 m Fall at Ch. 0.030 Km	1	No.	1485094.62	13063.12	₹ 14,98,157.74	Fall (AOC) Salaiya Mr.	107
	0.914 m Fall at Ch. 0.300 Km	1	No.	648917.04	5468.71	₹ 6,54,385.75		110
	0.914 m Fall at Ch. 1.500 Km	1	No.	537706.31	4512.89	₹ 5,42,219.20		113
	DHAMANI SUB-DY.							
	1.220 m Fall at Ch. 3.300 Km	1	No.	1278666.03	12141.52	₹ 12,90,807.55	Fall (AOC) Dhamani Sub Dy.	116
	1.524 m Fall at Ch. 3.800 Km	1	No.	1672875.95	14906.64	₹ 16,87,782.60		119
	1.524 m Fall at Ch. 3.950 Km	1	No.	1632102.02	14906.64	₹ 16,47,008.67		122
	0.915 m Fall at Ch. 4.595 Km	1	No.	1107379.24	9666.65	₹ 11,17,045.89		125
4	Cross Drainage							
	PARANPUR MINOR							
	At Km 1.660	1	No.	2117191.12	18058.05	₹ 21,35,249.17	C.D. Main canals-AOC	217
5	Repair of Structures							
	CHAIN NAWADA SUB DY.	24	No.	1903018.177	7197.89	₹ 19,10,216.06	Abstract (Repair St.) Chain nawada sub dy.	221

S. No.	Items	Qty.	Unit	Rate	Seigniorage Charges	Amount (Rs.) Including Seigniorage Charges	Reference for Rate	Page No.
	PARANPUR MINOR	2	No.	77868.94055	0	₹ 77,868.94	Abstract (Repair St.) Paranpur Minor	222
	SALAIYA MINOR	3	No.	327027.8968	3284.10	₹ 3,30,312.00	Abstract (Repair St.) Salaiya Minor	223
	DHAMANI SUB-DY.	5	No.	308402.8851	1543.28	₹ 3,09,946.17	Abstract (Repair St.) Dhamani Sub Dy.	223
6	Outlets							
	CHAIN NAWADA SUB DY.	19	No.	127744.47	1100.17	₹ 24,48,048.17	Outlet-AOC'!G19	263
	PARANPUR MINOR	10	No.	127744.47	1100.17	₹ 12,88,446.41	Outlet-AOC'!G19	263
	SALAIYA MINOR	8	No.	127744.47	1100.17	₹ 10,30,757.13	Outlet-AOC'!G19	263
	DHAMANI SUB-DY.	11	No.	127744.47	1100.17	₹ 14,17,291.05	Outlet-AOC'!G19	263
7	Kilometer Stone	27	No.	3853.40	0.00	₹ 1,04,041.80	Rates '!F61	296
	TOTAL (In Rs.)					120728163.28		
	TOTAL (In Lacs)					1207.28		

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 X _a)	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 =[(18H _{Sa} .L _s +18H _{Ua} .L _u +18H _{Ka} .L _k)+18 X _a	Per Unit Rate =(col 17 / Net Payable capacity)
						18X _a	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		
							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 (Tipper 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			Cost of Carriage =[(25H _{sa} .L _s +25H _{ua} .L _u +25H _{ka} .L _k)+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 CHAIN NAWADA SUB DY (0.000 TO 13.800 KM)							
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
		sq-m	sq-m	Cum	sq-m	sq-m	Cum
0		0.000	0	0	0.000	0	0.000
100	100	6.863	3.432	343.150	7.936	3.968	396.800
200	100	4.586	5.725	572.450	7.304	7.620	762.000
300	100	2.700	3.643	364.300	7.713	7.509	750.850
400	100	1.585	2.143	214.250	10.690	9.202	920.150
500	100	7.886	4.736	473.550	7.715	9.203	920.250
600	100	4.151	6.019	601.850	7.923	7.819	781.900
700	100	1.491	2.821	282.100	9.319	8.621	862.100
800	100	0.341	0.916	91.600	10.083	9.701	970.100
900	100	0.564	0.453	45.250	10.244	10.164	1016.350
1000	100	1.262	0.913	91.300	12.879	11.562	1156.150
1100	100	0.477	0.870	86.950	16.197	14.538	1453.800
1200	100	0.248	0.363	36.250	19.709	17.953	1795.300
1300	100	0.089	0.169	16.850	23.568	21.639	2163.850
1400	100	1.906	0.998	99.750	8.387	15.978	1597.750
1500	100	0.016	0.961	96.100	11.081	9.734	973.400
1600	100	0.000	0.008	0.800	12.179	11.630	1163.000
1700	100	0.000	0.000	0.000	16.360	14.270	1426.950
1800	100	2.126	1.063	106.300	3.681	10.021	1002.050
1900	100	1.686	1.906	190.600	3.826	3.754	375.350
2000	100	7.057	4.372	437.150	8.365	6.096	609.550
2100	100	15.153	11.105	1110.500	9.698	9.032	903.150
2200	100	16.341	15.747	1574.700	3.178	6.438	643.800
2300	100	16.430	16.386	1638.550	6.028	4.603	460.300
2400	100	16.597	16.514	1651.350	11.207	8.618	861.750
2500	100	3.486	10.042	1004.150	3.385	7.296	729.600
2600	100	15.703	9.595	959.450	2.324	2.855	285.450
2700	100	0.008	7.856	785.550	6.246	4.285	428.500
2800	100	0.679	0.344	34.350	5.271	5.759	575.850
2900	100	3.579	2.129	212.900	5.367	5.319	531.900
3000	100	7.614	5.597	559.650	7.430	6.399	639.850
3100	100	12.321	9.968	996.750	8.963	8.197	819.650
3200	100	17.258	14.790	1478.950	9.908	9.436	943.550
3300	100	24.878	21.068	2106.800	6.865	8.387	838.650
3400	100	16.598	20.738	2073.800	6.464	6.665	666.450
3500	100	9.787	13.193	1319.250	4.350	5.407	540.700
3600	100	4.338	7.063	706.250	3.689	4.020	401.950
3700	100	4.927	4.633	463.250	11.881	7.785	778.500
3800	100	2.629	3.778	377.800	9.665	10.773	1077.300
3900	100	2.220	2.425	242.450	10.453	10.059	1005.900
4000	100	1.268	1.744	174.400	12.936	11.695	1169.450
4100	100	1.089	1.179	117.850	14.639	13.788	1378.750
4200	100	0.578	0.834	83.350	13.967	14.303	1430.300

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
4300	100	0.298	0.438	43.800	13.408	13.688	1368.750
4400	100	0.000	0.149	14.900	14.985	14.197	1419.650
4500	100	0.000	0.000	0.000	15.819	15.402	1540.200
4600	100	0.000	0.000	0.000	47.757	31.788	3178.800
4700	100	0.000	0.000	0.000	29.430	38.594	3859.350
4800	100	0.000	0.000	0.000	25.426	27.428	2742.800
4900	100	0.000	0.000	0.000	23.333	24.380	2437.950
5000	100	0.000	0.000	0.000	18.464	20.899	2089.850
5100	100	0.000	0.000	0.000	14.803	16.634	1663.350
5200	100	0.000	0.000	0.000	11.576	13.190	1318.950
5300	100	0.374	0.187	18.700	9.268	10.422	1042.200
5400	100	3.290	1.832	183.200	8.869	9.069	906.850
5500	100	8.853	6.072	607.150	14.031	11.450	1145.000
5600	100	18.871	13.862	1386.200	7.123	10.577	1057.700
5700	100	17.274	18.073	1807.250	4.699	5.911	591.100
5800	100	17.155	17.215	1721.450	3.726	4.213	421.250
5900	100	11.954	14.555	1455.450	3.413	3.570	356.950
6000	100	7.408	9.681	968.100	2.260	2.837	283.650
6100	100	0.424	3.916	391.600	7.896	5.078	507.800
6200	100	0.000	0.212	21.200	11.879	9.888	988.750
6300	100	0.000	0.000	0.000	13.466	12.673	1267.250
6400	100	0.000	0.000	0.000	17.196	15.331	1533.100
6500	100	0.000	0.000	0.000	19.794	18.495	1849.500
6600	100	0.000	0.000	0.000	22.170	20.982	2098.200
6700	100	0.000	0.000	0.000	15.535	18.853	1885.250
6800	100	0.621	0.311	31.050	31.597	23.566	2356.600
6900	100	0.000	0.311	31.050	11.761	21.679	2167.900
7000	100	0.000	0.000	0.000	20.464	16.113	1611.250
7100	100	0.000	0.000	0.000	29.640	25.052	2505.200
7200	100	0.000	0.000	0.000	24.156	26.898	2689.800
7300	100	0.000	0.000	0.000	15.493	19.825	1982.450
7400	100	0.279	0.140	13.950	8.146	11.820	1181.950
7500	100	2.057	1.168	116.800	3.115	5.631	563.050
7600	100	5.603	3.830	383.000	2.946	3.031	303.050
7700	100	7.902	6.753	675.250	1.669	2.308	230.750
7800	100	6.803	7.353	735.250	0.941	1.305	130.500
7900	100	4.899	5.851	585.100	1.710	1.326	132.550
8000	100	5.684	5.292	529.150	1.512	1.611	161.100
8100	100	6.773	6.229	622.850	1.936	1.724	172.400
8200	100	10.252	8.513	851.250	2.554	2.245	224.500
8300	100	12.515	11.384	1138.350	4.938	3.746	374.600
8400	100	18.243	15.379	1537.900	8.799	6.869	686.850
8500	100	28.872	23.558	2355.750	8.303	8.551	855.100
8600	100	17.785	23.329	2332.850	5.588	6.946	694.550
8700	100	18.017	17.901	1790.100	4.531	5.060	505.950
8800	100	13.726	15.872	1587.150	3.397	3.964	396.400

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
8900	100	8.767	11.247	1124.650	3.410	3.404	340.350
9000	100	4.621	6.694	669.400	3.454	3.432	343.200
9100	100	1.766	3.194	319.350	3.861	3.658	365.750
9200	100	2.918	2.342	234.200	5.147	4.504	450.400
9300	100	0.483	1.701	170.050	9.215	7.181	718.100
9400	100	0.000	0.242	24.150	7.495	8.355	835.500
9500	100	0.000	0.000	0.000	10.849	9.172	917.200
9600	100	0.047	0.024	2.350	9.636	10.243	1024.250
9700	100	0.000	0.024	2.350	16.943	13.290	1328.950
9800	100	4.432	2.216	221.600	3.565	10.254	1025.400
9900	100	0.000	2.216	221.600	15.100	9.333	933.250
10000	100	0.000	0.000	0.000	16.971	16.036	1603.550
10100	100	0.000	0.000	0.000	19.127	18.049	1804.900
10200	100	0.000	0.000	0.000	20.573	19.850	1985.000
10300	100	0.000	0.000	0.000	22.218	21.396	2139.550
10400	100	0.000	0.000	0.000	19.148	20.683	2068.300
10500	100	0.000	0.000	0.000	19.001	19.075	1907.450
10600	100	0.000	0.000	0.000	15.898	17.450	1744.950
10700	100	0.000	0.000	0.000	13.074	14.486	1448.600
10800	100	0.000	0.000	0.000	10.502	11.788	1178.800
10900	100	0.000	0.000	0.000	8.159	9.331	933.050
11000	100	0.018	0.009	0.900	6.040	7.100	709.950
11100	100	0.707	0.363	36.250	7.094	6.567	656.700
11200	100	0.646	0.677	67.650	7.529	7.312	731.150
11300	100	0.395	0.521	52.050	7.032	7.281	728.050
11400	100	0.439	0.417	41.700	6.415	6.724	672.350
11500	100	0.278	0.359	35.850	9.182	7.799	779.850
11600	100	0.306	0.292	29.200	8.641	8.912	891.150
11700	100	0.952	0.629	62.900	5.832	7.237	723.650
11800	100	1.542	1.247	124.700	4.945	5.389	538.850
11900	100	3.058	2.300	230.000	3.831	4.388	438.800
12000	100	4.964	4.011	401.100	3.018	3.425	342.450
12100	100	7.202	6.083	608.300	2.455	2.737	273.650
12200	100	9.756	8.479	847.900	2.094	2.275	227.450
12300	100	8.087	8.922	892.150	3.418	2.756	275.600
12400	100	5.526	6.807	680.650	2.639	3.029	302.850
12500	100	3.557	4.542	454.150	2.738	2.689	268.850
12600	100	2.326	2.942	294.150	2.526	2.632	263.200
12700	100	9.340	5.833	583.300	1.588	2.057	205.700
12800	100	4.744	7.042	704.200	1.548	1.568	156.800
12900	100	15.832	10.288	1028.800	2.053	1.801	180.050
13000	100	3.672	9.752	975.200	3.946	3.000	299.950
13100	100	0.335	2.004	200.350	7.552	5.749	574.900
13200	100	0.000	0.168	16.750	18.508	13.030	1303.000
13300	100	0.135	0.068	6.750	9.624	14.066	1406.600
13400	100	2.378	1.257	125.650	2.685	6.155	615.450

		Earthwork in Cutting			Earthwork in filling		
Change	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
13500	100	0.571	1.475	147.450	3.667	3.176	317.600
13600	100	0.205	0.388	38.800	5.161	4.414	441.400
13700	100	0.000	0.103	10.250	4.267	4.714	471.400
13800	100	0.282	0.141	14.100	6.537	5.402	540.200
Total				59459.300			136123.750
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							59459.300
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							136123.750
NET QUANTITY OF EARTHWORK							76664.45

		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							
PARANPUR MR (0.000 TO 3.050 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	0.337	0.169	16.850	3.223	1.612	161.150
200	100	2.852	1.595	159.450	2.068	2.646	264.550
300	100	0.675	1.764	176.350	2.478	2.273	227.300
400	100	0.520	0.598	59.750	4.093	3.286	328.550
500	100	0.507	0.514	51.350	4.053	4.073	407.300
600	100	0.722	0.615	61.450	4.149	4.101	410.100
700	100	0.581	0.652	65.150	3.999	4.074	407.400
800	100	0.334	0.458	45.750	3.666	3.833	383.250
900	100	0.245	0.290	28.950	4.204	3.935	393.500
1000	100	0.486	0.366	36.550	1.633	2.919	291.850
1100	100	0.358	0.422	42.200	3.917	2.775	277.500
1200	100	0.301	0.330	32.950	4.811	4.364	436.400
1300	100	0.225	0.263	26.300	4.220	4.516	451.550
1400	100	0.153	0.189	18.900	3.646	3.933	393.300
1500	100	0.083	0.118	11.800	4.917	4.282	428.150
1600	100	0.015	0.049	4.900	3.076	3.997	399.650
1700	100	0.000	0.008	0.750	4.392	3.734	373.400
1800	100	0.000	0.000	0.000	5.750	5.071	507.100
1900	100	0.000	0.000	0.000	7.159	6.455	645.450
2000	100	0.709	0.355	35.450	3.690	5.425	542.450
2100	100	0.000	0.355	35.450	3.784	3.737	373.700
2200	100	0.000	0.000	0.000	9.223	6.504	650.350
2300	100	0.174	0.087	8.700	3.630	6.427	642.650
2400	100	0.000	0.087	8.700	6.394	5.012	501.200
2500	100	0.000	0.000	0.000	17.752	12.073	1207.300
2600	100	0.368	0.184	18.400	3.321	10.537	1053.650
2700	100	0.159	0.264	26.350	3.772	3.547	354.650
2800	100	0.000	0.080	7.950	10.055	6.914	691.350
2900	100	1.438	0.719	71.900	3.201	6.628	662.800
3000	100	0.034	0.736	73.600	4.098	3.650	364.950
3050	50	0.000	0.017	0.850	9.081	6.590	329.475
Total				1126.750			14561.975
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							1126.750
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							14561.975
NET QUANTITY OF EARTHWORK							13435.23

		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 SALAIYA MR (0.000 TO 2.200 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	0.021	0.011	1.050	5.915	2.958	295.750
200	100	1.349	0.685	68.500	3.299	4.607	460.700
300	100	2.251	1.800	180.000	2.449	2.874	287.400
400	100	0.568	1.410	140.950	1.161	1.805	180.500
500	100	0.007	0.288	28.750	7.074	4.118	411.750
600	100	0.000	0.004	0.350	15.602	11.338	1133.800
700	100	0.450	0.225	22.500	3.160	9.381	938.100
800	100	0.000	0.225	22.500	8.708	5.934	593.400
900	100	0.850	0.425	42.500	1.826	5.267	526.700
1000	100	0.000	0.425	42.500	7.361	4.594	459.350
1100	100	0.415	0.208	20.750	2.619	4.990	499.000
1200	100	0.040	0.228	22.750	8.081	5.350	535.000
1300	100	0.209	0.125	12.450	2.847	5.464	546.400
1400	100	0.077	0.143	14.300	4.207	3.527	352.700
1500	100	1.105	0.591	59.100	2.641	3.424	342.400
1600	100	0.560	0.833	83.250	3.605	3.123	312.300
1700	100	0.284	0.422	42.200	5.582	4.594	459.350
1800	100	0.223	0.254	25.350	6.673	6.128	612.750
1900	100	1.217	0.720	72.000	1.804	4.239	423.850
2000	100	0.617	0.917	91.700	2.248	2.026	202.600
2100	100	0.173	0.395	39.500	1.948	2.098	209.800
2200	100	0.000	0.087	8.650	4.652	3.300	330.000
Total				1041.600			10113.600
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							1041.600
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							10113.600
NET QUANTITY OF EARTHWORK							9072.00

		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 DHAMNI SUB DY (0.000 TO 4.700 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	0.654	0.327	32.700	4.794	2.397	239.700
200	100	0.898	0.776	77.600	1.927	3.361	336.050
300	100	1.030	0.964	96.400	3.927	2.927	292.700
400	100	1.299	1.165	116.450	5.446	4.687	468.650
500	100	3.174	2.237	223.650	4.776	5.111	511.100
600	100	2.156	2.665	266.500	7.492	6.134	613.400
700	100	1.784	1.970	197.000	3.665	5.579	557.850
800	100	1.298	1.541	154.100	3.058	3.362	336.150
900	100	0.895	1.097	109.650	3.852	3.455	345.500
1000	100	0.687	0.791	79.100	3.732	3.792	379.200
1100	100	0.606	0.647	64.650	4.187	3.960	395.950
1200	100	0.545	0.576	57.550	4.929	4.558	455.800
1300	100	1.215	0.880	88.000	3.727	4.328	432.800
1400	100	2.128	1.672	167.150	2.172	2.950	294.950
1500	100	5.361	3.745	374.450	1.101	1.637	163.650
1600	100	7.398	6.380	637.950	1.026	1.064	106.350
1700	100	3.397	5.398	539.750	1.707	1.367	136.650
1800	100	2.061	2.729	272.900	3.118	2.413	241.250
1900	100	0.974	1.518	151.750	4.318	3.718	371.800
2000	100	0.117	0.546	54.550	6.773	5.546	554.550
2100	100	0.136	0.127	12.650	8.050	7.412	741.150
2200	100	0.070	0.103	10.300	11.229	9.640	963.950
2300	100	0.000	0.035	3.500	13.940	12.585	1258.450
2400	100	0.000	0.000	0.000	10.953	12.447	1244.650
2500	100	0.000	0.000	0.000	9.034	9.994	999.350
2600	100	0.000	0.000	0.000	7.110	8.072	807.200
2700	100	0.000	0.000	0.000	5.904	6.507	650.700
2800	100	2.127	1.064	106.350	3.723	4.814	481.350
2900	100	0.009	1.068	106.800	2.814	3.269	326.850
3000	100	0.076	0.043	4.250	7.527	5.171	517.050
3100	100	0.965	0.521	52.050	4.438	5.983	598.250
3200	100	0.341	0.653	65.300	3.318	3.878	387.800
3300	100	9.460	4.901	490.050	1.984	2.651	265.100
3400	100	1.323	5.392	539.150	3.750	2.867	286.700
3500	100	0.112	0.718	71.750	5.466	4.608	460.800
3600	100	0.009	0.061	6.050	6.208	5.837	583.700
3700	100	0.432	0.221	22.050	4.174	5.191	519.100
3800	100	6.581	3.507	350.650	3.498	3.836	383.600
3900	100	1.144	3.863	386.250	4.735	4.117	411.650
4000	100	3.369	2.257	225.650	1.003	2.869	286.900
4100	100	0.000	1.685	168.450	9.798	5.401	540.050
4200	100	1.018	0.509	50.900	5.117	7.458	745.750

Change	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
4300	100	0.499	0.759	75.850	8.962	7.040	703.950
4400	100	0.648	0.574	57.350	3.139	6.051	605.050
4500	100	3.025	1.837	183.650	3.953	3.546	354.600
4600	100	7.994	5.510	550.950	2.297	3.125	312.500
4700	100	0.000	3.997	399.700	12.715	7.506	750.600
Total				7701.500			23420.850
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							7701.500
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							23420.850
NET QUANTITY OF EARTHWORK							15719.35

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND				
CHAIN NAWADA SUB DY. (0.000 TO 13.800 KM)				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	Length (m)	Perimeter (m)	Quantity	
0.00 - 4.150	4150	7.74	32121.00	Sqm
4.150 - 9.325	5175	7.190	37208.25	Sqm
9.325 - 11.070	1745	6.41	11185.45	Sqm
11.070 - 13.800	2730	5.82	15888.60	Sqm
	TOTAL		96403.30	Sqm

LIP CUTTING QUANTITY					
Reaches (km)	Length (m)	Perimeter (m)	Thickness (m)	Quantity	
0.00 - 4.150	4150	7.740	0.15	4818.15	Cum
4.150 - 9.325	5175	7.190	0.15	5581.24	Cum
9.325 - 11.070	1745	6.410	0.15	1677.82	Cum
11.070 - 13.800	2730	5.820	0.15	2383.29	Cum
	TOTAL			14460.50	Cum

PARANPUR MINOR (0.000 TO 3.050 KM)				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	Length (m)	Perimeter (m)	Quantity	
0.00 - 0.800	800	3.23	2584.00	Sqm
0.800 - 2.100	1300	2.72	3536.00	Sqm
2.100 - 2.215	115	2.41	277.15	Sqm
2.215 - 2.700	485	1.95	945.75	Sqm
2.700 - 3.050	350	1.4	490.00	Sqm
	TOTAL		7832.90	Sqm

LIP CUTTING QUANTITY					
Reaches (km)	Length (m)	Perimeter (m)	Thickness (m)	Quantity	
0.00 - 0.800	2300	3.23	0.15	1114.35	Cum
0.800 - 2.100	1850	2.72	0.15	754.80	Cum
2.100 - 2.215	800	2.41	0.15	289.20	Cum
2.215 - 2.700	801	1.95	1.15	1796.24	Cum
2.700 - 3.050	802	1.4	2.15	2414.02	Cum
	TOTAL			6368.61	Cum

SALAIYA MINOR (0.000 TO 2.250 KM)				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	Length (m)	Perimeter (m)	Quantity	
0.00 - 0.810	810	2.730	2211.30	Sqm
0.810 - 1.500	690	2.110	1455.90	Sqm
1.500 - 1.885	385	1.600	616.00	Sqm
1.885 - 2.250	365	1.300	474.50	Sqm
	TOTAL		4757.70	Sqm

LIP CUTTING QUANTITY					
Reaches (km)	Length (m)	Perimeter (m)	Thickness (m)	Quantity	
0.00 - 0.810	810	2.73	0.15	331.70	Cum
0.810 - 1.500	690	2.11	0.15	218.39	Cum
1.500 - 1.885	385	1.60	0.15	92.40	Cum
1.885 - 2.250	365	1.30	1.15	545.68	Cum
	TOTAL			1188.16	Cum

DHAMANI SUB DY. (0.000 TO 4750 KM)				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	Length (m)	Perimeter (m)	Quantity	
0.00 - 2.200	2200	5.68	12496.00	Sqm
2.200 - 4.750	2550	5.09	12979.50	Sqm
	TOTAL		25475.50	Sqm

LIP CUTTING QUANTITY					
Reaches (km)	Length (m)	Perimeter (m)	Thickness (m)	Quantity	
0.00 - 2.200	2200	5.68	0.15	1874.40	Cum
2.200 - 4.750	2550	5.09	0.15	1946.93	Cum
	TOTAL			3821.33	Cum

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND				
DETAILS OF QUANTITIES FOR EARTH WORK FOR CHAIN NAWADA SUB DY.				
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	96403.30	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	59459.300	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	23783.72	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	76664.450	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	22999.34	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	19166.11	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	34499.00	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	14460.50	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.			
		1	76664.45	Cum

S.No.	Items	No.	Quantity	Unit
DETAILS OF QUANTITIES FOR EARTH WORK FOR PARANPUR 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	7832.90	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	1126.750	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	450.7	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	13435.225	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, unloading, 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	4030.57	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	3358.81	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	6045.85	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	6368.61	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.			
		1	14561.98	Cum

S.No.	Items	No.	Quantity	Unit
DETAILS OF QUANTITIES FOR EARTH WORK FOR SALAIYA 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	4757.70	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	1041.600	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	416.64	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	9072.000	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, unloading, 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	2721.60	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	2268.00	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	4082.40	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	1188.16	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.			
		1	10113.60	Cum

S.No.	Items	No.	Quantity	Unit
DETAILS OF QUANTITIES FOR EARTH WORK FOR DHAMANI 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	25475.50	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	7701.500	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	3080.6	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	15719.350	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, unloading, 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	4715.81	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	3929.84	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	7073.71	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	3821.33	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.			
		1	23420.85	Cum

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND						
ABSTRACT OF QUANTITY OF EARTHWORK FOR CHAIN NAWADA SUB DY.						
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.	96403.30	Sqm	11.80	1137982.144
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.				
		<i>100% of Total Cutting for ordinary soil</i>	59459.30	Cum	156.50	9305380.45
3	5.1.22	<i>Extra for wet earth all complete as per specifications and direction of E/I.</i>	23783.72	Cum	17.22	409496.535
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.	76664.45	Cum	165.12	12658524.29
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 embankments, unloading, 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)	22999.34	Cum	174.89	4022353.70
B.	5.1.46.2	Lead Beyond 500 m but upto 1 km (25% of net filling)	19166.11	Cum	217.92	4176679.24
C.	5.1.46.4	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	34499.00	Cum	319.14	11010011.66
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.				
			14460.50	Cum	196.10	2835703.07

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.	76664.45	Cum	61.88	4744175.92
TOTAL COST OF EARTHWORK (in Rs.)						50300307.00
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						503.003

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.

ABSTRACT OF QUANTITY OF EARTHWORK FOR PARANPUR 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.	7832.90	Sqm	11.80	92462.60587
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.				
		<i>100% of Total Cutting for ordinary soil</i>	1126.75	Cum	156.50	176336.375
3	5.1.22	<i>Extra for wet earth all complete as per specifications and direction of E/I.</i>	450.70	Cum	17.22	7759.933616
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.	13435.23	Cum	165.12	2218370.08
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)	4030.57	Cum	174.89	704905.95
B.	5.1.46.2	Lead Beyond 500 m but upto 1 km (25% of net filling)	3358.81	Cum	217.92	731951.06
C.	5.1.46.4	Lead Beyond 1.5 km but upto 2 km 45% of net filling)	6045.85	Cum	319.14	1929472.97
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.				
			6368.61	Cum	196.10	1248884.91

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.	14561.98	Cum	61.88	901129.16
TOTAL COST OF EARTHWORK (in Rs.)						8011273.04
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						80.113

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR SALAIYA 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.	4757.70	Sqm	11.80	56161.74597
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.				
		<i>100% of Total Cutting for ordinary soil</i>	1041.60	Cum	156.50	163010.4
3	5.1.22	<i>Extra for wet earth all complete as per specifications and direction of E/I.</i>	416.64	Cum	17.22	7173.505085
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.	9072.00	Cum	165.12	1497931.99
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)	2721.60	Cum	174.89	475980.62
B.	5.1.46.2	Lead Beyond 500 m but upto 1 km (25% of net filling)	2268.00	Cum	217.92	494242.56
C.	5.1.46.4	Lead Beyond 1.5 km but upto 2 km 45% of net filling)	4082.40	Cum	319.14	1302857.14
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.				
			1188.16	Cum	196.10	232997.20

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.	10113.60	Cum	61.88	625853.28
TOTAL COST OF EARTHWORK (in Rs.)						4856208.44
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						48.562

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR DHAMANI 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.	25475.50	Sqm	11.80	300722.7356
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.				
		<i>100% of Total Cutting for ordinary soil</i>	7701.50	Cum	156.50	1205284.75
3	5.1.22	<i>Extra for wet earth all complete as per specifications and direction of E/I.</i>	3080.60	Cum	17.22	53040.27401
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.	15719.35	Cum	165.12	2595515.57
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)	4715.81	Cum	174.89	824747.14
B.	5.1.46.2	Lead Beyond 500 m but upto 1 km (25% of net filling)	3929.84	Cum	217.92	856390.19
C.	5.1.46.4	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	7073.71	Cum	319.14	2257503.01
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.				
			3821.33	Cum	196.10	749361.83

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.	23420.85	Cum	61.88	1449337.11
TOTAL COST OF EARTHWORK (in Rs.)						10291902.61
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						102.919

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF PARANPUR MINOR				
Calculation procedure of Gate's weight for estimation purpose				
1	Weight of 1 Vertical lift gate including embedded parts	$0.1332x(L^{.2}XHxh)^{.659}$		
	(L) is length = clear vent width in m + 0.50m.	2.000	0.500	2.50
	(H) is height of gate in m = clear vent height in m + 0.20m.	1.200	0.200	1.40
	(h) is head of water above sill of gate in m	1.200	0.3	1.500
	Weight of lift gate including embedded parts	0.73		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	0.73	1
	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		
		1.500	400	600
	Columns with bracings/Anchors/Stiffeners	0.6		T
(ii)	Beams with cross beams/stiffeners	400 kg per meter span		
		1.5	400	600
	Beams with cross beams/stiffeners	0.6		T
(iii)	Railing/ Chequered plate/Ladder etc	10% of wt. of columns/beams		
		1.2	10%	0.12
	Railing/ Chequered plate/Ladder etc	0.12		T
Total Weight of One Gate		2.35		T

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF SALAIYA MR.				
Calculation procedure of Gate's weight for estimation purpose				
1	Weight of 1 Vertical lift gate including embedded parts	$0.1332x(L^{.2}XHxh)^{.659}$		
	(L) is length = clear vent width in m + 0.50m.	1.500	0.500	2.00
	(H) is height of gate in m = clear vent height in m + 0.20m.	1.200	0.200	1.40
	(h) is head of water above sill of gate in m	1.200	0.3	1.500
	Weight of lift gate including embedded parts	0.54		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	0.54	1
	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		
		1.500	400	600
	Columns with bracings/Anchors/Stiffeners	0.6		T
(ii)	Beams with cross beams/stiffeners	400 kg per meter span		
		1.5	400	600
	Beams with cross beams/stiffeners	0.6		T
(iii)	Railing/ Chequered plate/Ladder etc	10% of wt. of columns/beams		
		1.2	10%	0.12
	Railing/ Chequered plate/Ladder etc	0.12		T
Total Weight of One Gate		2.16		T

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF DHAMNI SUB DY				
Calculation procedure of Gate's weight for estimation purpose				
1	Weight of 1 Vertical lift gate including embedded parts	$0.1332 \times (L^2 \times H \times h)^{0.659}$		
	(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.	1.500	0.200	1.70
	(h) is head of water above sill of gate in m	1.500	0.3	1.800
	Weight of lift gate including embedded parts	0.88		T
2	Capacity of screw hoist in tone including 25% reserve capacity (Hoist	2.50 x Wt of gate		
		2.5	0.88	1
	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		
		1.800	400	720
	Columns with bracings/Anchors/Stiffeners	0.72		T
(ii)	Beams with cross beams/stiffeners	400 kg per meter span		
		1.8	400	720
	Beams with cross beams/stiffeners	0.72		T
(iii)	Railing/ Chequered plate/Ladder etc	10% of wt. of columns/beams		
		1.44	10%	0.144
	Railing/ Chequered plate/Ladder etc	0.144		T
Total Weight of One Gate		2.77		T
Total Weight of Two Gates		5.53		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
	<i>Total 1+2+3= (B) =</i>	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
	<i>Total = B+4+5+6+7 = C</i>	Rs.	155373.89
8	Other incidental charge , 3 % = of C	Rs.	4661.22
	<i>Total C+8 = D</i>	Rs.	160035.11

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
ABSTRACT OF COST HR FOR PARANPUR MR OFFTAKING FROM RD-9+320 KM (L.) AT CHAIN NAWADA SUB DY								
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)
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.	153.416	Cum	195.20	29946.82			
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.	19.49	Cum	6381.70	124359.73	6.31	8.77	17.54
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.	92.71	Cum	6914.20	641048.64	38.24	39.87	79.73
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.	19.30	Cum	8151.40	157331.91	10.94	7.53	15.25

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)
5	Providing M.S. reinforcements 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.	2.61	MT	73574.90	192085.00			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	2.35	MT	160035.11	375548.10			
7	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	308.53	Sqm	578.60	178517.87			
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)	3.78	Cum	694.61	2625.63			
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.	3.78	Cum	1237.00	4675.86			
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)	1.32	Cum	1377.70	1818.56			
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.	1.32	Cum	516.50	681.78			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	Cum	5588.70	11177.40			
14	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			
15	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 MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
16	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	28.70	Sqm	149.30	4284.86			
17	Carriage of materials							
	Coarse Sand (60 Km lead)	56.164	Cum	1075.00	60376.25			
	Coarse Aggregates (100 Km lead)	113.841	Cum	1398.00	159149.60			
	Cement (30 km lead)	55.502	MT	742.00	41182.79			
	Boulder (60 Km lead)	3.78	Cum	1159.00	4381.02			
	Steel (30 Km lead)	4.96	MT	742.00	3678.39			
TOTAL (In Rs.)					2007082.92			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	56.16	Cum	584.64	32835.69	3283.57		
	Coarse Aggregate	113.84	Cum	944.26	107495.43	10749.54		
	Boulders	3.78	Cum	694.61	2625.63	262.56		
	<i>Total</i>					14295.67		
	For 1 nos. HR, Total Seigniorage charges					14295.67		

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)
ABSTRACT OF COST HR FOR SALAIYA MR OFFTAKING FROM RD-11+070 KM (L.) AT CHAIN NAWADA 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.	129.118	Cum	195.20	25203.91			
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.	18.13	Cum	6381.70	115703.84	5.87	8.16	16.32
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.	76.02	Cum	6914.20	525589.19	31.36	32.69	65.37
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.	17.21	Cum	8151.40	140252.95	9.76	6.71	13.59

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)
5	Providing M.S. reinforcements 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.	2.12	MT	73574.90	155876.50			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	2.16	MT	160035.11	345917.05			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	263.62	Sqm	578.60	152532.29			
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)	2.43	Cum	694.61	1687.90			
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.	2.43	Cum	1237.00	3005.91			
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)	0.99	Cum	1377.70	1363.92			
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.	0.99	Cum	516.50	511.34			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	Cum	5588.70	11177.40			
14	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			
15	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 MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
16	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	24.55	Sqm	149.30	3665.74			

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)
17	Carriage of materials							
	Coarse Sand (60 Km lead)	47.556	Cum	1075.00	51122.63			
	Coarse Aggregates (100 Km lead)	96.274	Cum	1398.00	134590.95			
	Cement (30 km lead)	46.987	MT	742.00	34864.11			
	Boulder (60 Km lead)	2.43	Cum	1159.00	2816.37			
	Steel (30 Km lead)	4.28	MT	742.00	3175.85			
TOTAL (In Rs.)					1723270.54			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	47.56	Cum	584.64	27803.10	2780.31		
	Coarse Aggregate	96.27	Cum	944.26	90907.62	9090.76		
	Boulders	2.43	Cum	694.61	1687.90	168.79		
	<i>Total</i>					12039.86		
	For 1 nos. HR, Total Seigniorage charges					12039.86		

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)
ABSTRACT OF COST HR FOR DHAMNI SUB DY OFFTAKING FROM RD-13+800 KM (L.) AT CHAIN NAWADA 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.	193.568	Cum	195.20	37784.53			
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.	26.96	Cum	6381.70	172026.42	8.73	12.13	24.26
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.	112.81	Cum	6914.20	780009.80	46.54	48.51	97.02
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.	27.25	Cum	8151.40	222132.18	15.45	10.63	21.53

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)
5	Providing M.S. reinforcements 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.	3.19	MT	73574.90	234911.00			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	5.53	MT	160035.11	885473.19			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	365.36	Sqm	578.60	211397.99			
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.	12.77	Sqm	680.10	8687.60			
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry. (WRD M-002)	8.64	Cum	694.61	6001.43			
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.	8.64	Cum	1237.00	10687.68			
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)	2.51	Cum	1377.70	3455.27			
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.	2.51	Cum	516.50	1295.38			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	Cum	5588.70	11177.40			
14	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			
15	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 MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
16	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	31.82	Sqm	149.30	4750.87			
17	Carriage of materials							
	Coarse Sand (60 Km lead)	71.268	Cum	1075.00	76612.65			
	Coarse Aggregates (100 Km lead)	145.316	Cum	1398.00	203151.31			
	Cement (30 km lead)	70.720	MT	742.00	52474.44			
	Boulder (60 Km lead)	8.64	Cum	1159.00	10013.76			
	Steel (30 Km lead)	8.73	MT	742.00	6474.55			
TOTAL (In Rs.)					2944042.54			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	71.27	Cum	584.64	41665.88	4166.59		
	Coarse Aggregate	145.32	Cum	944.26	137215.77	13721.58		
	Boulders	8.64	Cum	694.61	6001.43	600.14		
	<i>Total</i>					18488.31		
	For 1 nos. HR, Total Seigniorage charges					18488.31		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILS OF QUANTITIES OF HR FOR PARANPUR MR OFFTAKING FROM RD-9+320 KM (L.) AT CHAIN NAWADA SUB DY							
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	1.15	1.64	3.140	11.844	Cum
	Section B-B	2	5.25	1.73	2.490	45.231	Cum
	Section C-C	2	0.50	1.55	2.490	3.860	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.08	1.27	3.140	12.278	Cum
	Left Bank Sec a to d	1	3.31	2.71	2.050	18.338	Cum
	D/S Transition wall						
	Sec 4-4	2	0.50	1.10	2.690	2.959	Cum
	Avg. of Sec 1-1 & 3-3	2	2.68	1.94	2.690	27.984	Cum
	Floor						
	U/S key	1	1.35	3.44	0.850	3.947	Cum
	Floor	1	3.535	3.44	0.650	7.904	Cum
		1	0.318	2	0.450	0.286	Cum
		1	0.618	2	0.350	0.433	Cum
		1	0.09	2	0.000	0.180	Cum
		1	3.097	2	0.950	5.884	Cum
		1	0.9	2	0.200	0.360	Cum
		2	0.135	2	0.200	0.108	Cum
		1	1.367	2	0.650	1.777	Cum
		1	0.835	2	1.091	1.822	Cum
	D/S Portion C.C. Blocks (600x600x300)mm	1	2.000	2.000	0.600	2.400	Cum
	Toe Wall Base D/S Portion	1	2.000	0.850	1.200	2.040	Cum
	Boulder Pitching (D/S Portion)	1	3.000	1.400	0.900	3.780	Cum
						153.42	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	0.624	3.985	0.150	0.37	Cum
		1	1.655	2.545	0.150	0.63	Cum
		1	1.374	2.000	0.150	0.41	Cum
		1	0.670	2.000	0.150	0.20	Cum
		1	3.238	2.000	0.150	0.97	Cum
		1	0.948	2.000	0.150	0.28	Cum
		1	0.100	2.000	0.150	0.03	Cum
		1	1.052	2.000	0.150	0.32	Cum
		1	0.692	2.000	0.150	0.21	Cum
	PCC Below Abutment						
	Section A-A	2	1.150	1.640	0.300	1.13	Cum
	Section B-B	2	5.250	1.730	0.300	5.45	Cum
	Section C-C	2	0.500	1.550	0.300	0.47	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.079	1.270	0.300	1.17	Cum
	Left Bank Sec a to d	1	3.307	2.705	0.150	1.34	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	2.675	1.945	0.300	3.12	Cum
	Toe Wall Base D/S Portion	1	2.000	0.850	0.300	0.51	Cum
	Toe Wall Stem D/S Portion	1	2.000	0.450	0.900	0.81	Cum
	Toe Wall Base (For Brick Pitching)	1	3.000	0.600	0.150	0.27	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					19.49	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	1.15	0.82	0.50	0.94	Cum
		2	1.15	1.03	0.70	1.66	Cum
		2	1.15	1.24	1.64	4.68	Cum
	Section B-B	2	5.25	1.08	0.85	9.59	Cum
		2	5.25	1.33	1.34	18.71	Cum
	Section C-C	2	0.50	0.99	0.55	0.54	Cum
		2	0.50	1.15	1.64	1.89	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.08	0.45	0.50	0.69	Cum
		1	3.08	0.66	0.70	1.42	Cum
		1	3.08	0.87	1.64	4.39	Cum
	Left Bank						
	Section a-a	1		2.58	0.50	1.29	Sqm
		1		2.43	0.20	0.49	Sqm
		1		1.38	1.20	1.66	Sqm
						3.43	Sqm
	Section b-b	1		2.58	0.50	1.29	Sqm
		1		2.43	0.20	0.49	Sqm
		1		1.29	1.20	1.54	Sqm
						3.32	Sqm
	Section c-c	1		2.58	0.50	1.29	Sqm
		1		2.43	0.20	0.49	Sqm
		1		1.10	1.20	1.32	Sqm
						3.10	Sqm
	Section d-d	1		2.58	0.50	1.29	Sqm
		1		2.43	0.20	0.49	Sqm
		1		0.48	1.20	0.58	Sqm
						2.35	Sqm
	Bottom Key	1	3.31	1.35	0.70	3.13	Cum
	Top Stem Area	1	3.31	3.05		10.09	Cum
	D/S Transition wall						
	Sec 4-4	2	0.50	0.70	1.34	0.94	Cum
		2	0.50	0.53	0.55	0.29	Cum
		2	0.50	0.35	0.50	0.18	Cum
	Avg. of Sec 1-1 & 3-3	2	2.68	1.54	1.34	11.07	Cum
		2	2.68	1.24	0.55	3.64	Cum
		2	2.68	0.74	0.50	1.98	Cum
	TOTAL					75.83	Cum
	Floor						
	U/S key	1	1.35	3.44	0.70	3.25	Cum
	Floor	1	3.54	3.44	0.50	6.08	Cum
		1	0.32	2.00	0.30	0.19	Cum
		1	0.62	2.00	0.20	0.25	Cum
		1	0.09	2.00		0.18	Cum
		1	3.10	2.00	0.50	3.10	Cum
		1	0.90	2.00	0.20	0.36	Cum
		2	0.14	2.00		0.54	Cum
		1	1.37	2.00	0.50	1.37	Cum
	D/S key	1	0.84	2.00	0.94	1.57	Cum
	TOTAL					92.71	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 Floor	1	3.53	3.44	0.20	2.43	Cum
		1	0.67	2.00	0.20	0.27	Cum
		1	3.08	2.00	0.20	1.23	Cum
		1	0.95	2.00	0.20	0.38	Cum
		1	1.37	2.00	0.20	0.55	Cum
	Top Slab	1	5.25	2.80	0.33	4.80	Cum
	75mm Th. Wearing coat on top slab	1	4.25	2.80	0.08	0.89	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	3.64	0.45	0.18	0.57	Cum
		2	3.64	0.35	0.25	0.64	Cum
		2	3.64	0.22	0.55	0.87	Cum
	TOTAL					19.30	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
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.						
	Dia of Bars	Length	Nos.		Weight per m	Quantity	Unit
	<i>Slab Per Span</i>						
a1	16	3.260	29		1.578	149.197	Kg
a2	10	5.650	14		0.616	48.762	Kg
a3	10	5.150	2		0.616	6.350	Kg
a4	10	3.180	18		0.616	35.286	Kg
a5	10	5.550	10		0.616	34.214	Kg
	<i>Dirt Wall</i>						
d1	12	4.460	26		0.888	102.938	Kg
d2	12	5.550	14		0.888	68.975	Kg
	<i>Crash Barrier</i>						
x1	12	2.501	46		0.888	102.127	Kg
x2	16	1.265	46		1.578	91.832	Kg
x3	10	2.700	24		0.616	39.947	Kg
	<i>Floor R/F</i>						
	<i>U/S Key</i>						
	12	6.955	9		0.888	55.566	Kg
	12	2.700	26		0.888	62.317	Kg
	<i>floor raft</i>						
	12	4.549	9		0.888	36.343	Kg
	12	7.569	18		0.888	120.942	Kg
	12	2.700	70		0.888	167.776	Kg
	0.25 % Skin Reinforcement for Transition walls	75.83	0.25%	0.19	7850	1488.17	Kg
	TOTAL Weight of steel (in kg)					2610.74	Kg
	TOTAL Weight of Steel (in Tonne)					2.61	MT
6	Structural Steel (Average rate of Angle, Joint and Channel) etc. *Separate sheet attached	1		2.35		2.35	MT
7	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	<i>Section A-A</i>	4	1.15		0.50	2.30	Sqm
		4		0.82	0.50	1.64	Sqm
		4	1.15		0.70	3.22	Sqm
		4		1.03	0.70	2.88	Sqm
		4	1.15		1.64	7.54	Sqm
		4		1.24	1.64	8.13	Sqm
	<i>Section B-B</i>	4	5.25		0.85	17.85	Sqm
		4		1.08	0.85	3.66	Sqm
		4	5.25		1.34	28.14	Sqm
		4		1.33	1.34	7.13	Sqm
	<i>Section C-C</i>	4	0.50		0.55	1.10	Sqm
		4		0.99	0.55	2.17	Sqm
		4	0.50		1.64	3.28	Sqm
		4		1.15	1.64	7.54	Sqm
	U/S Transition wall						
	<i>Right Bank (Section D-D)</i>	2	3.08		0.50	3.08	Sqm
		2		0.45	0.50	0.45	Sqm
		2	3.08		0.70	4.31	Sqm
		2		0.66	0.70	0.92	Sqm
		2	3.08		1.64	10.10	Sqm
		2		0.87	1.64	2.85	Sqm
	Left Bank						
	<i>Bottom Key</i>	2	3.31		0.70	4.63	Sqm
		2		1.35	0.70	1.89	Sqm
	<i>Section a-a</i>	2	1.10		0.50	1.10	Sqm
		2		2.58	0.50	2.58	Sqm
		2	1.10		0.20	0.44	Sqm
		2		2.43	0.20	0.97	Sqm
		2	1.10		1.20	2.65	Sqm
		2		1.38	1.20	3.31	Sqm
	<i>Section b-b</i>	2	1.10		0.50	1.10	Sqm
		2		2.58	0.50	2.58	Sqm
		2	1.10		0.20	0.44	Sqm
		2		2.43	0.20	0.97	Sqm
		2	1.10		1.20	2.65	Sqm
		2		1.29	1.20	3.09	Sqm
	<i>Section c-c</i>	2	1.10		0.50	1.10	Sqm
		2		2.58	0.50	2.58	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	1.10		0.20	0.44	Sqm
		2		2.43	0.20	0.97	Sqm
		2	1.10		1.20	2.65	Sqm
		2		1.10	1.20	2.65	Sqm
	Section d-d	2	1.10		0.50	1.10	Sqm
		2		2.58	0.50	2.58	Sqm
		2	1.10		0.20	0.44	Sqm
		2		2.43	0.20	0.97	Sqm
		2	1.10		1.20	2.65	Sqm
		2		0.48	1.20	1.15	Sqm
	D/S Transition wall						
	Sec 4-4	4	0.50		1.34	2.68	Sqm
		4		0.70	1.34	3.75	Sqm
		4	0.50		0.55	1.10	Sqm
		4		0.53	0.55	1.16	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		1.34	14.34	Sqm
		4		1.54	1.34	8.28	Sqm
		4	2.68		0.55	5.89	Sqm
		4		1.24	0.55	2.72	Sqm
		4	2.68		0.50	5.35	Sqm
		4		0.74	0.50	1.48	Sqm
	Floor						
	U/S key	2	1.35		0.70	1.89	Sqm
		2		3.44	0.70	4.82	Sqm
	Floor	2	3.54		0.50	3.54	Sqm
		2		3.44	0.50	3.44	Sqm
		2	0.32		0.30	0.19	Sqm
		2		2.00	0.30	1.20	Sqm
		2	0.62		0.20	0.25	Sqm
		2		2.00	0.20	0.80	Sqm
		2	0.09		0.00	0.18	Sqm
		2		2.00	0.00	4.00	Sqm
		2	3.10		0.50	3.10	Sqm
		2		2.00	0.50	2.00	Sqm
		2	0.90		0.20	0.36	Sqm
		2		2.00	0.20	0.80	Sqm
		4	0.14			0.54	Sqm
		4		2.00		8.00	Sqm
		2	1.37		0.50	1.37	Sqm
		2		2.00	0.50	2.00	Sqm
	D/S key	2	0.84		0.94	1.57	Sqm
		2		2.00	0.94	3.76	Sqm
	Toe Wall Base D/S Portion	2	2.00		0.30	1.20	Sqm
		2		0.85	0.30	0.51	Sqm
	Toe Wall Stem D/S Portion	2	2.00		0.90	3.60	Sqm
		2		0.45	0.90	0.81	Sqm
	Top Slab	2	5.25		0.33	3.43	Sqm
		2		2.80	0.33	1.83	Sqm
	Dirt wall	4	5.75		0.50	11.50	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		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	3.64		0.18	2.55	Sqm
		4		0.45	0.18	0.31	Sqm
		4	3.64		0.25	3.64	Sqm
		4		0.35	0.25	0.35	Sqm
		4	3.64		0.55	8.01	Sqm
		4		0.22	0.55	0.48	Sqm
	TOTAL					308.53	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	1.40	0.90	3.78	Cum
	TOTAL					3.78	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	2.00	0.15	0.66	Cum
	In D/S Portion below Stone Chips	1	2.20	2.00	0.15	0.66	Cum
	TOTAL					1.32	Cum
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	U/S transition	2	1.80	0.48		1.73	Sqm
	On Abutment Top	2	4.82	0.45		1.62	Sqm
	TOTAL					3.35	Sqm
12	Providing Drainage Spouts complete as per drawings & technical 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 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						
	Abutment						
	Section A-A	2	1.15	1.08		2.491	Cum
	Section B-B	2	5.25	1.41		14.837	Cum
	Section C-C	2	0.50	1.18		1.177	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.08	0.93		2.849	Cum
	D/S Transition wall						
	Sec 4-4	2	0.50	0.75		0.749	Cum
	Avg. of Sec 1-1 & 3-3	2	2.68	1.23		6.597	Cum
	TOTAL					28.70	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF HR FOR SALAIYA OFFTAKING FROM RD-11+070 KM (L.) AT CHAIN NAWADA 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.						
	<i>Abutment</i>						
	<i>Section A-A</i>	2	1.00	1.64	2.800	9.184	Cum
	<i>Section B-B</i>	2	5.25	1.73	2.050	37.238	Cum
	<i>Section C-C</i>	2	0.41	1.55	2.050	2.580	Cum
	<i>U/S Transition wall</i>						
	<i>Right Bank (Section D-D)</i>	1	3.09	1.27	2.700	10.601	Cum
	<i>Left Bank Sec a to d</i>	1	3.30	2.70	2.046	18.219	Cum
	<i>D/S Transition wall</i>						
	<i>Sec 4-4</i>	2	0.50	1.10	2.250	2.475	Cum
	<i>Avg. of Sec 1-1 & 3-3</i>	2	2.68	1.94	2.250	23.407	Cum
	<i>Floor</i>						
	<i>U/S key</i>	1	1.35	3.44	0.850	3.947	Cum
	<i>Floor</i>	1	3.528	3.44	0.650	7.889	Cum
		1	0.318	1.5	0.450	0.215	Cum
		1	0.618	1.5	0.350	0.324	Cum
		1	0.0927	1.5	0.000	0.139	Cum
		1	3.079	1.5	0.950	4.388	Cum
		1	0.9	1.5	0.200	0.270	Cum
		2	0.135	1.5	0.200	0.081	Cum
		1	1.123	1.5	0.650	1.095	Cum
		1	0.725	1.5	0.650	0.707	Cum
	<i>D/S Portion C.C. Blocks (600x600x300)mm</i>	1	2.000	2.000	0.600	2.400	Cum
	<i>Toe Wall Base D/S Portion</i>	1	1.500	0.850	1.200	1.530	Cum
	<i>Boulder Pitching (D/S Portion)</i>	1	3.000	0.900	0.900	2.430	Cum
						129.12	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.						
	<i>PCC Below Floor</i>						
		1	0.624	3.463	0.150	0.32	Cum
		1	1.650	2.040	0.150	0.50	Cum
		1	1.374	1.500	0.150	0.31	Cum
		1	0.670	1.500	0.150	0.15	Cum
		1	3.238	1.500	0.150	0.73	Cum
		1	0.948	1.500	0.150	0.21	Cum
		1	0.075	1.500	0.150	0.02	Cum
		1	0.559	1.500	0.150	0.13	Cum
		1	0.692	1.500	0.150	0.16	Cum
	<i>PCC Below Abutment</i>						
	<i>Section A-A</i>	2	1.000	1.640	0.300	0.98	Cum
	<i>Section B-B</i>	2	5.250	1.730	0.300	5.45	Cum
	<i>Section C-C</i>	2	0.406	1.550	0.300	0.38	Cum
	<i>U/S Transition wall</i>						
	<i>Right Bank (Section D-D)</i>	1	3.092	1.270	0.300	1.18	Cum
	<i>Left Bank Sec a to d</i>	1	3.298	2.700	0.150	1.34	Cum
	<i>D/S Transition wall</i>						
	<i>Sec 4-4</i>	2	0.500	1.100	0.300	0.33	Cum
	<i>Avg. of Sec 1-1 & 3-3</i>	2	2.675	1.945	0.300	3.12	Cum
	<i>Toe Wall Base D/S Portion</i>	1	1.500	0.850	0.300	0.38	Cum
	<i>Toe Wall Stem D/S Portion</i>	1	1.500	0.450	0.900	0.61	Cum
	<i>Toe Wall Base (For Brick Pitching)</i>	1	3.000	0.600	0.150	0.27	Cum
	<i>Toe Wall Stem (For Brick Pitching)</i>	1	3.000	0.300	0.900	0.81	Cum
	<i>D/S Portion C.C. Blocks (600x600x300)mm</i>	7	0.600	0.600	0.300	0.76	Cum
	TOTAL					18.13	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.						
	<i>Abutment</i>						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section A-A	2	1.00	0.82	0.50	0.82	Cum
		2	1.00	1.03	0.70	1.44	Cum
		2	1.00	1.24	1.30	3.22	Cum
	Section B-B	2	5.25	1.08	0.85	9.59	Cum
		2	5.25	1.33	0.90	12.57	Cum
	Section C-C	2	0.41	0.99	0.55	0.44	Cum
		2	0.41	1.15	1.20	1.12	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.09	0.45	0.50	0.70	Cum
		1	3.09	0.66	0.70	1.43	Cum
		1	3.09	0.87	1.20	3.23	Cum
	Left Bank						
	Section a-a	1		2.575	0.50	1.29	Sqm
		1		2.43	0.20	0.49	Sqm
		1		1.38	1.20	1.65	Sqm
						3.42	Sqm
	Section b-b	1		2.58	0.50	1.29	Sqm
		1		2.43	0.20	0.49	Sqm
		1		1.29	1.20	1.54	Sqm
						3.31	Sqm
	Section c-c	1		2.58	0.50	1.29	Sqm
		1		2.43	0.20	0.49	Sqm
		1		1.10	1.20	1.32	Sqm
						3.09	Sqm
	Section d-d	1		2.58	0.50	1.29	Sqm
		1		2.43	0.20	0.49	Sqm
		1		0.48	1.20	0.57	Sqm
						2.35	Sqm
	Bottom Key	1	3.30	1.35	0.70	3.12	Cum
	Top Stem Area	1	3.30	3.04		10.03	Cum
	D/S Transition wall						
	Sec 4-4	2	0.50	0.70	0.90	0.63	Cum
		2	0.50	0.53	0.55	0.29	Cum
		2	0.50	0.35	0.50	0.18	Cum
	Avg. of Sec 1-1 & 3-3	2	2.68	1.54	0.90	7.44	Cum
		2	2.68	1.24	0.55	3.64	Cum
		2	2.68	0.74	0.50	1.98	Cum
	TOTAL					61.86	Cum
	Floor						
	U/S key	1	1.35	3.44	0.70	3.25	Cum
	Floor	1	3.53	3.44	0.50	6.07	Cum
		1	0.32	1.50	0.30	0.14	Cum
		1	0.62	1.50	0.20	0.19	Cum
		1	0.09	1.50		0.14	Cum
		1	3.08	1.50	0.50	2.31	Cum
		1	0.90	1.50	0.20	0.27	Cum
		2	0.14	1.50		0.41	Cum
		1	1.12	1.50	0.50	0.84	Cum
	D/S key	1	0.73	1.50	0.50	0.54	Cum
	TOTAL					76.02	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	3.53	3.44	0.20	2.43	Cum
		1	0.67	1.50	0.20	0.20	Cum
		1	3.08	1.50	0.20	0.92	Cum
		1	0.95	1.50	0.20	0.28	Cum
		1	1.12	1.50	0.20	0.34	Cum
	Top Slab	1	5.25	2.30	0.33	3.94	Cum
	75mm Th. Wearing coat on top slab	1	4.25	2.30	0.08	0.73	Cum
	Dirt wall	2	5.66	0.82	0.50	4.64	Cum
		2	5.66	0.40	0.43	1.92	Cum
	Parapet	2	3.14	0.45	0.18	0.49	Cum
		2	3.14	0.35	0.25	0.55	Cum
		2	3.14	0.22	0.55	0.75	Cum
	TOTAL					17.21	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
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.						
	Dia of Bars	Length	Nos.		Weight per m	Quantity	Unit
	<i>Slab Per Span</i>						
a1	16	2.760	29		1.578	126.314	Kg
a2	10	5.650	12		0.616	41.796	Kg
a3	10	5.150	2		0.616	6.350	Kg
a4	10	2.680	18		0.616	29.738	Kg
a5	10	5.550	9		0.616	30.792	Kg
	<i>Dirt Wall</i>						
d1	12	4.460	26		0.888	102.938	Kg
d2	12	5.550	14		0.888	68.975	Kg
	<i>Crash Barrier</i>						
x1	12	2.501	38		0.888	84.366	Kg
x2	16	1.265	38		1.578	75.861	Kg
x3	10	2.200	24		0.616	32.549	Kg
	<i>Floor R/F</i>						
	<i>U/S Key</i>						
	12	6.943	6		0.888	36.980	Kg
	12	2.200	25		0.888	48.824	Kg
	<i>floor raft</i>						
	12	3.394	6		0.888	18.077	Kg
	12	7.325	12		0.888	78.029	Kg
	12	2.200	63		0.888	123.036	Kg
	0.25 % Skin Reinforcement for Transition walls	61.86	0.25%	0.15	7850	1213.99	Kg
	TOTAL Weight of steel (in kg)					2118.61	Kg
	TOTAL Weight of Steel (in Tonne)					2.12	MT
6	Structural Steel (Average rate of Angle, Joint and Channel) etc. *Separate sheet attached	1	2.16	0.00		2.16	MT
7	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	<i>Section A-A</i>	4	1.00		0.50	2.00	Sqm
		4		0.82	0.50	1.64	Sqm
		4	1.00		0.70	2.80	Sqm
		4		1.03	0.70	2.88	Sqm
		4	1.00		1.30	5.20	Sqm
		4		1.24	1.30	6.45	Sqm
	<i>Section B-B</i>	4	5.25		0.85	17.85	Sqm
		4		1.08	0.85	3.66	Sqm
		4	5.25		0.90	18.90	Sqm
		4		1.33	0.90	4.79	Sqm
	<i>Section C-C</i>	4	0.41		0.55	0.89	Sqm
		4		0.99	0.55	2.17	Sqm
		4	0.41		1.20	1.95	Sqm
		4		1.15	1.20	5.52	Sqm
	U/S Transition wall						
	<i>Right Bank (Section D-D)</i>	2	3.09		0.50	3.09	Sqm
		2		0.45	0.50	0.45	Sqm
		2	3.09		0.70	4.33	Sqm
		2		0.66	0.70	0.92	Sqm
		2	3.09		1.20	7.42	Sqm
		2		0.87	1.20	2.09	Sqm
	Left Bank						
	<i>Bottom Key</i>	2	3.30		0.70	4.62	Sqm
		2		1.35	0.70	1.89	Sqm
	<i>Section a-a</i>	2	1.10		0.50	1.10	Sqm
		2		2.58	0.50	2.58	Sqm
		2	1.10		0.20	0.44	Sqm
		2		2.43	0.20	0.97	Sqm
		2	1.10		1.20	2.63	Sqm
		2		1.38	1.20	3.29	Sqm
	<i>Section b-b</i>	2	1.10		0.50	1.10	Sqm
		2		2.58	0.50	2.58	Sqm
		2	1.10		0.20	0.44	Sqm
		2		2.43	0.20	0.97	Sqm
		2	1.10		1.20	2.63	Sqm
		2		1.29	1.20	3.07	Sqm
	<i>Section c-c</i>	2	1.10		0.50	1.10	Sqm
		2		2.58	0.50	2.58	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	1.10		0.20	0.44	Sqm
		2		2.43	0.20	0.97	Sqm
		2	1.10		1.20	2.63	Sqm
		2		1.10	1.20	2.63	Sqm
	Section d-d	2	1.10		0.50	1.10	Sqm
		2		2.58	0.50	2.58	Sqm
		2	1.10		0.20	0.44	Sqm
		2		2.43	0.20	0.97	Sqm
		2	1.10		1.20	2.63	Sqm
		2		0.48	1.20	1.15	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		0.55	1.10	Sqm
		4		0.53	0.55	1.16	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	9.63	Sqm
		4		1.54	0.90	5.56	Sqm
		4	2.68		0.55	5.89	Sqm
		4		1.24	0.55	2.72	Sqm
		4	2.68		0.50	5.35	Sqm
		4		0.74	0.50	1.48	Sqm
	Floor						
	U/S key	2	1.35		0.70	1.89	Sqm
		2		3.44	0.70	4.82	Sqm
	Floor	2	3.53		0.50	3.53	Sqm
		2		3.44	0.50	3.44	Sqm
		2	0.32		0.30	0.19	Sqm
		2		1.50	0.30	0.90	Sqm
		2	0.62		0.20	0.25	Sqm
		2		1.50	0.20	0.60	Sqm
		2	0.09		0.00	0.19	Sqm
		2		1.50	0.00	3.00	Sqm
		2	3.08		0.50	3.08	Sqm
		2		1.50	0.50	1.50	Sqm
		2	0.90		0.20	0.36	Sqm
		2		1.50	0.20	0.60	Sqm
		4	0.14			0.54	Sqm
		4		1.50		6.00	Sqm
		2	1.12		0.50	1.12	Sqm
		2		1.50	0.50	1.50	Sqm
	D/S key	2	0.73		0.50	0.73	Sqm
		2		1.50	0.50	1.50	Sqm
	Toe Wall Base D/S Portion	2	1.50		0.30	0.90	Sqm
		2		0.85	0.30	0.51	Sqm
	Toe Wall Stem D/S Portion	2	1.50		0.90	2.70	Sqm
		2		0.45	0.90	0.81	Sqm
	Top Slab	2	5.25		0.33	3.43	Sqm
		2		2.30	0.33	1.50	Sqm
	Dirt wall	4	5.66		0.50	11.31	Sqm
		4		0.82	0.50	1.64	Sqm
		4	5.66		0.43	9.62	Sqm
		4		0.40	0.43	0.68	Sqm
	Parapet	4	3.14		0.18	2.20	Sqm
		4		0.45	0.18	0.31	Sqm
		4	3.14		0.25	3.14	Sqm
		4		0.35	0.25	0.35	Sqm
		4	3.14		0.55	6.91	Sqm
		4		0.22	0.55	0.48	Sqm
	TOTAL					263.62	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	0.90	2.43	Cum
	TOTAL					2.43	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)						
	<i>In D/S Portion below C.C. Blocks</i>	1	2.20	1.50	0.15	0.50	Cum
	<i>In D/S Portion below Stone Chips</i>	1	2.20	1.50	0.15	0.50	Cum
	TOTAL					0.99	Cum
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>U/S transition</i>	2	1.79	0.48		1.72	Sqm
	<i>On Abutment Top</i>	2	5.05	0.45		1.61	Sqm
	TOTAL					3.33	Sqm
12	Providing Drainage Spouts complete as per drawings & technical 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 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						
	<i>Abutment</i>						
	<i>Section A-A</i>	2	1.00	0.89		1.777	Cum
	<i>Section B-B</i>	2	5.25	1.23		12.863	Cum
	<i>Section C-C</i>	2	0.41	1.00		0.814	Cum
	<i>U/S Transition wall</i>						
	<i>Right Bank (Section D-D)</i>	1	3.09	0.83		2.577	Cum
	<i>D/S Transition wall</i>						
	<i>Sec 4-4</i>	2	0.50	0.66		0.661	Cum
	<i>Avg. of Sec 1-1 & 3-3</i>	2	2.68	1.10		5.861	Cum
	TOTAL					24.55	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF HR FOR DHAMNI SUB DY OFFTAKING FROM RD-13+800 KM (L.) AT CHAIN NAWADA 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.						
	<i>Abutment</i>						
	Section A-A	2	1.00	1.81	3.186	11.546	Cum
	Section B-B	2	5.25	1.90	2.540	50.780	Cum
	Section C-C	2	0.47	1.72	2.540	4.125	Cum
	<i>U/S Transition wall</i>						
	<i>Right Bank (Section D-D)</i>	1	3.03	1.44	3.186	13.904	Cum
	<i>Left Bank Sec a to d</i>	1	3.98	3.10	2.336	28.840	Cum
	<i>D/S Transition wall</i>						
	Sec 4-4	2	0.53	1.10	2.740	3.171	Cum
	Avg. of Sec 1-1 & 3-3	2	2.89	2.19	2.740	34.699	Cum
	<i>Floor</i>						
	<i>U/S key</i>	1	6.029	1.5945	0.850	8.171	Cum
	<i>Floor</i>	1	3.963	1.5945	0.650	4.107	Cum
		1	0.318	3.8	0.450	0.544	Cum
		1	0.618	3.8	0.350	0.822	Cum
		1	0.1225	3.8	0.000	0.466	Cum
		1	2.928	3.8	1.000	11.126	Cum
		1	0.968	3.8	0.200	0.736	Cum
		2	0.184	3.8	0.200	0.279	Cum
		1	1.188	3.8	0.650	2.934	Cum
		1	0.7525	3.8	0.840	2.402	Cum
	<i>D/S Portion C.C. Blocks (600x600x300)mm</i>	1	2.000	2.000	0.600	2.400	Cum
	<i>Toe Wall Base D/S Portion</i>	1	3.800	0.850	1.200	3.876	Cum
	<i>Boulder Pitching (D/S Portion)</i>	1	3.000	3.200	0.900	8.640	Cum
						193.57	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.						
	<i>PCC Below Floor</i>						
		1	0.624	7.258	0.150	0.68	Cum
		1	2.052	5.029	0.150	1.55	Cum
		1	1.374	3.800	0.150	0.78	Cum
		1	0.782	3.800	0.150	0.45	Cum
		1	2.988	3.800	0.150	1.70	Cum
		1	1.106	3.800	0.150	0.63	Cum
		1	0.041	3.800	0.150	0.02	Cum
		1	0.781	3.800	0.150	0.45	Cum
		1	0.692	3.800	0.150	0.39	Cum
	<i>PCC Below Abutment</i>						
	Section A-A	2	1.000	1.812	0.300	1.09	Cum
	Section B-B	2	5.250	1.904	0.300	6.00	Cum
	Section C-C	2	0.471	1.724	0.300	0.49	Cum
	<i>U/S Transition wall</i>						
	<i>Right Bank (Section D-D)</i>	1	3.027	1.442	0.300	1.31	Cum
	<i>Left Bank Sec a to d</i>	1	3.980	3.102	0.150	1.85	Cum
	<i>D/S Transition wall</i>						
	Sec 4-4	2	0.526	1.100	0.300	0.35	Cum
	Avg. of Sec 1-1 & 3-3	2	2.886	2.194	0.300	3.80	Cum
	<i>Toe Wall Base D/S Portion</i>	1	3.800	0.850	0.300	0.97	Cum
	<i>Toe Wall Stem D/S Portion</i>	1	3.800	0.450	0.900	1.54	Cum
	<i>Toe Wall Base (For Brick Pitching)</i>	1	3.000	0.600	0.150	0.27	Cum
	<i>Toe Wall Stem (For Brick Pitching)</i>	1	3.000	0.300	0.900	0.81	Cum
	<i>D/S Portion C.C. Blocks (600x600x300)mm</i>	17	0.600	0.600	0.300	1.84	Cum
	TOTAL					26.96	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.						
	<i>Abutment</i>						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section A-A	2	1.00	0.82	0.50	0.82	Cum
		2	1.00	1.12	0.99	2.20	Cum
		2	1.00	1.41	1.40	3.95	Cum
	Section B-B	2	5.25	1.16	1.14	13.91	Cum
		2	5.25	1.50	1.10	17.37	Cum
	Section C-C	2	0.47	1.07	0.84	0.85	Cum
		2	0.47	1.32	1.40	1.75	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.03	0.45	0.50	0.68	Cum
		1	3.03	0.75	0.99	2.23	Cum
		1	3.03	1.04	1.40	4.42	Cum
	Left Bank						
	Section a-a	1		3.009	0.50	1.50	Sqm
		1		2.86	0.20	0.57	Sqm
		1		1.38	1.49	2.05	Sqm
						4.12	Sqm
	Section b-b	1		3.01	0.50	1.50	Sqm
		1		2.86	0.20	0.57	Sqm
		1		1.48	1.49	2.19	Sqm
						4.27	Sqm
	Section c-c	1		3.01	0.50	1.50	Sqm
		1		2.86	0.20	0.57	Sqm
		1		1.18	1.49	1.76	Sqm
						3.83	Sqm
	Section d-d	1		3.01	0.50	1.50	Sqm
		1		2.86	0.20	0.57	Sqm
		1		0.48	1.49	0.71	Sqm
						2.79	Sqm
	Bottom Key	1	3.98	1.56	0.70	4.36	Cum
	Top Stem Area	1	3.98	3.75		14.94	Cum
	D/S Transition wall						
	Sec 4-4	2	0.53	0.70	1.10	0.81	Cum
		2	0.53	0.53	0.84	0.46	Cum
		2	0.53	0.35	0.50	0.18	Cum
	Avg. of Sec 1-1 & 3-3	2	2.89	1.79	1.10	11.39	Cum
		2	2.89	1.37	0.84	6.64	Cum
		2	2.89	0.76	0.50	2.18	Cum
	TOTAL					89.14	Cum
	Floor						
	U/S key	1	6.03	1.59	0.70	6.73	Cum
	Floor	1	3.96	1.59	0.50	3.16	Cum
		1	0.32	3.80	0.30	0.36	Cum
		1	0.62	3.80	0.20	0.47	Cum
		1	0.12	3.80		0.47	Cum
		1	2.93	3.80	0.55	6.12	Cum
		1	0.97	3.80	0.20	0.74	Cum
		2	0.18	3.80		1.40	Cum
		1	1.19	3.80	0.50	2.26	Cum
	D/S key	1	0.75	3.80	0.69	1.97	Cum
	TOTAL					112.81	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	3.96	1.59	0.20	1.26	Cum
		1	0.67	3.80	0.20	0.51	Cum
		1	3.08	3.80	0.20	2.34	Cum
		1	0.95	3.80	0.20	0.72	Cum
		1	1.19	3.80	0.20	0.90	Cum
	Top Slab	1	5.25	4.60	0.43	10.30	Cum
	75mm Th. Wearing coat on top slab	1	4.25	4.60	0.08	1.47	Cum
	Dirt wall	2	5.72	0.82	0.50	4.69	Cum
		2	5.72	0.40	0.43	1.95	Cum
	Parapet	2	5.44	0.45	0.18	0.85	Cum
		2	5.44	0.35	0.25	0.96	Cum
		2	5.44	0.22	0.55	1.31	Cum
	TOTAL					27.25	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
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.						
	Dia of Bars	Length	Nos.		Weight per m	Quantity	Unit
	<i>Slab Per Span</i>						
a1	16	5.260	33		1.578	273.933	Kg
a2	10	5.730	37		0.616	130.696	Kg
a3	10	5.150	2		0.616	6.350	Kg
a4	10	5.120	23		0.616	72.594	Kg
a5	10	5.532	21		0.616	71.615	Kg
	<i>Dirt Wall</i>						
d1	12	4.700	26		0.888	108.477	Kg
d2	12	5.550	14		0.888	68.975	Kg
	<i>Crash Barrier</i>						
x1	12	2.601	76		0.888	175.478	Kg
x2	16	1.365	76		1.578	163.716	Kg
x3	10	4.500	24		0.616	66.578	Kg
	<i>Floor R/F</i>						
	<i>U/S Key</i>						
	12	6.943	6		0.888	36.980	Kg
	12	2.200	25		0.888	48.824	Kg
	<i>floor raft</i>						
	12	3.394	6		0.888	18.077	Kg
	12	7.325	12		0.888	78.029	Kg
	12	2.200	63		0.888	123.036	Kg
	0.25 % Skin Reinforcement for Transition walls	89.14	0.25%	0.22	7850	1749.46	Kg
	TOTAL Weight of steel (in kg)					3192.81	Kg
	TOTAL Weight of Steel (in Tonne)					3.19	MT
6	Structural Steel (Average rate of Angle, Joint and Channel) etc. *Separate sheet attached	1	5.53			5.53	MT
7	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	<i>Section A-A</i>	4	1.00		0.50	2.00	Sqm
		4		0.82	0.50	1.64	Sqm
		4	1.00		0.99	3.94	Sqm
		4		1.12	0.99	4.40	Sqm
		4	1.00		1.40	5.60	Sqm
		4		1.41	1.40	7.91	Sqm
	<i>Section B-B</i>	4	5.25		1.14	23.94	Sqm
		4		1.16	1.14	5.30	Sqm
		4	5.25		1.10	23.10	Sqm
		4		1.50	1.10	6.62	Sqm
	<i>Section C-C</i>	4	0.47		0.84	1.58	Sqm
		4		1.07	0.84	3.60	Sqm
		4	0.47		1.40	2.64	Sqm
		4		1.32	1.40	7.41	Sqm
	U/S Transition wall						
	<i>Right Bank (Section D-D)</i>	2	3.03		0.50	3.03	Sqm
		2		0.45	0.50	0.45	Sqm
		2	3.03		0.99	5.97	Sqm
		2		0.75	0.99	1.47	Sqm
		2	3.03		1.40	8.47	Sqm
		2		1.04	1.40	2.92	Sqm
	Left Bank						
	<i>Bottom Key</i>	2	3.98		0.70	5.57	Sqm
		2		1.56	0.70	2.19	Sqm
	<i>Section a-a</i>	2	1.33		0.50	1.33	Sqm
		2		3.01	0.50	3.01	Sqm
		2	1.33		0.20	0.53	Sqm
		2		2.86	0.20	1.14	Sqm
		2	1.33		1.49	3.94	Sqm
		2		1.38	1.49	4.09	Sqm
	<i>Section b-b</i>	2	1.33		0.50	1.33	Sqm
		2		3.01	0.50	3.01	Sqm
		2	1.33		0.20	0.53	Sqm
		2		2.86	0.20	1.14	Sqm
		2	1.33		1.49	3.94	Sqm
		2		1.48	1.49	4.39	Sqm
	<i>Section c-c</i>	2	1.33		0.50	1.33	Sqm
		2		3.01	0.50	3.01	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	1.33		0.20	0.53	Sqm
		2		2.86	0.20	1.14	Sqm
		2	1.33		1.49	3.94	Sqm
		2		1.18	1.49	3.52	Sqm
	Section d-d	2	1.33		0.50	1.33	Sqm
		2		3.01	0.50	3.01	Sqm
		2	1.33		0.20	0.53	Sqm
		2		2.86	0.20	1.14	Sqm
		2	1.33		1.49	3.94	Sqm
		2		0.48	1.49	1.43	Sqm
	D/S Transition wall						
	Sec 4-4	4	0.53		1.10	2.31	Sqm
		4		0.70	1.10	3.08	Sqm
		4	0.53		0.84	1.77	Sqm
		4		0.53	0.84	1.76	Sqm
		4	0.53		0.50	1.05	Sqm
		4		0.35	0.50	0.70	Sqm
	Avg. of Sec 1-1 & 3-3	4	2.89		1.10	12.70	Sqm
		4		1.79	1.10	7.89	Sqm
		4	2.89		0.84	9.70	Sqm
		4		1.37	0.84	4.60	Sqm
		4	2.89		0.50	5.77	Sqm
		4		0.76	0.50	1.51	Sqm
	Floor						
	U/S key	2	6.03		0.70	8.44	Sqm
		2		1.59	0.70	2.23	Sqm
	Floor	2	3.96		0.50	3.96	Sqm
		2		1.59	0.50	1.59	Sqm
		2	0.32		0.30	0.19	Sqm
		2		3.80	0.30	2.28	Sqm
		2	0.62		0.20	0.25	Sqm
		2		3.80	0.20	1.52	Sqm
		2	0.12		0.00	0.25	Sqm
		2		3.80	0.00	7.60	Sqm
		2	2.93		0.55	3.22	Sqm
		2		3.80	0.55	4.18	Sqm
		2	0.97		0.20	0.39	Sqm
		2		3.80	0.20	1.52	Sqm
		4	0.18			0.74	Sqm
		4		3.80		15.20	Sqm
		2	1.19		0.50	1.19	Sqm
		2		3.80	0.50	3.80	Sqm
	D/S key	2	0.75		0.69	1.04	Sqm
		2		3.80	0.69	5.24	Sqm
	Toe Wall Base D/S Portion	2	3.80		0.30	2.28	Sqm
		2		0.85	0.30	0.51	Sqm
	Toe Wall Stem D/S Portion	2	3.80		0.90	6.84	Sqm
		2		0.45	0.90	0.81	Sqm
	Top Slab	2	5.25		0.43	4.48	Sqm
		2		4.60	0.43	3.92	Sqm
	Dirt wall	4	5.72		0.50	11.44	Sqm
		4		0.82	0.50	1.64	Sqm
		4	5.72		0.43	9.73	Sqm
		4		0.40	0.43	0.68	Sqm
	Parapet	4	5.44		0.18	3.81	Sqm
		4		0.45	0.18	0.31	Sqm
		4	5.44		0.25	5.44	Sqm
		4		0.35	0.25	0.35	Sqm
		4	5.44		0.55	11.97	Sqm
		4		0.22	0.55	0.48	Sqm
	TOTAL					365.36	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	3.20	0.90	8.64	Cum
	TOTAL					8.64	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	3.80	0.15	1.25	Cum
	In D/S Portion below Stone Chips	1	2.20	3.80	0.15	1.25	Cum
	TOTAL					2.51	Cum
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	U/S transition	2	2.23	0.48		2.14	Sqm
	On Abutment Top	2	5.34	0.45		2.01	Sqm
	TOTAL					4.14	Sqm
12	Providing Drainage Spouts complete as per drawings & technical 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 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						
	Abutment						
	Section A-A	2	1.00	1.27		2.548	Cum
	Section B-B	2	5.25	1.48		15.538	Cum
	Section C-C	2	0.47	1.49		1.405	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.03	1.17		3.526	Cum
	D/S Transition wall						
	Sec 4-4	2	0.53	0.81		0.851	Cum
	Avg. of Sec 1-1 & 3-3	2	2.89	1.38		7.954	Cum
	TOTAL					31.82	Cum

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR CHAIN NAWADA SUB DY.								
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 0.762 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.	169.385	Cum	195.20	33063.91			
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.	24.00	Cum	6381.70	153150.82	7.78	10.80	21.60
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.	114.88	Cum	6914.20	794286.71	47.39	49.40	98.79

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)
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	11289.40	0.79	0.54	1.09
5	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.	2.71	MT	73574.90	199047.14			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	309.36	Sqm	578.60	178993.64			
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.	32.19	Sqm	680.10	21895.48			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	4.24	Cum	694.61	2946.01			
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.	4.24	Cum	1237.00	5246.43			
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.	4.24	Cum	1377.70	5843.17			
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.	4.24	Cum	516.50	2190.61			

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)
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	15.82	Sqm	63.20	999.78			
13	Providing Drainage Spouts complete as per drawings & technical 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	37.70	Cum	149.30	5628.22			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	60.737	Cum	1075.00	65292.06			
	Coarse Aggregates (100 Km lead)	121.487	Cum	1398.00	169839.46			
	Cement (30 km lead)	55.948	MT	742.00	41513.25			
	Boulder (60 Km lead)	4.24	Cum	1159.00	4915.61			
	Brick (15 km lead)	1931.00	No.	3.18	6140.58			
	Steel (30 Km lead)	2.71	MT	742.00	2007.38			
TOTAL (In Rs.)					1715467.07			
TOTAL (In Rs.)					1715467.07			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	60.74	Cum	584.64	35509.16	3550.92		
	Coarse Aggregate	121.49	Cum	944.26	114715.74	11471.57		
	Boulders	4.24	Cum	694.61	2946.01	294.60		
	<i>Total</i>					15317.09		
	For 1 nos. fall, Total Seigniorage charges					15317.09		

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 0.762 METER AT CH. 9.330 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.	139.829	Cum	195.20	27294.66			
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.	21.16	Cum	6381.70	135024.00	6.86	9.52	19.04
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.	95.32	Cum	6914.20	659055.59	39.32	40.99	81.97
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.	1.26	Cum	8151.40	10251.45	0.71	0.49	0.99

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)
5	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.	2.24	MT	73574.90	165158.41			
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	273.01	Sqm	578.60	157960.79			
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.	25.15	Sqm	680.10	17105.54			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	3.14	Cum	694.61	2177.60			
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.	3.14	Cum	1237.00	3878.00			
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.	3.14	Cum	1377.70	4319.09			
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.	3.14	Cum	516.50	1619.23			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	14.59	Sqm	63.20	922.25			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	31.44	Cum	149.30	4694.11			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	50.999	Cum	1075.00	54823.72			
	Coarse Aggregates (100 Km lead)	102.010	Cum	1398.00	142610.24			
	Cement (30 km lead)	46.887	MT	742.00	34790.46			
	Boulder (60 Km lead)	3.14	Cum	1159.00	3633.47			
	Brick (15 km lead)	1509.00	No.	3.18	4798.62			
	Steel (30 Km lead)	2.24	MT	742.00	1665.62			
	TOTAL (In Rs.)				1442960.23			
	TOTAL (In Rs.)				1442960.23			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	51.00	Cum	584.64	29815.94	2981.59		
	Coarse Aggregate	102.01	Cum	944.26	96324.14	9632.41		
	Boulders	3.14	Cum	694.61	2177.60	217.76		
	<i>Total</i>					12831.77		
	For 1 nos. fall, Total Seigniorage charges					12831.77		

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)
SHARDA TYPE FALL OF HEIGHT 1.520 METER AT CH. 12.900 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.	298.976	Cum	195.20	58360.10			
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.	25.07	Cum	6381.70	159988.75	8.12	11.28	22.56
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.	165.36	Cum	6914.20	1143298.32	68.21	71.10	142.21
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.	1.36	Cum	8151.40	11096.95	0.77	0.53	1.08

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)
5	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.	3.89	MT	73574.90	286508.97			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	378.26	Sqm	578.60	218863.76			
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.	24.73	Sqm	680.10	16821.25			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	2.68	Cum	694.61	1862.42			
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.	2.68	Cum	1237.00	3316.71			
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.	2.68	Cum	1377.70	3693.96			
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.	2.68	Cum	516.50	1384.87			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	17.41	Sqm	63.20	1100.29			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	84.96	Cum	149.30	12684.54			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	82.915	Cum	1075.00	89133.73			
	Coarse Aggregates (100 Km lead)	165.844	Cum	1398.00	231849.63			
	Cement (30 km lead)	77.104	MT	742.00	57210.82			
	Boulder (60 Km lead)	2.68	Cum	1159.00	3107.57			
	Brick (15 km lead)	1484.00	No.	3.18	4719.12			
	Steel (30 Km lead)	3.89	MT	742.00	2889.43			
TOTAL (In Rs.)					2319068.59			
TOTAL (In Rs.)					2319068.59			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	82.92	Cum	584.64	48475.48	4847.55		
	Coarse Aggregate	165.84	Cum	944.26	156599.67	15659.97		
	Boulders	2.68	Cum	694.61	1862.42	186.24		
	<i>Total</i>					20693.76		
	For 1 nos. fall, Total Seigniorage charges					20693.76		

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. 13.325 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.	152.035	Cum	195.20	29677.28			
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.	21.15	Cum	6381.70	134981.74	6.85	9.52	19.04
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.	101.83	Cum	6914.20	704060.32	42.00	43.79	87.57
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.	1.25	Cum	8151.40	10197.52	0.71	0.49	0.99

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)
5	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.	2.40	MT	73574.90	176436.53			
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	280.77	Sqm	578.60	162454.63			
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.	24.73	Sqm	680.10	16821.25			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	2.68	Cum	694.61	1862.42			
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.	2.68	Cum	1237.00	3316.71			
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.	2.68	Cum	1377.70	3693.96			
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.	2.68	Cum	516.50	1384.87			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	15.20	Sqm	63.20	960.82			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	35.36	Cum	149.30	5279.46			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	53.792	Cum	1075.00	57826.54			
	Coarse Aggregates (100 Km lead)	107.597	Cum	1398.00	150420.28			
	Cement (30 km lead)	49.566	MT	742.00	36778.34			
	Boulder (60 Km lead)	2.68	Cum	1159.00	3107.57			
	Brick (15 km lead)	1484.00	No.	3.18	4719.12			
	Steel (30 Km lead)	2.40	MT	742.00	1779.36			
TOTAL (In Rs.)					1516936.10			
TOTAL (In Rs.)					1516936.10			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	53.79	Cum	584.64	31449.03	3144.90		
	Coarse Aggregate	107.60	Cum	944.26	101599.32	10159.93		
	Boulders	2.68	Cum	694.61	1862.42	186.24		
	<i>Total</i>					13491.08		
	For 1 nos. fall, Total Seigniorage charges					13491.08		

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)
ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR PARANPUR MR.								
SHARDA TYPE FALL OF HEIGHT 0.762 METER AT CH. 0.200 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.	77.076	Cum	195.20	15045.25			
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.	15.83	Cum	6381.70	100997.79	5.13	7.12	14.24
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.	61.96	Cum	6914.20	428437.44	25.56	26.64	53.29
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.	10.43	Cum	8151.40	85033.57	5.91	4.07	8.24

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)
5	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.	2.02	MT	73574.90	148387.89			
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	215.29	Sqm	578.60	124564.40			
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.	7.50	Sqm	680.10	5098.71			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.74	Cum	694.61	510.54			
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.	0.74	Cum	1237.00	909.20			
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.	0.74	Cum	1377.70	1012.61			
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.	0.74	Cum	516.50	379.63			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	5.25	Sqm	63.20	331.89			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	4.00	No.	5588.70	22354.80			

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)
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	8.98	Cum	149.30	1341.45			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	37.835	Cum	1075.00	40672.68			
	Coarse Aggregates (100 Km lead)	75.774	Cum	1398.00	105932.65			
	Cement (30 km lead)	36.603	MT	742.00	27159.42			
	Boulder (60 Km lead)	0.74	Cum	1159.00	851.87			
	Brick (15 km lead)	449.00	No.	3.18	1427.82			
	Steel (30 Km lead)	2.02	MT	742.00	1496.49			
TOTAL (In Rs.)					1111946.08			
TOTAL (In Rs.)					1111946.08			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	37.84	Cum	584.64	22119.89	2211.99		
	Coarse Aggregate	75.77	Cum	944.26	71550.76	7155.08		
	Boulders	0.74	Cum	694.61	510.54	51.05		
	<i>Total</i>					9418.12		
	For 1 nos. fall, Total Seigniorage charges					9418.12		

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 1.220 METER AT CH. 0.400 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.	135.180	Cum	195.20	26387.21			
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.	13.64	Cum	6381.70	87074.32	4.42	6.14	12.28
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.	87.99	Cum	6914.20	608359.15	36.29	37.83	75.67
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.	10.55	Cum	8151.40	85993.76	5.98	4.11	8.33

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)
5	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.	2.63	MT	73574.90	193476.02			
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	261.57	Sqm	578.60	151345.03			
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.	7.50	Sqm	680.10	5098.71			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.74	Cum	694.61	510.54			
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.	0.74	Cum	1237.00	909.20			
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.	0.74	Cum	1377.70	1012.61			
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.	0.74	Cum	516.50	379.63			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	7.01	Sqm	63.20	442.87			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	4.00	No.	5588.70	22354.80			

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)
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	15.41	Cum	149.30	2301.34			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	48.089	Cum	1075.00	51695.33			
	Coarse Aggregates (100 Km lead)	96.283	Cum	1398.00	134603.42			
	Cement (30 km lead)	46.697	MT	742.00	34649.16			
	Boulder (60 Km lead)	0.74	Cum	1159.00	851.87			
	Brick (15 km lead)	449.00	No.	3.18	1427.82			
	Steel (30 Km lead)	2.63	MT	742.00	1951.20			
TOTAL (In Rs.)					1410823.97			
TOTAL (In Rs.)					1410823.97			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	48.09	Cum	584.64	28114.56	2811.46		
	Coarse Aggregate	96.28	Cum	944.26	90916.04	9091.60		
	Boulders	0.74	Cum	694.61	510.54	51.05		
	<i>Total</i>					11954.11		
	For 1 nos. fall, Total Seigniorage charges					11954.11		

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 1.220 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.	164.938	Cum	195.20	32195.91			
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.	13.64	Cum	6381.70	87074.32	4.42	6.14	12.28
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.	87.99	Cum	6914.20	608359.15	36.29	37.83	75.67
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.	10.55	Cum	8151.40	85993.76	5.98	4.11	8.33

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)
5	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.	2.63	MT	73574.90	193476.02			
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	264.87	Sqm	578.60	153254.41			
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.	7.50	Sqm	680.10	5098.71			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.74	Cum	694.61	510.54			
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.	0.74	Cum	1237.00	909.20			
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.	0.74	Cum	1377.70	1012.61			
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.	0.74	Cum	516.50	379.63			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	7.01	Sqm	63.20	442.87			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	4.00	No.	5588.70	22354.80			

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)
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	25.69	Cum	149.30	3836.07			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	48.089	Cum	1075.00	51695.33			
	Coarse Aggregates (100 Km lead)	96.283	Cum	1398.00	134603.42			
	Cement (30 km lead)	46.697	MT	742.00	34649.16			
	Boulder (60 Km lead)	0.74	Cum	1159.00	851.87			
	Brick (15 km lead)	449.00	No.	3.18	1427.82			
	Steel (30 Km lead)	2.63	MT	742.00	1951.20			
TOTAL (In Rs.)					1420076.79			
TOTAL (In Rs.)					1420076.79			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	48.09	Cum	584.64	28114.56	2811.46		
	Coarse Aggregate	96.28	Cum	944.26	90916.04	9091.60		
	Boulders	0.74	Cum	694.61	510.54	51.05		
	<i>Total</i>					11954.11		
	For 1 nos. fall, Total Seigniorage charges					11954.11		

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. 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.	115.703	Cum	195.20	22585.19			
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.	15.32	Cum	6381.70	97738.10	4.96	6.89	13.78
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.	62.53	Cum	6914.20	432379.31	25.80	26.89	53.78
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.	9.52	Cum	8151.40	77611.15	5.40	3.71	7.52

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)
5	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.	1.95	MT	73574.90	143484.20			
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	215.07	Sqm	578.60	124440.63			
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.	7.05	Sqm	680.10	4796.41			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.53	Cum	694.61	364.67			
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.	0.53	Cum	1237.00	649.43			
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.	0.53	Cum	1377.70	723.29			
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.	0.53	Cum	516.50	271.16			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	4.83	Sqm	63.20	305.39			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	4.00	No.	5588.70	22354.80			

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)
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	15.74	Cum	149.30	2350.22			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	37.495	Cum	1075.00	40307.37			
	Coarse Aggregates (100 Km lead)	75.086	Cum	1398.00	104969.76			
	Cement (30 km lead)	36.156	MT	742.00	26828.03			
	Boulder (60 Km lead)	0.53	Cum	1159.00	608.48			
	Brick (15 km lead)	423.00	No.	3.18	1345.14			
	Steel (30 Km lead)	1.95	MT	742.00	1447.03			
TOTAL (In Rs.)					1105559.74			
TOTAL (In Rs.)					1105559.74			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	37.50	Cum	584.64	21921.21	2192.12		
	Coarse Aggregate	75.09	Cum	944.26	70900.39	7090.04		
	Boulders	0.53	Cum	694.61	364.67	36.47		
	<i>Total</i>					9318.63		
	For 1 nos. fall, Total Seigniorage charges					9318.63		

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 1.220 METER AT CH. 1.050 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.	142.681	Cum	195.20	27851.37			
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.	12.45	Cum	6381.70	79477.54	4.04	5.60	11.21
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.	79.92	Cum	6914.20	552579.76	32.97	34.37	68.73
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.	9.63	Cum	8151.40	78507.15	5.46	3.76	7.61

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)
5	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.	2.36	MT	73574.90	173606.26			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	248.96	Sqm	578.60	144045.87			
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.	7.18	Sqm	680.10	4882.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.53	Cum	694.61	364.67			
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.	0.53	Cum	1237.00	649.43			
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.	0.53	Cum	1377.70	723.29			
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.	0.53	Cum	516.50	271.16			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	6.79	Sqm	63.20	429.16			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	4.00	No.	5588.70	22354.80			

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)
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	18.73	Cum	149.30	2796.32			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	43.726	Cum	1075.00	47005.27			
	Coarse Aggregates (100 Km lead)	87.548	Cum	1398.00	122392.08			
	Cement (30 km lead)	42.463	MT	742.00	31507.36			
	Boulder (60 Km lead)	0.53	Cum	1159.00	608.48			
	Brick (15 km lead)	430.00	No.	3.18	1367.40			
	Steel (30 Km lead)	2.36	MT	742.00	1750.81			
TOTAL (In Rs.)					1293170.28			
TOTAL (In Rs.)					1293170.28			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	43.73	Cum	584.64	25563.87	2556.39		
	Coarse Aggregate	87.55	Cum	944.26	82668.06	8266.81		
	Boulders	0.53	Cum	694.61	364.67	36.47		
	<i>Total</i>					10859.66		
	For 1 nos. fall, Total Seigniorage charges					10859.66		

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. 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.	191.042	Cum	195.20	37291.40			
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.	13.14	Cum	6381.70	83854.20	4.26	5.91	11.83
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.	105.45	Cum	6914.20	729127.17	43.50	45.35	90.69
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.	9.69	Cum	8151.40	79020.32	5.50	3.78	7.66

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)
5	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.	2.96	MT	73574.90	217848.80			
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	299.28	Sqm	578.60	173160.69			
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.	0.53	Cum	694.61	364.67			
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.	0.53	Cum	1237.00	649.43			
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.	0.53	Cum	1377.70	723.29			
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.	0.53	Cum	516.50	271.16			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	7.33	Sqm	63.20	463.23			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	4.00	No.	5588.70	22354.80			

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)
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	24.97	Cum	149.30	3727.81			

15	Carriage of materials							
	Coarse Sand (60 Km lead)	55.039	Cum	1075.00	59166.54			
	Coarse Aggregates (100 Km lead)	110.174	Cum	1398.00	154023.56			
	Cement (30 km lead)	53.253	MT	742.00	39514.05			
	Boulder (60 Km lead)	0.53	Cum	1159.00	608.48			
	Brick (15 km lead)	430.00	No.	3.18	1367.40			
	Steel (30 Km lead)	2.96	MT	742.00	2197.00			
TOTAL (In Rs.)					1610616.09			
TOTAL (In Rs.)					1610616.09			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	55.04	Cum	584.64	32177.79	3217.78		
	Coarse Aggregate	110.17	Cum	944.26	104033.11	10403.31		
	Boulders	0.53	Cum	694.61	364.67	36.47		
	<i>Total</i>					13657.56		
	For 1 nos. fall, Total Seigniorage charges					13657.56		

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 1.828 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.	72.954	Cum	195.20	14240.65			
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.	11.35	Cum	6381.70	72404.59	3.68	5.11	10.21
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.	61.63	Cum	6914.20	426133.33	25.42	26.50	53.00
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.	0.78	Cum	8151.40	6362.74	0.44	0.30	0.62

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)
5	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.	1.45	MT	73574.90	106788.42			
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	200.52	Sqm	578.60	116021.01			
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.	7.18	Sqm	680.10	4882.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.53	Cum	694.61	364.67			
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.	0.53	Cum	1237.00	649.43			
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.	0.53	Cum	1377.70	723.29			
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.	0.53	Cum	516.50	271.16			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	11.29	Sqm	63.20	713.62			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	28.23	Cum	149.30	4214.95			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	31.912	Cum	1075.00	34304.93			
	Coarse Aggregates (100 Km lead)	63.831	Cum	1398.00	89235.65			
	Cement (30 km lead)	29.542	MT	742.00	21919.88			
	Boulder (60 Km lead)	0.53	Cum	1159.00	608.48			
	Brick (15 km lead)	430.00	No.	3.18	1367.40			
	Steel (30 Km lead)	1.45	MT	742.00	1076.96			
TOTAL (In Rs.)					913460.67			
TOTAL (In Rs.)					913460.67			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	31.91	Cum	584.64	18656.78	1865.68		
	Coarse Aggregate	63.83	Cum	944.26	60273.00	6027.30		
	Boulders	0.53	Cum	694.61	364.67	36.47		
	<i>Total</i>					7929.44		
	For 1 nos. fall, Total Seigniorage charges					7929.44		

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 0.457 METER AT CH.2.100 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.	43.874	Cum	195.20	8564.18			
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.	8.43	Cum	6381.70	53813.92	2.73	3.79	7.59
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.	29.27	Cum	6914.20	202404.93	12.08	12.59	25.18
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	4552.15	0.32	0.22	0.44

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)
5	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.	0.69	MT	73574.90	50722.39			
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	123.48	Sqm	578.60	71447.94			
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.	6.86	Sqm	680.10	4667.87			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.42	Cum	694.61	291.74			
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.	0.42	Cum	1237.00	519.54			
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.	0.42	Cum	1377.70	578.63			
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.	0.42	Cum	516.50	216.93			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.65	Sqm	63.20	546.62			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	4.00	No.	5588.70	22354.80			

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)
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	10.66	Cum	149.30	1591.58			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	16.600	Cum	1075.00	17845.19			
	Coarse Aggregates (100 Km lead)	33.206	Cum	1398.00	46421.89			
	Cement (30 km lead)	15.124	MT	742.00	11222.18			
	Boulder (60 Km lead)	0.42	Cum	1159.00	486.78			
	Brick (15 km lead)	411.00	No.	3.18	1306.98			
	Steel (30 Km lead)	0.69	MT	742.00	511.53			
TOTAL (In Rs.)					500067.75			
TOTAL (In Rs.)					500067.75			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	16.60	Cum	584.64	9705.12	970.51		
	Coarse Aggregate	33.21	Cum	944.26	31355.03	3135.50		
	Boulders	0.42	Cum	694.61	291.74	29.17		
	<i>Total</i>					4135.19		
	For 1 nos. fall, Total Seigniorage charges					4135.19		

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 1.828 METER AT CH. 2.215 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.	188.985	Cum	195.20	36889.91			
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.	11.62	Cum	6381.70	74156.75	3.76	5.23	10.46
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.	107.90	Cum	6914.20	746055.48	44.51	46.40	92.80
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.	8.56	Cum	8151.40	69763.63	4.85	3.34	6.76

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)
5	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.	2.94	MT	73574.90	216657.88			
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	312.81	Sqm	578.60	180994.06			
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.	5.51	Sqm	680.10	3743.95			
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.	7.16	Sqm	63.20	452.37			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	4.00	No.	5588.70	22354.80			

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)
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	27.74	Cum	149.30	4142.22			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	54.965	Cum	1075.00	59087.09			
	Coarse Aggregates (100 Km lead)	110.015	Cum	1398.00	153801.05			
	Cement (30 km lead)	53.127	MT	742.00	39420.35			
	Boulder (60 Km lead)	0.23	Cum	1159.00	260.78			
	Brick (15 km lead)	330.00	No.	3.18	1049.40			
	Steel (30 Km lead)	2.94	MT	742.00	2184.99			
TOTAL (In Rs.)					1611875.51			
TOTAL (In Rs.)					1611875.51			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	54.96	Cum	584.64	32134.58	3213.46		
	Coarse Aggregate	110.02	Cum	944.26	103882.82	10388.28		
	Boulders	0.23	Cum	694.61	156.29	15.63		
	<i>Total</i>					13617.37		
	For 1 nos. fall, Total Seigniorage charges					13617.37		

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 2.134 METER AT CH.2.525 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.	116.673	Cum	195.20	22774.64			
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.	11.44	Cum	6381.70	73035.53	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.	86.38	Cum	6914.20	597278.78	35.63	37.15	74.29
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.	0.81	Cum	8151.40	6598.97	0.46	0.32	0.64

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)
5	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.	2.03	MT	73574.90	149677.23			
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	271.74	Sqm	578.60	157227.08			
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.	5.51	Sqm	680.10	3743.95			
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.	13.22	Sqm	63.20	835.57			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	4.00	No.	5588.70	22354.80			

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)
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	31.45	Cum	149.30	4694.83			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	42.611	Cum	1075.00	45806.87			
	Coarse Aggregates (100 Km lead)	85.230	Cum	1398.00	119151.78			
	Cement (30 km lead)	39.801	MT	742.00	29532.04			
	Boulder (60 Km lead)	0.23	Cum	1159.00	260.78			
	Brick (15 km lead)	330.00	No.	3.18	1049.40			
	Steel (30 Km lead)	2.03	MT	742.00	1509.49			
TOTAL (In Rs.)					1236392.53			
TOTAL (In Rs.)					1236392.53			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	42.61	Cum	584.64	24912.12	2491.21		
	Coarse Aggregate	85.23	Cum	944.26	80479.44	8047.94		
	Boulders	0.23	Cum	694.61	156.29	15.63		
	<i>Total</i>					10554.78		
	For 1 nos. fall, Total Seigniorage charges					10554.78		

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.2.810 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.	41.360	Cum	195.20	8073.48			
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.	4.06	Cum	6381.70	25882.57	1.31	1.83	3.65
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.	31.67	Cum	6914.20	218965.54	13.06	13.62	27.24
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.	0.47	Cum	8151.40	3795.17	0.26	0.18	0.37

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)
5	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.	0.75	MT	73574.90	54872.46			
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	127.66	Sqm	578.60	73863.29			
7	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	7.39	Sqm	63.20	467.16			
8	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			
9	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	10.35	Cum	149.30	1545.16			
10	Carriage of materials							
	Coarse Sand (60 Km lead)	15.624	Cum	1075.00	16796.14			
	Coarse Aggregates (100 Km lead)	31.253	Cum	1398.00	43692.10			
	Cement (30 km lead)	14.641	MT	742.00	10863.99			
	Boulder (60 Km lead)	0.00	Cum	1159.00	0.00			
	Brick (15 km lead)	443.00	No.	3.18	1408.74			
	Steel (30 Km lead)	0.75	MT	742.00	553.39			
TOTAL (In Rs.)					471956.59			
TOTAL (In Rs.)					471956.59			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	15.62	Cum	584.64	9134.60	913.46		
	Coarse Aggregate	31.25	Cum	944.26	29511.24	2951.12		
	Boulders	0.00	Cum	694.61	0.00	0.00		
	<i>Total</i>					3864.58		
	For 1 nos. fall, Total Seigniorage charges					3864.58		

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 1.829 METER AT CH. 2.870 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.	176.765	Cum	195.20	34504.56			
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.	6.21	Cum	6381.70	39609.35	2.01	2.79	5.59
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.	79.34	Cum	6914.20	548541.05	32.73	34.11	68.23
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.	7.73	Cum	8151.40	63034.21	4.38	3.02	6.11

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)
5	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.	2.16	MT	73574.90	158795.51			
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	248.78	Sqm	578.60	143946.12			
7	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	4.17	Sqm	63.20	263.58			
8	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	4.00	No.	5588.70	22354.80			
9	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	18.00	Cum	149.30	2687.78			
10	Carriage of materials							
	Coarse Sand (60 Km lead)	39.923	Cum	1075.00	42917.33			
	Coarse Aggregates (100 Km lead)	79.924	Cum	1398.00	111733.09			
	Cement (30 km lead)	39.121	MT	742.00	29028.09			
	Boulder (60 Km lead)	0.00	Cum	1159.00	0.00			
	Brick (15 km lead)	250.00	No.	3.18	795.00			
	Steel (30 Km lead)	2.16	MT	742.00	1601.45			
TOTAL (In Rs.)					1199811.89			
TOTAL (In Rs.)					1199811.89			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	39.92	Cum	584.64	23340.64	2334.06		
	Coarse Aggregate	79.92	Cum	944.26	75468.59	7546.86		
	Boulders	0.00	Cum	694.61	0.00	0.00		
	<i>Total</i>					9880.92		
	For 1 nos. fall, Total Seigniorage charges					9880.92		

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)
ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR SALAIYA MR.								
SHARDA TYPE FALL OF HEIGHT 2.134 METER AT CH. 0.030 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.	136.112	Cum	195.20	26569.15			
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.	14.04	Cum	6381.70	89598.08	4.55	6.32	12.64
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.	106.95	Cum	6914.20	739463.16	44.12	45.99	91.98
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.	0.92	Cum	8151.40	7495.46	0.52	0.36	0.73

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)
5	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.	2.52	MT	73574.90	185308.44			
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	286.77	Sqm	578.60	165926.94			
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.	8.57	Sqm	680.10	5827.10			
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.	13.89	Sqm	63.20	877.89			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	42.08	Cum	149.30	6282.75			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	52.664	Cum	1075.00	56614.22			
	Coarse Aggregates (100 Km lead)	105.338	Cum	1398.00	147262.50			
	Cement (30 km lead)	49.187	MT	742.00	36496.41			
	Boulder (60 Km lead)	0.54	Cum	1159.00	625.86			
	Brick (15 km lead)	514.00	No.	3.18	1634.52			
	Steel (30 Km lead)	2.52	MT	742.00	1868.83			
	TOTAL (In Rs.)				1485094.62			
	TOTAL (In Rs.)				1485094.62			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	52.66	Cum	584.64	30789.71	3078.97		
	Coarse Aggregate	105.34	Cum	944.26	99466.44	9946.64		
	Boulders	0.54	Cum	694.61	375.09	37.51		
	<i>Total</i>					13063.12		
	For 1 nos. fall, Total Seigniorage charges					13063.12		

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. 0.300 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.	88.073	Cum	195.20	17191.93			
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.	9.65	Cum	6381.70	61562.87	3.13	4.34	8.68
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.	40.45	Cum	6914.20	279704.66	16.69	17.40	34.79
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	5037.81	0.35	0.24	0.49

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)
5	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.	0.95	MT	73574.90	70093.60			
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	151.50	Sqm	578.60	87659.07			
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.	7.50	Sqm	680.10	5098.71			
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			
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.	9.21	Sqm	63.20	582.11			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	42.03	Cum	149.30	6275.61			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	21.977	Cum	1075.00	23625.44			
	Coarse Aggregates (100 Km lead)	43.960	Cum	1398.00	61456.77			
	Cement (30 km lead)	20.163	MT	742.00	14961.03			
	Boulder (60 Km lead)	0.47	Cum	1159.00	547.63			
	Brick (15 km lead)	449.00	No.	3.18	1427.82			
	Steel (30 Km lead)	0.95	MT	742.00	706.89			
TOTAL (In Rs.)					648917.04			
TOTAL (In Rs.)					648917.04			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	21.98	Cum	584.64	12848.72	1284.87		
	Coarse Aggregate	43.96	Cum	944.26	41510.13	4151.01		
	Boulders	0.47	Cum	694.61	328.20	32.82		
	<i>Total</i>					5468.71		
	For 1 nos. fall, Total Seigniorage charges					5468.71		

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)
SHARDA TYPE FALL OF HEIGHT 0.914 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.	45.506	Cum	195.20	8882.73			
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.	7.69	Cum	6381.70	49046.91	2.49	3.46	6.92
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.	33.86	Cum	6914.20	234117.21	13.97	14.56	29.12
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.	0.53	Cum	8151.40	4347.47	0.30	0.21	0.42

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)
5	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.	0.80	MT	73574.90	58669.45			
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	138.76	Sqm	578.60	80285.33			
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.	5.51	Sqm	680.10	3743.95			
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			
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.	9.09	Sqm	63.20	574.60			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	12.63	Cum	149.30	1885.80			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	18.226	Cum	1075.00	19593.44			
	Coarse Aggregates (100 Km lead)	36.458	Cum	1398.00	50968.62			
	Cement (30 km lead)	16.760	MT	742.00	12435.86			
	Boulder (60 Km lead)	0.07	Cum	1159.00	78.23			
	Brick (15 km lead)	330.00	No.	3.18	1049.40			
	Steel (30 Km lead)	0.80	MT	742.00	591.68			
TOTAL (In Rs.)					537706.31			
TOTAL (In Rs.)					537706.31			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	18.23	Cum	584.64	10655.91	1065.59		
	Coarse Aggregate	36.46	Cum	944.26	34426.06	3442.61		
	Boulders	0.07	Cum	694.61	46.89	4.69		
	<i>Total</i>					4512.89		
	For 1 nos. fall, Total Seigniorage charges					4512.89		

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)
ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR DHAMANI SUB-DY.								
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.	120.633	Cum	195.20	23547.58			
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.	17.66	Cum	6381.70	112681.57	5.72	7.95	15.89
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.	93.43	Cum	6914.20	646022.70	38.54	40.18	80.35
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.	1.02	Cum	8151.40	8322.25	0.58	0.40	0.81

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)
5	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.	1.02	MT	73574.90	75117.03			
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	256.12	Sqm	578.60	148190.47			
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.	12.96	Sqm	680.10	8814.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	2.03	Cum	694.61	1406.59			
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.	2.03	Cum	1237.00	2504.93			
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.	2.03	Cum	1377.70	2789.84			
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.	2.03	Cum	516.50	1045.91			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	12.50	Sqm	63.20	789.95			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	64.10	Cum	149.30	9570.82			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	48.521	Cum	1075.00	52159.56			
	Coarse Aggregates (100 Km lead)	97.051	Cum	1398.00	135677.65			
	Cement (30 km lead)	44.841	MT	742.00	33272.28			
	Boulder (60 Km lead)	2.03	Cum	1159.00	2346.98			
	Brick (15 km lead)	777.00	No.	3.18	2470.86			
	Steel (30 Km lead)	1.02	MT	742.00	757.55			
TOTAL (In Rs.)					1278666.03			
TOTAL (In Rs.)					1278666.03			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	48.52	Cum	584.64	28367.04	2836.70		
	Coarse Aggregate	97.05	Cum	944.26	91641.61	9164.16		
	Boulders	2.03	Cum	694.61	1406.59	140.66		
	<i>Total</i>					12141.52		
	For 1 nos. fall, Total Seigniorage charges					12141.52		

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.3.800 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.	142.230	Cum	195.20	27763.24			
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.	19.35	Cum	6381.70	123464.10	6.27	8.71	17.41
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.	117.54	Cum	6914.20	812677.54	48.48	50.54	101.08
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.	1.16	Cum	8151.40	9476.98	0.66	0.45	0.92

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)
5	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.	2.77	MT	73574.90	203655.86			
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	303.56	Sqm	578.60	175639.54			
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.	12.96	Sqm	680.10	8814.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	2.03	Cum	694.61	1406.59			
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.	2.03	Cum	1237.00	2504.93			
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.	2.03	Cum	1377.70	2789.84			
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.	2.03	Cum	516.50	1045.91			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	13.85	Sqm	63.20	875.16			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	83.59	Cum	149.30	12480.72			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	59.700	Cum	1075.00	64178.03			
	Coarse Aggregates (100 Km lead)	119.413	Cum	1398.00	166938.84			
	Cement (30 km lead)	55.412	MT	742.00	41115.48			
	Boulder (60 Km lead)	2.03	Cum	1159.00	2346.98			
	Brick (15 km lead)	777.00	No.	3.18	2470.86			
	Steel (30 Km lead)	2.77	MT	742.00	2053.86			
TOTAL (In Rs.)					1672875.95			
TOTAL (In Rs.)					1672875.95			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	59.70	Cum	584.64	34903.30	3490.33		
	Coarse Aggregate	119.41	Cum	944.26	112756.56	11275.66		
	Boulders	2.03	Cum	694.61	1406.59	140.66		
	<i>Total</i>					14906.64		
	For 1 nos. fall, Total Seigniorage charges					14906.64		

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.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.	162.977	Cum	195.20	31813.15			
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.	19.35	Cum	6381.70	123464.10	6.27	8.71	17.41
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.	117.54	Cum	6914.20	812677.54	48.48	50.54	101.08
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.	1.16	Cum	8151.40	9476.98	0.66	0.45	0.92

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)
5	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.	2.77	MT	73574.90	203655.86			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	303.56	Sqm	578.60	175639.54			
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.	12.96	Sqm	680.10	8814.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	2.03	Cum	694.61	1406.59			
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.	2.03	Cum	1237.00	2504.93			
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.	2.03	Cum	1377.70	2789.84			
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.	2.03	Cum	516.50	1045.91			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	13.85	Sqm	63.20	875.16			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	83.59	Cum	149.30	12480.72			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	59.700	Cum	1075.00	64178.03			
	Coarse Aggregates (100 Km lead)	119.413	Cum	1398.00	166938.84			
	Cement (30 km lead)	55.412	MT	742.00	41115.48			
	Boulder (60 Km lead)	2.03	Cum	1159.00	2346.98			
	Brick (15 km lead)	777.00	No.	3.18	2470.86			
	Steel (30 Km lead)	2.77	MT	742.00	2053.86			
TOTAL (In Rs.)					1632102.02			
TOTAL (In Rs.)					1632102.02			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	59.70	Cum	584.64	34903.30	3490.33		
	Coarse Aggregate	119.41	Cum	944.26	112756.56	11275.66		
	Boulders	2.03	Cum	694.61	1406.59	140.66		
	<i>Total</i>					14906.64		
	For 1 nos. fall, Total Seigniorage charges					14906.64		

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 0.915 METER AT CH 4.595 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.	159.120	Cum	195.20	31060.32			
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.	15.74	Cum	6381.70	100431.33	5.10	7.08	14.16
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.	72.27	Cum	6914.20	499703.86	29.81	31.08	62.15
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.	0.91	Cum	8151.40	7423.56	0.52	0.36	0.72

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)
5	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.	1.70	MT	73574.90	125225.09			
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	217.91	Sqm	578.60	126080.80			
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.	12.96	Sqm	680.10	8814.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	2.03	Cum	694.61	1406.59			
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.	2.03	Cum	1237.00	2504.93			
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.	2.03	Cum	1377.70	2789.84			
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.	2.03	Cum	516.50	1045.91			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	10.79	Sqm	63.20	681.88			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	50.67	Cum	149.30	7565.19			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	38.514	Cum	1075.00	41402.57			
	Coarse Aggregates (100 Km lead)	77.037	Cum	1398.00	107697.92			
	Cement (30 km lead)	35.428	MT	742.00	26287.23			
	Boulder (60 Km lead)	2.03	Cum	1159.00	2346.98			
	Brick (15 km lead)	777.00	No.	3.18	2470.86			
	Steel (30 Km lead)	1.70	MT	742.00	1262.89			
	TOTAL (In Rs.)				1107379.24			
	TOTAL (In Rs.)				1107379.24			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	38.51	Cum	584.64	22516.83	2251.68		
	Coarse Aggregate	77.04	Cum	944.26	72743.09	7274.31		
	Boulders	2.03	Cum	694.61	1406.59	140.66		
	<i>Total</i>					9666.65		
	For 1 nos. fall, Total Seigniorage charges					9666.65		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR CHAIN NAWADA SUB-DY.							
S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 0.762 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	1.24	1.928	1.958	9.392	Cum
	Section 2-2	2	3.75	1.470	1.958	21.587	Cum
	Section 3-3	2	1.70	1.350	1.758	8.069	Cum
	Section 5-5	2	6.25	2.078	1.958	50.875	Cum
	Section 6-6	2	3.45	1.350	1.758	16.376	Cum
	U/S Key Floor	1	0.60	4.950	0.750	2.228	Cum
	U/S Floor	1	2.25	4.950	1.712	19.067	Cum
	D/S Floor	1	3.75	4.950	0.950	17.634	Cum
		1	2.00	4.950	0.750	7.425	Cum
	D/S Key Floor	1	0.70	4.950	1.150	3.985	Cum
	Toe Wall D/S Portion	1	14.55	0.750	0.900	9.821	Cum
	Boulder Pitching (D/S Portion)	2	3.25	0.600	0.750	2.925	Cum
						169.38	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	0.54	4.950	0.150	0.40	Cum
		1	0.67	4.950	0.150	0.50	Cum
		1	5.33	4.950	0.150	3.95	Cum
		1	0.43	4.950	0.150	0.32	Cum
		1	0.49	4.950	0.150	0.36	Cum
		1	1.12	4.950	0.150	0.83	Cum
		1	0.54	4.950	0.150	0.40	Cum
	PCC Below Abutment						
	Section 1-1	2	1.24	1.928	0.150	0.72	Cum
	Section 2-2	2	3.75	1.470	0.150	1.65	Cum
	Section 3-3	2	1.70	1.350	0.150	0.69	Cum
	Section 5-5	2	6.25	2.078	0.150	3.90	Cum
	Section 6-6	2	3.45	1.350	0.150	1.40	Cum
	Toe Wall D/S Portion	1	14.55	0.750	0.300	3.27	Cum
	Toe Wall D/S Portion	1	14.25	0.450	0.600	3.85	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					24.00	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	1.02	0.450	0.450	0.41	Cum
		2	1.02	1.039	1.962	4.15	Cum
		2	1.02	1.778	0.600	2.17	Cum
	Section 2-2	2	3.75	0.450	0.450	1.52	Cum
		2	3.75	0.810	1.200	7.29	Cum
		2	3.75	1.320	0.600	5.94	Cum
	Section 3-3	2	1.25	0.450	0.450	0.51	Cum
		2	1.25	0.750	1.000	1.88	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	1.25	1.200	0.500	1.50	Cum
	Section 5-5	2	6.28	0.450	0.450	2.54	Cum
		2	6.28	1.039	1.962	25.59	Cum
		2	6.28	1.778	0.600	13.40	Cum
	Section 6-6	2	4.13	0.450	0.450	1.67	Cum
		2	4.13	0.750	1.000	6.19	Cum
		2	4.13	1.200	0.500	4.95	Cum
	Floor	1	0.60	4.950	0.600	1.78	Cum
		1	6.00	4.950	0.600	17.82	Cum
		1	0.26	4.950	0.300	0.38	Cum
		1	0.20	4.950	0.400	0.40	Cum
		1	1.80	4.950	0.500	4.46	Cum
		1	0.70	4.950	1.000	3.47	Cum
	Crest	1	1.02	4.950	1.362	6.87	Cum
	TOTAL					114.88	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	0.80	4.950	0.150	0.59	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	17.58	0.450	0.050	0.40	Cum
	On Abutment Top (Right Side)	1	17.58	0.450	0.050	0.40	Cum
	TOTAL					1.38	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	114.88	0.00	0.345	7850.0	2705.37	Kg
	Total Weight in Metric Tonne					2.71	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	1.02		0.450	1.83	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.02		1.962	8.00	Sqm
		4		1.039	1.962	8.15	Sqm
		4	1.02		0.600	2.45	Sqm
		4		1.778	0.600	4.27	Sqm
	Section 2-2	4	3.75		0.450	6.75	Sqm
		4		0.450	0.450	0.81	Sqm
		4	3.75		1.200	18.00	Sqm
		4		0.810	1.200	3.89	Sqm
		4	3.75		0.600	9.00	Sqm
		4		1.320	0.600	3.17	Sqm
	Section 3-3	4	1.25		0.450	2.25	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.25		1.000	5.00	Sqm
		4		0.750	1.000	3.00	Sqm
		4	1.25		0.500	2.50	Sqm
		4		1.200	0.500	2.40	Sqm
	Section 5-5	4	6.28		0.450	11.30	Sqm
		4		0.450	0.450	0.81	Sqm
		4	6.28		1.962	49.29	Sqm
		4		1.039	1.962	8.15	Sqm
		4	6.28		0.600	15.07	Sqm
		4		1.778	0.600	4.27	Sqm
	Section 6-6	4	4.13		0.450	7.43	Sqm
		4		0.450	0.450	0.81	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4	4.13		1.000	16.50	Sqm
		4		0.750	1.000	3.00	Sqm
		4	4.13		0.500	8.25	Sqm
		4		1.200	0.500	2.40	Sqm
	Floor	2	0.60		0.600	0.72	Sqm
		2		4.950	0.600	5.94	Sqm
		2	6.00		0.600	7.20	Sqm
		2		4.950	0.600	5.94	Sqm
		2	0.26		0.300	0.15	Sqm
		2		4.950	0.300	2.97	Sqm
		2	0.20		0.400	0.16	Sqm
		2		4.950	0.400	3.96	Sqm
		2	1.80		0.500	1.80	Sqm
		2		4.950	0.500	4.95	Sqm
		2	0.70		1.000	1.40	Sqm
		2		4.950	1.000	9.90	Sqm
	Crest	2	1.02		1.362	2.77	Sqm
		2		4.950	1.362	13.48	Sqm
	Toe Wall D/S Portion	2	14.55		0.300	8.73	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	14.25		0.600	17.10	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					309.36	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.						
	<i>In D/S Portion On Slopes</i>	2	3.25	4.953		32.19	Sqm
	TOTAL					32.19	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	<i>In D/S Portion</i>	1	3.25	4.350	0.300	4.24	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	3.25	4.350	0.150	4.24	Cum
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>On Abutment Top (Left Side)</i>	1	17.58	0.450		7.91	Sqm
	<i>On Abutment Top (Right Side)</i>	1	17.58	0.450		7.91	Sqm
	TOTAL					15.82	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1	5.707			5.71	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.24	0.890		2.214	Cum
	<i>Section 2-2</i>	2	3.75	0.890		6.671	Cum
	<i>Section 3-3</i>	2	1.70	0.682		2.319	Cum
	<i>Section 5-5</i>	2	6.25	0.890		11.129	Cum
	<i>Section 6-6</i>	2	3.45	0.682		4.707	Cum
	<i>D/S protection</i>	2					
	<i>Toe wall</i>	2	14.55	0.150	0.600	4.365	Cum
		2	3.25	0.150	0.600	0.585	Cum
	TOTAL					37.70	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 0.762 METER AT CH. 9.330 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.24	1.867	1.801	8.329	Cum
	<i>Section 2-2</i>	2	3.25	1.410	1.801	16.506	Cum
	<i>Section 3-3</i>	2	1.70	1.290	1.601	7.022	Cum
	<i>Section 5-5</i>	2	5.77	2.017	1.801	41.917	Cum
	<i>Section 6-6</i>	2	3.16	1.290	1.601	13.053	Cum
	<i>U/S Key Floor</i>	1	0.64	4.400	0.900	2.525	Cum
	<i>U/S Floor</i>	1	2.25	4.400	1.662	16.454	Cum
	<i>D/S Floor</i>	1	3.25	4.400	0.900	12.870	Cum
		1	2.00	4.400	0.700	6.160	Cum
	<i>D/S Key Floor</i>	1	0.70	4.400	1.150	3.542	Cum
	<i>Toe Wall D/S Portion</i>	1	13.30	0.750	0.900	8.978	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	2.75	0.600	0.750	2.475	Cum
						139.83	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.						
	<i>PCC Below Floor</i>	1	0.54	4.400	0.150	0.36	Cum
		1	0.84	4.400	0.150	0.55	Cum
		1	4.80	4.400	0.150	3.17	Cum
		1	0.35	4.400	0.150	0.23	Cum
		1	0.49	4.400	0.150	0.32	Cum
		1	1.12	4.400	0.150	0.74	Cum
		1	0.54	4.400	0.150	0.36	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.24	1.867	0.150	0.69	Cum
	<i>Section 2-2</i>	2	3.25	1.410	0.150	1.37	Cum
	<i>Section 3-3</i>	2	1.70	1.290	0.150	0.66	Cum
	<i>Section 5-5</i>	2	5.77	2.017	0.150	3.49	Cum
	<i>Section 6-6</i>	2	3.16	1.290	0.150	1.22	Cum
	<i>Toe Wall D/S Portion</i>	1	13.30	0.750	0.300	2.99	Cum
	<i>Toe Wall D/S Portion</i>	1	13.00	0.450	0.600	3.51	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	2.75	0.600	0.150	0.50	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	2.75	0.300	0.600	0.99	Cum
	TOTAL					21.16	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.01	0.450	0.450	0.41	Cum
		2	1.01	1.009	1.862	3.81	Cum
		2	1.01	1.717	0.550	1.91	Cum
	<i>Section 2-2</i>	2	3.25	0.450	0.450	1.32	Cum
		2	3.25	0.780	1.100	5.58	Cum
		2	3.25	1.260	0.550	4.50	Cum
	<i>Section 3-3</i>	2	1.28	0.450	0.450	0.52	Cum
		2	1.28	0.720	0.900	1.66	Cum
		2	1.28	1.140	0.500	1.46	Cum
	<i>Section 5-5</i>	2	5.73	0.450	0.450	2.32	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	5.73	1.009	1.862	21.50	Cum
		2	5.73	1.717	0.550	10.81	Cum
	Section 6-6	2	3.73	0.450	0.450	1.51	Cum
		2	3.73	0.720	0.900	4.83	Cum
		2	3.73	1.140	0.500	4.25	Cum
	Floor	1	0.64	4.400	0.750	2.10	Cum
		1	5.50	4.400	0.550	13.31	Cum
		1	0.28	4.400	0.250	0.31	Cum
		1	0.20	4.400	0.400	0.35	Cum
		1	1.80	4.400	0.500	3.96	Cum
		1	0.70	4.400	1.000	3.08	Cum
	Crest	1	1.01	4.400	1.307	5.81	Cum
	TOTAL					95.32	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	4.400	0.150	0.53	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	16.21	0.450	0.050	0.36	Cum
	On Abutment Top (Right Side)	1	16.21	0.450	0.050	0.36	Cum
	TOTAL					1.26	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	95.32	0.00	0.286	7850.0	2244.77	Kg
	Total Weight in Metric Tonne					2.24	MT
6	Providing shuttering including strutting, propping 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		1.862	7.55	Sqm
		4		1.009	1.862	7.51	Sqm
		4	1.01		0.550	2.23	Sqm
		4		1.717	0.550	3.78	Sqm
	Section 2-2	4	3.25		0.450	5.85	Sqm
		4		0.450	0.450	0.81	Sqm
		4	3.25		1.100	14.30	Sqm
		4		0.780	1.100	3.43	Sqm
		4	3.25		0.550	7.15	Sqm
		4		1.260	0.550	2.77	Sqm
	Section 3-3	4	1.28		0.450	2.30	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.28		0.900	4.61	Sqm
		4		0.720	0.900	2.59	Sqm
		4	1.28		0.500	2.56	Sqm
		4		1.140	0.500	2.28	Sqm
	Section 5-5	4	5.73		0.450	10.31	Sqm
		4		0.450	0.450	0.81	Sqm
		4	5.73		1.862	42.64	Sqm
		4		1.009	1.862	7.51	Sqm
		4	5.73		0.550	12.60	Sqm
		4		1.717	0.550	3.78	Sqm
	Section 6-6	4	3.73		0.450	6.71	Sqm
		4		0.450	0.450	0.81	Sqm
		4	3.73		0.900	13.43	Sqm
		4		0.720	0.900	2.59	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4	3.73		0.500	7.46	Sqm
		4		1.140	0.500	2.28	Sqm
	Floor	2	0.64		0.750	0.96	Sqm
		2		4.400	0.750	6.60	Sqm
		2	5.50		0.550	6.05	Sqm
		2		4.400	0.550	4.84	Sqm
		2	0.28		0.250	0.14	Sqm
		2		4.400	0.250	2.20	Sqm
		2	0.20		0.400	0.16	Sqm
		2		4.400	0.400	3.52	Sqm
		2	1.80		0.500	1.80	Sqm
		2		4.400	0.500	4.40	Sqm
		2	0.70		1.000	1.40	Sqm
		2		4.400	1.000	8.80	Sqm
	Crest	2	1.01		1.307	2.64	Sqm
		2		4.400	1.307	11.50	Sqm
	Toe Wall D/S Portion	2	13.30		0.300	7.98	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	13.00		0.600	15.60	Sqm
		2		0.450	0.600	0.54	Sqm
	Toe Wall for resting Brick Edging	4	2.75		0.150	1.65	Sqm
		4		0.600	0.150	0.36	Sqm
	Toe Wall for resting Brick Edging	4	2.75		0.600	6.60	Sqm
		4		0.300	0.600	0.72	Sqm
	TOTAL					273.01	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.						
	<i>In D/S Portion On Slopes</i>	2	2.75	4.573		25.15	Sqm
	TOTAL					25.15	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	<i>In D/S Portion</i>	1	2.75	3.800	0.300	3.14	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	2.75	3.800	0.150	3.14	Cum
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>On Abutment Top (Left Side)</i>	1	16.21	0.450		7.30	Sqm
	<i>On Abutment Top (Right Side)</i>	1	16.21	0.450		7.30	Sqm
	TOTAL					14.59	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1	5.290			5.29	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.24	0.777		1.925	Cum
	<i>Section 2-2</i>	2	3.25	0.777		5.051	Cum
	<i>Section 3-3</i>	2	1.70	0.589		2.003	Cum
	<i>Section 5-5</i>	2	5.77	0.777		8.966	Cum
	<i>Section 6-6</i>	2	3.16	0.589		3.722	Cum
	<i>D/S protection</i>	2					
	<i>Toe wall</i>	2	13.30	0.150	0.600	3.990	Cum
		2	2.75	0.150	0.600	0.495	Cum
	TOTAL					31.44	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 1.520 METER AT CH. 12.900 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.16	2.340	3.481	18.955	Cum
	<i>Section 2-2</i>	2	5.00	1.428	3.481	49.709	Cum
	<i>Section 3-3</i>	2	2.95	1.278	3.281	24.739	Cum
	<i>Section 5-5</i>	2	5.57	2.490	3.481	96.601	Cum
	<i>Section 6-6</i>	2	3.10	1.278	3.281	26.014	Cum
	<i>U/S Key Floor</i>	1	0.55	3.850	1.150	2.435	Cum
	<i>U/S Floor</i>	1	3.75	3.850	2.520	36.383	Cum
	<i>D/S Floor</i>	1	5.00	3.850	0.950	18.288	Cum
		1	3.25	3.850	0.750	9.384	Cum
	<i>D/S Key Floor</i>	1	0.84	3.850	1.700	5.481	Cum
	<i>Toe Wall D/S Portion</i>	1	12.61	0.750	0.900	8.512	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	2.75	0.600	0.750	2.475	Cum
						298.98	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.						
	<i>PCC Below Floor</i>	1	0.54	3.850	0.150	0.31	Cum
		1	1.01	3.850	0.150	0.58	Cum
		1	0.88	3.850	0.150	0.51	Cum
		1	0.42	3.850	0.150	0.24	Cum
		1	6.73	3.850	0.150	3.89	Cum
		1	0.64	3.850	0.150	0.37	Cum
		1	1.33	3.850	0.150	0.77	Cum
		1	1.73	3.850	0.150	1.00	Cum
		1	0.54	3.850	0.150	0.31	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.16	2.340	0.150	0.82	Cum
	<i>Section 2-2</i>	2	5.00	1.428	0.150	2.14	Cum
	<i>Section 3-3</i>	2	2.95	1.278	0.150	1.13	Cum
	<i>Section 5-5</i>	2	5.57	2.490	0.150	4.16	Cum
	<i>Section 6-6</i>	2	3.10	1.278	0.150	1.19	Cum
	<i>Toe Wall D/S Portion</i>	1	12.61	0.750	0.300	2.84	Cum
	<i>Toe Wall D/S Portion</i>	1	12.31	0.450	0.600	3.32	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	2.75	0.600	0.150	0.50	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	2.75	0.300	0.600	0.99	Cum
	TOTAL					25.07	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.44	0.450	0.450	0.58	Cum
		2	1.44	1.245	2.650	9.50	Cum
		2	1.44	2.190	0.900	5.67	Cum
	<i>Section 2-2</i>	2	5.00	0.450	0.450	2.03	Cum
		2	5.00	0.789	1.130	8.92	Cum
		2	5.00	1.278	0.900	11.50	Cum
	<i>Section 3-3</i>	2	2.54	0.450	0.450	1.03	Cum
		2	2.54	0.714	0.880	3.19	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	2.54	1.128	0.700	4.00	Cum
	Section 5-5	2	5.53	0.450	0.450	2.24	Cum
		2	5.53	1.245	2.650	36.48	Cum
		2	5.53	2.190	0.600	14.53	Cum
	Section 6-6	2	3.67	0.450	0.450	1.48	Cum
		2	3.67	0.714	0.880	4.61	Cum
		2	3.67	1.128	0.700	5.79	Cum
	Floor	1	0.55	3.850	1.000	2.12	Cum
		1	8.75	3.850	0.600	20.21	Cum
		1	6.67	3.850	0.300	7.70	Cum
		1	0.32	3.850	0.450	0.55	Cum
		1	0.25	3.850	0.575	0.55	Cum
		1	3.00	3.850	0.700	8.09	Cum
		1	0.84	3.850	1.550	5.00	Cum
	Crest	1	1.18	3.850	2.105	9.60	Cum
	TOTAL					165.36	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	0.85	3.850	0.150	0.49	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	19.34	0.450	0.050	0.44	Cum
	On Abutment Top (Right Side)	1	19.34	0.450	0.050	0.44	Cum
	TOTAL					1.36	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	165.36	0.00	0.496	7850.0	3894.11	Kg
	Total Weight in Metric Tonne					3.89	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	1.44		0.450	2.59	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.44		2.650	15.26	Sqm
		4		1.245	2.650	13.20	Sqm
		4	1.44		0.900	5.18	Sqm
		4		2.190	0.900	7.88	Sqm
	Section 2-2	4	5.00		0.450	9.00	Sqm
		4		0.450	0.450	0.81	Sqm
		4	5.00		1.130	22.60	Sqm
		4		0.789	1.130	3.57	Sqm
		4	5.00		0.900	18.00	Sqm
		4		1.278	0.900	4.60	Sqm
	Section 3-3	4	2.54		0.450	4.56	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.54		0.880	8.93	Sqm
		4		0.714	0.880	2.51	Sqm
		4	2.54		0.700	7.10	Sqm
		4		1.128	0.700	3.16	Sqm
	Section 5-5	4	5.53		0.450	9.95	Sqm
		4		0.450	0.450	0.81	Sqm
		4	5.53		2.650	58.60	Sqm
		4		1.245	2.650	13.20	Sqm
		4	5.53		0.600	13.27	Sqm
		4		2.190	0.600	5.26	Sqm
	Section 6-6	4	3.67		0.450	6.60	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4		0.450	0.450	0.81	Sqm
		4	3.67		0.880	12.90	Sqm
		4		0.714	0.880	2.51	Sqm
		4	3.67		0.700	10.26	Sqm
		4		1.128	0.700	3.16	Sqm
	Floor	2	0.55		1.000	1.10	Sqm
		2		3.850	1.000	7.70	Sqm
		2	8.75		0.600	10.50	Sqm
		2		3.850	0.600	4.62	Sqm
		2	0.32		0.450	0.28	Sqm
		2		3.850	0.450	3.47	Sqm
		2	0.25		0.575	0.29	Sqm
		2		3.850	0.575	4.43	Sqm
		2	3.00		0.700	4.20	Sqm
		2		3.850	0.700	5.39	Sqm
		2	0.84		1.550	2.60	Sqm
		2		3.850	1.550	11.94	Sqm
	Crest	2	1.18		2.105	4.98	Sqm
		2		3.850	2.105	16.21	Sqm
	Toe Wall D/S Portion	2	12.61		0.300	7.57	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	12.31		0.600	14.77	Sqm
		2		0.450	0.600	0.54	Sqm
	Toe Wall for resting Brick Edging	4	2.75		0.150	1.65	Sqm
		4		0.600	0.150	0.36	Sqm
	Toe Wall for resting Brick Edging	4	2.75		0.600	6.60	Sqm
		4		0.300	0.600	0.72	Sqm
	TOTAL					378.26	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.						
	<i>In D/S Portion On Slopes</i>	2	2.75	4.497		24.73	Sqm
	TOTAL					24.73	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	<i>In D/S Portion</i>	1	2.75	3.250	0.300	2.68	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	2.75	3.250	0.150	2.68	Cum
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>On Abutment Top (Left Side)</i>	1	19.34	0.450		8.70	Sqm
	<i>On Abutment Top (Right Side)</i>	1	19.34	0.450		8.70	Sqm
	TOTAL					17.41	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1	26.031			26.03	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.16	2.645		6.155	<i>Cum</i>
	<i>Section 2-2</i>	2	5.00	0.723		7.230	<i>Cum</i>
	<i>Section 3-3</i>	2	2.95	1.015		5.990	<i>Cum</i>
	<i>Section 5-5</i>	2	5.57	2.600		28.977	<i>Cum</i>
	<i>Section 6-6</i>	2	3.10	1.015		6.299	<i>Cum</i>
	<i>D/S protection</i>	2					
	<i>Toe wall</i>	2	12.61	0.150	0.600	3.783	<i>Cum</i>
		2	2.75	0.150	0.600	0.495	<i>Cum</i>
	TOTAL					84.96	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 13.325 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.32	1.946	1.955	10.036	Cum
	<i>Section 2-2</i>	2	3.75	1.398	1.955	20.498	Cum
	<i>Section 3-3</i>	2	1.95	1.278	1.755	8.747	Cum
	<i>Section 5-5</i>	2	5.65	2.096	1.955	46.337	Cum
	<i>Section 6-6</i>	2	3.10	1.278	1.755	13.915	Cum
	<i>U/S Key Floor</i>	1	0.52	3.850	0.850	1.702	Cum
	<i>U/S Floor</i>	1	2.50	3.850	1.914	18.422	Cum
	<i>D/S Floor</i>	1	3.75	3.850	0.850	12.272	Cum
		1	2.25	3.850	0.650	5.631	Cum
	<i>D/S Key Floor</i>	1	0.73	3.850	1.250	3.489	Cum
	<i>Toe Wall D/S Portion</i>	1	12.61	0.750	0.900	8.512	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	2.75	0.600	0.750	2.475	Cum
						152.04	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.						
	<i>PCC Below Floor</i>	1	0.54	3.850	0.150	0.31	Cum
		1	0.78	3.850	0.150	0.45	Cum
		1	0.08	3.850	0.150	0.05	Cum
		1	0.21	3.850	0.150	0.12	Cum
		1	5.25	3.850	0.150	3.03	Cum
		1	0.50	3.850	0.150	0.29	Cum
		1	0.69	3.850	0.150	0.40	Cum
		1	1.23	3.850	0.150	0.71	Cum
		1	0.54	3.850	0.150	0.31	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.32	1.946	0.150	0.77	Cum
	<i>Section 2-2</i>	2	3.75	1.398	0.150	1.57	Cum
	<i>Section 3-3</i>	2	1.95	1.278	0.150	0.75	Cum
	<i>Section 5-5</i>	2	5.65	2.096	0.150	3.56	Cum
	<i>Section 6-6</i>	2	3.10	1.278	0.150	1.19	Cum
	<i>Toe Wall D/S Portion</i>	1	12.61	0.750	0.300	2.84	Cum
	<i>Toe Wall D/S Portion</i>	1	12.31	0.450	0.600	3.32	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	2.75	0.600	0.150	0.50	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	2.75	0.300	0.600	0.99	Cum
	TOTAL					21.15	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.09	0.450	0.450	0.44	Cum
		2	1.09	1.048	1.994	4.57	Cum
		2	1.09	1.796	0.650	2.55	Cum
	<i>Section 2-2</i>	2	3.75	0.450	0.450	1.52	Cum
		2	3.75	0.774	1.080	6.27	Cum
		2	3.75	1.248	0.650	6.08	Cum
	<i>Section 3-3</i>	2	1.54	0.450	0.450	0.62	Cum
		2	1.54	0.714	0.880	1.93	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	1.54	1.128	0.500	1.73	Cum
	Section 5-5	2	5.61	0.450	0.450	2.27	Cum
		2	5.61	1.048	1.994	23.45	Cum
		2	5.61	1.796	0.500	10.08	Cum
	Section 6-6	2	3.67	0.450	0.450	1.48	Cum
		2	3.67	0.714	0.880	4.61	Cum
		2	3.67	1.128	0.500	4.14	Cum
	Floor	1	0.52	3.850	0.700	1.40	Cum
		1	6.25	3.850	0.500	12.03	Cum
		1	5.14	3.850	0.150	2.97	Cum
		1	0.23	3.850	0.350	0.31	Cum
		1	0.20	3.850	0.400	0.31	Cum
		1	2.05	3.850	0.500	3.95	Cum
		1	0.73	3.850	1.100	3.07	Cum
	Crest	1	1.08	3.850	1.449	6.04	Cum
	TOTAL					101.83	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	3.850	0.150	0.49	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	16.89	0.450	0.050	0.38	Cum
	On Abutment Top (Right Side)	1	16.89	0.450	0.050	0.38	Cum
	TOTAL					1.25	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	101.83	0.00	0.305	7850.0	2398.05	Kg
	Total Weight in Metric Tonne					2.40	MT
6	Providing shuttering including strutting, propping 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	1.97	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.09		1.994	8.73	Sqm
		4		1.048	1.994	8.36	Sqm
		4	1.09		0.650	2.84	Sqm
		4		1.796	0.650	4.67	Sqm
	Section 2-2	4	3.75		0.450	6.75	Sqm
		4		0.450	0.450	0.81	Sqm
		4	3.75		1.080	16.20	Sqm
		4		0.774	1.080	3.34	Sqm
		4	3.75		0.650	9.75	Sqm
		4		1.248	0.650	3.24	Sqm
	Section 3-3	4	1.54		0.450	2.76	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.54		0.880	5.41	Sqm
		4		0.714	0.880	2.51	Sqm
		4	1.54		0.500	3.07	Sqm
		4		1.128	0.500	2.26	Sqm
	Section 5-5	4	5.61		0.450	10.10	Sqm
		4		0.450	0.450	0.81	Sqm
		4	5.61		1.994	44.75	Sqm
		4		1.048	1.994	8.36	Sqm
		4	5.61		0.500	11.22	Sqm
		4		1.796	0.500	3.59	Sqm
	Section 6-6	4	3.67		0.450	6.60	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4		0.450	0.450	0.81	Sqm
		4	3.67		0.880	12.90	Sqm
		4		0.714	0.880	2.51	Sqm
		4	3.67		0.500	7.33	Sqm
		4		1.128	0.500	2.26	Sqm
	Floor	2	0.52		0.700	0.73	Sqm
		2		3.850	0.700	5.39	Sqm
		2	6.25		0.500	6.25	Sqm
		2		3.850	0.500	3.85	Sqm
		2	0.23		0.350	0.16	Sqm
		2		3.850	0.350	2.70	Sqm
		2	0.20		0.400	0.16	Sqm
		2		3.850	0.400	3.08	Sqm
		2	2.05		0.500	2.05	Sqm
		2		3.850	0.500	3.85	Sqm
		2	0.73		1.100	1.60	Sqm
		2		3.850	1.100	8.47	Sqm
	Crest	2	1.08		1.449	3.14	Sqm
		2		3.850	1.449	11.16	Sqm
	Toe Wall D/S Portion	2	12.61		0.300	7.57	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	12.31		0.600	14.77	Sqm
		2		0.450	0.600	0.54	Sqm
	Toe Wall for resting Brick Edging	4	2.75		0.150	1.65	Sqm
		4		0.600	0.150	0.36	Sqm
	Toe Wall for resting Brick Edging	4	2.75		0.600	6.60	Sqm
		4		0.300	0.600	0.72	Sqm
	TOTAL					280.77	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.						
	<i>In D/S Portion On Slopes</i>	2	2.75	4.497		24.73	Sqm
	TOTAL					24.73	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	<i>In D/S Portion</i>	1	2.75	3.250	0.300	2.68	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	2.75	3.250	0.150	2.68	Cum
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>On Abutment Top (Left Side)</i>	1	16.89	0.450		7.60	Sqm
	<i>On Abutment Top (Right Side)</i>	1	16.89	0.450		7.60	Sqm
	TOTAL					15.20	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1	6.846			6.85	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.32	0.845		2.228	Cum
	<i>Section 2-2</i>	2	3.75	0.841		6.308	Cum
	<i>Section 3-3</i>	2	1.95	0.634		2.473	Cum
	<i>Section 5-5</i>	2	5.65	0.822		9.295	Cum
	<i>Section 6-6</i>	2	3.10	0.634		3.933	Cum
	<i>D/S protection</i>	2					
	<i>Toe wall</i>	2	12.61	0.150	0.600	3.783	Cum
		2	2.75	0.150	0.600	0.495	Cum
	TOTAL					35.36	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR PARANPUR MR.							
SHARDA TYPE FALL OF HEIGHT 0.762 METER AT CH. 0.200 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.12	1.657	0.904	3.352	Cum
	<i>Section 2-2</i>	2	2.75	1.720	0.904	8.552	Cum
	<i>Section 3-3</i>	2	4.10	1.600	0.704	9.236	Cum
	<i>Section 5-5</i>	2	2.53	1.807	0.904	8.249	Cum
	<i>Section 6-6</i>	2	0.68	1.080	0.704	1.026	Cum
	<i>U/S Key Floor</i>	1	0.82	5.500	0.450	2.030	Cum
	<i>U/S Floor</i>	1	2.00	5.500	1.612	17.732	Cum
	<i>D/S Floor</i>	1	2.75	5.500	0.850	12.856	Cum
		1	4.40	2.000	0.650	5.720	Cum
	<i>D/S Key Floor</i>	1	0.63	5.500	0.850	2.922	Cum
	<i>Toe Wall D/S Portion</i>	1	6.25	0.750	0.900	4.219	Cum
	<i>Boulder Pitching (D/S Portion)</i>	1	1.75	0.900	0.750	1.181	Cum
						77.08	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.						
	<i>PCC Below Floor</i>	1	0.54	2.000	0.150	0.16	Cum
		1	0.78	2.000	0.150	0.23	Cum
		1	4.13	2.000	0.150	1.24	Cum
		1	0.28	2.000	0.150	0.08	Cum
		1	3.04	2.000	0.150	0.91	Cum
		1	0.78	2.000	0.150	0.23	Cum
		1	0.54	2.000	0.150	0.16	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.12	1.657	0.150	0.56	Cum
	<i>Section 2-2</i>	2	2.75	1.720	0.300	2.84	Cum
	<i>Section 3-3</i>	2	4.10	1.600	0.300	3.94	Cum
	<i>Section 5-5</i>	2	2.53	1.807	0.150	1.37	Cum
	<i>Section 6-6</i>	2	0.68	1.080	0.150	0.22	Cum
	<i>Toe Wall D/S Portion</i>	1	6.25	0.750	0.300	1.41	Cum
	<i>Toe Wall D/S Portion</i>	1	5.95	0.450	0.600	1.61	Cum
	<i>Toe Wall for resting Brick Edging</i>	1	1.75	0.900	0.150	0.24	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.75	0.300	0.600	0.63	Cum
	TOTAL					15.83	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	0.89	0.450	0.450	0.36	Cum
		2	0.89	0.904	1.512	2.44	Cum
		2	0.89	1.507	0.500	1.35	Cum
	<i>Section 2-2</i>	2	2.75	0.820	0.500	2.26	Cum
		2	2.75	1.045	0.750	4.31	Cum
		2	2.75	1.420	1.000	7.81	Cum
	<i>Section 3-3</i>	2	3.79	0.820	0.500	3.10	Cum
		2	3.79	0.985	0.550	4.10	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	3.79	1.300	1.200	11.81	Cum
	Section 5-5	2	2.48	0.450	0.450	1.00	Cum
		2	2.48	0.904	1.512	6.78	Cum
		2	2.48	1.507	0.500	3.74	Cum
	Section 6-6	2	1.33	0.450	0.450	0.54	Cum
		2	1.33	0.615	0.550	0.90	Cum
		2	1.33	0.930	0.500	1.23	Cum
	deduction for M 25 grade of concrete	2	0.82	5.500	0.300	-2.71	Cum
	Floor	1	0.63	2.000	0.700	0.88	Cum
		1	4.75	2.000	0.500	4.75	Cum
		1	0.31	2.000	0.200	0.12	Cum
		1	0.20	2.000	0.400	0.16	Cum
		1	4.20	2.000	0.500	4.20	Cum
		1	0.63	2.000	0.700	0.88	Cum
	Crest	1	0.88	2.000	1.117	1.96	Cum
	TOTAL					61.96	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	0.70	2.000	0.150	0.21	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	5.84	0.450	0.050	0.13	Cum
	On Abutment Top (Right Side)	1	5.84	0.450	0.050	0.13	Cum
	Slab Bridge						
	Slab	1	2.80	5.500	0.328	5.05	Cum
	Wearing coat	1	2.80	4.500	0.070	0.88	Cum
	Dirt wall	2	0.40	5.500	0.300	1.32	Cum
	300 mm thick pedestal	2	0.82	5.500	0.300	2.71	Cum
	TOTAL					10.43	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.						
	Dia of Bars	No.	Length		Weight per m	Quantity	Unit
a1	16	31	3.26		1.578	159.5	Kg
a2	10	14	5.90		0.616	50.9	Kg
a3	10	2	5.40		0.616	6.7	Kg
a4	10	19	3.18		0.616	37.2	Kg
a5	10	10	5.80		0.616	35.8	Kg
x1	12	48	2.50		0.888	106.6	Kg
x2	16	48	1.37		1.578	103.4	Kg
x3	12	24	2.70		0.888	57.5	Kg
	Taking Skin reinforcement @0.3% of M-20	61.96	0.003	0.186	7850.0	1459.3	Kg
	Total Reinforcement Steel (in kg)					2016.8	Kg
	Total Weight in Metric Tonne					2.02	MT
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	4	0.89		0.450	1.61	Sqm
		4		0.450	0.450	0.81	Sqm
		4	0.89		1.512	5.41	Sqm
		4		0.904	1.512	5.46	Sqm
		4	0.89		0.500	1.79	Sqm
		4		1.507	0.500	3.01	Sqm
	Section 2-2	4	2.75		0.500	5.50	Sqm
		4		0.820	0.500	1.64	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4	2.75		0.750	8.25	Sqm
		4		1.045	0.750	3.14	Sqm
		4	2.75		1.000	11.00	Sqm
		4		1.420	1.000	5.68	Sqm
	Section 3-3	4	3.79		0.500	7.57	Sqm
		4		0.820	0.500	1.64	Sqm
		4	3.79		0.550	8.33	Sqm
		4		0.985	0.550	2.17	Sqm
		4	3.79		1.200	18.17	Sqm
		4		1.300	1.200	6.24	Sqm
	Section 5-5	4	2.48		0.450	4.46	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.48		1.512	15.00	Sqm
		4		0.904	1.512	5.46	Sqm
		4	2.48		0.500	4.96	Sqm
		4		1.507	0.500	3.01	Sqm
	Section 6-6	4	1.33		0.450	2.39	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.33		0.550	2.92	Sqm
		4		0.615	0.550	1.35	Sqm
		4	1.33		0.500	2.65	Sqm
		4		0.930	0.500	1.86	Sqm
	Floor	2	0.63		0.700	0.88	Sqm
		2		2.000	0.700	2.80	Sqm
		2	4.75		0.500	4.75	Sqm
		2		2.000	0.500	2.00	Sqm
		2	0.31		0.200	0.12	Sqm
		2		2.000	0.200	0.80	Sqm
		2	0.20		0.400	0.16	Sqm
		2		2.000	0.400	1.60	Sqm
		2	4.20		0.500	4.20	Sqm
		2		2.000	0.500	2.00	Sqm
		2	0.63		0.700	0.88	Sqm
		2		2.000	0.700	2.80	Sqm
	Crest	2	0.88		1.117	1.96	Sqm
		2		2.000	1.117	4.47	Sqm
	Bridge Slab	2	2.80		0.33	1.84	Sqm
		2		5.50	0.33	3.61	Sqm
		1	2.80	5.50		15.40	Sqm
	Dirt Wall	2	0.40		0.30	0.24	Sqm
		2		5.50	0.30	3.30	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	1.75		0.150	1.05	Sqm
		4		0.900	0.150	0.54	Sqm
	Toe Wall for resting Brick Edging	4	1.75		0.600	4.20	Sqm
		4		0.300	0.600	0.72	Sqm
	TOTAL					215.29	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	1.75	2.142		7.50	Sqm
	TOTAL					7.50	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	1	1.75	1.400	0.300	0.74	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.						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	1.75	1.400	0.150	0.74	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	5.84	0.450		2.63	Sqm
	On Abutment Top (Right Side)	1	5.84	0.450		2.63	Sqm
	TOTAL					5.25	Sqm
11	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.						
		1	4.00			4.00	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						
	U/S Floor	1		2.624		2.62	Cum
	Abutment						
	Section 1-1	2	1.12	0.171		0.383	Cum
	Section 2-2	2	2.75	0.171		0.941	Cum
	Section 3-3	2	4.10	0.092		0.755	Cum
	Section 5-5	2	2.53	0.171		0.864	Cum
	Section 6-6	2	0.68	0.910		1.229	Cum
	D/S protection	2					
	Toe wall	2	6.25	0.150	0.600	1.875	Cum
		2	1.75	0.150	0.600	0.315	Cum
	TOTAL					8.98	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH. 0.400 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.31	1.932	1.645	8.327	Cum
	<i>Section 2-2</i>	2	3.50	1.720	1.645	19.806	Cum
	<i>Section 3-3</i>	2	4.05	1.600	1.445	18.727	Cum
	<i>Section 5-5</i>	2	2.47	2.082	1.645	16.902	Cum
	<i>Section 6-6</i>	2	0.68	1.080	1.445	2.107	Cum
	<i>U/S Key Floor</i>	1	0.82	5.500	0.450	2.030	Cum
	<i>U/S Floor</i>	1	2.50	5.500	2.270	31.213	Cum
	<i>D/S Floor</i>	1	3.50	5.500	1.050	20.213	Cum
		1	1.00	2.000	0.700	1.400	Cum
		1	3.35	2.000	0.650	4.355	Cum
	<i>D/S Key Floor</i>	1	0.71	5.500	1.200	4.703	Cum
	<i>Toe Wall D/S Portion</i>	1	6.25	0.750	0.900	4.219	Cum
	<i>Boulder Pitching (D/S Portion)</i>	1	1.75	0.900	0.750	1.181	Cum
						135.18	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.						
	<i>PCC Below Floor</i>	1	0.54	2.000	0.150	0.16	Cum
		1	0.89	2.000	0.150	0.27	Cum
		1	5.20	2.000	0.150	1.56	Cum
		1	0.49	2.000	0.150	0.15	Cum
		1	0.57	2.000	0.150	0.17	Cum
		1	0.07	2.000	0.150	0.02	Cum
		1	2.17	2.000	0.150	0.65	Cum
		1	1.17	2.000	0.150	0.35	Cum
		1	0.54	2.000	0.150	0.16	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.31	1.932	0.150	0.76	Cum
	<i>Section 2-2</i>	2	3.50	1.720	0.150	1.81	Cum
	<i>Section 3-3</i>	2	4.05	1.600	0.150	1.94	Cum
	<i>Section 5-5</i>	2	2.47	2.082	0.150	1.54	Cum
	<i>Section 6-6</i>	2	0.68	1.080	0.150	0.22	Cum
	<i>Toe Wall D/S Portion</i>	1	6.25	0.750	0.300	1.41	Cum
	<i>Toe Wall D/S Portion</i>	1	5.95	0.450	0.600	1.61	Cum
	<i>Toe Wall for resting Brick Edging</i>	1	1.75	0.900	0.150	0.24	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.75	0.300	0.600	0.63	Cum
	TOTAL					13.64	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.16	0.450	0.450	0.47	Cum
		2	1.16	1.041	1.970	4.77	Cum
		2	1.16	1.782	0.700	2.90	Cum
	<i>Section 2-2</i>	2	3.50	0.820	0.500	2.87	Cum
		2	3.50	1.045	0.750	5.49	Cum
		2	3.50	1.420	1.350	13.42	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section 3-3	2	3.74	0.820	0.500	3.06	Cum
		2	3.74	0.985	0.550	4.05	Cum
		2	3.74	1.300	1.550	15.05	Cum
	Section 5-5	2	2.42	0.450	0.450	0.98	Cum
		2	2.42	1.041	1.970	9.94	Cum
		2	2.42	1.782	0.700	6.05	Cum
	Section 6-6	2	1.40	0.450	0.450	0.57	Cum
		2	1.40	0.615	0.550	0.95	Cum
		2	1.40	0.930	0.500	1.30	Cum
	deduction for M 25 grade of concrete	2	0.82	5.500	0.300	-2.71	Cum
	Floor	1	0.65	2.000	0.800	1.04	Cum
		1	6.00	2.000	0.700	8.40	Cum
		1	0.25	2.000	0.350	0.18	Cum
		1	0.20	2.000	0.450	0.18	Cum
		1	0.80	2.000	0.550	0.88	Cum
		1	0.05	2.000	0.525	0.05	Cum
		1	3.30	2.000	0.500	3.30	Cum
		1	0.71	2.000	1.050	1.50	Cum
	Crest	1	1.05	2.000	1.570	3.31	Cum
	TOTAL					87.99	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	0.80	2.000	0.150	0.24	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	7.79	0.450	0.050	0.18	Cum
	On Abutment Top (Right Side)	1	7.79	0.450	0.050	0.18	Cum
	Slab Bridge						
	Slab	1	2.80	5.500	0.328	5.05	Cum
	Wearing coat	1	2.80	4.500	0.070	0.88	Cum
	Dirt wall	2	0.40	5.500	0.300	1.32	Cum
	300 mm thick pedestal	2	0.82	5.500	0.300	2.71	Cum
	TOTAL					10.55	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.						
	Dia of Bars	No.	Length		Weight per m	Quantity	Unit
a1	16	31	3.26		1.578	159.5	Kg
a2	10	14	5.90		0.616	50.9	Kg
a3	10	2	5.40		0.616	6.7	Kg
a4	10	19	3.18		0.616	37.2	Kg
a5	10	10	5.80		0.616	35.8	Kg
x1	12	48	2.50		0.888	106.6	Kg
x2	16	48	1.37		1.578	103.4	Kg
x3	12	24	2.70		0.888	57.5	Kg
	Taking Skin reinforcement @0.3% of M-20	87.99	0.003	0.264	7850.0	2072.1	Kg
	Total Reinforcement Steel (in kg)					2629.6	Kg
	Total Weight in Metric Tonne					2.63	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		1.970	9.16	Sqm
		4		1.041	1.970	8.20	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4	1.16		0.700	3.26	Sqm
		4		1.782	0.700	4.99	Sqm
	Section 2-2	4	3.50		0.500	7.00	Sqm
		4		0.820	0.500	1.64	Sqm
		4	3.50		0.750	10.50	Sqm
		4		1.045	0.750	3.14	Sqm
		4	3.50		1.350	18.90	Sqm
		4		1.420	1.350	7.67	Sqm
	Section 3-3	4	3.74		0.500	7.47	Sqm
		4		0.820	0.500	1.64	Sqm
		4	3.74		0.550	8.22	Sqm
		4		0.985	0.550	2.17	Sqm
		4	3.74		1.550	23.16	Sqm
		4		1.300	1.550	8.06	Sqm
	Section 5-5	4	2.42		0.450	4.36	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.42		1.970	19.10	Sqm
		4		1.041	1.970	8.20	Sqm
		4	2.42		0.700	6.79	Sqm
		4		1.782	0.700	4.99	Sqm
	Section 6-6	4	1.40		0.450	2.52	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.40		0.550	3.08	Sqm
		4		0.615	0.550	1.35	Sqm
		4	1.40		0.500	2.80	Sqm
		4		0.930	0.500	1.86	Sqm
	Floor	2	0.65		0.800	1.04	Sqm
		2		2.000	0.800	3.20	Sqm
		2	6.00		0.700	8.40	Sqm
		2		2.000	0.700	2.80	Sqm
		2	0.25		0.350	0.18	Sqm
		2		2.000	0.350	1.40	Sqm
		2	0.20		0.450	0.18	Sqm
		2		2.000	0.450	1.80	Sqm
		2	0.80		0.550	0.88	Sqm
		2		2.000	0.550	2.20	Sqm
		2	0.71		1.050	1.50	Sqm
		2		2.000	1.050	4.20	Sqm
	Crest	2	1.05		1.570	3.31	Sqm
		2		2.000	1.570	6.28	Sqm
	Bridge Slab	2	2.80		0.33	1.84	Sqm
		2		5.50	0.33	3.61	Sqm
		1	2.80	5.50		15.40	Sqm
	Dirt Wall	2	0.40		0.30	0.24	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	1.75		0.150	1.05	Sqm
		4		0.900	0.150	0.54	Sqm
	Toe Wall for resting Brick Edging	4	1.75		0.600	4.20	Sqm
		4		0.300	0.600	0.72	Sqm
	TOTAL					261.57	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	2.142		7.50	Sqm
	TOTAL					7.50	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	1	1.75	1.400	0.300	0.74	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
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	1.400	0.150	0.74	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	7.79	0.450		3.50	Sqm
	On Abutment Top (Right Side)	1	7.79	0.450		3.50	Sqm
	TOTAL					7.01	Sqm
11	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.						
		1	4.00			4.00	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						
	U/S Floor	1		5.907		5.91	Cum
	Abutment						
	Section 1-1	2	1.31	0.533		1.397	Cum
	Section 2-2	2	3.50	0.200		1.400	Cum
	Section 3-3	2	4.05	0.200		1.620	Cum
	Section 5-5	2	2.47	0.533		2.631	Cum
	Section 6-6	2	0.68	0.200		0.270	Cum
	D/S protection	2					
	Toe wall	2	6.25	0.150	0.600	1.875	Cum
		2	1.75	0.150	0.600	0.315	Cum
	TOTAL					15.41	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 1.220 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.31	1.932	2.357	11.931	Cum
	<i>Section 2-2</i>	2	3.50	1.720	2.357	28.378	Cum
	<i>Section 3-3</i>	2	4.05	1.600	2.157	27.955	Cum
	<i>Section 5-5</i>	2	2.47	2.082	2.357	24.217	Cum
	<i>Section 6-6</i>	2	0.68	1.080	2.157	3.145	Cum
	<i>U/S Key Floor</i>	1	0.82	5.500	0.450	2.030	Cum
	<i>U/S Floor</i>	1	2.50	5.500	2.270	31.213	Cum
	<i>D/S Floor</i>	1	3.50	5.500	1.050	20.213	Cum
		1	1.00	2.000	0.700	1.400	Cum
		1	3.35	2.000	0.650	4.355	Cum
	<i>D/S Key Floor</i>	1	0.71	5.500	1.200	4.703	Cum
	<i>Toe Wall D/S Portion</i>	1	6.25	0.750	0.900	4.219	Cum
	<i>Boulder Pitching (D/S Portion)</i>	1	1.75	0.900	0.750	1.181	Cum
						164.94	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.						
	<i>PCC Below Floor</i>	1	0.54	2.000	0.150	0.16	Cum
		1	0.89	2.000	0.150	0.27	Cum
		1	5.20	2.000	0.150	1.56	Cum
		1	0.49	2.000	0.150	0.15	Cum
		1	0.57	2.000	0.150	0.17	Cum
		1	0.07	2.000	0.150	0.02	Cum
		1	2.17	2.000	0.150	0.65	Cum
		1	1.17	2.000	0.150	0.35	Cum
		1	0.54	2.000	0.150	0.16	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.31	1.932	0.150	0.76	Cum
	<i>Section 2-2</i>	2	3.50	1.720	0.150	1.81	Cum
	<i>Section 3-3</i>	2	4.05	1.600	0.150	1.94	Cum
	<i>Section 5-5</i>	2	2.47	2.082	0.150	1.54	Cum
	<i>Section 6-6</i>	2	0.68	1.080	0.150	0.22	Cum
	<i>Toe Wall D/S Portion</i>	1	6.25	0.750	0.300	1.41	Cum
	<i>Toe Wall D/S Portion</i>	1	5.95	0.450	0.600	1.61	Cum
	<i>Toe Wall for resting Brick Edging</i>	1	1.75	0.900	0.150	0.24	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.75	0.300	0.600	0.63	Cum
	TOTAL					13.64	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.16	0.450	0.450	0.47	Cum
		2	1.16	1.041	1.970	4.77	Cum
		2	1.16	1.782	0.700	2.90	Cum
	<i>Section 2-2</i>	2	3.50	0.820	0.500	2.87	Cum
		2	3.50	1.045	0.750	5.49	Cum
		2	3.50	1.420	1.350	13.42	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section 3-3	2	3.74	0.820	0.500	3.06	Cum
		2	3.74	0.985	0.550	4.05	Cum
		2	3.74	1.300	1.550	15.05	Cum
	Section 5-5	2	2.42	0.450	0.450	0.98	Cum
		2	2.42	1.041	1.970	9.94	Cum
		2	2.42	1.782	0.700	6.05	Cum
	Section 6-6	2	1.40	0.450	0.450	0.57	Cum
		2	1.40	0.615	0.550	0.95	Cum
		2	1.40	0.930	0.500	1.30	Cum
	deduction for M 25 grade of concrete	2	0.82	5.500	0.300	-2.71	Cum
	Floor	1	0.65	2.000	0.800	1.04	Cum
		1	6.00	2.000	0.700	8.40	Cum
		1	0.25	2.000	0.350	0.18	Cum
		1	0.20	2.000	0.450	0.18	Cum
		1	0.80	2.000	0.550	0.88	Cum
		1	0.05	2.000	0.525	0.05	Cum
		1	3.30	2.000	0.500	3.30	Cum
		1	0.71	2.000	1.050	1.50	Cum
	Crest	1	1.05	2.000	1.570	3.31	Cum
	TOTAL					87.99	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	0.80	2.000	0.150	0.24	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	7.79	0.450	0.050	0.18	Cum
	On Abutment Top (Right Side)	1	7.79	0.450	0.050	0.18	Cum
	Slab Bridge						
	Slab	1	2.80	5.500	0.328	5.05	Cum
	Wearing coat	1	2.80	4.500	0.070	0.88	Cum
	Dirt wall	2	0.40	5.500	0.300	1.32	Cum
	300 mm thick pedestal	2	0.82	5.500	0.300	2.71	Cum
	TOTAL					10.55	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.						
	Dia of Bars	No.	Length		Weight per m	Quantity	Unit
a1	16	31	3.26		1.578	159.5	Kg
a2	10	14	5.90		0.616	50.9	Kg
a3	10	2	5.40		0.616	6.7	Kg
a4	10	19	3.18		0.616	37.2	Kg
a5	10	10	5.80		0.616	35.8	Kg
x1	12	48	2.50		0.888	106.6	Kg
x2	16	48	1.37		1.578	103.4	Kg
x3	12	24	2.70		0.888	57.5	Kg
	Taking Skin reinforcement @0.3% of M-20	87.99	0.003	0.264	7850.0	2072.1	Kg
	Total Reinforcement Steel (in kg)					2629.6	Kg
	Total Weight in Metric Tonne					2.63	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		1.970	9.16	Sqm
		4		1.041	1.970	8.20	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4	1.16		0.700	3.26	Sqm
		4		1.782	0.700	4.99	Sqm
	Section 2-2	4	3.50		0.500	7.00	Sqm
		4		0.820	0.500	1.64	Sqm
		4	3.50		0.750	10.50	Sqm
		4		1.045	0.750	3.14	Sqm
		4	3.50		1.350	18.90	Sqm
		4		1.420	1.350	7.67	Sqm
	Section 3-3	4	3.74		0.500	7.47	Sqm
		4		0.820	0.500	1.64	Sqm
		4	3.74		0.550	8.22	Sqm
		4		0.985	0.550	2.17	Sqm
		4	3.74		1.550	23.16	Sqm
		4		1.300	1.550	8.06	Sqm
	Section 5-5	4	2.42		0.450	4.36	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.42		1.970	19.10	Sqm
		4		1.041	1.970	8.20	Sqm
		4	2.42		0.700	6.79	Sqm
		4		1.782	0.700	4.99	Sqm
	Section 6-6	4	1.40		0.450	2.52	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.40		0.550	3.08	Sqm
		4		0.615	0.550	1.35	Sqm
		4	1.40		0.500	2.80	Sqm
		4		0.930	0.500	1.86	Sqm
	Floor	2	0.65		0.800	1.04	Sqm
		2		2.000	0.800	3.20	Sqm
		2	6.00		0.700	8.40	Sqm
		2		2.000	0.700	2.80	Sqm
		2	0.25		0.350	0.18	Sqm
		2		2.000	0.350	1.40	Sqm
		2	0.20		0.450	0.18	Sqm
		2		2.000	0.450	1.80	Sqm
		2	0.80		0.550	0.88	Sqm
		2		2.000	0.550	2.20	Sqm
		2	0.71		1.050	1.50	Sqm
		2		2.000	1.050	4.20	Sqm
	Crest	2	1.05		1.570	3.31	Sqm
		2		2.000	1.570	6.28	Sqm
	Bridge Slab	2	2.80		0.33	1.84	Sqm
		2		5.50	0.33	3.61	Sqm
		1	2.80	5.50		15.40	Sqm
	Dirt Wall	2	0.40		0.30	0.24	Sqm
		2		5.50	0.30	3.30	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	1.75		0.150	1.05	Sqm
		4		0.900	0.150	0.54	Sqm
	Toe Wall for resting Brick Edging	4	1.75		0.600	4.20	Sqm
		4		0.300	0.600	0.72	Sqm
	TOTAL					264.87	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	1.75	2.142		7.50	Sqm
	TOTAL					7.50	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	1	1.75	1.400	0.300	0.74	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
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	1.400	0.150	0.74	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	7.79	0.450		3.50	Sqm
	On Abutment Top (Right Side)	1	7.79	0.450		3.50	Sqm
	TOTAL					7.01	Sqm
11	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.						
		1	4.00			4.00	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						
	U/S Floor	1		5.907		5.91	Cum
	Abutment						
	Section 1-1	2	1.31	1.230		3.223	Cum
	Section 2-2	2	3.50	0.564		3.948	Cum
	Section 3-3	2	4.05	0.461		3.734	Cum
	Section 5-5	2	2.47	1.230		6.070	Cum
	Section 6-6	2	0.68	0.461		0.622	Cum
	D/S protection	2					
	Toe wall	2	6.25	0.150	0.600	1.875	Cum
		2	1.75	0.150	0.600	0.315	Cum
	TOTAL					25.69	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 0.914 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.15	1.718	1.764	6.946	Cum
	<i>Section 2-2</i>	2	3.00	1.690	1.764	17.887	Cum
	<i>Section 3-3</i>	2	4.20	1.570	1.564	20.626	Cum
	<i>Section 5-5</i>	2	2.41	1.868	1.764	15.856	Cum
	<i>Section 6-6</i>	2	0.63	1.050	1.564	2.069	Cum
	<i>U/S Key Floor</i>	1	0.82	5.500	0.450	2.030	Cum
	<i>U/S Floor</i>	1	2.25	5.500	1.814	22.448	Cum
	<i>D/S Floor</i>	1	3.00	5.500	0.900	14.850	Cum
		1	4.50	1.600	0.700	5.040	Cum
	<i>D/S Key Floor</i>	1	0.63	5.500	0.850	2.922	Cum
	<i>Toe Wall D/S Portion</i>	1	5.70	0.750	0.900	3.848	Cum
	<i>Boulder Pitching (D/S Portion)</i>	1	1.75	0.900	0.750	1.181	Cum
						115.70	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.						
	<i>PCC Below Floor</i>	1	0.54	1.600	0.150	0.13	Cum
		1	0.76	1.600	0.150	0.18	Cum
		1	4.60	1.600	0.150	1.10	Cum
		1	0.35	1.600	0.150	0.08	Cum
		1	3.14	1.600	0.150	0.75	Cum
		1	0.78	1.600	0.150	0.19	Cum
		1	0.54	1.600	0.150	0.13	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.15	1.718	0.150	0.59	Cum
	<i>Section 2-2</i>	2	3.00	1.690	0.300	3.04	Cum
	<i>Section 3-3</i>	2	4.20	1.570	0.300	3.96	Cum
	<i>Section 5-5</i>	2	2.41	1.868	0.150	1.35	Cum
	<i>Section 6-6</i>	2	0.63	1.050	0.150	0.20	Cum
	<i>Toe Wall D/S Portion</i>	1	5.70	0.750	0.300	1.28	Cum
	<i>Toe Wall D/S Portion</i>	1	5.40	0.450	0.600	1.46	Cum
	<i>Toe Wall for resting Brick Edging</i>	1	1.75	0.900	0.150	0.24	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.75	0.300	0.600	0.63	Cum
	TOTAL					15.32	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.00	0.450	0.450	0.40	Cum
		2	1.00	0.934	1.614	3.00	Cum
		2	1.00	1.568	0.550	1.72	Cum
	<i>Section 2-2</i>	2	3.00	0.820	0.500	2.46	Cum
		2	3.00	1.030	0.700	4.33	Cum
		2	3.00	1.390	1.000	8.34	Cum
	<i>Section 3-3</i>	2	3.90	0.820	0.500	3.20	Cum
		2	3.90	0.970	0.500	3.78	Cum
		2	3.90	1.270	1.200	11.89	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section 5-5	2	2.36	0.450	0.450	0.96	Cum
		2	2.36	0.934	1.614	7.12	Cum
		2	2.36	1.568	0.550	4.07	Cum
	Section 6-6	2	1.34	0.450	0.450	0.54	Cum
		2	1.34	0.600	0.500	0.80	Cum
		2	1.34	0.900	0.500	1.21	Cum
	deduction for M 25 grade of concrete	2	0.82	5.500	0.300	-2.71	Cum
	Floor	1	0.61	1.600	0.650	0.64	Cum
		1	5.25	1.600	0.550	4.62	Cum
		1	0.28	1.600	0.250	0.11	Cum
		1	0.20	1.600	0.400	0.13	Cum
		1	4.30	1.600	0.500	3.44	Cum
		1	0.63	1.600	0.700	0.70	Cum
	Crest	1	0.90	1.600	1.239	1.78	Cum
	TOTAL					62.53	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	1.600	0.150	0.17	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	5.37	0.450	0.050	0.12	Cum
	On Abutment Top (Right Side)	1	5.37	0.450	0.050	0.12	Cum
	Slab Bridge						
	Slab	1	2.40	5.500	0.328	4.33	Cum
	Wearing coat	1	2.40	4.500	0.070	0.76	Cum
	Dirt wall	2	0.40	5.500	0.300	1.32	Cum
	300 mm thick pedestal	2	0.82	5.500	0.300	2.71	Cum
	TOTAL					9.52	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.						
	Dia of Bars	No.	Length		Weight per m	Quantity	Unit
a1	16	31	2.86		1.578	139.9	Kg
a2	10	12	5.90		0.616	43.6	Kg
a3	10	2	5.40		0.616	6.7	Kg
a4	10	19	2.78		0.616	32.6	Kg
a5	10	8	5.80		0.616	28.6	Kg
x1	12	42	2.50		0.888	93.2	Kg
x2	16	42	1.27		1.578	83.8	Kg
x3	12	24	2.30		0.888	49.0	Kg
	Taking Skin reinforcement @0.3% of M-20	62.53	0.003	0.188	7850.0	1472.7	Kg
	Total Reinforcement Steel (in kg)					1950.2	Kg
	Total Weight in Metric Tonne					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	1.00		0.450	1.79	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.00		1.614	6.43	Sqm
		4		0.934	1.614	6.03	Sqm
		4	1.00		0.550	2.19	Sqm
		4		1.568	0.550	3.45	Sqm
	Section 2-2	4	3.00		0.500	6.00	Sqm
		4		0.820	0.500	1.64	Sqm
		4	3.00		0.700	8.40	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4		1.030	0.700	2.88	Sqm
		4	3.00		1.000	12.00	Sqm
		4		1.390	1.000	5.56	Sqm
	Section 3-3	4	3.90		0.500	7.80	Sqm
		4		0.820	0.500	1.64	Sqm
		4	3.90		0.500	7.80	Sqm
		4		0.970	0.500	1.94	Sqm
		4	3.90		1.200	18.72	Sqm
		4		1.270	1.200	6.10	Sqm
	Section 5-5	4	2.36		0.450	4.25	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.36		1.614	15.25	Sqm
		4		0.934	1.614	6.03	Sqm
		4	2.36		0.550	5.20	Sqm
		4		1.568	0.550	3.45	Sqm
	Section 6-6	4	1.34		0.450	2.41	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.34		0.500	2.68	Sqm
		4		0.600	0.500	1.20	Sqm
		4	1.34		0.500	2.68	Sqm
		4		0.900	0.500	1.80	Sqm
	Floor	2	0.61		0.650	0.80	Sqm
		2		1.600	0.650	2.08	Sqm
		2	5.25		0.550	5.78	Sqm
		2		1.600	0.550	1.76	Sqm
		2	0.28		0.250	0.14	Sqm
		2		1.600	0.250	0.80	Sqm
		2	0.20		0.400	0.16	Sqm
		2		1.600	0.400	1.28	Sqm
		2	4.30		0.500	4.30	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	0.90		1.239	2.23	Sqm
		2		1.600	1.239	3.96	Sqm
	Bridge Slab	2	2.40		0.33	1.57	Sqm
		2		5.50	0.33	3.61	Sqm
		1	2.40	5.50		13.20	Sqm
	Dirt Wall	2	0.40		0.30	0.24	Sqm
		2		5.50	0.30	3.30	Sqm
	Toe Wall D/S Portion	2	5.70		0.300	3.42	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	5.40		0.600	6.48	Sqm
		2		0.450	0.600	0.54	Sqm
	Toe Wall for resting Brick Edging	4	1.75		0.150	1.05	Sqm
		4		0.900	0.150	0.54	Sqm
	Toe Wall for resting Brick Edging	4	1.75		0.600	4.20	Sqm
		4		0.300	0.600	0.72	Sqm
	TOTAL					215.07	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	1.75	2.015		7.05	Sqm
	TOTAL					7.05	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	1	1.75	1.000	0.300	0.53	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	1.000	0.150	0.53	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
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	5.37	0.450		2.42	Sqm
	On Abutment Top (Right Side)	1	5.37	0.450		2.42	Sqm
	TOTAL					4.83	Sqm
11	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.						
		1	4.00			4.00	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						
	U/S Floor	1		3.629		3.63	Cum
	Abutment						
	Section 1-1	2	1.15	0.741		1.699	Cum
	Section 2-2	2	3.00	0.353		2.118	Cum
	Section 3-3	2	4.20	0.280		2.352	Cum
	Section 5-5	2	2.41	0.741		3.566	Cum
	Section 6-6	2	0.63	0.280		0.353	Cum
	D/S protection	2					
	Toe wall	2	5.70	0.150	0.600	1.710	Cum
		2	1.75	0.150	0.600	0.315	Cum
	TOTAL					15.74	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH. 1.050 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.26	1.902	1.977	9.468	Cum
	<i>Section 2-2</i>	2	3.25	1.690	1.977	21.717	Cum
	<i>Section 3-3</i>	2	4.30	1.570	1.777	23.993	Cum
	<i>Section 5-5</i>	2	2.37	2.052	1.977	19.213	Cum
	<i>Section 6-6</i>	2	0.63	1.050	1.777	2.351	Cum
	<i>U/S Key Floor</i>	1	0.82	5.500	0.450	2.030	Cum
	<i>U/S Floor</i>	1	2.50	5.500	2.220	30.525	Cum
	<i>D/S Floor</i>	1	3.25	5.500	1.050	18.769	Cum
		1	1.25	1.600	0.700	1.400	Cum
		1	3.35	1.600	0.650	3.484	Cum
	<i>D/S Key Floor</i>	1	0.71	5.500	1.200	4.703	Cum
	<i>Toe Wall D/S Portion</i>	1	5.70	0.750	0.900	3.848	Cum
	<i>Boulder Pitching (D/S Portion)</i>	1	1.75	0.900	0.750	1.181	Cum
						142.68	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.						
	<i>PCC Below Floor</i>	1	0.54	1.600	0.150	0.13	Cum
		1	0.95	1.600	0.150	0.23	Cum
		1	4.97	1.600	0.150	1.19	Cum
		1	0.42	1.600	0.150	0.10	Cum
		1	0.82	1.600	0.150	0.20	Cum
		1	0.07	1.600	0.150	0.02	Cum
		1	2.17	1.600	0.150	0.52	Cum
		1	1.17	1.600	0.150	0.28	Cum
		1	0.54	1.600	0.150	0.13	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.26	1.902	0.150	0.72	Cum
	<i>Section 2-2</i>	2	3.25	1.690	0.150	1.65	Cum
	<i>Section 3-3</i>	2	4.30	1.570	0.150	2.03	Cum
	<i>Section 5-5</i>	2	2.37	2.052	0.150	1.46	Cum
	<i>Section 6-6</i>	2	0.63	1.050	0.150	0.20	Cum
	<i>Toe Wall D/S Portion</i>	1	5.70	0.750	0.300	1.28	Cum
	<i>Toe Wall D/S Portion</i>	1	5.40	0.450	0.600	1.46	Cum
	<i>Toe Wall for resting Brick Edging</i>	1	1.75	0.900	0.150	0.24	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.75	0.300	0.600	0.63	Cum
	TOTAL					12.45	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.11	0.450	0.450	0.45	Cum
		2	1.11	1.026	1.920	4.37	Cum
		2	1.11	1.752	0.650	2.53	Cum
	<i>Section 2-2</i>	2	3.25	0.820	0.500	2.67	Cum
		2	3.25	1.030	0.700	4.69	Cum
		2	3.25	1.390	1.350	12.20	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section 3-3	2	4.00	0.820	0.500	3.28	Cum
		2	4.00	0.970	0.500	3.88	Cum
		2	4.00	1.270	1.550	15.75	Cum
	Section 5-5	2	2.32	0.450	0.450	0.94	Cum
		2	2.32	1.026	1.920	9.16	Cum
		2	2.32	1.752	0.650	5.29	Cum
	Section 6-6	2	1.34	0.450	0.450	0.54	Cum
		2	1.34	0.600	0.500	0.80	Cum
		2	1.34	0.900	0.500	1.21	Cum
	deduction for M 25 grade of concrete	2	0.82	5.500	0.300	-2.71	Cum
	Floor	1	0.66	1.600	0.850	0.90	Cum
		1	5.75	1.600	0.700	6.44	Cum
		1	0.28	1.600	0.300	0.13	Cum
		1	0.20	1.600	0.450	0.14	Cum
		1	1.05	1.600	0.550	0.92	Cum
		1	0.05	1.600	0.525	0.04	Cum
		1	3.30	1.600	0.500	2.64	Cum
		1	0.71	1.600	1.050	1.20	Cum
	Crest	1	1.00	1.600	1.540	2.46	Cum
	TOTAL					79.92	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	0.75	1.600	0.150	0.18	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	7.55	0.450	0.050	0.17	Cum
	On Abutment Top (Right Side)	1	7.55	0.450	0.050	0.17	Cum
	Slab Bridge						
	Slab	1	2.40	5.500	0.328	4.33	Cum
	Wearing coat	1	2.40	4.500	0.070	0.76	Cum
	Dirt wall	2	0.40	5.500	0.300	1.32	Cum
	300 mm thick pedestal	2	0.82	5.500	0.300	2.71	Cum
	TOTAL					9.63	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.						
	Dia of Bars	No.	Length		Weight per m	Quantity	Unit
a1	16	31	2.86		1.578	139.9	Kg
a2	10	12	5.90		0.616	43.6	Kg
a3	10	2	5.40		0.616	6.7	Kg
a4	10	19	2.78		0.616	32.6	Kg
a5	10	8	5.80		0.616	28.6	Kg
x1	12	42	2.50		0.888	93.2	Kg
x2	16	42	1.27		1.578	83.8	Kg
x3	12	24	2.30		0.888	49.0	Kg
	Taking Skin reinforcement @0.3% of M-20	79.92	0.003	0.240	7850.0	1882.1	Kg
	Total Reinforcement Steel (in kg)					2359.6	Kg
	Total Weight in Metric Tonne					2.36	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	1.11		0.450	2.00	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.11		1.920	8.52	Sqm
		4		1.026	1.920	7.88	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4	1.11		0.650	2.88	Sqm
		4		1.752	0.650	4.56	Sqm
	Section 2-2	4	3.25		0.500	6.50	Sqm
		4		0.820	0.500	1.64	Sqm
		4	3.25		0.700	9.10	Sqm
		4		1.030	0.700	2.88	Sqm
		4	3.25		1.350	17.55	Sqm
		4		1.390	1.350	7.51	Sqm
	Section 3-3	4	4.00		0.500	8.00	Sqm
		4		0.820	0.500	1.64	Sqm
		4	4.00		0.500	8.00	Sqm
		4		0.970	0.500	1.94	Sqm
		4	4.00		1.550	24.80	Sqm
		4		1.270	1.550	7.87	Sqm
	Section 5-5	4	2.32		0.450	4.18	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.32		1.920	17.85	Sqm
		4		1.026	1.920	7.88	Sqm
		4	2.32		0.650	6.04	Sqm
		4		1.752	0.650	4.56	Sqm
	Section 6-6	4	1.34		0.450	2.41	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.34		0.500	2.68	Sqm
		4		0.600	0.500	1.20	Sqm
		4	1.34		0.500	2.68	Sqm
		4		0.900	0.500	1.80	Sqm
	Floor	2	0.66		0.850	1.13	Sqm
		2		1.600	0.850	2.72	Sqm
		2	5.75		0.700	8.05	Sqm
		2		1.600	0.700	2.24	Sqm
		2	0.28		0.300	0.17	Sqm
		2		1.600	0.300	0.96	Sqm
		2	0.20		0.450	0.18	Sqm
		2		1.600	0.450	1.44	Sqm
		2	1.05		0.550	1.16	Sqm
		2		1.600	0.550	1.76	Sqm
		2	0.71		1.050	1.50	Sqm
		2		1.600	1.050	3.36	Sqm
	Crest	2	1.00		1.540	3.08	Sqm
		2		1.600	1.540	4.93	Sqm
	Bridge Slab	2	2.40		0.33	1.57	Sqm
		2		5.50	0.33	3.61	Sqm
		1	2.40	5.50		13.20	Sqm
	Dirt Wall	2	0.40		0.30	0.24	Sqm
		2		5.50	0.30	3.30	Sqm
	Toe Wall D/S Portion	2	5.70		0.300	3.42	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	5.40		0.600	6.48	Sqm
		2		0.450	0.600	0.54	Sqm
	Toe Wall for resting Brick Edging	4	1.75		0.150	1.05	Sqm
		4		0.900	0.150	0.54	Sqm
	Toe Wall for resting Brick Edging	4	1.75		0.600	4.20	Sqm
		4		0.300	0.600	0.72	Sqm
	TOTAL					248.96	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	1.000	0.300	0.53	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
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	1.000	0.150	0.53	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	7.55	0.450		3.40	Sqm
	On Abutment Top (Right Side)	1	7.55	0.450		3.40	Sqm
	TOTAL					6.79	Sqm
11	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.						
		1	4.00			4.00	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						
	U/S Floor	1		5.549		5.55	Cum
	Abutment						
	Section 1-1	2	1.26	0.866		2.181	Cum
	Section 2-2	2	3.25	0.333		2.162	Cum
	Section 3-3	2	4.30	0.275		2.365	Cum
	Section 5-5	2	2.37	0.866		4.101	Cum
	Section 6-6	2	0.63	0.275		0.347	Cum
	D/S protection	2					
	Toe wall	2	5.70	0.150	0.600	1.710	Cum
		2	1.75	0.150	0.600	0.315	Cum
	TOTAL					18.73	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 1.524 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.47	2.084	2.486	15.232	Cum
	<i>Section 2-2</i>	2	3.75	1.690	2.486	31.510	Cum
	<i>Section 3-3</i>	2	4.15	1.570	2.286	29.789	Cum
	<i>Section 5-5</i>	2	2.33	2.234	2.486	25.880	Cum
	<i>Section 6-6</i>	2	0.63	1.050	2.286	3.024	Cum
	<i>U/S Key Floor</i>	1	0.82	5.500	0.450	2.030	Cum
	<i>U/S Floor</i>	1	2.75	5.500	2.724	41.201	Cum
	<i>D/S Floor</i>	1	3.75	5.500	1.200	24.750	Cum
		1	1.35	1.600	0.800	1.728	Cum
		1	3.10	1.600	0.750	3.720	Cum
	<i>D/S Key Floor</i>	1	0.81	5.500	1.600	7.150	Cum
	<i>Toe Wall D/S Portion</i>	1	5.70	0.750	0.900	3.848	Cum
	<i>Boulder Pitching (D/S Portion)</i>	1	1.75	0.900	0.750	1.181	Cum
						191.04	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.						
	<i>PCC Below Floor</i>	1	0.54	1.600	0.150	0.13	Cum
		1	0.84	1.600	0.150	0.20	Cum
		1	5.71	1.600	0.150	1.37	Cum
		1	0.57	1.600	0.150	0.14	Cum
		1	0.88	1.600	0.150	0.21	Cum
		1	0.07	1.600	0.150	0.02	Cum
		1	1.72	1.600	0.150	0.41	Cum
		1	1.62	1.600	0.150	0.39	Cum
		1	0.54	1.600	0.150	0.13	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.47	2.084	0.150	0.92	Cum
	<i>Section 2-2</i>	2	3.75	1.690	0.150	1.90	Cum
	<i>Section 3-3</i>	2	4.15	1.570	0.150	1.95	Cum
	<i>Section 5-5</i>	2	2.33	2.234	0.150	1.56	Cum
	<i>Section 6-6</i>	2	0.63	1.050	0.150	0.20	Cum
	<i>Toe Wall D/S Portion</i>	1	5.70	0.750	0.300	1.28	Cum
	<i>Toe Wall D/S Portion</i>	1	5.40	0.450	0.600	1.46	Cum
	<i>Toe Wall for resting Brick Edging</i>	1	1.75	0.900	0.150	0.24	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.75	0.300	0.600	0.63	Cum
	TOTAL					13.14	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.34	0.450	0.450	0.54	Cum
		2	1.34	1.117	2.224	6.66	Cum
		2	1.34	1.934	0.850	4.41	Cum
	<i>Section 2-2</i>	2	3.75	0.820	0.500	3.08	Cum
		2	3.75	1.030	0.700	5.41	Cum
		2	3.75	1.390	1.850	19.29	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section 3-3	2	3.85	0.820	0.500	3.16	Cum
		2	3.85	0.970	0.500	3.73	Cum
		2	3.85	1.270	2.050	20.05	Cum
	Section 5-5	2	2.29	0.450	0.450	0.93	Cum
		2	2.29	1.117	2.224	11.36	Cum
		2	2.29	1.934	0.850	7.52	Cum
	Section 6-6	2	1.34	0.450	0.450	0.54	Cum
		2	1.34	0.600	0.500	0.80	Cum
		2	1.34	0.900	0.500	1.21	Cum
	deduction for M 25 grade of concrete	2	0.82	5.500	0.300	-2.71	Cum
	Floor	1	0.64	1.600	0.750	0.77	Cum
		1	6.50	1.600	0.850	8.84	Cum
		1	0.27	1.600	0.300	0.13	Cum
		1	0.20	1.600	0.550	0.18	Cum
		1	1.15	1.600	0.650	1.20	Cum
		1	0.05	1.600	0.625	0.05	Cum
		1	3.05	1.600	0.600	2.93	Cum
		1	0.81	1.600	1.450	1.89	Cum
	Crest	1	1.20	1.600	1.839	3.52	Cum
	TOTAL					105.45	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	0.90	1.600	0.150	0.22	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	8.14	0.450	0.050	0.18	Cum
	On Abutment Top (Right Side)	1	8.14	0.450	0.050	0.18	Cum
	Slab Bridge						
	Slab	1	2.40	5.500	0.328	4.33	Cum
	Wearing coat	1	2.40	4.500	0.070	0.76	Cum
	Dirt wall	2	0.40	5.500	0.300	1.32	Cum
	300 mm thick pedestal	2	0.82	5.500	0.300	2.71	Cum
	TOTAL					9.69	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.						
	Dia of Bars	No.	Length		Weight per m	Quantity	Unit
a1	16	31	2.86		1.578	139.9	Kg
a2	10	12	5.90		0.616	43.6	Kg
a3	10	2	5.40		0.616	6.7	Kg
a4	10	19	2.78		0.616	32.6	Kg
a5	10	8	5.80		0.616	28.6	Kg
x1	12	42	2.50		0.888	93.2	Kg
x2	16	42	1.27		1.578	83.8	Kg
x3	12	24	2.30		0.888	49.0	Kg
	Taking Skin reinforcement @0.3% of M-20	105.45	0.003	0.316	7850.0	2483.4	Kg
	Total Reinforcement Steel (in kg)					2960.9	Kg
	Total Weight in Metric Tonne					2.96	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	1.34		0.450	2.41	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.34		2.224	11.92	Sqm
		4		1.117	2.224	9.94	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4	1.34		0.850	4.56	Sqm
		4		1.934	0.850	6.58	Sqm
	Section 2-2	4	3.75		0.500	7.50	Sqm
		4		0.820	0.500	1.64	Sqm
		4	3.75		0.700	10.50	Sqm
		4		1.030	0.700	2.88	Sqm
		4	3.75		1.850	27.75	Sqm
		4		1.390	1.850	10.29	Sqm
	Section 3-3	4	3.85		0.500	7.70	Sqm
		4		0.820	0.500	1.64	Sqm
		4	3.85		0.500	7.70	Sqm
		4		0.970	0.500	1.94	Sqm
		4	3.85		2.050	31.57	Sqm
		4		1.270	2.050	10.41	Sqm
	Section 5-5	4	2.29		0.450	4.11	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.29		2.224	20.34	Sqm
		4		1.117	2.224	9.94	Sqm
		4	2.29		0.850	7.77	Sqm
		4		1.934	0.850	6.58	Sqm
	Section 6-6	4	1.34		0.450	2.41	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.34		0.500	2.68	Sqm
		4		0.600	0.500	1.20	Sqm
		4	1.34		0.500	2.68	Sqm
		4		0.900	0.500	1.80	Sqm
	Floor	2	0.64		0.750	0.96	Sqm
		2		1.600	0.750	2.40	Sqm
		2	6.50		0.850	11.05	Sqm
		2		1.600	0.850	2.72	Sqm
		2	0.27		0.300	0.16	Sqm
		2		1.600	0.300	0.96	Sqm
		2	0.20		0.550	0.22	Sqm
		2		1.600	0.550	1.76	Sqm
		2	1.15		0.650	1.50	Sqm
		2		1.600	0.650	2.08	Sqm
		2	0.81		1.450	2.36	Sqm
		2		1.600	1.450	4.64	Sqm
	Crest	2	1.20		1.839	4.41	Sqm
		2		1.600	1.839	5.88	Sqm
	Bridge Slab	2	2.40		0.33	1.57	Sqm
		2		5.50	0.33	3.61	Sqm
		1	2.40	5.50		13.20	Sqm
	Dirt Wall	2	0.40		0.30	0.24	Sqm
		2		5.50	0.30	3.30	Sqm
	Toe Wall D/S Portion	2	5.70		0.300	3.42	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	5.40		0.600	6.48	Sqm
		2		0.450	0.600	0.54	Sqm
	Toe Wall for resting Brick Edging	4	1.75		0.150	1.05	Sqm
		4		0.900	0.150	0.54	Sqm
	Toe Wall for resting Brick Edging	4	1.75		0.600	4.20	Sqm
		4		0.300	0.600	0.72	Sqm
	TOTAL					299.28	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	1.75	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	1.000	0.300	0.53	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
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	1.000	0.150	0.53	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	8.14	0.450		3.66	Sqm
	On Abutment Top (Right Side)	1	8.14	0.450		3.66	Sqm
	TOTAL					7.33	Sqm
11	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.						
		1	4.00			4.00	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						
	U/S Floor	1		7.084		7.08	Cum
	Abutment						
	Section 1-1	2	1.47	1.235		3.631	Cum
	Section 2-2	2	3.75	0.412		3.091	Cum
	Section 3-3	2	4.15	0.354		2.937	Cum
	Section 5-5	2	2.33	1.235		5.755	Cum
	Section 6-6	2	0.63	0.354		0.446	Cum
	D/S protection	2					
	Toe wall	2	5.70	0.150	0.600	1.710	Cum
		2	1.75	0.150	0.600	0.315	Cum
	TOTAL					24.97	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 1.828 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.53	1.799	1.223	6.750	Cum
	<i>Section 2-2</i>	2	4.00	1.251	1.223	12.240	Cum
	<i>Section 3-3</i>	2	2.70	1.131	1.023	6.248	Cum
	<i>Section 5-5</i>	2	2.28	1.949	1.223	10.884	Cum
	<i>Section 6-6</i>	2	0.63	1.131	1.023	1.458	Cum
	<i>U/S Key Floor</i>	1	0.65	1.600	0.950	0.988	Cum
	<i>U/S Floor</i>	1	3.00	1.600	3.128	15.014	Cum
	<i>D/S Floor</i>	1	4.00	1.600	1.050	6.720	Cum
		1	3.00	1.600	0.850	4.080	Cum
	<i>D/S Key Floor</i>	1	0.94	1.600	2.100	3.150	Cum
	<i>Toe Wall D/S Portion</i>	1	5.70	0.750	0.900	3.848	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	1.75	0.600	0.750	1.575	Cum
						72.95	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.						
	<i>PCC Below Floor</i>	1	0.54	1.600	0.150	0.13	Cum
		1	0.89	1.600	0.150	0.21	Cum
		1	0.15	1.600	0.150	0.04	Cum
		1	0.35	1.600	0.150	0.08	Cum
		1	5.90	1.600	0.150	1.42	Cum
		1	0.49	1.600	0.150	0.12	Cum
		1	0.89	1.600	0.150	0.21	Cum
		1	2.18	1.600	0.150	0.52	Cum
		1	0.54	1.600	0.150	0.13	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.53	1.799	0.150	0.83	Cum
	<i>Section 2-2</i>	2	4.00	1.251	0.150	1.50	Cum
	<i>Section 3-3</i>	2	2.70	1.131	0.150	0.92	Cum
	<i>Section 5-5</i>	2	2.28	1.949	0.150	1.33	Cum
	<i>Section 6-6</i>	2	0.63	1.131	0.150	0.21	Cum
	<i>Toe Wall D/S Portion</i>	1	5.70	0.750	0.300	1.28	Cum
	<i>Toe Wall D/S Portion</i>	1	5.40	0.450	0.600	1.46	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.75	0.600	0.150	0.32	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.75	0.300	0.600	0.63	Cum
	TOTAL					11.35	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.38	0.450	0.450	0.56	Cum
		2	1.38	0.975	1.749	4.72	Cum
		2	1.38	1.649	0.550	2.51	Cum
	<i>Section 2-2</i>	2	4.00	0.450	0.450	1.62	Cum
		2	4.00	0.701	0.835	4.68	Cum
		2	4.00	1.101	0.550	4.84	Cum
	<i>Section 3-3</i>	2	2.40	0.450	0.450	0.97	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	2.40	0.641	0.635	1.95	Cum
		2	2.40	0.981	0.500	2.35	Cum
	Section 5-5	2	2.25	0.450	0.450	0.91	Cum
		2	2.25	0.975	1.749	7.66	Cum
		2	2.25	1.649	0.500	3.71	Cum
	Section 6-6	2	1.34	0.450	0.450	0.54	Cum
		2	1.34	0.641	0.635	1.09	Cum
		2	1.34	0.981	0.500	1.31	Cum
	Floor	1	0.65	1.600	0.800	0.83	Cum
		1	1.16	1.600	0.700	1.30	Cum
		1	0.25	1.600	0.825	0.33	Cum
		1	5.60	1.600	0.950	8.51	Cum
		1	0.20	1.600	0.700	0.22	Cum
		1	0.36	1.600	0.350	0.20	Cum
		1	2.80	1.600	0.800	3.58	Cum
		1	0.94	1.600	1.950	2.93	Cum
	Crest	1	1.25	1.600	2.143	4.28	Cum
	TOTAL					61.63	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	1.600	0.150	0.22	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	12.55	0.450	0.050	0.28	Cum
	On Abutment Top (Right Side)	1	12.55	0.450	0.050	0.28	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	61.63	0.00	0.185	7850.0	1451.42	Kg
	Total Weight in Metric Tonne					1.45	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	1.38		0.450	2.49	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.38		1.749	9.69	Sqm
		4		0.975	1.749	6.82	Sqm
		4	1.38		0.550	3.05	Sqm
		4		1.649	0.550	3.63	Sqm
	Section 2-2	4	4.00		0.450	7.20	Sqm
		4		0.450	0.450	0.81	Sqm
		4	4.00		0.835	13.36	Sqm
		4		0.701	0.835	2.34	Sqm
		4	4.00		0.550	8.80	Sqm
		4		1.101	0.550	2.42	Sqm
	Section 3-3	4	2.40		0.450	4.32	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.40		0.635	6.10	Sqm
		4		0.641	0.635	1.63	Sqm
		4	2.40		0.500	4.80	Sqm
		4		0.981	0.500	1.96	Sqm
	Section 5-5	4	2.25		0.450	4.05	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.25		1.749	15.73	Sqm
		4		0.975	1.749	6.82	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4	2.25		0.500	4.50	Sqm
		4		1.649	0.500	3.30	Sqm
	Section 6-6	4	1.34		0.450	2.41	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.34		0.635	3.40	Sqm
		4		0.641	0.635	1.63	Sqm
		4	1.34		0.500	2.68	Sqm
		4		0.981	0.500	1.96	Sqm
	Floor	2	0.65		0.800	1.04	Sqm
		2		1.600	0.800	2.56	Sqm
		2	1.16		0.700	1.63	Sqm
		2		1.600	0.700	2.24	Sqm
		2	5.60		0.950	10.64	Sqm
		2		1.600	0.950	3.04	Sqm
		2	0.20		0.700	0.28	Sqm
		2		1.600	0.700	2.24	Sqm
		2	0.36		0.350	0.25	Sqm
		2		1.600	0.350	1.12	Sqm
		2	2.80		0.800	4.48	Sqm
		2		1.600	0.800	2.56	Sqm
		2	0.94		1.950	3.66	Sqm
		2		1.600	1.950	6.24	Sqm
	Crest	2	1.25		2.143	5.35	Sqm
		2		1.600	2.143	6.86	Sqm
	Toe Wall D/S Portion	2	5.70		0.300	3.42	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	5.40		0.600	6.48	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					200.52	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	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	1.000	0.300	0.53	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	1.000	0.150	0.53	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	12.55	0.450		5.65	Sqm
	On Abutment Top (Right Side)	1	12.55	0.450		5.65	Sqm
	TOTAL					11.29	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1	10.056			10.06	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.53	0.790		2.424	Cum
	<i>Section 2-2</i>	2	4.00	0.753		6.023	Cum
	<i>Section 3-3</i>	2	2.70	0.615		3.321	Cum
	<i>Section 5-5</i>	2	2.28	0.790		3.608	Cum
	<i>Section 6-6</i>	2	0.63	0.615		0.775	Cum
	<i>Toe wall</i>	2	5.70	0.150	0.600	1.710	Cum
		2	1.75	0.150	0.600	0.315	Cum
	TOTAL					28.23	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH.2.100 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	0.95	1.444	1.372	3.746	Cum
	<i>Section 2-2</i>	2	2.00	1.140	1.372	6.256	Cum
	<i>Section 3-3</i>	2	2.60	1.020	1.172	6.216	Cum
	<i>Section 5-5</i>	2	2.46	1.594	1.372	10.751	Cum
	<i>Section 6-6</i>	2	0.96	1.020	1.172	2.283	Cum
	<i>U/S Key Floor</i>	1	0.63	1.400	0.850	0.744	Cum
	<i>U/S Floor</i>	1	1.60	1.400	1.307	2.928	Cum
	<i>D/S Floor</i>	1	2.00	1.400	0.850	2.380	Cum
		1	2.90	1.400	0.650	2.639	Cum
	<i>D/S Key Floor</i>	1	0.63	1.400	0.850	0.744	Cum
	<i>Toe Wall D/S Portion</i>	1	5.35	0.750	0.900	3.611	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	1.75	0.600	0.750	1.575	Cum
						43.87	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.						
	<i>PCC Below Floor</i>	1	0.54	1.400	0.150	0.11	Cum
		1	0.78	1.400	0.150	0.16	Cum
		1	2.98	1.400	0.150	0.63	Cum
		1	0.28	1.400	0.150	0.06	Cum
		1	1.54	1.400	0.150	0.32	Cum
		1	0.78	1.400	0.150	0.16	Cum
		1	0.54	1.400	0.150	0.11	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	0.95	1.444	0.150	0.41	Cum
	<i>Section 2-2</i>	2	2.00	1.140	0.150	0.68	Cum
	<i>Section 3-3</i>	2	2.60	1.020	0.150	0.80	Cum
	<i>Section 5-5</i>	2	2.46	1.594	0.150	1.18	Cum
	<i>Section 6-6</i>	2	0.96	1.020	0.150	0.29	Cum
	<i>Toe Wall D/S Portion</i>	1	5.35	0.750	0.300	1.20	Cum
	<i>Toe Wall D/S Portion</i>	1	5.05	0.450	0.600	1.36	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.75	0.600	0.150	0.32	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.75	0.300	0.600	0.63	Cum
	TOTAL					8.43	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	0.80	0.450	0.450	0.32	Cum
		2	0.80	0.797	1.157	1.47	Cum
		2	0.80	1.294	0.500	1.03	Cum
	<i>Section 2-2</i>	2	2.00	0.450	0.450	0.81	Cum
		2	2.00	0.645	0.650	1.68	Cum
		2	2.00	0.990	0.500	1.98	Cum
	<i>Section 3-3</i>	2	2.32	0.450	0.450	0.94	Cum
		2	2.32	0.585	0.450	1.22	Cum
		2	2.32	0.870	0.500	2.01	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section 5-5	2	2.42	0.450	0.450	0.98	Cum
		2	2.42	0.797	1.157	4.46	Cum
		2	2.42	1.294	0.500	3.13	Cum
	Section 6-6	2	1.47	0.450	0.450	0.59	Cum
		2	1.47	0.585	0.450	0.77	Cum
		2	1.47	0.870	0.500	1.27	Cum
	Floor	1	0.63	1.400	0.700	0.61	Cum
		1	3.60	1.400	0.500	2.52	Cum
		1	0.31	1.400	0.200	0.09	Cum
		1	0.20	1.400	0.400	0.11	Cum
		1	2.70	1.400	0.500	1.89	Cum
		1	0.63	1.400	0.700	0.61	Cum
	Crest	1	0.72	1.400	0.767	0.77	Cum
	TOTAL					29.27	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	0.60	1.400	0.150	0.13	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	9.61	0.450	0.050	0.22	Cum
	On Abutment Top (Right Side)	1	9.61	0.450	0.050	0.22	Cum
	TOTAL					0.56	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	29.27	0.00	0.088	7850.0	689.40	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	0.80		0.450	1.43	Sqm
		4		0.450	0.450	0.81	Sqm
		4	0.80		1.157	3.68	Sqm
		4		0.797	1.157	3.69	Sqm
		4	0.80		0.500	1.59	Sqm
		4		1.294	0.500	2.59	Sqm
	Section 2-2	4	2.00		0.450	3.60	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.00		0.650	5.20	Sqm
		4		0.645	0.650	1.68	Sqm
		4	2.00		0.500	4.00	Sqm
		4		0.990	0.500	1.98	Sqm
	Section 3-3	4	2.32		0.450	4.17	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.32		0.450	4.17	Sqm
		4		0.585	0.450	1.05	Sqm
		4	2.32		0.500	4.63	Sqm
		4		0.870	0.500	1.74	Sqm
	Section 5-5	4	2.42		0.450	4.35	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.42		1.157	11.20	Sqm
		4		0.797	1.157	3.69	Sqm
		4	2.42		0.500	4.84	Sqm
		4		1.294	0.500	2.59	Sqm
	Section 6-6	4	1.47		0.450	2.64	Sqm
		4		0.450	0.450	0.81	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4	1.47		0.450	2.64	Sqm
		4		0.585	0.450	1.05	Sqm
		4	1.47		0.500	2.93	Sqm
		4		0.870	0.500	1.74	Sqm
	Floor	2	0.63		0.700	0.88	Sqm
		2		1.400	0.700	1.96	Sqm
		2	3.60		0.500	3.60	Sqm
		2		1.400	0.500	1.40	Sqm
		2	0.31		0.200	0.12	Sqm
		2		1.400	0.200	0.56	Sqm
		2	0.20		0.400	0.16	Sqm
		2		1.400	0.400	1.12	Sqm
		2	2.70		0.500	2.70	Sqm
		2		1.400	0.500	1.40	Sqm
		2	0.63		0.700	0.88	Sqm
		2		1.400	0.700	1.96	Sqm
	Crest	2	0.72		0.767	1.10	Sqm
		2		1.400	0.767	2.15	Sqm
	Toe Wall D/S Portion	2	5.35		0.300	3.21	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	5.05		0.600	6.06	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					123.48	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.						
	<i>In D/S Portion On Slopes</i>	2	1.75	1.961		6.86	Sqm
	TOTAL					6.86	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	<i>In D/S Portion</i>	1	1.75	0.800	0.300	0.42	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	0.800	0.150	0.42	Cum
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>On Abutment Top (Left Side)</i>	1	9.61	0.450		4.32	Sqm
	<i>On Abutment Top (Right Side)</i>	1	9.61	0.450		4.32	Sqm
	TOTAL					8.65	Sqm
11	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.						
		1	4.00			4.00	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						
	<i>Under U/S floor</i>	1	0.887			0.89	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	0.95	0.447		0.845	Cum
	<i>Section 2-2</i>	2	2.00	0.446		1.784	Cum
	<i>Section 3-3</i>	2	2.60	0.426		2.214	Cum
	<i>Section 5-5</i>	2	2.46	0.447		2.197	Cum
	<i>Section 6-6</i>	2	0.96	0.426		0.813	Cum
	<i>Toe wall</i>	2	5.35	0.150	0.600	1.605	Cum
		2	1.75	0.150	0.600	0.315	Cum
	TOTAL					10.66	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 1.828 METER AT CH. 2.215 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.52	2.237	2.403	16.358	Cum
	<i>Section 2-2</i>	2	3.50	1.618	2.403	27.216	Cum
	<i>Section 3-3</i>	2	4.20	1.498	2.203	27.721	Cum
	<i>Section 5-5</i>	2	2.40	2.387	2.403	27.584	Cum
	<i>Section 6-6</i>	2	0.17	0.978	2.203	0.720	Cum
	<i>U/S Key Floor</i>	1	0.82	5.500	0.450	2.030	Cum
	<i>U/S Floor</i>	1	3.25	5.500	3.128	55.913	Cum
	<i>D/S Floor</i>	1	1.83	5.500	1.300	13.085	Cum
		1	2.00	1.100	0.950	2.090	Cum
		1	2.50	1.100	0.850	2.338	Cum
	<i>D/S Key Floor</i>	1	0.90	5.500	1.950	9.653	Cum
	<i>Toe Wall D/S Portion</i>	1	4.84	0.750	0.900	3.267	Cum
	<i>Boulder Pitching (D/S Portion)</i>	1	1.50	0.900	0.750	1.013	Cum
						188.99	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.						
	<i>PCC Below Floor</i>	1	0.54	1.100	0.150	0.09	Cum
		1	0.89	1.100	0.150	0.15	Cum
		1	0.42	1.100	0.150	0.07	Cum
		1	0.35	1.100	0.150	0.06	Cum
		1	5.65	1.100	0.150	0.93	Cum
		1	0.49	1.100	0.150	0.08	Cum
		1	1.20	1.100	0.150	0.20	Cum
		1	0.14	1.100	0.150	0.02	Cum
		1	0.90	1.100	0.150	0.15	Cum
		1	2.11	1.100	0.150	0.35	Cum
		1	0.54	1.100	0.150	0.09	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.52	2.237	0.150	1.02	Cum
	<i>Section 2-2</i>	2	3.50	1.618	0.150	1.70	Cum
	<i>Section 3-3</i>	2	4.20	1.498	0.150	1.89	Cum
	<i>Section 5-5</i>	2	2.40	2.387	0.150	1.72	Cum
	<i>Section 6-6</i>	2	0.17	0.978	0.150	0.05	Cum
	<i>Toe Wall D/S Portion</i>	1	4.84	0.750	0.300	1.09	Cum
	<i>Toe Wall D/S Portion</i>	1	4.54	0.450	0.600	1.23	Cum
	<i>Toe Wall for resting Brick Edging</i>	1	1.50	0.900	0.150	0.20	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.50	0.300	0.600	0.54	Cum
	TOTAL					11.62	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.37	0.450	0.450	0.56	Cum
		2	1.37	1.194	2.478	8.11	Cum
		2	1.37	2.087	0.700	4.01	Cum
	<i>Section 2-2</i>	2	3.50	0.820	0.500	2.87	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	3.50	0.994	0.580	4.04	Cum
		2	3.50	1.318	2.300	21.22	Cum
	Section 3-3	2	4.05	0.820	0.500	3.32	Cum
		2	4.05	0.934	0.380	2.87	Cum
		2	4.05	1.198	2.500	24.26	Cum
	Section 5-5	2	2.36	0.450	0.450	0.95	Cum
		2	2.36	1.194	2.478	13.94	Cum
		2	2.36	2.087	0.700	6.89	Cum
	Section 6-6	2	0.94	0.450	0.450	0.38	Cum
		2	0.94	0.564	0.380	0.40	Cum
		2	0.94	0.828	0.700	1.09	Cum
	deduction for M 25 grade of concrete	2	0.82	5.500	0.300	-2.71	Cum
	Floor	1	0.65	1.100	0.800	0.57	Cum
		1	1.42	1.100	0.700	1.09	Cum
		1	0.20	1.100	0.825	0.18	Cum
		1	5.08	1.100	0.950	5.31	Cum
		1	0.62	1.100	0.350	0.24	Cum
		1	0.20	1.100	0.700	0.15	Cum
		1	1.80	1.100	0.800	1.58	Cum
		1	0.10	1.100	0.750	0.08	Cum
		1	2.40	1.100	0.700	1.85	Cum
		1	0.90	1.100	1.800	1.78	Cum
	Crest	1	1.24	1.100	2.088	2.85	Cum
	TOTAL					107.90	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	1.100	0.150	0.15	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	7.95	0.450	0.050	0.18	Cum
	On Abutment Top (Right Side)	1	7.95	0.450	0.050	0.18	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 pedestal	2	0.82	5.500	0.300	2.71	Cum
	TOTAL					8.56	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.						
	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	5.85		0.616	25.2	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	107.90	0.003	0.324	7850.0	2541.1	Kg
	Total Reinforcement Steel (in kg)					2944.7	Kg
	Total Weight in Metric Tonne					2.94	MT
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section 1-1	4	1.37		0.450	2.47	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.37		2.478	13.59	Sqm
		4		1.194	2.478	11.83	Sqm
		4	1.37		0.700	3.84	Sqm
		4		2.087	0.700	5.84	Sqm
	Section 2-2	4	3.50		0.500	7.00	Sqm
		4		0.820	0.500	1.64	Sqm
		4	3.50		0.580	8.12	Sqm
		4		0.994	0.580	2.31	Sqm
		4	3.50		2.300	32.20	Sqm
		4		1.318	2.300	12.13	Sqm
	Section 3-3	4	4.05		0.500	8.10	Sqm
		4		0.820	0.500	1.64	Sqm
		4	4.05		0.380	6.16	Sqm
		4		0.934	0.380	1.42	Sqm
		4	4.05		2.500	40.50	Sqm
		4		1.198	2.500	11.98	Sqm
	Section 5-5	4	2.36		0.450	4.24	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.36		2.478	23.36	Sqm
		4		1.194	2.478	11.83	Sqm
		4	2.36		0.700	6.60	Sqm
		4		2.087	0.700	5.84	Sqm
	Section 6-6	4	0.94		0.450	1.70	Sqm
		4		0.450	0.450	0.81	Sqm
		4	0.94		0.380	1.43	Sqm
		4		0.564	0.380	0.86	Sqm
		4	0.94		0.700	2.64	Sqm
		4		0.828	0.700	2.32	Sqm
	Floor	2	0.65		0.800	1.04	Sqm
		2		1.100	0.800	1.76	Sqm
		2	1.42		0.700	1.99	Sqm
		2		1.100	0.700	1.54	Sqm
		2	0.20		0.825	0.33	Sqm
		2		1.100	0.825	1.82	Sqm
		2	5.08		0.950	9.65	Sqm
		2		1.100	0.950	2.09	Sqm
		2	0.62		0.350	0.44	Sqm
		2		1.100	0.350	0.77	Sqm
		2	0.20		0.700	0.28	Sqm
		2		1.100	0.700	1.54	Sqm
		2	1.80		0.800	2.88	Sqm
		2		1.100	0.800	1.76	Sqm
		2	0.90		1.800	3.24	Sqm
		2		1.100	1.800	3.96	Sqm
	Crest	2	1.24		2.088	5.18	Sqm
		2		1.100	2.088	4.59	Sqm
	Bridge Slab	2	1.90		0.33	1.25	Sqm
		2		5.50	0.33	3.61	Sqm
		1	1.90	5.50		10.45	Sqm
	Dirt Wall	2	0.40		0.30	0.24	Sqm
		2		5.50	0.30	3.30	Sqm
	Toe Wall D/S Portion	2	4.84		0.300	2.90	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	4.54		0.600	5.45	Sqm
		2		0.450	0.600	0.54	Sqm
	Toe Wall for resting Brick Edging	4	1.50		0.150	0.90	Sqm
		4		0.900	0.150	0.54	Sqm
	Toe Wall for resting Brick Edging	4	1.50		0.600	3.60	Sqm
		4		0.300	0.600	0.72	Sqm
	TOTAL					312.81	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.						
	<i>In D/S Portion On Slopes</i>	2	1.50	1.835		5.51	Sqm
	TOTAL					5.51	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	<i>In D/S Portion</i>	1	1.50	0.500	0.300	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	0.500	0.150	0.23	Cum
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>On Abutment Top (Left Side)</i>	1	7.95	0.450		3.58	Sqm
	<i>On Abutment Top (Right Side)</i>	1	7.95	0.450		3.58	Sqm
	TOTAL					7.16	Sqm
11	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.						
		1	4.00			4.00	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						
	<i>U/S Floor</i>	1		10.906		10.91	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.52	1.294		3.938	Cum
	<i>Section 2-2</i>	2	3.50	0.315		2.205	Cum
	<i>Section 3-3</i>	2	4.20	0.315		2.646	Cum
	<i>Section 5-5</i>	2	2.40	1.294		6.223	Cum
	<i>Section 6-6</i>	2	0.17	0.315		0.105	Cum
	<i>D/S protection</i>	2					
	<i>Toe wall</i>	2	4.84	0.150	0.600	1.452	Cum
		2	1.50	0.150	0.600	0.270	Cum
	TOTAL					27.74	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 2.134 METER AT CH.2.525 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.59	2.378	2.107	15.948	Cum
	<i>Section 2-2</i>	2	4.00	1.098	2.107	18.508	Cum
	<i>Section 3-3</i>	2	5.20	0.978	1.907	19.396	Cum
	<i>Section 5-5</i>	2	2.01	2.528	2.107	21.460	Cum
	<i>Section 6-6</i>	2	0.89	0.978	1.907	3.327	Cum
	<i>U/S Key Floor</i>	1	0.63	1.100	0.850	0.584	Cum
	<i>U/S Floor</i>	1	4.00	1.100	3.548	15.611	Cum
	<i>D/S Floor</i>	1	4.00	1.100	1.450	6.380	Cum
		1	5.30	1.100	1.250	7.288	Cum
	<i>D/S Key Floor</i>	1	3.40	1.100	0.950	3.553	Cum
	<i>Toe Wall D/S Portion</i>	1	4.84	0.750	0.900	3.267	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	1.50	0.600	0.750	1.350	Cum
						116.67	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.						
	<i>PCC Below Floor</i>	1	0.54	1.100	0.150	0.09	Cum
		1	0.78	1.100	0.150	0.13	Cum
		1	1.07	1.100	0.150	0.18	Cum
		1	0.42	1.100	0.150	0.07	Cum
		1	6.25	1.100	0.150	1.03	Cum
		1	0.57	1.100	0.150	0.09	Cum
		1	1.15	1.100	0.150	0.19	Cum
		1	0.14	1.100	0.150	0.02	Cum
		1	1.82	1.100	0.150	0.30	Cum
		1	2.18	1.100	0.150	0.36	Cum
		1	0.54	1.100	0.150	0.09	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.59	2.378	0.150	1.14	Cum
	<i>Section 2-2</i>	2	4.00	1.098	0.150	1.32	Cum
	<i>Section 3-3</i>	2	5.20	0.978	0.150	1.53	Cum
	<i>Section 5-5</i>	2	2.01	2.528	0.150	1.53	Cum
	<i>Section 6-6</i>	2	0.89	0.978	0.150	0.26	Cum
	<i>Toe Wall D/S Portion</i>	1	4.84	0.750	0.300	1.09	Cum
	<i>Toe Wall D/S Portion</i>	1	4.54	0.450	0.600	1.23	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.50	0.600	0.150	0.27	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.50	0.300	0.600	0.54	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.44	0.450	0.450	0.58	Cum
		2	1.44	1.264	2.714	9.89	Cum
		2	1.44	2.228	1.100	7.07	Cum
	<i>Section 2-2</i>	2	4.00	0.450	0.450	1.62	Cum
		2	4.00	0.624	0.580	2.90	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	4.00	0.948	1.100	8.34	Cum
	Section 3-3	2	4.94	0.450	0.450	2.00	Cum
		2	4.94	0.564	0.380	2.12	Cum
		2	4.94	0.828	0.900	7.36	Cum
	Section 5-5	2	1.97	0.450	0.450	0.80	Cum
		2	1.97	1.264	2.714	13.52	Cum
		2	1.97	2.228	0.800	7.02	Cum
	Section 6-6	2	1.38	0.450	0.450	0.56	Cum
		2	1.38	0.564	0.380	0.59	Cum
		2	1.38	0.828	0.800	1.83	Cum
	Floor	1	0.63	1.100	0.700	0.48	Cum
		1	2.02	1.100	0.800	1.78	Cum
		1	0.30	1.100	0.950	0.31	Cum
		1	5.68	1.100	1.100	6.87	Cum
		1	0.65	1.100	0.400	0.29	Cum
		1	0.20	1.100	0.800	0.18	Cum
		1	1.80	1.100	0.900	1.78	Cum
		1	0.10	1.100	0.850	0.09	Cum
		1	3.40	1.100	0.800	2.99	Cum
		1	0.94	1.100	1.950	2.01	Cum
	Crest	1	1.29	1.100	2.404	3.41	Cum
	TOTAL					86.38	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	1.100	0.150	0.15	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	14.69	0.450	0.050	0.33	Cum
	On Abutment Top (Right Side)	1	14.69	0.450	0.050	0.33	Cum
	TOTAL					0.81	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	86.38	0.00	0.259	7850.0	2034.35	Kg
	Total Weight in Metric Tonne					2.03	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	1.44		0.450	2.59	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.44		2.714	15.65	Sqm
		4		1.264	2.714	13.72	Sqm
		4	1.44		1.100	6.34	Sqm
		4		2.228	1.100	9.80	Sqm
	Section 2-2	4	4.00		0.450	7.20	Sqm
		4		0.450	0.450	0.81	Sqm
		4	4.00		0.580	9.28	Sqm
		4		0.624	0.580	1.45	Sqm
		4	4.00		1.100	17.60	Sqm
		4		0.948	1.100	4.17	Sqm
	Section 3-3	4	4.94		0.450	8.88	Sqm
		4		0.450	0.450	0.81	Sqm
		4	4.94		0.380	7.50	Sqm
		4		0.564	0.380	0.86	Sqm
		4	4.94		0.900	17.77	Sqm
		4		0.828	0.900	2.98	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section 5-5	4	1.97		0.450	3.55	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.97		2.714	21.39	Sqm
		4		1.264	2.714	13.72	Sqm
		4	1.97		0.800	6.31	Sqm
		4		2.228	0.800	7.13	Sqm
	Section 6-6	4	1.38		0.450	2.49	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.38		0.380	2.10	Sqm
		4		0.564	0.380	0.86	Sqm
		4	1.38		0.800	4.42	Sqm
		4		0.828	0.800	2.65	Sqm
	Floor	2	0.63		0.700	0.88	Sqm
		2		1.100	0.700	1.54	Sqm
		2	2.02		0.800	3.24	Sqm
		2		1.100	0.800	1.76	Sqm
		2	0.30		0.950	0.57	Sqm
		2		1.100	0.950	2.09	Sqm
		2	5.68		1.100	12.49	Sqm
		2		1.100	1.100	2.42	Sqm
		2	0.65		0.400	0.52	Sqm
		2		1.100	0.400	0.88	Sqm
		2	0.20		0.800	0.32	Sqm
		2		1.100	0.800	1.76	Sqm
		2	1.80		0.900	3.24	Sqm
		2		1.100	0.900	1.98	Sqm
		2	0.10		0.850	0.17	Sqm
		2		1.100	0.850	1.87	Sqm
		2	3.40		0.800	5.44	Sqm
		2		1.100	0.800	1.76	Sqm
		2	0.94		1.950	3.66	Sqm
		2		1.100	1.950	4.29	Sqm
	Crest	2	1.29		2.404	6.20	Sqm
		2		1.100	2.404	5.29	Sqm
	Toe Wall D/S Portion	2	4.84		0.300	2.90	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	4.54		0.600	5.45	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					271.74	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	1.50	1.835		5.51	Sqm
	TOTAL					5.51	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	1	1.50	0.500	0.300	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	0.500	0.150	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	14.69	0.450		6.61	Sqm
	On Abutment Top (Right Side)	1	14.69	0.450		6.61	Sqm
	TOTAL					13.22	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
11	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.						
		1	4.00			4.00	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						
	<i>Under U/S floor</i>	1	17.273			17.27	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.59	0.425		1.353	Cum
	<i>Section 2-2</i>	2	4.00	0.425		3.400	Cum
	<i>Section 3-3</i>	2	5.20	0.491		5.110	Cum
	<i>Section 5-5</i>	2	2.01	0.425		1.712	Cum
	<i>Section 6-6</i>	2	0.89	0.491		0.876	Cum
	<i>Toe wall</i>	2	4.84	0.150	0.600	1.452	Cum
		2	1.50	0.150	0.600	0.270	Cum
	TOTAL					31.45	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH.2.810 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.37	1.964	1.621	8.723	Cum
	<i>Section 2-2</i>	2	3.00	1.050	1.621	10.212	Cum
	<i>Section 3-3</i>	2	2.55	0.930	1.421	6.740	Cum
	<i>Section 5-5</i>	2	0.52	2.114	1.621	3.540	Cum
	<i>Section 6-6</i>	2	0.03	0.930	1.421	0.079	Cum
	<i>U/S Key Floor</i>	1	0.68	0.800	1.050	0.567	Cum
	<i>U/S Floor</i>	1	3.00	0.800	2.624	6.298	Cum
	<i>D/S Floor</i>	1	3.00	0.800	0.950	2.280	Cum
		1	3.00	0.800	0.750	1.800	Cum
	<i>D/S Key Floor</i>	1	0.74	0.800	1.900	1.121	Cum
						41.36	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.						
	<i>PCC Below Floor</i>	1	0.54	0.800	0.150	0.07	Cum
		1	1.01	0.800	0.150	0.12	Cum
		1	0.42	0.800	0.150	0.05	Cum
		1	0.21	0.800	0.150	0.03	Cum
		1	4.64	0.800	0.150	0.56	Cum
		1	0.49	0.800	0.150	0.06	Cum
		1	1.32	0.800	0.150	0.16	Cum
		1	1.29	0.800	0.150	0.15	Cum
		1	0.54	0.800	0.150	0.07	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.37	1.964	0.150	0.81	Cum
	<i>Section 2-2</i>	2	3.00	1.050	0.150	0.95	Cum
	<i>Section 3-3</i>	2	2.55	0.930	0.150	0.71	Cum
	<i>Section 5-5</i>	2	0.52	2.114	0.150	0.33	Cum
	<i>Section 6-6</i>	2	0.03	0.930	0.150	0.01	Cum
	TOTAL					4.06	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.22	0.450	0.450	0.49	Cum
		2	1.22	1.057	2.024	5.22	Cum
		2	1.22	1.814	0.750	3.32	Cum
	<i>Section 2-2</i>	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	0.700	3.78	Cum
	<i>Section 3-3</i>	2	2.55	0.450	0.450	1.03	Cum
		2	2.55	0.540	0.300	0.83	Cum
		2	2.55	0.780	0.600	2.39	Cum
	<i>Section 5-5</i>	2	0.47	0.450	0.450	0.19	Cum
		2	0.47	1.057	2.024	2.02	Cum
		2	0.47	1.814	0.600	1.03	Cum
	<i>Section 6-6</i>	2	0.03	0.450	0.450	0.01	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	0.03	0.540	0.300	0.01	Cum
		2	0.03	0.780	0.600	0.03	Cum
	Floor	1	0.68	0.800	0.900	0.49	Cum
		1	1.48	0.800	0.600	0.71	Cum
		1	0.15	0.800	0.675	0.08	Cum
		1	4.37	0.800	0.750	2.62	Cum
		1	0.20	0.800	0.500	0.08	Cum
		1	0.35	0.800	0.323	0.09	Cum
		1	2.80	0.800	0.600	1.34	Cum
		1	0.74	0.800	1.750	1.03	Cum
	Crest	1	1.09	0.800	2.143	1.86	Cum
	TOTAL					31.67	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	0.800	0.150	0.10	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	8.21	0.450	0.050	0.18	Cum
	On Abutment Top (Right Side)	1	8.21	0.450	0.050	0.18	Cum
	TOTAL					0.47	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	31.67	0.00	0.095	7850.0	745.80	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	1.22		0.450	2.20	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.22		2.024	9.87	Sqm
		4		1.057	2.024	8.56	Sqm
		4	1.22		0.750	3.66	Sqm
		4		1.814	0.750	5.44	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		0.700	8.40	Sqm
		4		0.900	0.700	2.52	Sqm
	Section 3-3	4	2.55		0.450	4.59	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.55		0.300	3.06	Sqm
		4		0.540	0.300	0.65	Sqm
		4	2.55		0.600	6.12	Sqm
		4		0.780	0.600	1.87	Sqm
	Section 5-5	4	0.47		0.450	0.85	Sqm
		4		0.450	0.450	0.81	Sqm
		4	0.47		2.024	3.83	Sqm
		4		1.057	2.024	8.56	Sqm
		4	0.47		0.600	1.13	Sqm
		4		1.814	0.600	4.35	Sqm
	Section 6-6	4	0.03		0.450	0.05	Sqm
		4		0.450	0.450	0.81	Sqm
		4	0.03		0.300	0.04	Sqm
		4		0.540	0.300	0.65	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4	0.03		0.600	0.07	Sqm
		4		0.780	0.600	1.87	Sqm
	Floor	2	0.68		0.900	1.22	Sqm
		2		0.800	0.900	1.44	Sqm
		2	1.48		0.600	1.77	Sqm
		2		0.800	0.600	0.96	Sqm
		2	4.37		0.750	6.56	Sqm
		2		0.800	0.750	1.20	Sqm
		2	0.20		0.500	0.20	Sqm
		2		0.800	0.500	0.80	Sqm
		2	0.35		0.323	0.23	Sqm
		2		0.800	0.323	0.52	Sqm
		2	2.80		0.600	3.36	Sqm
		2		0.800	0.600	0.96	Sqm
		2	0.74		1.750	2.58	Sqm
		2		0.800	1.750	2.80	Sqm
	Crest	2	1.09		2.143	4.65	Sqm
		2		0.800	2.143	3.43	Sqm
	TOTAL					127.66	Sqm
7	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>On Abutment Top (Left Side)</i>	1	8.21	0.450		3.70	Sqm
	<i>On Abutment Top (Right Side)</i>	1	8.21	0.450		3.70	Sqm
	TOTAL					7.39	Sqm
8	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.						
		1	2.00			2.00	No.
9	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						
	<i>Under U/S floor</i>	1		4.372		4.37	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.37	0.385		1.054	Cum
	<i>Section 2-2</i>	2	3.00	0.403		2.416	Cum
	<i>Section 3-3</i>	2	2.55	0.409		2.086	Cum
	<i>Section 5-5</i>	2	0.52	0.385		0.397	Cum
	<i>Section 6-6</i>	2	0.03	0.409		0.025	Cum
	TOTAL					10.35	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 1.829 METER AT CH. 2.870 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.53	2.148	3.098	20.403	Cum
	<i>Section 2-2</i>	2	3.50	1.570	3.098	34.047	Cum
	<i>Section 3-3</i>	2	3.80	1.450	2.898	31.936	Cum
	<i>Section 5-5</i>	2	0.48	2.298	2.848	6.257	Cum
	<i>Section 6-6</i>	2	0.15	0.930	2.898	0.809	Cum
	<i>U/S Key Floor</i>	1	0.82	5.500	0.450	2.030	Cum
	<i>U/S Floor</i>	1	3.25	5.500	3.113	55.645	Cum
	<i>D/S Floor</i>	1	1.82	5.500	1.300	13.027	Cum
		1	1.75	0.800	0.900	1.260	Cum
		1	2.50	0.800	0.850	1.700	Cum
	<i>D/S Key Floor</i>	1	0.90	5.500	1.950	9.653	Cum
	TOTAL					176.77	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.						
	<i>PCC Below Floor</i>	1	0.54	0.800	0.150	0.07	Cum
		1	0.89	0.800	0.150	0.11	Cum
		1	0.42	0.800	0.150	0.05	Cum
		1	0.35	0.800	0.150	0.04	Cum
		1	5.34	0.800	0.150	0.64	Cum
		1	0.57	0.800	0.150	0.07	Cum
		1	1.20	0.800	0.150	0.14	Cum
		1	0.07	0.800	0.150	0.01	Cum
		1	0.95	0.800	0.150	0.11	Cum
		1	2.01	0.800	0.150	0.24	Cum
		1	0.54	0.800	0.150	0.07	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.53	2.148	0.150	0.99	Cum
	<i>Section 2-2</i>	2	3.50	1.570	0.150	1.65	Cum
	<i>Section 3-3</i>	2	3.80	1.450	0.150	1.65	Cum
	<i>Section 5-5</i>	2	0.48	2.298	0.150	0.33	Cum
	<i>Section 6-6</i>	2	0.15	0.930	0.150	0.04	Cum
	TOTAL					6.21	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.38	0.450	0.450	0.56	Cum
		2	1.38	1.149	2.330	7.41	Cum
		2	1.38	1.998	0.950	5.25	Cum
	<i>Section 2-2</i>	2	3.50	0.820	0.500	2.87	Cum
		2	3.50	0.970	0.500	3.40	Cum
		2	3.50	1.270	2.300	20.45	Cum
	<i>Section 3-3</i>	2	3.80	0.820	0.500	3.12	Cum
		2	3.80	0.910	0.300	2.07	Cum
		2	3.80	1.150	2.500	21.85	Cum
	<i>Section 5-5</i>	2	0.43	0.450	0.450	0.18	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	0.43	1.149	2.330	2.32	Cum
		2	0.43	1.998	0.700	1.21	Cum
	Section 6-6	2	0.15	0.450	0.450	0.06	Cum
		2	0.15	0.540	0.300	0.05	Cum
		2	0.15	0.780	0.700	0.16	Cum
	deduction for M 25 grade of concrete	2	0.82	5.500	0.300	-2.71	Cum
	Floor	1	0.65	0.800	0.800	0.42	Cum
		1	1.43	0.800	0.700	0.80	Cum
		1	0.20	0.800	0.825	0.13	Cum
		1	5.07	0.800	0.950	3.85	Cum
		1	0.35	0.800	0.400	0.11	Cum
		1	0.20	0.800	0.650	0.10	Cum
		1	1.55	0.800	0.750	0.93	Cum
		1	0.05	0.800	0.725	0.03	Cum
		1	2.45	0.800	0.700	1.37	Cum
		1	0.90	0.800	1.800	1.30	Cum
	Crest	1	1.24	0.800	2.065	2.04	Cum
	TOTAL					79.34	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	0.800	0.150	0.11	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	4.63	0.450	0.050	0.10	Cum
	On Abutment Top (Right Side)	1	4.63	0.450	0.050	0.10	Cum
	Slab Bridge						
	Slab	1	1.60	5.500	0.328	2.89	Cum
	Wearing coat	1	1.60	4.500	0.070	0.50	Cum
	Dirt wall	2	0.40	5.500	0.300	1.32	Cum
	300 mm thick pedestal	2	0.82	5.500	0.300	2.71	Cum
	TOTAL					7.73	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.						
	Dia of Bars	No.	Length		Weight per m	Quantity	Unit
a1	16	30	2.06		1.578	97.5	Kg
a2	10	8	5.90		0.616	29.1	Kg
a3	10	2	5.40		0.616	6.7	Kg
a4	10	19	1.98		0.616	23.2	Kg
a5	10	6	5.75		0.616	21.3	Kg
x1	12	24	2.50		0.888	53.3	Kg
x2	12	24	1.27		0.888	27.0	Kg
x3	12	24	1.50		0.888	32.0	Kg
	Taking Skin reinforcement @0.3% of M-20	79.34	0.003	0.238	7850.0	1868.3	Kg
	Total Reinforcement Steel (in kg)					2158.3	Kg
	Total Weight in Metric Tonne					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	1.38		0.450	2.49	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.38		2.330	12.89	Sqm
		4		1.149	2.330	10.71	Sqm
		4	1.38		0.950	5.26	Sqm
		4		1.998	0.950	7.59	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section 2-2	4	3.50		0.500	7.00	Sqm
		4		0.820	0.500	1.64	Sqm
		4	3.50		0.500	7.00	Sqm
		4		0.970	0.500	1.94	Sqm
		4	3.50		2.300	32.20	Sqm
		4		1.270	2.300	11.68	Sqm
	Section 3-3	4	3.80		0.500	7.60	Sqm
		4		0.820	0.500	1.64	Sqm
		4	3.80		0.300	4.56	Sqm
		4		0.910	0.300	1.09	Sqm
		4	3.80		2.500	38.00	Sqm
		4		1.150	2.500	11.50	Sqm
	Section 5-5	4	0.43		0.450	0.78	Sqm
		4		0.450	0.450	0.81	Sqm
		4	0.43		2.330	4.04	Sqm
		4		1.149	2.330	10.71	Sqm
		4	0.43		0.700	1.22	Sqm
		4		1.998	0.700	5.59	Sqm
	Section 6-6	4	0.15		0.450	0.27	Sqm
		4		0.450	0.450	0.81	Sqm
		4	0.15		0.300	0.18	Sqm
		4		0.540	0.300	0.65	Sqm
		4	0.15		0.700	0.42	Sqm
		4		0.780	0.700	2.18	Sqm
	Floor	2	0.65		0.800	1.04	Sqm
		2		0.800	0.800	1.28	Sqm
		2	1.43		0.700	2.00	Sqm
		2		0.800	0.700	1.12	Sqm
		2	0.20		0.825	0.33	Sqm
		2		0.800	0.825	1.32	Sqm
		2	5.07		0.950	9.64	Sqm
		2		0.800	0.950	1.52	Sqm
		2	0.35		0.400	0.28	Sqm
		2		0.800	0.400	0.64	Sqm
		2	0.20		0.650	0.26	Sqm
		2		0.800	0.650	1.04	Sqm
		2	1.55		0.750	2.33	Sqm
		2		0.800	0.750	1.20	Sqm
		2	0.90		1.800	3.24	Sqm
		2		0.800	1.800	2.88	Sqm
	Crest	2	1.24		2.065	5.10	Sqm
		2		0.800	2.065	3.30	Sqm
	Bridge Slab	2	1.60		0.33	1.05	Sqm
		2		5.50	0.33	3.61	Sqm
		1	1.60	5.50		8.80	Sqm
	Dirt Wall	2	0.40		0.30	0.24	Sqm
		2		5.50	0.30	3.30	Sqm
	TOTAL					248.78	Sqm
7	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	1	4.63	0.450		2.09	Sqm
	On Abutment Top (Right Side)	1	4.63	0.450		2.09	Sqm
	TOTAL					4.17	Sqm
8	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.						
		1	4.00			4.00	No.

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
9	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 Floor	1	5.474			5.47	Cum
	Abutment						
	Section 1-1	2	1.53	1.587		4.866	Cum
	Section 2-2	2	3.50	0.438		3.065	Cum
	Section 3-3	2	3.80	0.390		2.964	Cum
	Section 5-5	2	0.48	1.587		1.517	Cum
	Section 6-6	2	0.15	0.390		0.117	Cum
	TOTAL					18.00	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR SALAIYA MR.							
SHARDA TYPE FALL OF HEIGHT 2.134 METER AT CH. 0.030 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.70	2.480	2.201	18.532	Cum
	<i>Section 2-2</i>	2	4.50	1.200	2.201	23.771	Cum
	<i>Section 3-3</i>	2	4.70	1.080	2.001	20.314	Cum
	<i>Section 5-5</i>	2	2.35	2.630	2.201	27.259	Cum
	<i>Section 6-6</i>	2	1.05	1.080	2.001	4.517	Cum
	<i>U/S Key Floor</i>	1	0.52	1.500	0.850	0.663	Cum
	<i>U/S Floor</i>	1	4.50	1.500	3.284	22.167	Cum
	<i>D/S Floor</i>	1	4.50	1.500	1.150	7.763	Cum
		1	1.75	1.500	0.950	2.494	Cum
	<i>D/S Key Floor</i>	1	0.94	1.500	2.100	2.953	Cum
	<i>Toe Wall D/S Portion</i>	1	5.75	0.750	0.900	3.881	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	2.00	0.600	0.750	1.800	Cum
						136.11	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.						
	<i>PCC Below Floor</i>	1	0.54	1.500	0.150	0.12	Cum
		1	0.78	1.500	0.150	0.18	Cum
		1	1.44	1.500	0.150	0.32	Cum
		1	0.42	1.500	0.150	0.10	Cum
		1	6.60	1.500	0.150	1.49	Cum
		1	0.57	1.500	0.150	0.13	Cum
		1	1.18	1.500	0.150	0.26	Cum
		1	0.14	1.500	0.150	0.03	Cum
		1	1.57	1.500	0.150	0.35	Cum
		1	2.18	1.500	0.150	0.49	Cum
		1	0.54	1.500	0.150	0.12	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.70	2.480	0.150	1.26	Cum
	<i>Section 2-2</i>	2	4.50	1.200	0.150	1.62	Cum
	<i>Section 3-3</i>	2	4.70	1.080	0.150	1.52	Cum
	<i>Section 5-5</i>	2	2.35	2.630	0.150	1.86	Cum
	<i>Section 6-6</i>	2	1.05	1.080	0.150	0.34	Cum
	<i>Toe Wall D/S Portion</i>	1	5.75	0.750	0.300	1.29	Cum
	<i>Toe Wall D/S Portion</i>	1	5.45	0.450	0.600	1.47	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	2.00	0.600	0.150	0.36	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	2.00	0.300	0.600	0.72	Cum
	TOTAL					14.04	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.47	0.450	0.450	0.60	Cum
		2	1.47	1.315	2.884	11.17	Cum
		2	1.47	2.330	1.100	7.55	Cum
	<i>Section 2-2</i>	2	4.50	0.450	0.450	1.82	Cum
		2	4.50	0.675	0.750	4.56	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	4.50	1.050	1.100	10.40	Cum
	Section 3-3	2	4.39	0.450	0.450	1.78	Cum
		2	4.39	0.615	0.550	2.97	Cum
		2	4.39	0.930	0.800	6.52	Cum
	Section 5-5	2	2.31	0.450	0.450	0.94	Cum
		2	2.31	1.315	2.884	17.52	Cum
		2	2.31	2.330	0.800	8.61	Cum
	Section 6-6	2	1.51	0.450	0.450	0.61	Cum
		2	1.51	0.615	0.550	1.02	Cum
		2	1.51	0.930	0.800	2.25	Cum
	Floor	1	0.52	1.500	0.700	0.55	Cum
		1	9.00	1.500	0.800	10.80	Cum
		1	6.46	1.500	0.300	2.90	Cum
		1	0.37	1.500	0.400	0.22	Cum
		1	0.20	1.500	0.800	0.24	Cum
		1	1.55	1.500	0.900	2.09	Cum
		1	0.10	1.500	0.850	0.13	Cum
		1	3.15	1.500	0.800	3.78	Cum
		1	0.94	1.500	1.950	2.74	Cum
	Crest	1	1.40	1.500	2.464	5.18	Cum
	TOTAL					106.95	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	1.500	0.150	0.23	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	15.43	0.450	0.050	0.35	Cum
	On Abutment Top (Right Side)	1	15.43	0.450	0.050	0.35	Cum
	TOTAL					0.92	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	106.95	0.00	0.321	7850.0	2518.64	Kg
	Total Weight in Metric Tonne					2.52	MT
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	4	1.47		0.450	2.65	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.47		2.884	16.99	Sqm
		4		1.315	2.884	15.17	Sqm
		4	1.47		1.100	6.48	Sqm
		4		2.330	1.100	10.25	Sqm
	Section 2-2	4	4.50		0.450	8.10	Sqm
		4		0.450	0.450	0.81	Sqm
		4	4.50		0.750	13.50	Sqm
		4		0.675	0.750	2.03	Sqm
		4	4.50		1.100	19.80	Sqm
		4		1.050	1.100	4.62	Sqm
	Section 3-3	4	4.39		0.450	7.89	Sqm
		4		0.450	0.450	0.81	Sqm
		4	4.39		0.550	9.65	Sqm
		4		0.615	0.550	1.35	Sqm
		4	4.39		0.800	14.03	Sqm
		4		0.930	0.800	2.98	Sqm
	Section 5-5	4	2.31		0.450	4.16	Sqm
		4		0.450	0.450	0.81	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4	2.31		2.884	26.65	Sqm
		4		1.315	2.884	15.17	Sqm
		4	2.31		0.800	7.39	Sqm
		4		2.330	0.800	7.46	Sqm
	Section 6-6	4	1.51		0.450	2.72	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.51		0.550	3.32	Sqm
		4		0.615	0.550	1.35	Sqm
		4	1.51		0.800	4.83	Sqm
		4		0.930	0.800	2.98	Sqm
	Floor	2	0.52		0.700	0.73	Sqm
		2		1.500	0.700	2.10	Sqm
		2	9.00		0.800	14.40	Sqm
		2		1.500	0.800	2.40	Sqm
		2	0.37		0.400	0.30	Sqm
		2		1.500	0.400	1.20	Sqm
		2	0.20		0.800	0.32	Sqm
		2		1.500	0.800	2.40	Sqm
		2	1.55		0.900	2.79	Sqm
		2		1.500	0.900	2.70	Sqm
		2	0.94		1.950	3.66	Sqm
		2		1.500	1.950	5.85	Sqm
	Crest	2	1.40		2.464	6.91	Sqm
		2		1.500	2.464	7.39	Sqm
	Toe Wall D/S Portion	2	5.75		0.300	3.45	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	5.45		0.600	6.54	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					286.77	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	2.142		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	0.900	0.300	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	0.900	0.150	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	15.43	0.450		6.95	Sqm
	On Abutment Top (Right Side)	1	15.43	0.450		6.95	Sqm
	TOTAL					13.89	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1	21.568			21.57	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.70	0.722		2.451	Cum
	<i>Section 2-2</i>	2	4.50	0.710		6.390	Cum
	<i>Section 3-3</i>	2	4.70	0.503		4.728	Cum
	<i>Section 5-5</i>	2	2.35	0.677		3.188	Cum
	<i>Section 6-6</i>	2	1.05	0.800		1.671	Cum
	<i>D/S protection</i>	2					
	<i>Toe wall</i>	2	5.75	0.150	0.600	1.725	Cum
		2	2.00	0.150	0.600	0.360	Cum
	TOTAL					42.08	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 0.300 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.15	1.748	2.609	10.480	Cum
	<i>Section 2-2</i>	2	3.00	1.200	2.609	18.785	Cum
	<i>Section 3-3</i>	2	1.70	1.080	2.409	8.846	Cum
	<i>Section 5-5</i>	2	2.51	1.898	2.609	24.819	Cum
	<i>Section 6-6</i>	2	1.05	1.080	2.409	5.438	Cum
	<i>U/S Key Floor</i>	1	0.63	1.500	0.850	0.797	Cum
	<i>U/S Floor</i>	1	2.50	1.500	1.764	6.615	Cum
	<i>D/S Floor</i>	1	3.00	1.500	0.850	3.825	Cum
		1	2.00	1.500	0.650	1.950	Cum
	<i>D/S Key Floor</i>	1	0.68	1.500	1.050	1.063	Cum
	<i>Toe Wall D/S Portion</i>	1	5.75	0.750	0.900	3.881	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	1.75	0.600	0.750	1.575	Cum
						88.07	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.						
	<i>PCC Below Floor</i>	1	0.54	1.500	0.150	0.12	Cum
		1	0.78	1.500	0.150	0.18	Cum
		1	0.39	1.500	0.150	0.09	Cum
		1	0.07	1.500	0.150	0.02	Cum
		1	4.39	1.500	0.150	0.99	Cum
		1	0.35	1.500	0.150	0.08	Cum
		1	0.54	1.500	0.150	0.12	Cum
		1	1.01	1.500	0.150	0.23	Cum
		1	0.54	1.500	0.150	0.12	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.15	1.748	0.150	0.60	Cum
	<i>Section 2-2</i>	2	3.00	1.200	0.150	1.08	Cum
	<i>Section 3-3</i>	2	1.70	1.080	0.150	0.55	Cum
	<i>Section 5-5</i>	2	2.51	1.898	0.150	1.43	Cum
	<i>Section 6-6</i>	2	1.05	1.080	0.150	0.34	Cum
	<i>Toe Wall D/S Portion</i>	1	5.75	0.750	0.300	1.29	Cum
	<i>Toe Wall D/S Portion</i>	1	5.45	0.450	0.600	1.47	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.75	0.600	0.150	0.32	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.75	0.300	0.600	0.63	Cum
	TOTAL					9.65	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	0.92	0.450	0.450	0.37	Cum
		2	0.92	0.949	1.664	2.92	Cum
		2	0.92	1.598	0.550	1.62	Cum
	<i>Section 2-2</i>	2	3.00	0.450	0.450	1.22	Cum
		2	3.00	0.675	0.750	3.04	Cum
		2	3.00	1.050	0.550	3.47	Cum
	<i>Section 3-3</i>	2	1.39	0.450	0.450	0.56	Cum
		2	1.39	0.615	0.550	0.94	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	1.39	0.930	0.500	1.29	Cum
	Section 5-5	2	2.46	0.450	0.450	1.00	Cum
		2	2.46	0.949	1.664	7.78	Cum
		2	2.46	1.598	0.500	3.93	Cum
	Section 6-6	2	1.51	0.450	0.450	0.61	Cum
		2	1.51	0.615	0.550	1.02	Cum
		2	1.51	0.930	0.500	1.40	Cum
	Floor	1	0.63	1.500	0.700	0.66	Cum
		1	5.50	1.500	0.500	4.13	Cum
		1	4.13	1.500	0.050	0.31	Cum
		1	0.28	1.500	0.250	0.11	Cum
		1	0.20	1.500	0.400	0.12	Cum
		1	1.80	1.500	0.500	1.35	Cum
		1	0.68	1.500	0.900	0.91	Cum
	Crest	1	0.90	1.500	1.264	1.71	Cum
	TOTAL					40.45	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	1.500	0.150	0.16	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	10.23	0.450	0.050	0.23	Cum
	On Abutment Top (Right Side)	1	10.23	0.450	0.050	0.23	Cum
	TOTAL					0.62	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	40.45	0.00	0.121	7850.0	952.68	Kg
	Total Weight in Metric Tonne					0.95	MT
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	4	0.92		0.450	1.66	Sqm
		4		0.450	0.450	0.81	Sqm
		4	0.92		1.664	6.15	Sqm
		4		0.949	1.664	6.32	Sqm
		4	0.92		0.550	2.03	Sqm
		4		1.598	0.550	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		0.750	9.00	Sqm
		4		0.675	0.750	2.03	Sqm
		4	3.00		0.550	6.60	Sqm
		4		1.050	0.550	2.31	Sqm
	Section 3-3	4	1.39		0.450	2.49	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.39		0.550	3.05	Sqm
		4		0.615	0.550	1.35	Sqm
		4	1.39		0.500	2.77	Sqm
		4		0.930	0.500	1.86	Sqm
	Section 5-5	4	2.46		0.450	4.43	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.46		1.664	16.39	Sqm
		4		0.949	1.664	6.32	Sqm
		4	2.46		0.500	4.92	Sqm
		4		1.598	0.500	3.20	Sqm
	Section 6-6	4	1.51		0.450	2.72	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4		0.450	0.450	0.81	Sqm
		4	1.51		0.550	3.32	Sqm
		4		0.615	0.550	1.35	Sqm
		4	1.51		0.500	3.02	Sqm
		4		0.930	0.500	1.86	Sqm
	Floor	2	0.63		0.700	0.88	Sqm
		2		1.500	0.700	2.10	Sqm
		2	5.50		0.500	5.50	Sqm
		2		1.500	0.500	1.50	Sqm
		2	4.130		0.050	0.41	Sqm
		2		1.500	0.050	0.15	Sqm
		2	0.28		0.250	0.14	Sqm
		2		1.500	0.250	0.75	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	0.68		0.900	1.22	Sqm
		2		1.500	0.900	2.70	Sqm
	Crest	2	0.90		1.264	2.28	Sqm
		2		1.500	1.264	3.79	Sqm
	Toe Wall D/S Portion	2	5.75		0.300	3.45	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	5.45		0.600	6.54	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					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.						
	<i>In D/S Portion On Slopes</i>	2	1.75	2.142		7.50	Sqm
	TOTAL					7.50	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	<i>In D/S Portion</i>	1	1.75	0.900	0.300	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	1.75	0.900	0.150	0.47	Cum
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>On Abutment Top (Left Side)</i>	1	10.23	0.450		4.61	Sqm
	<i>On Abutment Top (Right Side)</i>	1	10.23	0.450		4.61	Sqm
	TOTAL					9.21	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1	4.598			4.60	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.15	2.934		6.742	<i>Cum</i>
	<i>Section 2-2</i>	2	3.00	1.730		10.380	<i>Cum</i>
	<i>Section 3-3</i>	2	1.70	0.650		2.210	<i>Cum</i>
	<i>Section 5-5</i>	2	2.51	2.934		14.705	<i>Cum</i>
	<i>Section 6-6</i>	2	1.05	0.650		1.359	<i>Cum</i>
	<i>D/S protection</i>	2					
	<i>Toe wall</i>	2	5.75	0.150	0.600	1.725	<i>Cum</i>
		2	1.75	0.150	0.600	0.315	<i>Cum</i>
	TOTAL					42.03	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 0.914 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.13	1.689	1.441	5.483	Cum
	<i>Section 2-2</i>	2	2.50	1.098	1.441	7.911	Cum
	<i>Section 3-3</i>	2	2.45	0.978	1.241	5.947	Cum
	<i>Section 5-5</i>	2	2.55	1.839	1.441	13.534	Cum
	<i>Section 6-6</i>	2	0.89	0.978	1.241	2.165	Cum
	<i>U/S Key Floor</i>	1	0.63	0.750	0.850	0.398	Cum
	<i>U/S Floor</i>	1	2.25	0.750	1.764	2.977	Cum
	<i>D/S Floor</i>	1	2.50	0.750	0.850	1.594	Cum
	<i>D/S Key Floor</i>	1	0.85	0.750	1.750	1.116	Cum
	<i>Toe Wall D/S Portion</i>	1	4.49	0.750	0.900	3.031	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	1.50	0.600	0.750	1.350	Cum
						45.51	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.						
	<i>PCC Below Floor</i>	1	0.54	0.750	0.150	0.06	Cum
		1	0.78	0.750	0.150	0.09	Cum
		1	4.13	0.750	0.150	0.46	Cum
		1	0.28	0.750	0.150	0.03	Cum
		1	1.39	0.750	0.150	0.16	Cum
		1	0.78	0.750	0.150	0.09	Cum
		1	0.54	0.750	0.150	0.06	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.13	1.689	0.150	0.57	Cum
	<i>Section 2-2</i>	2	2.50	1.098	0.150	0.82	Cum
	<i>Section 3-3</i>	2	2.45	0.978	0.150	0.72	Cum
	<i>Section 5-5</i>	2	2.55	1.839	0.150	1.41	Cum
	<i>Section 6-6</i>	2	0.89	0.978	0.150	0.26	Cum
	<i>Toe Wall D/S Portion</i>	1	4.49	0.750	0.300	1.01	Cum
	<i>Toe Wall D/S Portion</i>	1	4.19	0.450	0.600	1.13	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.50	0.600	0.150	0.27	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.50	0.300	0.600	0.54	Cum
	TOTAL					7.69	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	0.90	0.450	0.450	0.37	Cum
		2	0.90	0.919	1.564	2.59	Cum
		2	0.90	1.539	0.500	1.39	Cum
	<i>Section 2-2</i>	2	2.50	0.450	0.450	1.01	Cum
		2	2.50	0.624	0.580	1.81	Cum
		2	2.50	0.948	0.500	2.37	Cum
	<i>Section 3-3</i>	2	2.19	0.450	0.450	0.89	Cum
		2	2.19	0.564	0.380	0.94	Cum
		2	2.19	0.828	0.500	1.81	Cum
	<i>Section 5-5</i>	2	2.51	0.450	0.450	1.02	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	2.51	0.919	1.564	7.21	Cum
		2	2.51	1.539	0.500	3.86	Cum
	Section 6-6	2	1.31	0.450	0.450	0.53	Cum
		2	1.31	0.564	0.380	0.56	Cum
		2	1.31	0.828	0.500	1.08	Cum
	Floor	1	0.63	0.750	0.700	0.33	Cum
		1	4.75	0.750	0.500	1.78	Cum
		1	0.31	0.750	0.200	0.05	Cum
		1	0.20	0.750	0.400	0.06	Cum
		1	2.55	0.750	0.500	0.96	Cum
		1	0.85	0.750	1.600	1.02	Cum
	Crest	1	1.39	0.750	2.145	2.24	Cum
	TOTAL					33.86	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	0.70	0.750	0.150	0.08	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	10.10	0.450	0.050	0.23	Cum
	On Abutment Top (Right Side)	1	10.10	0.450	0.050	0.23	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	33.86	0.00	0.102	7850.0	797.41	Kg
	Total Weight in Metric Tonne					0.80	MT
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	4	0.90		0.450	1.62	Sqm
		4		0.450	0.450	0.81	Sqm
		4	0.90		1.564	5.64	Sqm
		4		0.919	1.564	5.75	Sqm
		4	0.90		0.500	1.80	Sqm
		4		1.539	0.500	3.08	Sqm
	Section 2-2	4	2.50		0.450	4.50	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.50		0.580	5.80	Sqm
		4		0.624	0.580	1.45	Sqm
		4	2.50		0.500	5.00	Sqm
		4		0.948	0.500	1.90	Sqm
	Section 3-3	4	2.19		0.450	3.93	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.19		0.380	3.32	Sqm
		4		0.564	0.380	0.86	Sqm
		4	2.19		0.500	4.37	Sqm
		4		0.828	0.500	1.66	Sqm
	Section 5-5	4	2.51		0.450	4.52	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.51		1.564	15.70	Sqm
		4		0.919	1.564	5.75	Sqm
		4	2.51		0.500	5.02	Sqm
		4		1.539	0.500	3.08	Sqm
	Section 6-6	4	1.31		0.450	2.35	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.31		0.380	1.99	Sqm
		4		0.564	0.380	0.86	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4	1.31		0.500	2.61	Sqm
		4		0.828	0.500	1.66	Sqm
	Floor	2	0.63		0.700	0.88	Sqm
		2		0.750	0.700	1.05	Sqm
		2	4.75		0.500	4.75	Sqm
		2		0.750	0.500	0.75	Sqm
		2	0.31		0.200	0.12	Sqm
		2		0.750	0.200	0.30	Sqm
		2	0.20		0.400	0.16	Sqm
		2		0.750	0.400	0.60	Sqm
		2	2.55		0.500	2.55	Sqm
		2		0.750	0.500	0.75	Sqm
		2	0.85		1.600	2.72	Sqm
		2		0.750	1.600	2.40	Sqm
	Crest	2	1.39		2.145	5.97	Sqm
		2		0.750	2.145	3.22	Sqm
	Toe Wall D/S Portion	2	4.49		0.300	2.69	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	4.19		0.600	5.03	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					138.76	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.						
	<i>In D/S Portion On Slopes</i>	2	1.50	1.835		5.51	Sqm
	TOTAL					5.51	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	<i>In D/S Portion</i>	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.						
	<i>On Abutment Top (Left Side)</i>	1	10.10	0.450		4.55	Sqm
	<i>On Abutment Top (Right Side)</i>	1	10.10	0.450		4.55	Sqm
	TOTAL					9.09	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1	2.600			2.60	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.13	0.500		1.127	<i>Cum</i>
	<i>Section 2-2</i>	2	2.50	0.487		2.435	<i>Cum</i>
	<i>Section 3-3</i>	2	2.45	0.344		1.686	<i>Cum</i>
	<i>Section 5-5</i>	2	2.55	0.500		2.554	<i>Cum</i>
	<i>Section 6-6</i>	2	0.89	0.344		0.614	<i>Cum</i>
	<i>D/S protection</i>	2					
	<i>Toe wall</i>	2	4.49	0.150	0.600	1.347	<i>Cum</i>
		2	1.50	0.150	0.600	0.270	<i>Cum</i>
	TOTAL					12.63	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR DHAMANI SUB-DY.							
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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.33	2.082	1.545	8.553	Cum
	<i>Section 2-2</i>	2	4.00	1.350	1.545	16.686	Cum
	<i>Section 3-3</i>	2	3.20	1.230	1.345	10.588	Cum
	<i>Section 5-5</i>	2	2.97	2.232	1.545	20.463	Cum
	<i>Section 6-6</i>	2	1.27	1.230	1.345	4.202	Cum
	<i>U/S Key Floor</i>	1	0.66	3.300	1.000	2.186	Cum
	<i>U/S Floor</i>	1	3.50	3.300	2.320	26.796	Cum
	<i>D/S Floor</i>	1	4.00	3.300	0.900	11.880	Cum
		1	3.50	3.300	0.700	8.085	Cum
	<i>D/S Key Floor</i>	1	0.75	3.300	1.350	3.341	Cum
	<i>Toe Wall D/S Portion</i>	1	8.30	0.750	0.900	5.603	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	2.50	0.600	0.750	2.250	Cum
						120.63	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.						
	<i>PCC Below Floor</i>	1	0.54	3.300	0.150	0.27	Cum
		1	0.95	3.300	0.150	0.47	Cum
		1	0.92	3.300	0.150	0.45	Cum
		1	0.28	3.300	0.150	0.14	Cum
		1	5.56	3.300	0.150	2.75	Cum
		1	0.57	3.300	0.150	0.28	Cum
		1	1.82	3.300	0.150	0.90	Cum
		1	1.34	3.300	0.150	0.66	Cum
		1	0.54	3.300	0.150	0.27	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.33	2.082	0.150	0.83	Cum
	<i>Section 2-2</i>	2	4.00	1.350	0.150	1.62	Cum
	<i>Section 3-3</i>	2	3.20	1.230	0.150	1.18	Cum
	<i>Section 5-5</i>	2	2.97	2.232	0.150	1.99	Cum
	<i>Section 6-6</i>	2	1.27	1.230	0.150	0.47	Cum
	<i>Toe Wall D/S Portion</i>	1	8.30	0.750	0.300	1.87	Cum
	<i>Toe Wall D/S Portion</i>	1	8.00	0.450	0.600	2.16	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	2.50	0.600	0.150	0.45	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	2.50	0.300	0.600	0.90	Cum
	TOTAL					17.66	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.18	0.450	0.450	0.48	Cum
		2	1.18	1.116	2.220	5.84	Cum
		2	1.18	1.932	0.750	3.42	Cum
	<i>Section 2-2</i>	2	4.00	0.450	0.450	1.62	Cum
		2	4.00	0.750	1.000	6.00	Cum
		2	4.00	1.200	0.750	7.20	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section 3-3	2	2.59	0.450	0.450	1.05	Cum
		2	2.59	0.690	0.800	2.85	Cum
		2	2.59	1.080	0.550	3.07	Cum
	Section 5-5	2	2.92	0.450	0.450	1.18	Cum
		2	2.92	1.116	2.220	14.48	Cum
		2	2.92	1.932	0.550	6.21	Cum
	Section 6-6	2	1.81	0.450	0.450	0.73	Cum
		2	1.81	0.690	0.800	2.00	Cum
		2	1.81	1.080	0.550	2.15	Cum
	Floor	1	0.66	3.300	0.850	1.86	Cum
		1	7.50	3.300	0.550	13.61	Cum
		1	5.46	3.300	0.200	3.60	Cum
		1	0.20	3.300	0.650	0.43	Cum
		1	0.44	3.300	0.400	0.58	Cum
		1	3.30	3.300	0.550	5.99	Cum
		1	0.75	3.300	1.200	2.97	Cum
	Crest	1	1.08	3.300	1.715	6.10	Cum
	TOTAL					93.43	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	3.300	0.150	0.40	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	13.89	0.450	0.050	0.31	Cum
	On Abutment Top (Right Side)	1	13.89	0.450	0.050	0.31	Cum
	TOTAL					1.02	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	93.43	0.00	0.280	7850.0	2200.38	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	1.18		0.450	2.12	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.18		2.220	10.47	Sqm
		4		1.116	2.220	9.91	Sqm
		4	1.18		0.750	3.54	Sqm
		4		1.932	0.750	5.80	Sqm
	Section 2-2	4	4.00		0.450	7.20	Sqm
		4		0.450	0.450	0.81	Sqm
		4	4.00		1.000	16.00	Sqm
		4		0.750	1.000	3.00	Sqm
		4	4.00		0.750	12.00	Sqm
		4		1.200	0.750	3.60	Sqm
	Section 3-3	4	2.59		0.450	4.65	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.59		0.800	8.27	Sqm
		4		0.690	0.800	2.21	Sqm
		4	2.59		0.550	5.69	Sqm
		4		1.080	0.550	2.38	Sqm
	Section 5-5	4	2.92		0.450	5.26	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.92		2.220	25.96	Sqm
		4		1.116	2.220	9.91	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4	2.92		0.550	6.43	Sqm
		4		1.932	0.550	4.25	Sqm
	Section 6-6	4	1.81		0.450	3.26	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.81		0.800	5.79	Sqm
		4		0.690	0.800	2.21	Sqm
		4	1.81		0.550	3.98	Sqm
		4		1.080	0.550	2.38	Sqm
	Floor	2	0.66		0.850	1.13	Sqm
		2		3.300	0.850	5.61	Sqm
		2	7.50		0.550	8.25	Sqm
		2		3.300	0.550	3.63	Sqm
		2	5.46		0.200	2.18	Sqm
		2		3.300	0.200	1.32	Sqm
		2	0.20		0.650	0.26	Sqm
		2		3.300	0.650	4.29	Sqm
		2	0.44		0.400	0.35	Sqm
		2		3.300	0.400	2.64	Sqm
		2	3.30		0.550	3.63	Sqm
		2		3.300	0.550	3.63	Sqm
		2	0.75		1.200	1.80	Sqm
		2		3.300	1.200	7.92	Sqm
	Crest	2	1.08		1.715	3.70	Sqm
		2		3.300	1.715	11.32	Sqm
	Toe Wall D/S Portion	2	8.30		0.300	4.98	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	8.00		0.600	9.60	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					256.12	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	2.50	2.592		12.96	Sqm
	TOTAL					12.96	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	1	2.50	2.700	0.300	2.03	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	2.700	0.150	2.03	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	13.89	0.450		6.25	Sqm
	On Abutment Top (Right Side)	1	13.89	0.450		6.25	Sqm
	TOTAL					12.50	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1	17.558			17.56	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.33	3.070		8.163	Cum
	<i>Section 2-2</i>	2	4.00	1.162		9.296	Cum
	<i>Section 3-3</i>	2	3.20	0.905		5.792	Cum
	<i>Section 5-5</i>	2	2.97	3.043		18.057	Cum
	<i>Section 6-6</i>	2	1.27	0.905		2.299	Cum
	<i>Toe wall</i>	2	8.30	0.150	0.600	2.490	Cum
		2	2.50	0.150	0.600	0.450	Cum
	TOTAL					64.10	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH.3.800 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.54	2.264	1.550	10.808	Cum
	<i>Section 2-2</i>	2	4.50	1.350	1.550	18.833	Cum
	<i>Section 3-3</i>	2	3.95	1.230	1.350	13.118	Cum
	<i>Section 5-5</i>	2	2.93	2.414	1.550	21.919	Cum
	<i>Section 6-6</i>	2	1.27	1.230	1.350	4.218	Cum
	<i>U/S Key Floor</i>	1	0.65	3.300	0.950	2.038	Cum
	<i>U/S Floor</i>	1	3.75	3.300	2.774	34.328	Cum
	<i>D/S Floor</i>	1	4.50	3.300	0.950	14.108	Cum
		1	1.31	3.300	0.750	3.235	Cum
		1	2.94	3.300	0.750	7.281	Cum
	<i>D/S Key Floor</i>	1	0.83	3.300	1.650	4.492	Cum
	<i>Toe Wall D/S Portion</i>	1	8.30	0.750	0.900	5.603	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	2.50	0.600	0.750	2.250	Cum
						142.23	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.						
	<i>PCC Below Floor</i>	1	0.54	3.300	0.150	0.27	Cum
		1	0.89	3.300	0.150	0.44	Cum
		1	0.84	3.300	0.150	0.42	Cum
		1	0.42	3.300	0.150	0.21	Cum
		1	6.31	3.300	0.150	3.12	Cum
		1	0.57	3.300	0.150	0.28	Cum
		1	0.83	3.300	0.150	0.41	Cum
		1	0.14	3.300	0.150	0.07	Cum
		1	1.49	3.300	0.150	0.74	Cum
		1	1.68	3.300	0.150	0.83	Cum
		1	0.54	3.300	0.150	0.27	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.54	2.264	0.150	1.05	Cum
	<i>Section 2-2</i>	2	4.50	1.350	0.150	1.82	Cum
	<i>Section 3-3</i>	2	3.95	1.230	0.150	1.46	Cum
	<i>Section 5-5</i>	2	2.93	2.414	0.150	2.12	Cum
	<i>Section 6-6</i>	2	1.27	1.230	0.150	0.47	Cum
	<i>Toe Wall D/S Portion</i>	1	8.30	0.750	0.300	1.87	Cum
	<i>Toe Wall D/S Portion</i>	1	8.00	0.450	0.600	2.16	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	2.50	0.600	0.150	0.45	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	2.50	0.300	0.600	0.90	Cum
	TOTAL					19.35	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.32	0.450	0.450	0.53	Cum
		2	1.32	1.207	2.524	8.01	Cum
		2	1.32	2.114	0.750	4.17	Cum
	<i>Section 2-2</i>	2	4.50	0.450	0.450	1.82	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	4.50	0.750	1.000	6.75	Cum
		2	4.50	1.200	0.750	8.10	Cum
	Section 3-3	2	3.56	0.450	0.450	1.44	Cum
		2	3.56	0.690	0.800	3.93	Cum
		2	3.56	1.080	0.550	4.23	Cum
	Section 5-5	2	2.89	0.450	0.450	1.17	Cum
		2	2.89	1.207	2.524	17.58	Cum
		2	2.89	2.114	0.650	7.93	Cum
	Section 6-6	2	1.81	0.450	0.450	0.73	Cum
		2	1.81	0.690	0.800	2.00	Cum
		2	1.81	1.080	0.700	2.74	Cum
	Floor	1	0.65	3.300	0.800	1.72	Cum
		1	8.25	3.300	0.600	16.34	Cum
		1	6.25	3.300	0.300	6.19	Cum
		1	0.20	3.300	0.600	0.40	Cum
		1	0.62	3.300	0.400	0.82	Cum
		1	1.11	3.300	0.700	2.56	Cum
		1	0.10	3.300	0.650	0.21	Cum
		1	2.84	3.300	0.600	5.63	Cum
		1	0.83	3.300	1.500	4.08	Cum
	Crest	1	1.28	3.300	2.009	8.46	Cum
	TOTAL					117.54	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	0.95	3.300	0.150	0.47	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	15.39	0.450	0.050	0.35	Cum
	On Abutment Top (Right Side)	1	15.39	0.450	0.050	0.35	Cum
	TOTAL					1.16	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	117.54	0.00	0.353	7850.0	2768.01	Kg
	Total Weight in Metric Tonne					2.77	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		0.450	2.37	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.32		2.524	13.28	Sqm
		4		1.207	2.524	12.19	Sqm
		4	1.32		0.750	3.95	Sqm
		4		2.114	0.750	6.34	Sqm
	Section 2-2	4	4.50		0.450	8.10	Sqm
		4		0.450	0.450	0.81	Sqm
		4	4.50		1.000	18.00	Sqm
		4		0.750	1.000	3.00	Sqm
		4	4.50		0.750	13.50	Sqm
		4		1.200	0.750	3.60	Sqm
	Section 3-3	4	3.56		0.450	6.41	Sqm
		4		0.450	0.450	0.81	Sqm
		4	3.56		0.800	11.39	Sqm
		4		0.690	0.800	2.21	Sqm
		4	3.56		0.550	7.83	Sqm
		4		1.080	0.550	2.38	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section 5-5	4	2.89		0.450	5.19	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.89		2.524	29.13	Sqm
		4		1.207	2.524	12.19	Sqm
		4	2.89		0.650	7.50	Sqm
		4		2.114	0.650	5.50	Sqm
	Section 6-6	4	1.81		0.450	3.26	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.81		0.800	5.79	Sqm
		4		0.690	0.800	2.21	Sqm
		4	1.81		0.700	5.07	Sqm
		4		1.080	0.700	3.02	Sqm
	Floor	2	0.65		0.800	1.04	Sqm
		2		3.300	0.800	5.28	Sqm
		2	8.25		0.600	9.90	Sqm
		2		3.300	0.600	3.96	Sqm
		2	6.25		0.300	3.75	Sqm
		2		3.300	0.300	1.98	Sqm
		2	0.20		0.600	0.24	Sqm
		2		3.300	0.600	3.96	Sqm
		2	0.62		0.400	0.50	Sqm
		2		3.300	0.400	2.64	Sqm
		2	1.11		0.700	1.55	Sqm
		2		3.300	0.700	4.62	Sqm
		2	0.10		0.650	0.13	Sqm
		2		3.300	0.650	4.29	Sqm
		2	2.84		0.600	3.41	Sqm
		2		3.300	0.600	3.96	Sqm
		2	0.83		1.500	2.48	Sqm
		2		3.300	1.500	9.90	Sqm
	Crest	2	1.28		2.009	5.13	Sqm
		2		3.300	2.009	13.26	Sqm
	Toe Wall D/S Portion	2	8.30		0.300	4.98	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	8.00		0.600	9.60	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					303.56	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	2.50	2.592		12.96	Sqm
	TOTAL					12.96	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	1	2.50	2.700	0.300	2.03	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	2.700	0.150	2.03	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	15.39	0.450		6.92	Sqm
	On Abutment Top (Right Side)	1	15.39	0.450		6.92	Sqm
	TOTAL					13.85	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1		27.805		27.80	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.54	3.687		11.356	Cum
	<i>Section 2-2</i>	2	4.50	1.162		10.458	Cum
	<i>Section 3-3</i>	2	3.95	0.904		7.142	Cum
	<i>Section 5-5</i>	2	2.93	3.687		21.598	Cum
	<i>Section 6-6</i>	2	1.27	0.904		2.296	Cum
	<i>Toe wall</i>	2	8.30	0.150	0.600	2.490	Cum
		2	2.50	0.150	0.600	0.450	Cum
	TOTAL					83.59	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 1.524 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.54	2.264	2.000	13.946	Cum
	<i>Section 2-2</i>	2	4.50	1.350	2.000	24.300	Cum
	<i>Section 3-3</i>	2	3.95	1.230	1.800	17.491	Cum
	<i>Section 5-5</i>	2	2.93	2.414	2.000	28.282	Cum
	<i>Section 6-6</i>	2	1.27	1.230	1.800	5.624	Cum
	<i>U/S Key Floor</i>	1	0.65	3.300	0.950	2.038	Cum
	<i>U/S Floor</i>	1	3.75	3.300	2.774	34.328	Cum
	<i>D/S Floor</i>	1	4.50	3.300	0.950	14.108	Cum
		1	1.31	3.300	0.750	3.235	Cum
		1	2.94	3.300	0.750	7.281	Cum
	<i>D/S Key Floor</i>	1	0.83	3.300	1.650	4.492	Cum
	<i>Toe Wall D/S Portion</i>	1	8.30	0.750	0.900	5.603	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	2.50	0.600	0.750	2.250	Cum
						162.98	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.						
	<i>PCC Below Floor</i>	1	0.54	3.300	0.150	0.27	Cum
		1	0.89	3.300	0.150	0.44	Cum
		1	0.84	3.300	0.150	0.42	Cum
		1	0.42	3.300	0.150	0.21	Cum
		1	6.31	3.300	0.150	3.12	Cum
		1	0.57	3.300	0.150	0.28	Cum
		1	0.83	3.300	0.150	0.41	Cum
		1	0.14	3.300	0.150	0.07	Cum
		1	1.49	3.300	0.150	0.74	Cum
		1	1.68	3.300	0.150	0.83	Cum
		1	0.54	3.300	0.150	0.27	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.54	2.264	0.150	1.05	Cum
	<i>Section 2-2</i>	2	4.50	1.350	0.150	1.82	Cum
	<i>Section 3-3</i>	2	3.95	1.230	0.150	1.46	Cum
	<i>Section 5-5</i>	2	2.93	2.414	0.150	2.12	Cum
	<i>Section 6-6</i>	2	1.27	1.230	0.150	0.47	Cum
	<i>Toe Wall D/S Portion</i>	1	8.30	0.750	0.300	1.87	Cum
	<i>Toe Wall D/S Portion</i>	1	8.00	0.450	0.600	2.16	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	2.50	0.600	0.150	0.45	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	2.50	0.300	0.600	0.90	Cum
	TOTAL					19.35	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.32	0.450	0.450	0.53	Cum
		2	1.32	1.207	2.524	8.01	Cum
		2	1.32	2.114	0.750	4.17	Cum
	<i>Section 2-2</i>	2	4.50	0.450	0.450	1.82	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	4.50	0.750	1.000	6.75	Cum
		2	4.50	1.200	0.750	8.10	Cum
	Section 3-3	2	3.56	0.450	0.450	1.44	Cum
		2	3.56	0.690	0.800	3.93	Cum
		2	3.56	1.080	0.550	4.23	Cum
	Section 5-5	2	2.89	0.450	0.450	1.17	Cum
		2	2.89	1.207	2.524	17.58	Cum
		2	2.89	2.114	0.650	7.93	Cum
	Section 6-6	2	1.81	0.450	0.450	0.73	Cum
		2	1.81	0.690	0.800	2.00	Cum
		2	1.81	1.080	0.700	2.74	Cum
	Floor	1	0.65	3.300	0.800	1.72	Cum
		1	8.25	3.300	0.600	16.34	Cum
		1	6.25	3.300	0.300	6.19	Cum
		1	0.20	3.300	0.600	0.40	Cum
		1	0.62	3.300	0.400	0.82	Cum
		1	1.11	3.300	0.700	2.56	Cum
		1	0.10	3.300	0.650	0.21	Cum
		1	2.84	3.300	0.600	5.63	Cum
		1	0.83	3.300	1.500	4.08	Cum
	Crest	1	1.28	3.300	2.009	8.46	Cum
	TOTAL					117.54	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	0.95	3.300	0.150	0.47	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	15.39	0.450	0.050	0.35	Cum
	On Abutment Top (Right Side)	1	15.39	0.450	0.050	0.35	Cum
	TOTAL					1.16	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	117.54	0.00	0.353	7850.0	2768.01	Kg
	Total Weight in Metric Tonne					2.77	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		0.450	2.37	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.32		2.524	13.28	Sqm
		4		1.207	2.524	12.19	Sqm
		4	1.32		0.750	3.95	Sqm
		4		2.114	0.750	6.34	Sqm
	Section 2-2	4	4.50		0.450	8.10	Sqm
		4		0.450	0.450	0.81	Sqm
		4	4.50		1.000	18.00	Sqm
		4		0.750	1.000	3.00	Sqm
		4	4.50		0.750	13.50	Sqm
		4		1.200	0.750	3.60	Sqm
	Section 3-3	4	3.56		0.450	6.41	Sqm
		4		0.450	0.450	0.81	Sqm
		4	3.56		0.800	11.39	Sqm
		4		0.690	0.800	2.21	Sqm
		4	3.56		0.550	7.83	Sqm
		4		1.080	0.550	2.38	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section 5-5	4	2.89		0.450	5.19	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.89		2.524	29.13	Sqm
		4		1.207	2.524	12.19	Sqm
		4	2.89		0.650	7.50	Sqm
		4		2.114	0.650	5.50	Sqm
	Section 6-6	4	1.81		0.450	3.26	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.81		0.800	5.79	Sqm
		4		0.690	0.800	2.21	Sqm
		4	1.81		0.700	5.07	Sqm
		4		1.080	0.700	3.02	Sqm
	Floor	2	0.65		0.800	1.04	Sqm
		2		3.300	0.800	5.28	Sqm
		2	8.25		0.600	9.90	Sqm
		2		3.300	0.600	3.96	Sqm
		2	6.25		0.300	3.75	Sqm
		2		3.300	0.300	1.98	Sqm
		2	0.20		0.600	0.24	Sqm
		2		3.300	0.600	3.96	Sqm
		2	0.62		0.400	0.50	Sqm
		2		3.300	0.400	2.64	Sqm
		2	1.11		0.700	1.55	Sqm
		2		3.300	0.700	4.62	Sqm
		2	0.10		0.650	0.13	Sqm
		2		3.300	0.650	4.29	Sqm
		2	2.84		0.600	3.41	Sqm
		2		3.300	0.600	3.96	Sqm
		2	0.83		1.500	2.48	Sqm
		2		3.300	1.500	9.90	Sqm
	Crest	2	1.28		2.009	5.13	Sqm
		2		3.300	2.009	13.26	Sqm
	Toe Wall D/S Portion	2	8.30		0.300	4.98	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	8.00		0.600	9.60	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					303.56	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	2.50	2.592		12.96	Sqm
	TOTAL					12.96	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	1	2.50	2.700	0.300	2.03	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	2.700	0.150	2.03	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	15.39	0.450		6.92	Sqm
	On Abutment Top (Right Side)	1	15.39	0.450		6.92	Sqm
	TOTAL					13.85	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1		27.805		27.80	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.54	3.687		11.356	Cum
	<i>Section 2-2</i>	2	4.50	1.162		10.458	Cum
	<i>Section 3-3</i>	2	3.95	0.904		7.142	Cum
	<i>Section 5-5</i>	2	2.93	3.687		21.598	Cum
	<i>Section 6-6</i>	2	1.27	0.904		2.296	Cum
	<i>Toe wall</i>	2	8.30	0.150	0.600	2.490	Cum
		2	2.50	0.150	0.600	0.450	Cum
	TOTAL					83.59	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 0.915 METER AT CH 4.595 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.79	1.929	3.151	21.736	Cum
	<i>Section 2-2</i>	2	3.50	1.380	3.151	30.439	Cum
	<i>Section 3-3</i>	2	1.95	1.230	2.951	14.156	Cum
	<i>Section 5-5</i>	2	3.00	2.079	3.151	39.286	Cum
	<i>Section 6-6</i>	2	1.27	1.230	2.951	9.220	Cum
	<i>U/S Key Floor</i>	1	0.63	3.300	0.850	1.753	Cum
	<i>U/S Floor</i>	1	2.75	3.300	1.915	17.379	Cum
	<i>D/S Floor</i>	1	3.50	3.300	0.850	9.818	Cum
		1	2.25	3.300	0.650	4.826	Cum
	<i>D/S Key Floor</i>	1	0.70	3.300	1.150	2.657	Cum
	<i>Toe Wall D/S Portion</i>	1	8.30	0.750	0.900	5.603	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	2.50	0.600	0.750	2.250	Cum
						159.12	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.						
	<i>PCC Below Floor</i>	1	0.54	3.300	0.150	0.27	Cum
		1	0.78	3.300	0.150	0.39	Cum
		1	0.49	3.300	0.150	0.24	Cum
		1	0.14	3.300	0.150	0.07	Cum
		1	4.94	3.300	0.150	2.44	Cum
		1	0.49	3.300	0.150	0.24	Cum
		1	0.69	3.300	0.150	0.34	Cum
		1	1.12	3.300	0.150	0.55	Cum
		1	0.54	3.300	0.150	0.27	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.79	1.929	0.150	1.03	Cum
	<i>Section 2-2</i>	2	3.50	1.380	0.150	1.45	Cum
	<i>Section 3-3</i>	2	1.95	1.230	0.150	0.72	Cum
	<i>Section 5-5</i>	2	3.00	2.079	0.150	1.87	Cum
	<i>Section 6-6</i>	2	1.27	1.230	0.150	0.47	Cum
	<i>Toe Wall D/S Portion</i>	1	8.30	0.750	0.300	1.87	Cum
	<i>Toe Wall D/S Portion</i>	1	8.00	0.450	0.600	2.16	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	2.50	0.600	0.150	0.45	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	2.50	0.300	0.600	0.90	Cum
	TOTAL					15.74	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	0.99	0.450	0.450	0.40	Cum
		2	0.99	1.040	1.965	4.03	Cum
		2	0.99	1.779	0.600	2.11	Cum
	<i>Section 2-2</i>	2	3.50	0.450	0.450	1.42	Cum
		2	3.50	0.765	1.050	5.62	Cum
		2	3.50	1.230	0.600	5.17	Cum
	<i>Section 3-3</i>	2	1.59	0.450	0.450	0.64	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	1.59	0.690	0.800	1.76	Cum
		2	1.59	1.080	0.500	1.72	Cum
	Section 5-5	2	2.95	0.450	0.450	1.20	Cum
		2	2.95	1.040	1.965	12.07	Cum
		2	2.95	1.779	0.500	5.26	Cum
	Section 6-6	2	1.81	0.450	0.450	0.73	Cum
		2	1.81	0.690	0.800	2.00	Cum
		2	1.81	1.080	0.550	2.15	Cum
	Floor	1	0.63	3.300	0.700	1.44	Cum
		1	6.25	3.300	0.500	10.31	Cum
		1	4.76	3.300	0.200	3.14	Cum
		1	0.25	3.300	0.550	0.45	Cum
		1	0.28	3.300	0.350	0.33	Cum
		1	2.00	3.300	0.500	3.30	Cum
		1	0.70	3.300	1.000	2.31	Cum
	Crest	1	0.98	3.300	1.465	4.73	Cum
	TOTAL					72.27	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	0.75	3.300	0.150	0.37	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	11.99	0.450	0.050	0.27	Cum
	On Abutment Top (Right Side)	1	11.99	0.450	0.050	0.27	Cum
	TOTAL					0.91	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	72.27	0.00	0.217	7850.0	1702.01	Kg
	Total Weight in Metric Tonne					1.70	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		0.450	1.78	Sqm
		4		0.450	0.450	0.81	Sqm
		4	0.99		1.965	7.75	Sqm
		4		1.040	1.965	8.17	Sqm
		4	0.99		0.600	2.37	Sqm
		4		1.779	0.600	4.27	Sqm
	Section 2-2	4	3.50		0.450	6.30	Sqm
		4		0.450	0.450	0.81	Sqm
		4	3.50		1.050	14.70	Sqm
		4		0.765	1.050	3.21	Sqm
		4	3.50		0.600	8.40	Sqm
		4		1.230	0.600	2.95	Sqm
	Section 3-3	4	1.59		0.450	2.86	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.59		0.800	5.09	Sqm
		4		0.690	0.800	2.21	Sqm
		4	1.59		0.500	3.18	Sqm
		4		1.080	0.500	2.16	Sqm
	Section 5-5	4	2.95		0.450	5.32	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.95		1.965	23.22	Sqm
		4		1.040	1.965	8.17	Sqm
		4	2.95		0.500	5.91	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4		1.779	0.500	3.56	Sqm
	Section 6-6	4	1.81		0.450	3.26	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.81		0.800	5.79	Sqm
		4		0.690	0.800	2.21	Sqm
		4	1.81		0.550	3.98	Sqm
		4		1.080	0.550	2.38	Sqm
	Floor	2	0.63		0.700	0.88	Sqm
		2		3.300	0.700	4.62	Sqm
		2	6.25		0.500	6.25	Sqm
		2		3.300	0.500	3.30	Sqm
		2	4.76		0.200	1.90	Sqm
		2		3.300	0.200	1.32	Sqm
		2	0.25		0.550	0.28	Sqm
		2		3.300	0.550	3.63	Sqm
		2	0.28		0.350	0.20	Sqm
		2		3.300	0.350	2.31	Sqm
		2	2.00		0.500	2.00	Sqm
		2		3.300	0.500	3.30	Sqm
		2	0.70		1.000	1.40	Sqm
		2		3.300	1.000	6.60	Sqm
	Crest	2	0.98		1.465	2.86	Sqm
		2		3.300	1.465	9.67	Sqm
	Toe Wall D/S Portion	2	8.30		0.300	4.98	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	8.00		0.600	9.60	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					217.91	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	2.50	2.592		12.96	Sqm
	TOTAL					12.96	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	1	2.50	2.700	0.300	2.03	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	2.700	0.150	2.03	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	11.99	0.450		5.39	Sqm
	On Abutment Top (Right Side)	1	11.99	0.450		5.39	Sqm
	TOTAL					10.79	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	<i>Under U/S floor</i>	1		8.975		8.97	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.79	2.577		9.215	Cum
	<i>Section 2-2</i>	2	3.50	1.200		8.400	Cum
	<i>Section 3-3</i>	2	1.95	0.897		3.498	Cum
	<i>Section 5-5</i>	2	3.00	2.562		15.364	Cum
	<i>Section 6-6</i>	2	1.27	0.897		2.278	Cum
	<i>Toe wall</i>	2	8.30	0.150	0.600	2.490	Cum
		2	2.50	0.150	0.600	0.450	Cum
	TOTAL					50.67	Cum

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND									
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS OF PARANPUR 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)
Cross Drainage at Ch. 1.660 Km									
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	95.16	Cum	149.30	14207.58			
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.	42.71	Cum	6381.70	272548.24	13.84	19.22	38.44
4	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.	125.11	Cum	6914.20	865040.39	51.61	53.80	107.60
5	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.	489.43	Sqm	578.60	283181.65			
7	WRD M-1710	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	12.50	RM	6002.82	75035.25			
8	WRD 5.6.1.7	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 .	12.50	RM	1713.33	21416.63			
9	WRD 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.	2.46	MT	73574.90	180648.27			
10	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.	275.16	Cum	195.20	53710.40			
11		Carriage of materials							
		Coarse Sand 30 Km lead)	73.02	Cum	1075.00	78492.31			
		Coarse Aggregates (100 Km lead)	146.03	Cum	1398.00	204153.02			
		Cement (30 km lead)	65.45	MT	742.00	48560.55			
		Steel (30 Km lead)	2.46	MT	742.00	1821.83			
		Hume Pipe (30 Km)	12.50	RM	1470.00	18375.00			
TOTAL (In Rs.)						₹ 21,17,191.12			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	73.02	Cum	584.64	42688.13	4268.81		
		Coarse Aggregate	146.03	Cum	944.26	137892.37	13789.24		
		Total					18058.05		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILED ESTIMATE FOR CROSS DRAINAGE WORKS OF PARANPUR MINOR							
Cross Drainage at Ch. 1.660 Km							
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	10.29	1.61		16.52	Cum
		1	6.04	1.32		7.98	Cum
	Middle Portion	1	3.66	12.94		47.36	Cum
	Right Portion	1	10.33	1.48		15.33	Cum
		1	6.04	1.32		7.98	Cum
	TOTAL					95.16	Cum
3	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	10.29	1.38	0.30	4.27	Cum
		1	6.06	3.59	0.30	6.52	Cum
	300 mm Thick Right Abutment	1	10.33	1.41	0.30	4.36	Cum
		1	6.07	3.59	0.30	6.55	Cum
	Below Pipe Section	1	12.50	1.83	0.30	6.86	Cum
		1	12.50	0.63	0.37	7.93	Cum
	200 mm Thick Left and Right Portion Well	2	4.33	2.50	0.20	4.33	Cum
	Pipe Section	4	0.30	1.73	1.60	3.32	Cum
	Deduct Area of Pipe	4	0.30	1.19		-1.43	Cum
	TOTAL					42.71	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 Portion Retaining Wall (Section C-C)	2	9.99	0.30	0.20	1.20	Cum
		2	9.99	0.69	2.62	36.16	Cum
	U/S Portion Retaining Wall (Section D-D)	2	2.33	0.30	0.50	0.70	Cum
		2	2.33	0.69	2.63	8.50	Cum
	U/S Portion Retaining Wall (Avg. section)	2	4.13	0.30	0.35	0.87	Cum
		2	4.13	0.69	2.62	15.03	Cum
	D/S Portion Retaining Wall (Section F-F)	2	10.03	0.30	0.20	1.20	Cum
		2	10.03	0.70	2.68	37.82	Cum
	D/S Portion Retaining Wall (Section E-E)	2	2.33	0.30	0.50	0.70	Cum
		2	2.33	0.70	2.64	8.57	Cum
	D/S Portion Retaining Wall (Avg. section)	2	4.14	0.70	2.66	15.43	Cum
		2	4.14	0.30	0.35	0.87	Cum
	Deduct Area of Pipe (Section D-D & Section E-E)	2	0.81	1.188		-1.93	Cum
	TOTAL					125.11	Cum

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
5	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	10.29		0.30	6.18	Sqm
		2		1.38	0.30	0.83	Sqm
		2	6.06		0.30	3.64	Sqm
		2		3.59	0.30	2.15	Sqm
	300 mm Thick Right Abutment	2	10.33		0.30	6.20	Sqm
		2		1.41	0.30	0.84	Sqm
		2	6.07		0.30	3.64	Sqm
		2		3.59	0.30	2.16	Sqm
	200 mm Thick Left and Right Portion Well	4	4.33		0.20	3.46	Sqm
		4		2.50	0.20	2.00	Sqm
	Pipe Section	8	0.30		1.60	3.84	Sqm
		8		1.73	1.60	22.14	Sqm
	U/S Portion Retaining Wall (Section C-C)	4	9.99		0.20	7.99	Sqm
		4		0.30	0.20	0.24	Sqm
		4	9.99		2.62	104.52	Sqm
		4		0.69	2.62	7.24	Sqm
	U/S Portion Retaining Wall (Section D-D)	4	2.33		0.50	4.65	Sqm
		4		0.30	0.50	0.60	Sqm
		4	2.33		2.63	24.48	Sqm
		4		0.69	2.63	7.31	Sqm
	U/S Portion Retaining Wall (Avg. section)	4	4.13		0.35	5.79	Sqm
		4		0.30	0.35	0.42	Sqm
		4	4.13		2.62	43.35	Sqm
		4		0.69	2.62	7.27	Sqm
	D/S Portion Retaining Wall (Section E-E)	4	2.33		2.64	24.60	Sqm
		4		0.70	2.64	7.36	Sqm
		4	2.33		0.50	4.65	Sqm
		4		0.30	0.50	0.60	Sqm
	D/S Portion Retaining Wall (Section F-F)	4	10.03		2.68	107.68	Sqm
		4		0.70	2.68	7.54	Sqm
		4	10.03		0.20	8.03	Sqm
		4		0.30	0.20	0.24	Sqm
	D/S Portion Retaining Wall (Avg. section)	4	4.14		2.66	44.11	Sqm
		4		0.70	2.66	7.45	Sqm
		4	4.14		0.35	5.80	Sqm
		4		0.30	0.35	0.42	Sqm
	TOTAL					489.43	Sqm
6	Providing 1000mm NP2 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						
	1 m dia pipe	5	2.50			12.50	RM
	TOTAL					12.50	RM
7	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%)	125.11	0.0025	0.313	7850.00	2455.297	Kg
	TOTAL					2455.297	Kg
	TOTAL					2.46	M.T.

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
8	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	<i>Left Portion</i>	1	10.29	1.38	2.96	42.19	Cum
		1	6.06	3.59	3.23	70.22	Cum
	<i>Middle Portion</i>	1	1.83	26.25		48.04	Cum
	<i>Right Portion</i>	1	10.33	1.41	3.39	49.15	Cum
		1	6.07	3.59	3.01	65.56	Cum
	TOTAL					275.16	Cum

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND

DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF CHAIN NAWADA SUB DY.

Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
1	FALL (1.220 M)/ BRIDGE	0.475	₹ 48,038.73
2	PIPE CULVERT (0.80 M DIA)	0.720	₹ 9,509.41
3	FALL (0.610 M)	1.320	₹ 6,950.69
4	SYPHON	1.760	₹ 2,92,500.20
5	PIPE CULVERT (0.80 M DIA)	2.075	₹ 24,632.77
6	CROSS DRAINAGE	2.215	₹ 0.00
7	SYPHON	2.600	₹ 2,46,943.02
8	CULVERT	3.010	₹ 12,231.27
9	CROSS DRAINAGE	3.060	₹ 0.00
10	PIPE CULVERT (0.80 M DIA)	3.675	₹ 26,049.30
11	CROSS DRAINAGE	4.250	₹ 1,416.53
12	CROSS DRAINAGE	4.580	₹ 0.00
13	CROSS DRAINAGE	4.900	₹ 0.00
14	PIPE CULVERT (0.80 M DIA)	5.420	₹ 13,496.83
15	CROSS DRAINAGE	5.465	₹ 0.00
16	CROSS DRAINAGE	5.625	₹ 0.00
17	PIPE CULVERT (0.80 M DIA)	6.005	₹ 83,525.78
18	CROSS DRAINAGE	6.190	₹ 27,809.11
19	CROSS DRAINAGE	6.630	₹ 0.00
20	PIPE CULVERT (0.80 M DIA)	6.795	₹ 95,369.99
21	CROSS DRAINAGE	7.120	₹ 44,494.58
22	CROSS DRAINAGE	7.825	₹ 0.00
23	PIPE CULVERT (0.80 M DIA)	7.985	₹ 0.00
24	CULVERT	8.180	₹ 0.00
25	CULVERT	8.790	₹ 41,054.62
26	FALL (0.762 M)	9.320	₹ 45,090.77
27	HR FOR PARANPUR MR.	9.325	₹ 44,393.78
28	CULVERT	9.470	₹ 43,105.77
29	SYPHON	9.770	₹ 55,618.23
30	CROSS DRAINAGE	10.270	₹ 0.00
31	HR FOR SALAIYA MR.	11.070	₹ 20,809.51
32	CROSS DRAINAGE	11.140	₹ 1,11,236.46
33	PIPE CULVERT (0.80 M DIA)	11.475	₹ 46,104.44
34	CROSS DRAINAGE	12.100	₹ 27,034.24
35	CULVERT	12.220	₹ 55,618.23
36	CROSS DRAINAGE	12.470	₹ 0.00
37	FALL (1.520 M)	12.650	₹ 2,52,972.92
38	FALL (1.520 M)	12.900	₹ 0.00
39	PIPE CULVERT (1.20 M DIA)	13.025	₹ 0.00
40	FALL (1.220 M)	13.200	₹ 1,81,620.18
41	PIPE CULVERT (1.20 M DIA)	13.540	₹ 1,770.66
42	FALL (0.914 M)/ BRIDGE / HR. FOR DHAMANI SUB DY.	13.800	₹ 43,620.15
Total In Rs.			₹ 19,03,018.18
Total In Lakhs.			₹ 19.03

DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF PARANPUR MR.			
Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
1	CULVERT + FALL (0.762 M)	0.200	₹ 6,460.77
2	CULVERT + FALL (1.220 M)	0.400	₹ 6,460.77
3	CULVERT + FALL (1.220 M)	0.550	₹ 6,460.77
4	CULVERT + FALL (0.914 M)	0.950	₹ 6,460.77
5	CULVERT + FALL (1.220 M)	1.050	₹ 6,460.77
6	CULVERT + FALL (1.524 M)	1.150	₹ 6,460.77
7	CROSS DRAINAGE	1.660	₹ 37,687.81
8	PIPE CULVERT	1.990	₹ 1,416.53
9	CULVERT + FALL (1.828 M)	2.215	₹ 31,294.34
10	PIPE CULVERT	2.435	₹ 0.00
11	PIPE CULVERT	2.520	₹ 0.00
12	PIPE CULVERT	2.800	₹ 1,180.44
Total In Rs.			₹ 77,868.94
Total In Lakhs.			₹ 0.78

DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF SALAIYA MINOR			
Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
1	FALL (2.134 M)	0.030	₹ 20,862.89
2	FALL (1.830 M)	0.145	₹ 0.00
3	CROSS DRAINAGE	0.505	₹ 0.00
4	FALL (1.524 M)	0.610	₹ 1,13,140.37
5	FALL (1.220 M)/ CULVERT	0.810	₹ 0.00
6	FALL (1.830 M)	1.060	₹ 1,33,290.87
7	CROSS DRAINAGE	1.150	₹ 0.00
8	FALL (0.610 M)/ CULVERT	1.260	₹ 59,733.76
9	CROSS DRAINAGE	1.780	₹ 0.00
10	FALL (1.524 M)/ CULVERT	1.885	₹ 0.00
Total In Rs.			₹ 3,27,027.90
Total In Lakhs.			₹ 3.27

DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF DHAMNI SUB DY.			
Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
1	CROSS DRAINAGE	0.375	₹ 0.00
2	PIPE CULVERT (1.20 M DIA)	0.430	₹ 5,759.16
3	CULVERT	1.595	₹ 0.00
4	BRIDGE	2.800	₹ 9,476.39
5	FALL (1.220 M)	3.040	₹ 1,770.66
6	FALL (1.220 M)	3.300	₹ 47,782.76
7	BRIDGE	3.625	₹ 17,536.25
8	FALL (1.524 M)	3.800	₹ 35,668.82
9	FALL (1.524 M)	3.950	₹ 26,246.87
10	FALL (1.524 M)	4.150	₹ 0.00
11	FALL (1.524 M)	4.312	₹ 0.00
12	FALL (1.52 M)	4.490	₹ 1,36,569.12
13	FALL (0.914 M)	4.595	₹ 27,592.86
Total In Rs.			₹ 3,08,402.89
Total In Lakhs.			₹ 3.08

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND									
ABSTRACT OF COST OF REPAIRED STRUCTURES OF CHAIN NAWADA 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)
AOC FOR BRIDGE/ FALL (Ch.-0.475 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.	1.37	Cum	5021.30	6887.22	0.16	0.44	
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.	4.420	Sqm	340.20	1503.55	4.582	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.	4.420	Sqm	63.20	279.32	0.01		
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.	2.400	Cum	6914.20	16594.08	0.99	1.03	2.06
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.	20.400	Sqm	578.60	11803.44			
6		Carriage of materials							
		Coarse Sand (60 Km lead)	1.535	Cum	1075.00	1650.60			
		Coarse Aggregates (100 Km lead)	2.064	Cum	1398.00	2885.47			
		Cement (30 km lead)	5.737	MT	742.00	4256.76			
		Brick (15 km lead)	685.00	No.	3.18	2178.30			
TOTAL (In Rs.)						48038.73			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.54	Cum	584.64	897.68	89.77		
		Coarse Aggregate	2.06	Cum	944.26	1948.95	194.90		
		Total					284.66		
AOC FOR PIPE CULVERT (Ch.-0.720 Km)									
1	5.1.3	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 royalty as per specification and direction of E/I.	0.46	Cum	5021.30	2309.80	0.05	0.15	
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.	4.180	Sqm	340.20	1422.04	4.334	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.	4.180	Sqm	63.20	264.18	0.01		
5		Carriage of materials							
		Coarse Sand (60 Km lead)	0.208	Cum	1075.00	223.85			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	4.393	MT	742.00	3259.67			
		Brick (15 km lead)	230.00	No.	3.18	731.40			
TOTAL (In Rs.)						9509.41			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.21	Cum	584.64	121.74	12.17		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					12.17		
AOC FOR FALL (Ch.-1.320 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.	0.38	Cum	5021.30	1882.99	0.04	0.12	

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)
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.	3.625	Sqm	340.20	1233.23	3.758	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.	3.625	Sqm	63.20	229.10	0.01		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	0.173	Cum	1075.00	185.89			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	3.807	MT	742.00	2824.82			
		Brick (15 km lead)	187.00	No.	3.18	594.66			
TOTAL (In Rs.)						6950.69			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.17	Cum	584.64	101.10	10.11		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					10.11		
AOC FOR SYPHON (Ch.-1.760 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.	245.899	Sqm	340.20	83654.84	254.948	3.590	
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.	245.899	Sqm	63.20	15540.82	0.37		
3		Carriage of materials							
		Coarse Sand (60 Km lead)	3.590	Cum	1075.00	3859.38			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	255.317	MT	742.00	189445.16			
TOTAL (In Rs.)						292500.20			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	3.59	Cum	584.64	2098.93	209.89		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					209.89		
AOC FOR PIPE CULVERT (Ch.-2.075 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.	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 royalty 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.	12.540	Sqm	340.20	4266.11	13.001	0.183	
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.	12.540	Sqm	63.20	792.53	0.02		
5		Carriage of materials							
		Coarse Sand (60 Km lead)	0.625	Cum	1075.00	671.54			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	13.179	MT	742.00	9779.01			
		Brick (15 km lead)	690.00	No.	3.18	2194.20			
TOTAL (In Rs.)						24632.77			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.62	Cum	584.64	365.22	36.52		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					36.52		
AOC FOR CROSS DRAINAGE (Ch.-2.215 Km)									
1	Structure is in good condition and does not require any repair works.								
AOC FOR SYPHON (Ch.-2.600 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	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	207.600	Sqm	340.20	70625.52	215.240	3.031	
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.	207.600	Sqm	63.20	13120.32	0.31		
3		Carriage of materials							
		Coarse Sand (60 Km lead)	3.031	Cum	1075.00	3258.28			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	215.551	MT	742.00	159938.90			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
TOTAL (In Rs.)						246943.02			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	3.03	Cum	584.64	1772.02	177.20		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					177.20		
AOC FOR CULVERT (Ch.-3.010 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.	1.13	Cum	5021.30	5648.96	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.	3.625	Sqm	340.20	1233.23	3.758	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.	3.625	Sqm	63.20	229.10	0.01		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	0.413	Cum	1075.00	443.89			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	3.893	MT	742.00	2888.93			
		Brick (15 km lead)	562.00	No.	3.18	1787.16			
TOTAL (In Rs.)						12231.27			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.41	Cum	584.64	241.41	24.14		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					24.14		
AOC FOR CD WORK (Ch.-3.060 Km)									
1	Structure is in good condition and does not require any repair works.								
AOC FOR PIPE CULVERT (CH. 3.675 KM)									
1	5.1.3	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 royalty 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.	12.540	Sqm	340.20	4266.11	13.001	0.183	
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.	12.540	Sqm	63.20	792.53	0.02		
5		Carriage of materials							
		Coarse Sand (60 Km lead)	0.625	Cum	1075.00	671.54			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	13.179	MT	742.00	9779.01			
		Brick (15 km lead)	690.00	No.	3.18	2194.20			
TOTAL (In Rs.)						26049.30			
		Seigniorage @10%			Rate	Amount in Rs.	10%		

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	0.62	Cum	584.64	365.22	36.52		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					36.52		
AOC FOR CROSS DRAINAGE WORK (Ch. 4.025 KM)									
1	5.1.3	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			
		TOTAL (In Rs.)				1416.53			
AOC FOR CROSS DRAINAGE WORK (Ch.-4.580 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR CROSS DRAINAGE WORK (Ch.-4.900 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR PIPE CULVERT (Ch.-5.420 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.	0.69	Cum	5021.30	3464.70	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.	6.270	Sqm	340.20	2133.05	6.501	0.092	
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.	6.270	Sqm	63.20	396.26	0.01		
4	5.1.3	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			
5		Carriage of materials							
		Coarse Sand (60 Km lead)	0.312	Cum	1075.00	335.77			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	6.590	MT	742.00	4889.50			
		Brick (15 km lead)	345.00	No.	3.18	1097.10			
		TOTAL (In Rs.)				13496.83			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.31	Cum	584.64	182.61	18.26		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					18.26		
AOC FOR CROSS DRAINAGE WORK (Ch.-5.625 Km)									
1		Structure is in good condition and does not require any repair works.							

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 PIPE CULVERT (Ch.-6.005 Km)									
1	5.1.3	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 royalty as per specification and direction of E/I.	4.60	Cum	5021.30	23097.98	0.53	1.47	
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.	41.800	Sqm	340.20	14220.36	43.338	0.610	
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.	41.800	Sqm	63.20	2641.76	0.06		
5		Carriage of materials							
		Coarse Sand (60 Km lead)	2.082	Cum	1075.00	2238.45			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	43.931	MT	742.00	32596.70			
		Brick (15 km lead)	2300.00	No.	3.18	7314.00			
TOTAL (In Rs.)						83525.78			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	2.08	Cum	584.64	1217.38	121.74		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					121.74		
AOC FOR CROSS DRAINAGE WORK (Ch.-6.190 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.	1.50	Cum	5021.30	7531.95	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.	14.500	Sqm	340.20	4932.90	15.034	0.212	
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.	14.500	Sqm	63.20	916.40	0.02		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	0.692	Cum	1075.00	743.58			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	15.228	MT	742.00	11299.29			
		Brick (15 km lead)	750.00	No.	3.18	2385.00			
TOTAL (In Rs.)						27809.11			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.69	Cum	584.64	404.40	40.44		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					40.44		
AOC FOR CROSS DRAINAGE WORK (Ch.-6.630 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR PIPE CULVERT (Ch.-6.795 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.	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 royalty as per specification and direction of E/I.	5.29	Cum	5021.30	26562.68	0.61	1.69	
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.	48.070	Sqm	340.20	16353.41	49.839	0.702	
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.	48.070	Sqm	63.20	3038.02	0.07		

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		Carriage of materials							
		Coarse Sand (60 Km lead)	2.395	Cum	1075.00	2574.22			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	50.520	MT	742.00	37486.20			
		Brick (15 km lead)	2645.00	No.	3.18	8411.10			
		TOTAL (In Rs.)				95369.99			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	2.39	Cum	584.64	1399.99	140.00		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					140.00		
		AOC FOR CROSS DRAINAGE WORK (Ch.-7.120 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.	2.40	Cum	5021.30	12051.12	0.28	0.77	
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.	23.200	Sqm	340.20	7892.64	24.054	0.339	
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.	23.200	Sqm	63.20	1466.24	0.03		
4		Carriage of materials			1075.00				
		Coarse Sand (60 Km lead)	1.107	Cum		1189.72			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	24.365	MT	742.00	18078.86			
		Brick (15 km lead)	1200.00	No.	3.18	3816.00			
		TOTAL (In Rs.)				44494.58			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.11	Cum	584.64	647.03	64.70		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					64.70		
		AOC FOR CROSS DRAINAGE WORK (Ch.-7.825 Km)							
1		Structure is in good condition and does not require any repair works.							
		AOC FOR PIPE CULVERT (Ch.-7.985 Km)							
1		Structure is in good condition and does not require any repair works.							
		AOC FOR CULVERT (Ch.-8.180 Km)							
1		Structure is in good condition and does not require any repair works.							
		AOC FOR CULVERT (Ch.-8.790 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.	2.30	Cum	5021.30	11548.99	0.26	0.74	
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	21.669	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)	1.041	Cum	1075.00	1119.23			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	21.965	MT	742.00	16298.35			
		Brick (15 km lead)	1150.00	No.	3.18	3657.00			
		TOTAL (In Rs.)				41054.62			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.04	Cum	584.64	608.69	60.87		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					60.87		
		AOC FOR FALL (Ch.-9.320 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	5.8.9	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.	18.090	Cum	2492.58	45090.77			
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.)						45090.77			
AOC FOR HR PARANPUR MR. (9.325 KM)									
1	5.1.3	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.	17.100	Cum	2492.58	42623.12			
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.)						44393.78			
		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 CULVERT (Ch.-9.470 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 royalty as per specification and direction of E/I.	2.42	Cum	5021.30	12126.44	0.28	0.77	
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.	21.945	Sqm	340.20	7465.69	22.753	0.320	
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.	21.945	Sqm	63.20	1386.92	0.03		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.093	Cum	1075.00	1175.19			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	23.064	MT	742.00	17113.27			
		Brick (15 km lead)	1207.00	No.	3.18	3838.26			
TOTAL (In Rs.)						43105.77			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.09	Cum	584.64	639.13	63.91		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					63.91		
AOC FOR SYPHON (Ch.-9.770 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.	3.00	Cum	5021.30	15063.90	0.35	0.96	
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.	29.000	Sqm	340.20	9865.80	30.067	0.423	
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.	29.000	Sqm	63.20	1832.80	0.04		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.383	Cum	1075.00	1487.16			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	30.456	MT	742.00	22598.57			
		Brick (15 km lead)	1500.00	No.	3.18	4770.00			

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)
TOTAL (In Rs.)						55618.23			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.38	Cum	584.64	808.79	80.88		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					80.88		
AOC FOR CROSS DRAINAGE WORK (Ch.-10.270 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR HR SALAIYA MR. (11.070 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.	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.	7.875	Cum	2492.58	19629.07			
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.)						20809.51			
		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 CROSS DRAINAGE WORK (Ch.-11.140 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.	6.00	Cum	5021.30	30127.80	0.69	1.92	
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.	58.000	Sqm	340.20	19731.60	60.134	0.847	
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.	58.000	Sqm	63.20	3665.60	0.09		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	2.767	Cum	1075.00	2974.31			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	60.913	MT	742.00	45197.15			
		Brick (15 km lead)	3000.00	No.	3.18	9540.00			
TOTAL (In Rs.)						111236.46			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	2.77	Cum	584.64	1617.58	161.76		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					161.76		
AOC FOR PIPE CULVERT AT (CH.-11.475) 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.	2.53	Cum	5021.30	12703.89	0.29	0.81	
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.	22.990	Sqm	340.20	7821.20	23.836	0.336	
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.	22.990	Sqm	63.20	1452.97	0.03		
4	5.1.3	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			
5		Carriage of materials							
		Coarse Sand (60 Km lead)	1.145	Cum	1075.00	1231.15			
		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 MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Cement (30 km lead)	24.162	MT	742.00	17928.18			
		Brick (15 km lead)	1265.00	No.	3.18	4022.70			
TOTAL (In Rs.)						46104.44			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.15	Cum	584.64	669.56	66.96		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					66.96		
AOC FOR CROSS DRAINAGE WORK (Ch.-12.100 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 royalty as per specification and direction of E/I.	0.90	Cum	5021.30	4519.17	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.	17.400	Sqm	340.20	5919.48	18.040	0.254	
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.	17.400	Sqm	63.20	1099.68	0.03		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	0.542	Cum	1075.00	582.69			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	18.170	MT	742.00	13482.21			
		Brick (15 km lead)	450.00	No.	3.18	1431.00			
TOTAL (In Rs.)						27034.24			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.54	Cum	584.64	316.90	31.69		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					31.69		
AOC FOR CULVERT (Ch.-12.220 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 royalty as per specification and direction of E/I.	3.00	Cum	5021.30	15063.90	0.35	0.96	
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.	29.000	Sqm	340.20	9865.80	30.067	0.423	
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.	29.000	Sqm	63.20	1832.80	0.04		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.383	Cum	1075.00	1487.16			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	30.456	MT	742.00	22598.57			
		Brick (15 km lead)	1500.00	No.	3.18	4770.00			
TOTAL (In Rs.)						55618.23			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.38	Cum	584.64	808.79	80.88		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					80.88		
AOC FOR CROSS DRAINAGE WORK (Ch.-12.470 Km)									
1	Structure is in good condition and does not require any repair works.								
AOC FOR FALL (Ch.-12.650 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.	28.79	Cum	6381.70	183735.52	9.33	12.96	25.91
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.	21.022	Sqm	578.60	12163.33			

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)
3		Carriage of materials							
		Coarse Sand (60 Km lead)	12.956	Cum	1075.00	13927.65			
		Coarse Aggregates (100 Km lead)	25.912	Cum	1398.00	36224.84			
		Cement (30 km lead)	9.328	MT	742.00	6921.59			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
		TOTAL (In Rs.)				252972.92			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	12.96	Cum	584.64	7574.57	757.46		
		Coarse Aggregate	25.91	Cum	944.26	24467.57	2446.76		
		Total					3204.21		
		AOC FOR FALL (CH.-12.900 KM)							
1		NEW FALL IS TO BE PROPOSED AT THIS LOCATION, EXISTING DESTROYED.							
		AOC FOR PIPE CULVERT (Ch.-13.025 Km)							
1		Structure is in good condition and does not require any repair works.							
		AOC FOR FALL (Ch.-13.200 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.	20.40	Cum	6381.70	130186.68	6.61	9.18	18.36
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	19.000	Sqm	578.60	10993.40			
3		Carriage of materials							
		Coarse Sand (60 Km lead)	9.180	Cum	1075.00	9868.50			
		Coarse Aggregates (100 Km lead)	18.360	Cum	1398.00	25667.28			
		Cement (30 km lead)	6.610	MT	742.00	4904.32			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
		TOTAL (In Rs.)				181620.18			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	9.18	Cum	584.64	5367.00	536.70		
		Coarse Aggregate	18.36	Cum	944.26	17336.61	1733.66		
		Total					2270.36		
		AOC FOR PIPE CULVERT (Ch.-13.540 Km)							
1	5.1.3	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			
		TOTAL (In Rs.)				1770.66			
		AOC FOR HR OF DHAMINI SUB DY (CH.-13.800 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.	17.500	Cum	2492.58	43620.15			
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.)				43620.15			
		ABSTRACT OF COST OF REPAIRED STRUCTURES OF PARANPUR MR							
		AOC FOR PIPE CULVERT (Ch.-0.200 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.	2.592	Cum	2492.58	6460.77			
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.)				6460.77			
		AOC FOR PIPE CULVERT (Ch.-0.400 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	5.8.9	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.	2.592	Cum	2492.58	6460.77			
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.)				6460.77			
		AOC FOR PIPE CULVERT (Ch.-0.550 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.	2.592	Cum	2492.58	6460.77			
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.)				6460.77			
		AOC FOR PIPE CULVERT (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.	2.592	Cum	2492.58	6460.77			
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.)				6460.77			
		AOC FOR PIPE CULVERT (Ch.-1.050 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.	2.592	Cum	2492.58	6460.77			
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.)				6460.77			
		AOC FOR PIPE CULVERT (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.	2.592	Cum	2492.58	6460.77			
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.)				6460.77			
		AOC FOR CROSS DRAINAGE WORK (Ch.-1.660 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.	15.120	Cum	2492.58	37687.81			
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.)				37687.81			
		AOC FOR PIPE CULVERT (Ch.-1.990 Km)							
1	5.1.3	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			
		TOTAL (In Rs.)				1416.53			
		AOC FOR FALL + CULVERT (Ch.-2.215 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	5.8.9	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.	12.555	Cum	2492.58	31294.34			
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.)				31294.34			
		AOC FOR PIPE CULVERT (Ch.-2.435 Km)							
1		Structure is in good condition and does not require any repair works.							
		AOC FOR PIPE CULVERT (Ch.-2.520 Km)							
1		Structure is in good condition and does not require any repair works.							
		AOC FOR PIPE CULVERT (Ch.-2.800 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.	100.000	Sqm	11.80	1180.44			
		TOTAL (In Rs.)				1180.44			

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 OF REPAIRED STRUCTURES OF SALAIYA MINOR									
AOC FOR FALL (Ch.-0.030 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.	8.370	Cum	2492.58	20862.89			
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.)						20862.89			
		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 FALL (Ch.-0.145 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR CROSS DRAINAGE WORK (Ch.-0.505 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR FALL(Ch.-0.610 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.	12.60	Cum	6381.70	80409.42	4.08	5.67	11.34
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.	13.400	Sqm	578.60	7753.24			
3		Carriage of materials							
		Coarse Sand (60 Km lead)	5.670	Cum	1075.00	6095.25			
		Coarse Aggregates (100 Km lead)	11.340	Cum	1398.00	15853.32			
		Cement (30 km lead)	4.082	MT	742.00	3029.14			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
TOTAL (In Rs.)						113140.37			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	5.67	Cum	584.64	3314.91	331.49		
		Coarse Aggregate	11.34	Cum	944.26	10707.91	1070.79		
		Total					1402.28		
AOC FOR CULVERT+FALL (Ch.-0.810 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR FALL (Ch.-1.060 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.	14.94	Cum	6381.70	95342.60	4.84	6.72	13.45
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.	14.400	Sqm	578.60	8331.84			
5		Carriage of materials							
		Coarse Sand (60 Km lead)	6.723	Cum	1075.00	7227.23			
		Coarse Aggregates (100 Km lead)	13.446	Cum	1398.00	18797.51			
		Cement (30 km lead)	4.841	MT	742.00	3591.70			
TOTAL (In Rs.)						133290.87			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	6.72	Cum	584.64	3930.53	393.05		
		Coarse Aggregate	13.45	Cum	944.26	12696.52	1269.65		
		Total					1662.71		
AOC FOR CROSS DRAINAGE WORK (Ch.-1.150 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR CULVERT+FALL (Ch.-1.260 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	5.1.3	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 royalty as per specification and direction of E/I.	2.58	Cum	5021.30	12954.95	0.30	0.83	
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.	24.140	Sqm	340.20	8212.43	25.028	0.352	
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.	24.140	Sqm	63.20	1525.65	0.04		
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.	1.35	Cum	6381.70	8615.30	0.44	0.61	1.22
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.	2.700	Sqm	578.60	1562.22			
7		Carriage of materials							
		Coarse Sand (60 Km lead)	1.786	Cum	1075.00	1919.46			
		Coarse Aggregates (100 Km lead)	1.215	Cum	1398.00	1698.57			
		Cement (30 km lead)	25.799	MT	742.00	19142.99			
		Brick (15 km lead)	1290.00	No.	3.18	4102.20			
		TOTAL (In Rs.)				59733.76			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.79	Cum	584.64	1043.90	104.39		
		Coarse Aggregate	1.22	Cum	944.26	1147.28	114.73		
		Total				219.12			
		AOC FOR CROSS DRAINAGE WORK (Ch.-1.780 Km)							
1		Structure is in good condition and does not require any repair works.							
		AOC FOR CULVERT+FALL (Ch.-1.885 Km)							
1		Structure is in good condition and does not require any repair works.							

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 OF REPAIRED STRUCTURES OF DHAMINI SUB DY.									
AOC FOR CROSS DRAINAGE (Ch.-0.375 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR PIPE CULVERT (Ch.-0.430 Km)									
1	5.1.3	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.	3.750	Sqm	340.20	1275.75	3.888	0.055	
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.	3.750	Sqm	63.20	237.00	0.01		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	0.055	Cum	1075.00	58.86			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	3.894	MT	742.00	2889.07			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
TOTAL (In Rs.)						5759.16			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.05	Cum	584.64	32.01	3.20		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					3.20		
AOC FOR CULVERT (Ch.-1.595 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR CULVERT (Ch.-2.800 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.	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.	6.875	Sqm	340.20	2338.88	7.128	0.100	
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.	6.875	Sqm	63.20	434.50	0.01		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	0.100	Cum	1075.00	107.90			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	7.138	MT	742.00	5296.63			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
TOTAL (In Rs.)						9476.39			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.10	Cum	584.64	58.68	5.87		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					5.87		
AOC FOR FALL (Ch.-3.040 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.	150.000	Sqm	11.80	1770.66			
TOTAL (In Rs.)						1770.66			
AOC 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.	19.170	Cum	2492.58	47782.76			
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.)						47782.76			
		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 MARCH 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		New Fall has been Proposed							
AOC FOR CULVERT/FALL (Ch.-3.625 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.	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.	13.750	Sqm	340.20	4677.75	14.256	0.201	
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.	13.750	Sqm	63.20	869.00	0.02		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	0.201	Cum	1075.00	215.81			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	14.277	MT	742.00	10593.26			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
TOTAL (In Rs.)						17536.25			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.20	Cum	584.64	117.37	11.74		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					11.74		
AOC FOR FALL (Ch.-3.800 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.	14.310	Cum	2492.58	35668.82			
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.)						35668.82			
		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.-3.950 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.	10.530	Cum	2492.58	26246.87			
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.)						26246.87			
		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.-4.150 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR FALL (Ch.-4.312 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR FALL (Ch.-4.490 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.	13.68	Cum	6381.70	87301.66	4.43	6.16	12.31
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.	38.280	Sqm	578.60	22148.81			

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)
3		Carriage of materials							
		Coarse Sand (60 Km lead)	6.156	Cum	1075.00	6617.70			
		Coarse Aggregates (100 Km lead)	12.312	Cum	1398.00	17212.18			
		Cement (30 km lead)	4.432	MT	742.00	3288.78			
		TOTAL (In Rs.)				136569.12			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	6.16	Cum	584.64	3599.04	359.90		
		Coarse Aggregate	12.31	Cum	944.26	11625.73	1162.57		
		Total					1522.48		
		AOC FOR FALL (Ch.-4.595 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.	11.070	Cum	2492.58	27592.86			
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.)				27592.86			
		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 CHAIN NAWADA DISTRIBUTARY								
S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR BRIDGE/ FALL (Ch.-0.475 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.						
		Parapet Wall	2	3.048	0.45	0.5	1.37	Cum
		TOTAL					1.37	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	1	3.05		1.45	4.42	Sqm
		TOTAL					4.42	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		1.45	4.42	Sqm
		TOTAL					4.42	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.						
		Wing wall D/S	2	4.00	0.25	1.2	2.40	Cum
		TOTAL					2.40	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 D/S	4	4.00		1.2	19.20	Sqm
			4		0.25	1.2	1.20	Sqm
		TOTAL					20.40	Sqm
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-0.720 Km)								
1	5.1.3	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 royalty as per specification and direction of E/I.						
		Parapet Wall	1	2	0.25	0.92	0.46	Cum
		TOTAL					0.46	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	1	2.00		2.09	4.18	Sqm
		TOTAL					4.18	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	2.00		2.09	4.18	Sqm
		TOTAL					4.18	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-1.320 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.						
		Wing wall	1	2.5	0.25	0.6	0.38	Cum
		TOTAL					0.38	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	1	2.50		1.45	3.63	Sqm
		TOTAL					3.63	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	1	2.50		1.45	3.63	Sqm
		TOTAL					3.63	Sqm
QUANTITIES OF REPAIRING WORK FOR SYPHON (Ch.-1.760 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	50.31		1.45	145.90	Sqm
		Wing Wall	4	20.00		1.25	100.00	Sqm
		TOTAL					245.90	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	50.31		1.45	145.90	Sqm
		Wing Wall	4	20.00		1.25	100.00	Sqm
		TOTAL					245.90	Sqm
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-2.075 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				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 royalty as per specification and direction of E/I.						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		Parapet Wall	1	6	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	1	6.00		2.09	12.54	Sqm
		TOTAL					12.54	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	6.00		2.09	12.54	Sqm
		TOTAL					12.54	Sqm
QUANTITIES OF REPAIRING WORK FOR CROSS DRAINAGE (Ch.-2.215 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR SYPHON (Ch.-2.600 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	44.00		1.45	127.60	Sqm
		Wing Wall	4	16.00		1.25	80.00	Sqm
		TOTAL					207.60	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.						
		Parapet Wall	2	44.00		1.45	127.60	Sqm
		Wing Wall	4	16.00		1.25	80.00	Sqm
		TOTAL					207.60	Sqm
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-3.010 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.						
		Parapet Wall	2	2.5	0.45	0.5	1.13	Cum
		TOTAL					1.13	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	1	2.50		1.45	3.63	Sqm
		TOTAL					3.63	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	2.50		1.45	3.63	Sqm
		TOTAL					3.63	Sqm

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR CROSS DRAINAGE WORK (Ch.-3.060 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-3.675 Km)								
1	5.1.3	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 royalty as per specification and direction of E/I.						
		Parapet Wall	1	6	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	1	6.00		2.09	12.54	Sqm
		TOTAL					12.54	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	6.00		2.09	12.54	Sqm
		TOTAL					12.54	Sqm
QUANTITIES OF REPAIRING WORK FOR CROSS DRAINAGE WORK (Ch.-4.025 Km)								
1	5.1.3	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
QUANTITIES OF REPAIRING WORK FOR CROSS DRAINAGE WORK (Ch.-4.580 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR CROSS DRAINAGE WORK (Ch.-4.900 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-5.420 Km)								
1	5.1.3	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 royalty as per specification and direction of E/I.						
		Parapet Wall	1	3	0.25	0.92	0.69	Cum
		TOTAL					0.69	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		2.09	6.27	Sqm

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		TOTAL					6.27	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.						
		<i>Parapet Wall</i>	1	3.00		2.09	6.27	Sqm
		TOTAL					6.27	Sqm
QUANTITIES OF REPAIRING WORK FOR CROSS DRAINAGE WORK (Ch.-5.625 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-6.005 Km)								
1	5.1.3	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 royalty as per specification and direction of E/I.						
		<i>Parapet Wall</i>	2	10	0.25	0.92	4.60	Cum
		TOTAL					4.60	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.						
		<i>Parapet Wall</i>	2	10.00		2.09	41.80	Sqm
		TOTAL					41.80	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.						
		<i>Parapet Wall</i>	2	10.00		2.09	41.80	Sqm
		TOTAL					41.80	Sqm
QUANTITIES OF REPAIRING WORK FOR CROSS DRAINAGE WORK (Ch.-6.190 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.						
		<i>Wing wall</i>	2	5.00	0.25	0.6	1.50	Cum
		TOTAL					1.50	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.						
		<i>Wing wall</i>	2	5.00		1.45	14.50	Sqm
		TOTAL					14.50	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.						
		<i>Wing wall</i>	2	5.00		1.45	14.50	Sqm
		TOTAL					14.50	Sqm
QUANTITIES OF REPAIRING WORK FOR CROSS DRAINAGE WORK (Ch.-6.630 Km)								
1		Structure requires no repair work.						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-6.795 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				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 royalty as per specification and direction of E/I.						
		Parapet Wall	2	11.5	0.25	0.92	5.29	Cum
		TOTAL					5.29	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	2	11.50		2.09	48.07	Sqm
		TOTAL					48.07	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	11.50		2.09	48.07	Sqm
		TOTAL					48.07	Sqm
QUANTITIES OF REPAIRING WORK FOR CROSS DRAINAGE WORK (Ch.-7.120 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.						
		Wing wall	1	16.00	0.25	0.6	2.40	Cum
		TOTAL					2.40	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.						
		Wing wall	1	16.00		1.45	23.20	Sqm
		TOTAL					23.20	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.						
		Wing wall	1	16.00		1.45	23.20	Sqm
		TOTAL					23.20	Sqm
QUANTITIES OF REPAIRING WORK FOR CROSS DRAINAGE WORK (Ch.-7.825 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-7.985 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-8.180 Km)								
1		Structure requires no repair work.						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-8.790 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.						
		Parapet Wall	1	10	0.25	0.92	2.30	Cum
		TOTAL					2.30	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	1	10.00		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	1	10.00		2.09	20.90	Sqm
		TOTAL					20.90	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-9.320 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.						
		U/S Wing wall	2	10.00	0.45	1.20	10.80	Cum
		U/S Abutment	1	5.00	0.45	0.90	2.03	Cum
		D/S Abutment	1	13.00	0.45	0.90	5.27	Cum
		TOTAL					18.09	Cum
QUANTITIES OF REPAIRING WORK FOR HR PARANPUR MR. (9.325 KM)								
1	5.1.3	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
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.						
		HR GATE TOP	2	2.50	1.00	1.5	7.50	Cum
		Wing wall	2	4.00	1.00	1.2	9.60	Cum
		TOTAL					17.10	Cum
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-9.470 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 royalty as per specification and direction of E/I.						
		Parapet Wall	1	10.50	0.25	0.92	2.42	Cum
		TOTAL					2.42	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	1	10.50		2.09	21.95	Sqm
		TOTAL					21.95	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	10.50		2.09	21.95	Sqm
		TOTAL					21.95	Sqm
QUANTITIES OF REPAIRING WORK FOR SYPHON (Ch.-9.770 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.						
		Wing wall	2	10.00	0.25	0.6	3.00	Cum
		TOTAL					3.00	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.						
		Wing wall	2	10.00		1.45	29.00	Sqm
		TOTAL					29.00	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.						
		Wing wall	2	10.00		1.45	29.00	Sqm
		TOTAL					29.00	Sqm
QUANTITIES OF REPAIRING WORK FOR CROSS DRAINAGE WORK (Ch.-10.270 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR HR SALAIYA MR. (11.070 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				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.						
		Side wall	2	1.50	0.50	1.50	2.25	Cum
		HR Gate Top	1	3.00	1.25	1.50	5.63	Cum
		TOTAL					7.88	Cum
QUANTITIES OF REPAIRING WORK FOR CROSS DRAINAGE WORK (Ch.-11.140 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.						
		Wing wall	2	20.00	0.25	0.6	6.00	Cum
		TOTAL					6.00	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.						
		Wing wall	2	20.00		1.45	58.00	Sqm
		TOTAL					58.00	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.						
		Wing wall	2	20.00		1.45	58.00	Sqm
		TOTAL					58.00	Sqm
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT AT (CH.-11.475) KM								
1	5.1.3	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 royalty as per specification and direction of E/I.						
		Parapet Wall	1	11	0.25	0.92	2.53	Cum
		TOTAL					2.53	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	11.00		2.09	22.99	Sqm
		TOTAL					22.99	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	11.00		2.09	22.99	Sqm
		TOTAL					22.99	Sqm
QUANTITIES OF REPAIRING WORK FOR CROSS DRAINAGE WORK (Ch.-12.100 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 royalty as per specification and direction of E/I.						
		Wing wall	1	6.00	0.25	0.6	0.90	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.						
		Wing wall	2	6.00		1.45	17.40	Sqm
		TOTAL					17.40	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.						
		Wing wall	2	6.00		1.45	17.40	Sqm
		TOTAL					17.40	Sqm
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-12.220 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 royalty as per specification and direction of E/I.						
		Parapet Wall	2	10	0.25	0.6	3.00	Cum
		TOTAL					3.00	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	2	10.00		1.45	29.00	Sqm
		TOTAL					29.00	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	10.00		1.45	29.00	Sqm
		TOTAL					29.00	Sqm
QUANTITIES OF REPAIRING WORK FOR CROSS DRAINAGE WORK (Ch.-12.470 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-12.650 Km)								
1	5.3.5	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost 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 Floor	1	7.00	4.50	0.914	28.79	Cum
		TOTAL					28.79	Cum
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.						
		D/S Floor	2	7.00		0.914	12.80	Sqm
			2		4.50	0.914	8.23	Sqm
		TOTAL					21.02	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (CH.-12.900 KM)								
1		NEW FALL IS TO BE PROPOSED AT THIS LOCATION, EXISTING COMPLETLEY DESTROYED.						
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-13.025 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-13.200 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.						
		CREST	1	4.00	0.60	0.50	1.20	Cum
		FLOOR	1	8.00	4.00	0.60	19.20	Cum
		TOTAL					20.40	Cum
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.						
		CREST	2	4.00		0.5	4.00	Sqm
			2		0.60	0.5	0.60	Sqm

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		FLOOR	2	8.00		0.60	9.60	Sqm
			2		4.00	0.60	4.80	Sqm
		TOTAL					19.00	Sqm
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-13.540 Km)								
1	5.1.3	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
QUANTITIES OF REPAIRING WORK FOR HR OF DHAMINI SUB DY (CH.-13.800 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.						
		Side wall	2	3.00	0.50	2.00	6.00	Cum
		HR Gate Top	1	4.60	1.25	2.00	11.50	Cum
		TOTAL					17.50	Cum

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF PARANPUR MR								
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-0.200 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.						
		RCC HUME PIPE	1.00	7.20	0.60	0.60	2.59	Cum
		NEW CULVERT + FALL IS PROPOSED AT THIS LOCATION.						
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-0.400 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.						
		RCC HUME PIPE	1.00	7.20	0.60	0.60	2.59	Cum
		NEW CULVERT + FALL IS PROPOSED AT THIS LOCATION.						
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-0.550 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.						
		RCC HUME PIPE	1.00	7.20	0.60	0.60	2.59	Cum
		NEW CULVERT + FALL IS PROPOSED AT THIS LOCATION.						
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (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.						
		RCC HUME PIPE	1.00	7.20	0.60	0.60	2.59	Cum
		NEW CULVERT + FALL IS PROPOSED AT THIS LOCATION.						
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-1.050 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.						
		RCC HUME PIPE	1.00	7.20	0.60	0.60	2.59	Cum
		NEW CULVERT + FALL IS PROPOSED AT THIS LOCATION.						
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (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.						
		RCC HUME PIPE	1.00	7.20	0.60	0.60	2.59	Cum
		NEW CULVERT + FALL IS PROPOSED AT THIS LOCATION.						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR CROSS DRAINAGE WORK (Ch.-1.660 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.						
		U/S Wing wall	2	8.00	0.45	1.20	8.64	Cum
		D/S Wing wall	2	6.00	0.45	1.20	6.48	Cum
		TOTAL					15.12	Cum
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-1.990 Km)								
1	5.1.3	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
QUANTITIES OF REPAIRING WORK FOR FALL + CULVERT (Ch.-2.215 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.						
		WELL	1	6.00	1.20	1.20	8.64	Cum
		PARAPET	2	5.00	0.45	0.60	2.70	Cum
		D/S Abutment	1	3.00	0.45	0.90	1.22	Cum
		TOTAL					12.56	Cum
NEW CULVERT + FALL IS PROPOSED AT THIS LOCATION.								
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-2.435 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-2.520 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-2.800 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				100.00	Sqm

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit	
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF SALAIYA MINOR									
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.030 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.							
		U/S Wing wall	2	3.00	0.45	1.20	3.24	Cum	
		D/S Wing wall	2	2.00	0.45	1.20	2.16	Cum	
		U/S Abutment	1	2.50	0.45	1.20	1.35	Cum	
		D/S Abutment	1	3.00	0.45	1.20	1.62	Cum	
		TOTAL						8.37	Cum
		New Fall has been Proposed							
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.145 Km)									
1		Structure requires no repair work.							
QUANTITIES OF REPAIRING WORK FOR CROSS DRAINAGE WORK (Ch.-0.505 Km)									
1		Structure requires no repair work.							
QUANTITIES OF REPAIRING WORK FOR FALL(Ch.-0.610 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.							
		CREST	1	2.00	0.60	0.50	0.60	Cum	
		FLOOR	1	5.00	4.00	0.60	12.00	Cum	
		TOTAL						12.60	Cum
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.							
		CREST	2	2.00		0.5	2.00	Sqm	
			2		0.60	0.5	0.60	Sqm	
		FLOOR	2	5.00		0.60	6.00	Sqm	
			2		4.00	0.60	4.80	Sqm	
		TOTAL						13.40	Sqm
QUANTITIES OF REPAIRING WORK FOR CULVERT+FALL (Ch.-0.810 Km)									
1		Structure requires no repair work.							
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-1.060 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.							
		CREST	1	1.80	0.60	0.50	0.54	Cum	
		FLOOR	1	6.00	4.00	0.60	14.40	Cum	
		TOTAL						14.94	Cum

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
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.						
		CREST	2	1.80		0.5	1.80	Sqm
			2		0.60	0.5	0.60	Sqm
		FLOOR	2	6.00		0.60	7.20	Sqm
			2		4.00	0.60	4.80	Sqm
		TOTAL					14.40	Sqm
QUANTITIES OF REPAIRING WORK FOR CROSS DRAINAGE WORK (Ch.-1.150 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR CULVERT+FALL (Ch.-1.260 Km)								
1	5.1.3	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 royalty as per specification and direction of E/I.						
		Parapet Wall	2	3	0.25	0.92	1.38	Cum
		Wing wall	2	4	0.25	0.6	1.20	Cum
		TOTAL					2.58	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	3.00		2.09	12.54	Sqm
		Wing wall	2	4.00		1.45	11.60	Sqm
		TOTAL					24.14	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	3.00		2.09	12.54	Sqm
		Wing wall	2	4.00		1.45	11.60	Sqm
		TOTAL					24.14	Sqm
5	5.3.5	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost 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 Floor	1	3.00	1.50	0.3	1.35	Cum
		TOTAL					1.35	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.						
		D/S Floor	2	3.00		0.3	1.80	Sqm
			2		1.50	0.3	0.90	Sqm
		TOTAL					2.70	Sqm

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR CROSS DRAINAGE WORK (Ch.-1.780 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR CULVERT+FALL (Ch.-1.885 Km)								
1		Structure requires no repair work.						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF DHAMANI SUB-DISTRIBUTARY								
QUANTITIES OF REPAIRING WORK FOR CROSS DRAINAGE (Ch.-0.375 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-0.430 Km)								
1	5.1.3	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	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite 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
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	3.00		1.25	3.75	Sqm
		TOTAL					3.75	Sqm
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-1.595 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-2.800 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				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	1	5.50		1.25	6.88	Sqm
		TOTAL					6.88	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	1	5.50		1.25	6.88	Sqm
		TOTAL					6.88	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-3.040 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				150.00	Sqm
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.						
		U/S Wing wall	2	5.50	0.45	1.20	5.94	Cum
		D/S Wing wall	2	2.00	0.45	1.20	2.16	Cum
		U/S Abutment	1	2.50	0.45	1.20	1.35	Cum
		D/S Abutment	2	9.00	0.45	1.20	9.72	Cum

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		TOTAL					19.17	Cum
		New Fall has been Proposed						
		QUANTITIES OF REPAIRING WORK FOR CULVERT/FALL (Ch.-3.625 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				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	5.50		1.25	13.75	Sqm
		TOTAL					13.75	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	5.50		1.25	13.75	Sqm
		TOTAL					13.75	Sqm
		QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-3.800 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.						
		U/S Wing wall	2	4.00	0.45	1.20	4.32	Cum
		D/S Wing wall	2	2.00	0.45	1.20	2.16	Cum
		CREST	1	2.50	0.45	1.20	1.35	Cum
		D/S Abutment	2	6.00	0.45	1.20	6.48	Cum
		TOTAL					14.31	Cum
		New Fall has been Proposed						
		QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-3.950 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.						
		U/S Wing wall	2	5.50	0.45	1.20	5.94	Cum
		CREST	1	2.50	0.45	1.20	1.35	Cum
		D/S Abutment	2	3.00	0.45	1.20	3.24	Cum
		TOTAL					10.53	Cum
		New Fall has been Proposed						
		QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-4.150 Km)						
1		Structure requires no repair work.						
		QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-4.312 Km)						
1		Structure requires no repair work.						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-4.490 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.						
		D/S ABUTMENT	1	12.00	0.45	1.20	6.48	Cum
		FLOOR	1	4.00	3.00	0.60	7.20	Cum
		TOTAL					13.68	Cum
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.						
		D/S ABUTMENT	2	12.00		1.2	28.80	Sqm
			2		0.45	1.2	1.08	Sqm
		FLOOR	2	4.00		0.60	4.80	Sqm
			2		3.00	0.60	3.60	Sqm
		TOTAL					38.28	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-4.595 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.						
		U/S Wing wall	2	5.00	0.45	1.20	5.40	Cum
		CREST	1	2.50	0.45	1.20	1.35	Cum
		D/S Abutment	2	4.00	0.45	1.20	4.32	Cum
		TOTAL					11.07	Cum
		New Fall has been Proposed						

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
	<i>Total 1+2+3= (B) =</i>	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
	<i>Total = B+4+5+6+7 = C</i>	Rs.	155373.89
8	Other incidental charge , 3 % = of C	Rs.	4661.22
	<i>Total C+8 = D</i>	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, scaffolding and its removal wherever 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. 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.								
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 foundation 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 Aggregat e (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			
		<i>Total</i>					1100.17			
		For 48 nos. outlet, Total Seigniorage charges					52808.31			

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, scaffolding and its removal wherever 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.	References 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	WRD SOR 2023 & PL JUNE 2024
		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 M²
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	SI-1
					Total	₹ 3,854.16	
		Add Overhead charge &c.P @ 15 %				₹ 578.12	
						₹ 4,432.28	
		Rate per Cum			Say, Rs	₹ 156.50	Per M³
	NOTE:-	Add royalty of earth Rs. 33.00 where needed without overhead charges & C.P.					

Sl. No.	References 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 M³
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 including 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 M³
5	5.1.22	Extra for wet earth all complete as per specifications and direction of E/I.					

Sl. No.	References 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	SI-1
		Add Overhead charge &C.P @ 15 %				₹ 63.60	
						₹ 487.60	
		Rate per Cum			Say, Rs	₹ 17.22	Per M³
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	SI-1
		Add extra wages of 1/2 no. unskilled labour per 28.32 m3	0.50	nos	424.00	₹ 212.00	SI-1
						₹ 4,066.16	
		Add Overhead charge &C.P @ 15 %				₹ 609.92	
						₹ 4,676.08	
					Say, Rs	₹ 165.12	Per M³
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.	References 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 M³
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.	References 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.	References 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.	References 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.	References 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 M³

Sl. No.	References 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.	References 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 M³
					Say, Rs	₹ 6,003.37	Per M³
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.	References 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.	References 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 Vibrator Capacity 1.98 m ³ 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.	References 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	

Sl. No.	References SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Add Overhead charge &c.P @ 15 %				₹ 3,011.04	
						₹ 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.	References 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

Sl. No.	References SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		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 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, propping 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

Sl. No.	References SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	B	Labour					
		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, propping 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	

Sl. No.	References SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		Add 1% for cost of nails and spikes				₹ 101.17	
						₹ 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

Sl. No.	References SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
					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
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

Sl. No.	References SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
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 M³
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 M³

Sl. No.	References 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.	References 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
	5.6.1.7	1000 mm dia NP2 H.P.					
		Unit: per m					
		Taking Output =	7.5	m			
		(Assuming 3 pipes of 2.5 m length and two collars)					
		Materials					

Sl. No.	References SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		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	
						13354.59	

Sl. No.	References SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		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, scaffolding and its removal wherever 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	

Sl. No.	References SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		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 M³
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 M³
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 royalty as per specification and direction of E/I.					
		Unit :- Per Sqm					
		Taking Output :- 2.832 cum					
		Materials					

Sl. No.	References 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	
						12365.52	
		Add Overhead charge & C.P @ 15 %				₹ 1,854.83	
						₹ 14,220.35	
					Say, Rs	₹ 5,021.30	Per M³

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 2025 & PL MARCH 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, unloading, 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 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 & technical specifications & as per clause 2705 of specifications.	NO.	5588.70
18	WRD SOR 2025 & PL 2025	WRD 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.		
			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	<u>220.00</u>
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.	<u>6002.82</u>
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.	<u>7015.86</u>
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, scaffolding and its removal wherever 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	<u>499.80</u>
37	RCD 2025	RCD M-151	Providing RCC Pipe NP 4 heavy duty non pressure pipe 600 mm dia with spigot	RM	<u>2532.61</u>

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	<u>36993.21</u>
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	<u>66.00</u>
41	RCD 2025	RCD M-148	Providing RCC Pipe NP 4 heavy duty non pressure pipe 900 mm dia with spigot	R.M.	<u>4849.67</u>
42	RCD 2025	13.08	Weepholes	No.	<u>152.60</u>
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 transporting to the embankment location within all lifts and lead upto 1000 m	Cum	<u>78.40</u>
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	<u>1044.90</u>
45	RCD 2025	14.01 C	RCC Grade M-30 using Batching plant, Transit Mixer and Concrete Pump	Cum	<u>6217.20</u>
46	RCD 2025	8.14	Kilometer Stone M-15	Nos.	<u>3853.40</u>

MATERIAL RATE:

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

**Madanpur Division – Kotwara Dy.
(Total Cost – Rs. 38.88 Crores)**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
ABSTRACT OF COST (KOTWARA DISTRIBUTARY)								
S. No.	Items	Qty.	Unit	Rate	Seigniorage Charges	Amount (Rs.) Including Seigniorage Charges	Reference for Rate	Page no.
1	Earthwork							
	KOTWARA DY.	1	Job	106360831.55	0.00	₹ 10,63,60,831.55	AOC Earthwork Kotwara Dy.	54
	GAMHARIA MINOR	1	Job	5579483.74	0.00	₹ 55,79,483.74	AOC Earthwork Gamharia Minor	56
	NAGWA MINOR	1	Job	4541474.99	0.00	₹ 45,41,474.99	AOC Earthwork Nagwa Minor	58
	PAWAI MINOR	1	Job	5011768.08	0.00	₹ 50,11,768.08	AOC Earthwork Pawai Minor	60
	BHUTAILI MINOR	1	Job	5165886.88	0.00	₹ 51,65,886.88	AOC Earthwork Bhutaili Minor	62
	SALOPURA MINOR	1	Job	9342442.50	0.00	₹ 93,42,442.50	AOC Earthwork Salopura Minor	64
	SINGHI SUB -DY	1	Job	137270802.59	0.00	₹ 13,72,70,802.59	AOC Earthwork Singhi Sub Dy.	66
	SAHOKARMA MINOR	1	Job	3728239.48	0.00	₹ 37,28,239.48	AOC Earthwork Sahokarma Minor	68
	DHAMNI MINOR	1	Job	12275702.80	0.00	₹ 1,22,75,702.80	AOC Earthwork Dhamani Minor	70
	BHADWA MINOR	1	Job	6929978.12	0.00	₹ 69,29,978.12	AOC Earthwork Bhadwa Minor	72
2	Head Regulator							
	GAMHARIA MINOR	1	No.	1679341.07	11709.08	₹ 16,91,050.15	HR (AOC) Gamharia Minor	84
	NAGWA MINOR	1	No.	1994295.16	12772.37	₹ 20,07,067.53	HR (AOC) Nagwa Minor	87
	PAWAI MINOR	1	No.	1927516.58	13793.50	₹ 19,41,310.08	HR (AOC) Pawai Minor	90
	BHUTAILI MINOR	1	No.	1912760.57	13834.52	₹ 19,26,595.09	HR (AOC) Bhutaili Minor	93
	SALOPURA MINOR	1	No.	2364759.69	17986.09	₹ 23,82,745.79	HR (AOC) Salopura Minor	96
	SINGHI SUB -DY	1	No.	3440826.07	24044.27	₹ 34,64,870.34	HR (AOC) Singhi Sub dy.	99
	SAHOKARMA MINOR	1	No.	1646046.25	11380.18	₹ 16,57,426.42	HR (AOC) Sahokarma Minor	102
	DHAMNI MINOR	1	No.	2119662.34	15291.72	₹ 21,34,954.06	HR (AOC) Dhamani Minor	105
	NAWAKHAP MINOR	1	No.	236817.22	1725.59	₹ 2,38,542.80	HR (AOC) Nawakhap Minor	108
	BHADWA MINOR	1	No.	1671810.89	11382.17	₹ 16,83,193.06	HR (AOC) Bhadwa Minor	111
3	Falls							
	KOTWARA DY.							
	0.457 m Fall at Ch. 5.500 Km	1	No.	2072733.50	19137.48	₹ 20,91,870.99	Fall (AOC) Kotwara Dy.	163
	1.524 m Fall at Ch. 6.750 Km	1	No.	4006129.10	38236.65	₹ 40,44,365.76		166
	1.830 m Fall at Ch. 6.940 Km	1	No.	4908275.25	46886.46	₹ 49,55,161.72		169
	1.524 m Fall at Ch. 10.300 Km	1	No.	4019414.89	38251.06	₹ 40,57,665.95		172
	0.762 m Fall at Ch. 29.875 Km	1	No.	712803.19	6080.61	₹ 7,18,883.80		175
	0.762 m Fall at Ch. 30.000 Km	1	No.	635838.63	5396.81	₹ 6,41,235.44		178
	GAMHARI MINOR							
	No new proposed fall	0	No.	0.00		₹ 0.00		
	NAGWA MINOR							
	No new proposed fall	0	No.	0.00		₹ 0.00		
	PAWAI MINOR							
	1.067m Fall at Ch. 0.200 Km	1	No.	660158.94	5549.15	₹ 6,65,708.08	Fall (AOC) Pawai Minor	181
	0.914 m Fall at Ch. 0.375 Km	1	No.	577679.07	4866.03	₹ 5,82,545.10		184
	1.830 m Fall at Ch. 1.720 Km	1	No.	872624.65	7474.90	₹ 8,80,099.56		187
	BHUTAILI MINOR							
	1.524 m Fall at Ch. 0.580 Km	1	No.	851155.61	7303.94	₹ 8,58,459.55	Fall (AOC) Bhutaili minor	190
	0.610 m Fall at Ch. 1.350 Km	1	No.	452328.26	3803.89	₹ 4,56,132.15		193

S. No.	Items	Qty.	Unit	Rate	Seigniorage Charges	Amount (Rs.) Including Seigniorage Charges	Reference for Rate	Page no.
	SALOPURA MINOR							
	1.220 m Fall at Ch. 0.487 Km	1	No.	729903.11	6222.77	₹ 7,36,125.88	Fall (AOC) Salopura Minor	196
	2.134 m Fall at Ch. 1.185 Km	1	No.	1265252.85	10966.79	₹ 12,76,219.64		199
	1.220 m Fall at Ch. 2.800 Km	1	No.	508568.96	4221.94	₹ 5,12,790.89		202
	SINGHI SUB -DY							
	1.220 m Fall at Ch. 0.650 Km	1	No.	2257844.98	20953.32	₹ 22,78,798.30	Fall (AOC) Singhi Sub-Dy.	205
	1.220 m Fall at Ch. 1.350 Km	1	No.	2238826.66	20953.32	₹ 22,59,779.99		208
	0.305 m Fall at Ch. 2.740 Km	1	No.	1501113.80	13751.30	₹ 15,14,865.10		211
	0.762 m Fall at Ch. 3.850 Km	1	No.	1650322.03	15144.49	₹ 16,65,466.51		214
	1.524 m Fall at Ch. 4.455 Km	1	No.	2733125.09	25552.51	₹ 27,58,677.60		217
	SAHOKARMA MINOR							
	1.220 m Fall at Ch. 0.450 Km	1	No.	715088.87	6085.02	₹ 7,21,173.90	Fall (AOC) Sahokarma Minor	220
	1.524 m Fall at Ch. 0.620 Km	1	No.	1147123.48	9763.84	₹ 11,56,887.32		223
	DHAMNI MINOR							
	1.220 m Fall at Ch. 3.300 Km	1	No.	679916.21	5779.36	₹ 6,85,695.57	Fall (AOC) Dhamani Minor	226
	0.762 m Fall at Ch. 4.800 Km	1	No.	292521.30	2351.54	₹ 2,94,872.83		229
	BHADWA MINOR							
	1.220 m Fall at Ch. 0.450 Km	1	No.	605450.31	5119.94	₹ 6,10,570.25	Fall (AOC) Bhadwa Minor	231
4	SLR Bridge							
	KOTWARA DY.							
	At Km 10.925	1	No.	1875174.86	14884.38	₹ 18,90,059.24	Slab-AOC Kotwara Dy.	305
	At Km 11.730	1	No.	2404977.44	19930.07	₹ 24,24,907.50		307
5	Repair of Structures							
	KOTWARA DY.	40	No.	5603864.788	20572.23	₹ 56,24,437.02	Abstract (Repair St.) Kotwara Dy.	315
	GAMHARIA MINOR	2	No.	217548.2933	377.34	₹ 2,17,925.63	Abstract (Repair St.) Gamharia Minor	316
	NAGWA MINOR	1	No.	32103.59765	45.16	₹ 32,148.76	Abstract (Repair St.) Nagwa Minor	317
	PAWAI MINOR	5	No.	594353.4765	3140.67	₹ 5,97,494.15	Abstract (Repair St.) Pawai Minor	317
	BHUTAILI MINOR	8	No.	937786.1519	3042.51	₹ 9,40,828.66	Abstract (Repair St.) Bhutaili Minor	317
	SALOPURA MINOR	13	No.	835704.1646	2030.61	₹ 8,37,734.78	Abstract (Repair St.) Salopura Minor	318
	SINGHI SUB -DY	28	No.	3562495.596	17678.80	₹ 35,80,174.40	Abstract (Repair St.) Singhi Sub Dy.	319
	SAHOKARMA MINOR	2	No.	304259.4972	185.23	₹ 3,04,444.72	Abstract (Repair St.) Sahokarma Minor	320
	DHAMNI MINOR	4	No.	156784.0718	687.23	₹ 1,57,471.30	Abstract (Repair St.) Dhamani Minor	320
	BHADWA MINOR	6	No.	310047.2108	363.76	₹ 3,10,410.97	Abstract (Repair St.) Bhadwa Minor	320
6	Outlets							
	KOTWARA DY.	64	No.	127744.47	1100.17	₹ 82,46,057.00	Outlet-AOC	435
	GAMHARI MINOR	5	No.	127744.47	1100.17	₹ 6,44,223.20		435
	NAGWA MINOR	7	No.	127744.47	1100.17	₹ 9,01,912.48		435
	PAWAI MINOR	6	No.	127744.47	1100.17	₹ 7,73,067.84		435
	BHUTAILI MINOR	4	No.	127744.47	1100.17	₹ 5,15,378.56		435
	SALOPURA MINOR	5	No.	127744.47	1100.17	₹ 6,44,223.20		435
	SINGHI SUB -DY	40	No.	127744.47	1100.17	₹ 51,53,785.63		435
	SAHOKARMA MINOR	5	No.	127744.47	1100.17	₹ 6,44,223.20		435
	DHAMNI MINOR	10	No.	127744.47	1100.17	₹ 12,88,446.41		435
	BHADWA MINOR	8	No.	127744.47	1100.17	₹ 10,30,757.13		435
7	Kilometer Stone	75	No.	3853.40	0.00	₹ 2,89,005.00	Rates 'IF61	467
	TOTAL (In Rs.)					388807534.73		
	TOTAL (In Lacs)					3888.08		

	As Per Latest Approved Rates Dec.		
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 X _a)	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 =[(18H _{Sa} .L _s +18H _{Ua} .L _u +18H _{Ka} .L _k)+18 X _a	Per Unit Rate =(col 17 / Net Payable capacity)
						18X _a	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		
							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 (Tipper 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			Cost of Carriage =[(25H _{sa} .L _s +25H _{ua} .L _u +25H _{ka} .L _k)+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 KOTWARA SUB DY. (0.000 TO 30.700 KM)							
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
		sq-m	sq-m	Cum	sq-m	sq-m	Cum
0		0.000	0	0	0.000	0	0.000
100	100	8.684	4.342	434.200	3.258	1.629	162.900
200	100	1.645	5.165	516.450	5.082	4.170	417.000
300	100	0.000	0.823	82.250	10.406	7.744	774.400
400	100	0.000	0.000	0.000	14.551	12.479	1247.850
500	100	0.000	0.000	0.000	16.805	15.678	1567.800
600	100	0.167	0.084	8.350	13.850	15.328	1532.750
700	100	0.744	0.456	45.550	12.934	13.392	1339.200
800	100	1.644	1.194	119.400	11.015	11.975	1197.450
900	100	0.118	0.881	88.100	17.550	14.283	1428.250
1000	100	0.140	0.129	12.900	12.818	15.184	1518.400
1100	100	0.164	0.152	15.200	9.057	10.938	1093.750
1200	100	0.190	0.177	17.700	12.575	10.816	1081.600
1300	100	0.219	0.205	20.450	13.050	12.813	1281.250
1400	100	0.249	0.234	23.400	13.648	13.349	1334.900
1500	100	0.282	0.266	26.550	14.253	13.951	1395.050
1600	100	0.317	0.300	29.950	14.819	14.536	1453.600
1700	100	1.509	0.913	91.300	7.489	11.154	1115.400
1800	100	8.053	4.781	478.100	3.065	5.277	527.700
1900	100	12.516	10.285	1028.450	5.890	4.478	447.750
2000	100	8.900	10.708	1070.800	5.870	5.880	588.000
2100	100	5.628	7.264	726.400	4.154	5.012	501.200
2200	100	2.917	4.273	427.250	3.924	4.039	403.900
2300	100	1.081	1.999	199.900	4.816	4.370	437.000
2400	100	1.113	1.097	109.700	5.440	5.128	512.800
2500	100	0.359	0.736	73.600	7.395	6.418	641.750
2600	100	0.644	0.502	50.150	5.458	6.427	642.650
2700	100	0.045	0.345	34.450	6.977	6.218	621.750
2800	100	0.146	0.096	9.550	5.529	6.253	625.300
2900	100	0.330	0.238	23.800	3.364	4.447	444.650
3000	100	0.516	0.423	42.300	3.008	3.186	318.600
3100	100	0.767	0.642	64.150	3.922	3.465	346.500
3200	100	1.159	0.963	96.300	3.736	3.829	382.900
3300	100	1.594	1.377	137.650	4.011	3.874	387.350
3400	100	2.142	1.868	186.800	4.019	4.015	401.500
3500	100	1.762	1.952	195.200	6.053	5.036	503.600
3600	100	1.921	1.842	184.150	6.940	6.497	649.650
3700	100	2.181	2.051	205.100	11.835	9.388	938.750
3800	100	1.387	1.784	178.400	11.380	11.608	1160.750
3900	100	2.906	2.147	214.650	8.294	9.837	983.700
4000	100	5.094	4.000	400.000	4.345	6.320	631.950
4100	100	8.054	6.574	657.400	2.970	3.658	365.750
4200	100	11.777	9.916	991.550	4.372	3.671	367.100
4300	100	16.218	13.998	1399.750	5.642	5.007	500.700

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
4400	100	31.953	24.086	2408.550	5.121	5.382	538.150
4500	100	14.496	23.225	2322.450	4.010	4.566	456.550
4600	100	7.402	10.949	1094.900	11.610	7.810	781.000
4700	100	2.170	4.786	478.600	10.432	11.021	1102.100
4800	100	2.187	2.179	217.850	10.179	10.306	1030.550
4900	100	3.519	2.853	285.300	9.850	10.015	1001.450
5000	100	5.606	4.563	456.250	8.881	9.366	936.550
5100	100	15.129	10.368	1036.750	3.747	6.314	631.400
5200	100	17.917	16.523	1652.300	3.036	3.392	339.150
5300	100	18.739	18.328	1832.800	1.585	2.311	231.050
5400	100	9.919	14.329	1432.900	3.362	2.474	247.350
5500	100	10.310	10.115	1011.450	3.614	3.488	348.800
5600	100	4.754	7.532	753.200	7.926	5.770	577.000
5700	100	4.805	4.780	477.950	5.175	6.551	655.050
5800	100	7.084	5.945	594.450	7.650	6.413	641.250
5900	100	8.133	7.609	760.850	8.334	7.992	799.200
6000	100	12.076	10.105	1010.450	5.462	6.898	689.800
6100	100	7.006	9.541	954.100	4.253	4.858	485.750
6200	100	1.953	4.480	447.950	6.914	5.584	558.350
6300	100	0.000	0.977	97.650	11.720	9.317	931.700
6400	100	0.164	0.082	8.200	6.642	9.181	918.100
6500	100	0.000	0.082	8.200	21.593	14.118	1411.750
6600	100	0.000	0.000	0.000	33.726	27.660	2765.950
6700	100	0.945	0.473	47.250	10.871	22.299	2229.850
6800	100	11.260	6.103	610.250	1.342	6.107	610.650
6900	100	1.363	6.312	631.150	7.745	4.544	454.350
7000	100	11.505	6.434	643.400	5.660	6.703	670.250
7100	100	8.584	10.045	1004.450	8.662	7.161	716.100
7200	100	3.996	6.290	629.000	6.372	7.517	751.700
7300	100	7.167	5.582	558.150	7.048	6.710	671.000
7400	100	4.362	5.765	576.450	6.258	6.653	665.300
7500	100	2.215	3.289	328.850	6.118	6.188	618.800
7600	100	2.580	2.398	239.750	5.481	5.800	579.950
7700	100	3.426	3.003	300.300	6.497	5.989	598.900
7800	100	3.073	3.250	324.950	6.004	6.251	625.050
7900	100	6.146	4.610	460.950	5.621	5.813	581.250
8000	100	12.454	9.300	930.000	7.066	6.344	634.350
8100	100	19.631	16.043	1604.250	8.844	7.955	795.500
8200	100	26.790	23.211	2321.050	8.852	8.848	884.800
8300	100	1.205	13.998	1399.750	7.069	7.961	796.050
8400	100	9.823	5.514	551.400	2.731	4.900	490.000
8500	100	7.168	8.496	849.550	2.742	2.737	273.650
8600	100	4.582	5.875	587.500	3.526	3.134	313.400
8700	100	2.176	3.379	337.900	6.084	4.805	480.500
8800	100	0.756	1.466	146.600	8.284	7.184	718.400
8900	100	0.000	0.378	37.800	10.704	9.494	949.400

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
9000	100	0.125	0.063	6.250	9.675	10.190	1018.950
9100	100	0.000	0.063	6.250	15.245	12.460	1246.000
9200	100	0.000	0.000	0.000	21.587	18.416	1841.600
9300	100	0.000	0.000	0.000	29.378	25.483	2548.250
9400	100	0.000	0.000	0.000	31.228	30.303	3030.300
9500	100	0.000	0.000	0.000	23.759	27.494	2749.350
9600	100	0.000	0.000	0.000	16.538	20.149	2014.850
9700	100	0.665	0.333	33.250	10.551	13.545	1354.450
9800	100	16.651	8.658	865.800	2.939	6.745	674.500
9900	100	10.571	13.611	1361.100	4.297	3.618	361.800
10000	100	5.551	8.061	806.100	6.510	5.404	540.350
10100	100	1.431	3.491	349.100	8.040	7.275	727.500
10200	100	0.000	0.716	71.550	11.616	9.828	982.800
10300	100	12.700	6.350	635.000	7.645	9.631	963.050
10400	100	7.231	9.966	996.550	9.349	8.497	849.700
10500	100	2.523	4.877	487.700	10.926	10.138	1013.750
10600	100	0.796	1.660	165.950	14.665	12.796	1279.550
10700	100	0.755	0.776	77.550	19.379	17.022	1702.200
10800	100	0.102	0.429	42.850	23.123	21.251	2125.100
10900	100	0.000	0.051	5.100	34.231	28.677	2867.700
11000	100	0.000	0.000	0.000	34.231	34.231	3423.100
11100	100	0.000	0.000	0.000	28.552	31.392	3139.150
11200	100	0.000	0.000	0.000	39.538	34.045	3404.500
11300	100	0.000	0.000	0.000	51.788	45.663	4566.300
11400	100	0.000	0.000	0.000	65.142	58.465	5846.500
11500	100	0.000	0.000	0.000	63.488	64.315	6431.500
11600	100	0.000	0.000	0.000	46.814	55.151	5515.100
11700	100	0.000	0.000	0.000	37.656	42.235	4223.500
11800	100	0.000	0.000	0.000	24.576	31.116	3111.600
11900	100	0.141	0.071	7.050	14.917	19.747	1974.650
12000	100	0.691	0.416	41.600	7.670	11.294	1129.350
12100	100	1.778	1.235	123.450	4.431	6.051	605.050
12200	100	2.322	2.050	205.000	4.954	4.693	469.250
12300	100	5.067	3.695	369.450	2.876	3.915	391.500
12400	100	7.760	6.414	641.350	1.266	2.071	207.100
12500	100	9.517	8.639	863.850	2.530	1.898	189.800
12600	100	12.739	11.128	1112.800	1.940	2.235	223.500
12700	100	11.614	12.177	1217.650	2.978	2.459	245.900
12800	100	7.250	9.432	943.200	3.379	3.179	317.850
12900	100	3.772	5.511	551.100	4.950	4.165	416.450
13000	100	8.336	6.054	605.400	3.032	3.991	399.100
13100	100	1.437	4.887	488.650	6.741	4.887	488.650
13200	100	2.422	1.930	192.950	5.247	5.994	599.400
13300	100	0.000	1.211	121.100	12.814	9.031	903.050
13400	100	0.060	0.030	3.000	21.612	17.213	1721.300
13500	100	2.766	1.413	141.300	31.655	26.634	2663.350

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
		sq-m	sq-m	Cum	sq-m	sq-m	Cum
13600	100	0.223	1.495	149.450	26.140	28.898	2889.750
13700	100	0.000	0.112	11.150	28.927	27.534	2753.350
13800	100	0.455	0.228	22.750	22.363	25.645	2564.500
13900	100	0.244	0.350	34.950	19.968	21.166	2116.550
14000	100	2.323	1.284	128.350	19.292	19.630	1963.000
14100	100	1.553	1.938	193.800	13.998	16.645	1664.500
14200	100	0.249	0.901	90.100	20.546	17.272	1727.200
14300	100	0.361	0.305	30.500	22.093	21.320	2131.950
14400	100	0.000	0.181	18.050	27.246	24.670	2466.950
14500	100	0.000	0.000	0.000	22.304	24.775	2477.500
14600	100	0.000	0.000	0.000	15.543	18.924	1892.350
14700	100	0.000	0.000	0.000	11.993	13.768	1376.800
14800	100	0.834	0.417	41.700	7.619	9.806	980.600
14900	100	2.211	1.523	152.250	2.814	5.217	521.650
15000	100	4.602	3.407	340.650	7.668	5.241	524.100
15100	100	11.134	7.868	786.800	8.668	8.168	816.800
15200	100	14.528	12.831	1283.100	8.382	8.525	852.500
15300	100	10.193	12.361	1236.050	6.916	7.649	764.900
15400	100	7.698	8.946	894.550	4.070	5.493	549.300
15500	100	5.675	6.687	668.650	3.967	4.019	401.850
15600	100	4.258	4.967	496.650	4.406	4.187	418.650
15700	100	3.151	3.705	370.450	5.936	5.171	517.100
15800	100	2.225	2.688	268.800	6.246	6.091	609.100
15900	100	1.770	1.998	199.750	4.883	5.565	556.450
16000	100	6.629	4.200	419.950	7.422	6.153	615.250
16100	100	10.141	8.385	838.500	8.054	7.738	773.800
16200	100	7.244	8.693	869.250	3.022	5.538	553.800
16300	100	3.301	5.273	527.250	4.900	3.961	396.100
16400	100	1.352	2.327	232.650	8.122	6.511	651.100
16500	100	27.335	14.344	1434.350	11.812	9.967	996.700
16600	100	5.367	16.351	1635.100	7.020	9.416	941.600
16700	100	1.301	3.334	333.400	4.874	5.947	594.700
16800	100	1.542	1.422	142.150	2.687	3.781	378.050
16900	100	0.488	1.015	101.500	6.496	4.592	459.150
17000	100	0.686	0.587	58.700	7.280	6.888	688.800
17100	100	1.086	0.886	88.600	7.389	7.335	733.450
17200	100	1.176	1.131	113.100	7.911	7.650	765.000
17300	100	1.368	1.272	127.200	5.214	6.563	656.250
17400	100	5.757	3.563	356.250	4.245	4.730	472.950
17500	100	3.625	4.691	469.100	7.440	5.843	584.250
17600	100	1.092	2.359	235.850	5.702	6.571	657.100
17700	100	1.033	1.063	106.250	3.403	4.553	455.250
17800	100	1.076	1.055	105.450	4.097	3.750	375.000
17900	100	1.156	1.116	111.600	4.777	4.437	443.700
18000	100	1.283	1.220	121.950	5.441	5.109	510.900
18100	100	1.861	1.572	157.200	2.711	4.076	407.600

Chainage	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
		sq-m	sq-m	Cum	sq-m	sq-m	Cum
18200	100	2.022	1.942	194.150	3.228	2.970	296.950
18300	100	2.192	2.107	210.700	3.808	3.518	351.800
18400	100	4.260	3.226	322.600	1.480	2.644	264.400
18500	100	0.624	2.442	244.200	5.813	3.647	364.650
18600	100	0.557	0.591	59.050	7.542	6.678	667.750
18700	100	0.380	0.469	46.850	7.590	7.566	756.600
18800	100	0.243	0.312	31.150	8.049	7.820	781.950
18900	100	0.126	0.185	18.450	7.083	7.566	756.600
19000	100	0.055	0.091	9.050	7.531	7.307	730.700
19100	100	10.228	5.142	514.150	2.506	5.019	501.850
19200	100	2.236	6.232	623.200	3.633	3.070	306.950
19300	100	1.536	1.886	188.600	5.311	4.472	447.200
19400	100	1.407	1.472	147.150	6.819	6.065	606.500
19500	100	1.716	1.562	156.150	2.790	4.805	480.450
19600	100	4.655	3.186	318.550	2.551	2.671	267.050
19700	100	8.025	6.340	634.000	1.740	2.146	214.550
19800	100	7.426	7.726	772.550	1.646	1.693	169.300
19900	100	6.143	6.785	678.450	1.877	1.762	176.150
20000	100	4.924	5.534	553.350	1.752	1.815	181.450
20100	100	3.796	4.360	436.000	1.657	1.705	170.450
20200	100	2.385	3.091	309.050	1.746	1.702	170.150
20300	100	1.608	1.997	199.650	1.399	1.573	157.250
20400	100	0.784	1.196	119.600	2.408	1.904	190.350
20500	100	0.349	0.567	56.650	3.669	3.039	303.850
20600	100	0.974	0.662	66.150	2.277	2.973	297.300
20700	100	9.514	5.244	524.400	1.244	1.761	176.050
20800	100	6.793	8.154	815.350	1.431	1.338	133.750
20900	100	3.994	5.394	539.350	1.963	1.697	169.700
21000	100	2.097	3.046	304.550	3.654	2.809	280.850
21100	100	0.549	1.323	132.300	4.145	3.900	389.950
21200	100	0.210	0.380	37.950	4.557	4.351	435.100
21300	100	0.432	0.321	32.100	4.173	4.365	436.500
21400	100	0.183	0.308	30.750	6.550	5.362	536.150
21500	100	2.305	1.244	124.400	1.990	4.270	427.000
21600	100	0.744	1.525	152.450	2.393	2.192	219.150
21700	100	1.285	1.015	101.450	1.937	2.165	216.500
21800	100	1.029	1.157	115.700	1.933	1.935	193.500
21900	100	0.809	0.919	91.900	2.440	2.187	218.650
22000	100	0.367	0.588	58.800	3.481	2.961	296.050
22100	100	0.024	0.196	19.550	5.354	4.418	441.750
22200	100	0.000	0.012	1.200	6.516	5.935	593.500
22300	100	0.031	0.016	1.550	6.135	6.326	632.550
22400	100	7.910	3.971	397.050	2.780	4.458	445.750
22500	100	0.852	4.381	438.100	5.715	4.248	424.750
22600	100	0.000	0.426	42.600	6.410	6.063	606.250
22700	100	0.126	0.063	6.300	6.155	6.283	628.250

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
		sq-m	sq-m	Cum	sq-m	sq-m	Cum
22800	100	4.425	2.276	227.550	1.846	4.001	400.050
22900	100	3.243	3.834	383.400	2.900	2.373	237.300
23000	100	2.800	3.022	302.150	5.554	4.227	422.700
23100	100	0.069	1.435	143.450	7.686	6.620	662.000
23200	100	0.000	0.035	3.450	40.636	24.161	2416.100
23300	100	0.054	0.027	2.700	4.948	22.792	2279.200
23400	100	0.000	0.027	2.700	5.484	5.216	521.600
23500	100	0.000	0.000	0.000	5.956	5.720	572.000
23600	100	0.000	0.000	0.000	5.954	5.955	595.500
23700	100	0.000	0.000	0.000	6.515	6.235	623.450
23800	100	0.000	0.000	0.000	6.451	6.483	648.300
23900	100	0.000	0.000	0.000	7.756	7.104	710.350
24000	100	0.000	0.000	0.000	8.359	8.058	805.750
24100	100	0.000	0.000	0.000	8.532	8.446	844.550
24200	100	7.352	3.676	367.600	3.285	5.909	590.850
24300	100	2.011	4.682	468.150	3.173	3.229	322.900
24400	100	1.618	1.815	181.450	3.164	3.169	316.850
24500	100	0.828	1.223	122.300	4.554	3.859	385.900
24600	100	0.719	0.774	77.350	7.589	6.072	607.150
24700	100	0.758	0.739	73.850	9.128	8.359	835.850
24800	100	0.583	0.671	67.050	7.926	8.527	852.700
24900	100	0.000	0.292	29.150	8.219	8.073	807.250
25000	100	0.085	0.043	4.250	9.101	8.660	866.000
25100	100	0.231	0.158	15.800	6.719	7.910	791.000
25200	100	0.283	0.257	25.700	4.991	5.855	585.500
25300	100	0.681	0.482	48.200	4.816	4.904	490.350
25400	100	0.287	0.484	48.400	5.636	5.226	522.600
25500	100	0.000	0.144	14.350	6.931	6.284	628.350
25600	100	0.000	0.000	0.000	8.347	7.639	763.900
25700	100	0.000	0.000	0.000	9.857	9.102	910.200
25800	100	0.000	0.000	0.000	11.841	10.849	1084.900
25900	100	0.000	0.000	0.000	10.542	11.192	1119.150
26000	100	0.766	0.383	38.300	6.897	8.720	871.950
26100	100	0.372	0.569	56.900	7.941	7.419	741.900
26200	100	0.005	0.189	18.850	9.366	8.654	865.350
26300	100	0.000	0.003	0.250	11.044	10.205	1020.500
26400	100	0.000	0.000	0.000	8.918	9.981	998.100
26500	100	0.000	0.000	0.000	7.428	8.173	817.300
26600	100	0.000	0.000	0.000	9.310	8.369	836.900
26700	100	0.000	0.000	0.000	11.111	10.211	1021.050
26800	100	1.372	0.686	68.600	4.463	7.787	778.700
26900	100	1.442	1.407	140.700	4.571	4.517	451.700
27000	100	1.864	1.653	165.300	4.366	4.469	446.850
27100	100	0.905	1.385	138.450	5.736	5.051	505.100
27200	100	0.700	0.803	80.250	7.117	6.427	642.650
27300	100	4.162	2.431	243.100	4.585	5.851	585.100

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
27400	100	0.685	2.424	242.350	5.276	4.931	493.050
27500	100	0.000	0.343	34.250	9.392	7.334	733.400
27600	100	11.101	5.551	555.050	5.563	7.478	747.750
27700	100	0.895	5.998	599.800	5.103	5.333	533.300
27800	100	0.664	0.780	77.950	5.271	5.187	518.700
27900	100	0.507	0.586	58.550	5.313	5.292	529.200
28000	100	0.468	0.488	48.750	5.562	5.438	543.750
28100	100	0.437	0.453	45.250	4.761	5.162	516.150
28200	100	0.412	0.425	42.450	4.288	4.525	452.450
28300	100	0.386	0.399	39.900	4.302	4.295	429.500
28400	100	0.362	0.374	37.400	4.224	4.263	426.300
28500	100	0.337	0.350	34.950	4.598	4.411	441.100
28600	100	0.309	0.323	32.300	4.024	4.311	431.100
28700	100	0.274	0.292	29.150	4.036	4.030	403.000
28800	100	4.588	2.431	243.100	2.302	3.169	316.900
28900	100	2.499	3.544	354.350	3.398	2.850	285.000
29000	100	0.803	1.651	165.100	2.535	2.967	296.650
29100	100	0.356	0.580	57.950	2.633	2.584	258.400
29200	100	0.117	0.237	23.650	4.280	3.457	345.650
29300	100	0.000	0.059	5.850	3.278	3.779	377.900
29400	100	2.637	1.319	131.850	2.727	3.003	300.250
29500	100	0.967	1.802	180.200	3.176	2.952	295.150
29600	100	0.248	0.608	60.750	3.599	3.388	338.750
29700	100	3.839	2.044	204.350	1.456	2.528	252.750
29800	100	0.106	1.973	197.250	4.911	3.184	318.350
29900	100	0.981	0.544	54.350	3.289	4.100	410.000
30000	100	2.232	1.607	160.650	3.096	3.193	319.250
30100	100	0.451	1.342	134.150	4.435	3.766	376.550
30200	100	0.008	0.230	22.950	5.062	4.749	474.850
30300	100	2.085	1.047	104.650	3.583	4.323	432.250
30400	100	0.579	1.332	133.200	5.241	4.412	441.200
30500	100	0.947	0.763	76.300	13.958	9.600	959.950
30600	100	0.938	0.943	94.250	5.185	9.572	957.150
30700	100	0.490	0.714	71.400	7.953	6.569	656.900
Total				93515.300			265538.050
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							93515.300
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							265538.050
NET QUANTITY OF EARTHWORK							172022.75

		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 2.850 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	1.552	0.776	77.600	2.088	1.044	104.400
200	100	0.872	1.212	121.200	5.545	3.817	381.650
300	100	0.777	0.825	82.450	5.716	5.631	563.050
400	100	0.887	0.832	83.200	4.928	5.322	532.200
500	100	1.214	1.051	105.050	4.353	4.641	464.050
600	100	1.690	1.452	145.200	4.091	4.222	422.200
700	100	2.260	1.975	197.500	3.754	3.923	392.250
800	100	2.935	2.598	259.750	4.635	4.195	419.450
900	100	3.738	3.337	333.650	4.470	4.553	455.250
1000	100	0.378	2.058	205.800	9.917	7.194	719.350
1100	100	1.908	1.143	114.300	5.902	7.910	790.950
1200	100	5.083	3.496	349.550	4.525	5.214	521.350
1300	100	0.518	2.801	280.050	7.739	6.132	613.200
1400	100	2.196	1.357	135.700	5.395	6.567	656.700
1500	100	9.225	5.711	571.050	2.708	4.052	405.150
1600	100	4.732	6.979	697.850	5.921	4.315	431.450
1700	100	5.610	5.171	517.100	6.795	6.358	635.800
1800	100	3.570	4.590	459.000	6.450	6.623	662.250
1900	100	1.442	2.506	250.600	6.223	6.337	633.650
2000	100	0.277	0.860	85.950	6.939	6.581	658.100
2100	100	15.011	7.644	764.400	6.838	6.889	688.850
2200	100	3.956	9.484	948.350	5.068	5.953	595.300
2300	100	3.075	3.516	351.550	4.522	4.795	479.500
2400	100	2.778	2.927	292.650	4.331	4.427	442.650
2500	100	2.533	2.656	265.550	6.295	5.313	531.300
2600	100	3.197	2.865	286.500	6.513	6.404	640.400
2700	100	4.526	3.862	386.150	4.228	5.371	537.050
2800	100	0.813	2.670	266.950	6.254	5.241	524.100
2850	50	0.000	0.407	20.325	0.000	3.127	156.350
Total				8654.975			15057.950
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							8654.975
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							15057.950
NET QUANTITY OF EARTHWORK IN FILLING							6402.98

		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 NAGWA MR (0.000 TO 1.900 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	0.274	0.137	13.700	3.971	1.986	198.550
200	100	0.162	0.218	21.800	3.562	3.767	376.650
300	100	0.096	0.129	12.900	3.377	3.470	346.950
400	100	0.034	0.065	6.500	3.052	3.215	321.450
500	100	0.047	0.041	4.050	2.658	2.855	285.500
600	100	0.487	0.267	26.700	1.777	2.218	221.750
700	100	1.731	1.109	110.900	0.936	1.357	135.650
800	100	0.685	1.208	120.800	2.064	1.500	150.000
900	100	0.378	0.532	53.150	1.909	1.987	198.650
1000	100	0.264	0.321	32.100	3.262	2.586	258.550
1100	100	0.178	0.221	22.100	4.122	3.692	369.200
1200	100	0.071	0.125	12.450	5.628	4.875	487.500
1300	100	0.029	0.050	5.000	5.979	5.804	580.350
1400	100	0.024	0.027	2.650	6.782	6.381	638.050
1500	100	0.263	0.144	14.350	9.038	7.910	791.000
1600	100	0.298	0.281	28.050	9.596	9.317	931.700
1700	100	0.333	0.316	31.550	9.513	9.555	955.450
1800	100	0.368	0.351	35.050	9.824	9.669	966.850
1900	100	0.402	0.385	38.500	10.221	10.023	1002.250
Total				592.300			9216.050
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							592.300
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							9216.050
NET QUANTITY OF EARTHWORK IN FILLING							8623.75

		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 PAWAI MR (0.000 TO 1.850 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	11.643	5.822	582.150	0.990	0.495	49.500
200	100	4.155	7.899	789.900	1.789	1.390	138.950
300	100	0.537	2.346	234.600	5.052	3.421	342.050
400	100	1.938	1.238	123.750	6.093	5.573	557.250
500	100	0.189	1.064	106.350	8.513	7.303	730.300
600	100	0.000	0.095	9.450	10.546	9.530	952.950
700	100	0.076	0.038	3.800	6.921	8.734	873.350
800	100	0.178	0.127	12.700	4.673	5.797	579.700
900	100	0.525	0.352	35.150	4.575	4.624	462.400
1000	100	0.252	0.389	38.850	5.130	4.853	485.250
1100	100	0.000	0.126	12.600	5.681	5.406	540.550
1200	100	0.253	0.127	12.650	3.209	4.445	444.500
1300	100	0.633	0.443	44.300	2.059	2.634	263.400
1400	100	0.000	0.317	31.650	5.089	3.574	357.400
1500	100	1.010	0.505	50.500	3.962	4.526	452.550
1600	100	0.145	0.578	57.750	4.661	4.312	431.150
1700	100	0.000	0.073	7.250	26.732	15.697	1569.650
1800	100	0.000	0.000	0.000	7.079	16.906	1690.550
1850	50	0.000	0.000	0.000	9.103	8.091	404.550
Total				2153.400			11326.000
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							2153.400
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							11326.000
NET QUANTITY OF EARTHWORK IN FILLING							9172.60

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
		sq-m	sq-m	Cum	sq-m	sq-m	Cum
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK							
BHUTAILI MR (0.000 TO 2.000 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	1.749	0.875	87.450	2.945	1.473	147.250
200	100	1.676	1.713	171.250	3.146	3.046	304.550
300	100	0.044	0.860	86.000	10.253	6.700	669.950
400	100	0.123	0.084	8.350	3.161	6.707	670.700
500	100	0.000	0.062	6.150	10.295	6.728	672.800
600	100	2.442	1.221	122.100	4.359	7.327	732.700
700	100	0.074	1.258	125.800	7.046	5.703	570.250
800	100	0.223	0.149	14.850	3.437	5.242	524.150
900	100	0.000	0.112	11.150	8.548	5.993	599.250
1000	100	0.003	0.002	0.150	4.472	6.510	651.000
1100	100	0.000	0.002	0.150	8.482	6.477	647.700
1200	100	0.000	0.000	0.000	2.744	5.613	561.300
1300	100	0.000	0.000	0.000	8.536	5.640	564.000
1400	100	0.025	0.013	1.250	6.247	7.392	739.150
1500	100	1.301	0.663	66.300	6.447	6.347	634.700
1600	100	0.315	0.808	80.800	7.172	6.810	680.950
1700	100	0.591	0.453	45.300	2.171	4.672	467.150
1800	100	0.000	0.296	29.550	8.049	5.110	511.000
1900	100	0.406	0.203	20.300	3.903	5.976	597.600
2000	100	0.005	0.206	20.550	7.561	5.732	573.200
Total				876.900			10946.150
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							876.900
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							10946.150
NET QUANTITY OF EARTHWORK IN FILLING							10069.25

		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 SALOPURA MR (0.000 TO 3.050 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	1.792	0.896	89.600	3.816	1.908	190.800
200	100	0.000	0.896	89.600	12.050	7.933	793.300
300	100	6.605	3.303	330.250	2.871	7.461	746.050
400	100	0.351	3.478	347.800	8.205	5.538	553.800
500	100	2.066	1.209	120.850	2.157	5.181	518.100
600	100	0.253	1.160	115.950	8.929	5.543	554.300
700	100	2.728	1.491	149.050	15.637	12.283	1228.300
800	100	0.099	1.414	141.350	7.013	11.325	1132.500
900	100	1.451	0.775	77.500	1.076	4.045	404.450
1000	100	0.564	1.008	100.750	5.505	3.291	329.050
1100	100	0.000	0.282	28.200	15.931	10.718	1071.800
1200	100	0.963	0.482	48.150	1.199	8.565	856.500
1300	100	0.338	0.651	65.050	7.033	4.116	411.600
1400	100	0.000	0.169	16.900	13.601	10.317	1031.700
1500	100	0.633	0.317	31.650	2.521	8.061	806.100
1600	100	0.000	0.317	31.650	8.817	5.669	566.900
1700	100	0.000	0.000	0.000	12.473	10.645	1064.500
1800	100	0.013	0.007	0.650	5.610	9.042	904.150
1900	100	0.021	0.017	1.700	7.974	6.792	679.200
2000	100	0.004	0.013	1.250	7.692	7.833	783.300
2100	100	0.064	0.034	3.400	7.401	7.547	754.650
2200	100	2.229	1.147	114.650	0.775	4.088	408.800
2300	100	1.184	1.707	170.650	0.544	0.660	65.950
2400	100	0.467	0.826	82.550	3.662	2.103	210.300
2500	100	0.001	0.234	23.400	7.807	5.735	573.450
2600	100	0.000	0.001	0.050	12.314	10.061	1006.050
2700	100	0.019	0.010	0.950	9.188	10.751	1075.100
2800	100	3.280	1.650	164.950	1.488	5.338	533.800
2900	100	1.305	2.293	229.250	0.584	1.036	103.600
3000	100	0.005	0.655	65.500	8.264	4.424	442.400
3050	50	0.000	0.003	0.125	19.539	13.902	695.075
Total				2643.375			20495.575
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							2643.375
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							20495.575
NET QUANTITY OF EARTHWORK IN FILLING							17852.20

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
		sq-m	sq-m	Cum	sq-m	sq-m	Cum
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK							
SINGHI SUB DISTY (0.000 TO 17.900 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	1.046	0.523	52.300	3.142	1.571	157.100
200	100	9.228	5.137	513.700	3.983	3.563	356.250
300	100	4.350	6.789	678.900	4.313	4.148	414.800
400	100	2.012	3.181	318.100	3.321	3.817	381.700
500	100	18.298	10.155	1015.500	5.157	4.239	423.900
600	100	2.392	10.345	1034.500	3.830	4.494	449.350
700	100	5.471	3.932	393.150	2.755	3.293	329.250
800	100	2.412	3.942	394.150	3.863	3.309	330.900
900	100	0.834	1.623	162.300	3.288	3.576	357.550
1000	100	0.004	0.419	41.900	10.499	6.894	689.350
1100	100	5.005	2.505	250.450	2.279	6.389	638.900
1200	100	1.823	3.414	341.400	8.693	5.486	548.600
1300	100	17.088	9.456	945.550	6.520	7.607	760.650
1400	100	4.587	10.838	1083.750	4.805	5.663	566.250
1500	100	1.634	3.111	311.050	8.524	6.665	666.450
1600	100	0.131	0.883	88.250	13.908	11.216	1121.600
1700	100	0.000	0.066	6.550	20.890	17.399	1739.900
1800	100	0.000	0.000	0.000	28.207	24.549	2454.850
1900	100	11.396	5.698	569.800	5.758	16.983	1698.250
2000	100	9.478	10.437	1043.700	4.808	5.283	528.300
2100	100	9.198	9.338	933.800	3.637	4.223	422.250
2200	100	14.196	11.697	1169.700	6.083	4.860	486.000
2300	100	4.720	9.458	945.800	3.039	4.561	456.100
2400	100	3.777	4.249	424.850	4.375	3.707	370.700
2500	100	2.881	3.329	332.900	5.950	5.163	516.250
2600	100	2.584	2.733	273.250	8.836	7.393	739.300
2700	100	7.722	5.153	515.300	5.206	7.021	702.100
2800	100	5.381	6.552	655.150	3.019	4.113	411.250
2900	100	3.865	4.623	462.300	2.262	2.641	264.050
3000	100	2.470	3.168	316.750	2.070	2.166	216.600
3100	100	2.216	2.343	234.300	3.703	2.887	288.650
3200	100	1.843	2.030	202.950	2.271	2.987	298.700
3300	100	2.903	2.373	237.300	2.300	2.286	228.550
3400	100	1.475	2.189	218.900	2.274	2.287	228.700
3500	100	1.195	1.335	133.500	2.257	2.266	226.550
3600	100	5.453	3.324	332.400	2.922	2.590	258.950
3700	100	3.446	4.450	444.950	4.090	3.506	350.600
3800	100	1.446	2.446	244.600	5.128	4.609	460.900
3900	100	6.906	4.176	417.600	6.891	6.010	600.950
4000	100	3.934	5.420	542.000	9.062	7.977	797.650
4100	100	0.902	2.418	241.800	8.626	8.844	884.400
4200	100	5.084	2.993	299.300	6.541	7.584	758.350
4300	100	2.979	4.032	403.150	4.358	5.450	544.950

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
4400	100	0.244	1.612	161.150	6.854	5.606	560.600
4500	100	2.919	1.582	158.150	23.383	15.119	1511.850
4600	100	0.000	1.460	145.950	23.912	23.648	2364.750
4700	100	0.000	0.000	0.000	24.135	24.024	2402.350
4800	100	0.000	0.000	0.000	19.322	21.729	2172.850
4900	100	0.000	0.000	0.000	18.230	18.776	1877.600
5000	100	0.000	0.000	0.000	19.638	18.934	1893.400
5100	100	0.000	0.000	0.000	17.356	18.497	1849.700
5200	100	0.000	0.000	0.000	23.358	20.357	2035.700
5300	100	0.000	0.000	0.000	21.150	22.254	2225.400
5400	100	0.250	0.125	12.500	8.265	14.708	1470.750
5500	100	0.661	0.456	45.550	11.775	10.020	1002.000
5600	100	0.365	0.513	51.300	15.158	13.467	1346.650
5700	100	0.648	0.507	50.650	18.300	16.729	1672.900
5800	100	0.667	0.658	65.750	19.455	18.878	1887.750
5900	100	0.842	0.755	75.450	28.828	24.142	2414.150
6000	100	1.025	0.934	93.350	20.684	24.756	2475.600
6100	100	1.271	1.148	114.800	18.311	19.498	1949.750
6200	100	1.410	1.341	134.050	20.226	19.269	1926.850
6300	100	0.018	0.714	71.400	25.921	23.074	2307.350
6400	100	1.814	0.916	91.600	19.373	22.647	2264.700
6500	100	3.041	2.428	242.750	18.713	19.043	1904.300
6600	100	3.344	3.193	319.250	17.494	18.104	1810.350
6700	100	3.893	3.619	361.850	17.147	17.321	1732.050
6800	100	2.118	3.006	300.550	19.799	18.473	1847.300
6900	100	0.758	1.438	143.800	22.255	21.027	2102.700
7000	100	0.000	0.379	37.900	26.877	24.566	2456.600
7100	100	0.000	0.000	0.000	29.653	28.265	2826.500
7200	100	0.000	0.000	0.000	28.145	28.899	2889.900
7300	100	0.064	0.032	3.200	27.615	27.880	2788.000
7400	100	0.424	0.244	24.400	24.664	26.140	2613.950
7500	100	0.438	0.431	43.100	16.752	20.708	2070.800
7600	100	0.163	0.301	30.050	21.480	19.116	1911.600
7700	100	0.000	0.082	8.150	25.342	23.411	2341.100
7800	100	0.000	0.000	0.000	25.923	25.633	2563.250
7900	100	0.000	0.000	0.000	34.160	30.042	3004.150
8000	100	0.000	0.000	0.000	32.516	33.338	3333.800
8100	100	0.000	0.000	0.000	37.333	34.925	3492.450
8200	100	0.000	0.000	0.000	33.647	35.490	3549.000
8300	100	0.000	0.000	0.000	32.763	33.205	3320.500
8400	100	0.000	0.000	0.000	29.781	31.272	3127.200
8500	100	0.000	0.000	0.000	27.503	28.642	2864.200
8600	100	0.000	0.000	0.000	29.033	28.268	2826.800
8700	100	0.000	0.000	0.000	31.328	30.181	3018.050
8800	100	0.000	0.000	0.000	29.275	30.302	3030.150
8900	100	0.000	0.000	0.000	35.038	32.157	3215.650

Chainage	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
9000	100	0.000	0.000	0.000	35.045	35.042	3504.150
9100	100	0.000	0.000	0.000	33.675	34.360	3436.000
9200	100	0.000	0.000	0.000	33.011	33.343	3334.300
9300	100	0.000	0.000	0.000	33.121	33.066	3306.600
9400	100	0.000	0.000	0.000	34.031	33.576	3357.600
9500	100	0.000	0.000	0.000	32.614	33.323	3332.250
9600	100	0.000	0.000	0.000	31.235	31.925	3192.450
9700	100	0.000	0.000	0.000	34.816	33.026	3302.550
9800	100	2.009	1.005	100.450	4.232	19.524	1952.400
9900	100	0.000	1.005	100.450	46.165	25.199	2519.850
10000	100	0.000	0.000	0.000	47.234	46.700	4669.950
10100	100	0.000	0.000	0.000	50.019	48.627	4862.650
10200	100	0.000	0.000	0.000	51.059	50.539	5053.900
10300	100	0.000	0.000	0.000	47.289	49.174	4917.400
10400	100	0.000	0.000	0.000	48.757	48.023	4802.300
10500	100	0.000	0.000	0.000	49.452	49.105	4910.450
10600	100	0.000	0.000	0.000	42.253	45.853	4585.250
10700	100	0.000	0.000	0.000	40.587	41.420	4142.000
10800	100	0.000	0.000	0.000	38.969	39.778	3977.800
10900	100	0.000	0.000	0.000	37.477	38.223	3822.300
11000	100	0.000	0.000	0.000	36.863	37.170	3717.000
11100	100	0.009	0.005	0.450	35.541	36.202	3620.200
11200	100	0.032	0.021	2.050	35.156	35.349	3534.850
11300	100	0.000	0.016	1.600	32.637	33.897	3389.650
11400	100	0.000	0.000	0.000	32.673	32.655	3265.500
11500	100	0.000	0.000	0.000	32.679	32.676	3267.600
11600	100	0.000	0.000	0.000	33.087	32.883	3288.300
11700	100	0.000	0.000	0.000	29.788	31.438	3143.750
11800	100	0.000	0.000	0.000	19.989	24.889	2488.850
11900	100	0.000	0.000	0.000	27.896	23.943	2394.250
12000	100	0.000	0.000	0.000	35.243	31.570	3156.950
12100	100	0.000	0.000	0.000	33.732	34.488	3448.750
12200	100	0.000	0.000	0.000	30.722	32.227	3222.700
12300	100	0.000	0.000	0.000	33.955	32.339	3233.850
12400	100	0.000	0.000	0.000	27.627	30.791	3079.100
12500	100	0.000	0.000	0.000	23.845	25.736	2573.600
12600	100	0.172	0.086	8.600	22.917	23.381	2338.100
12700	100	0.581	0.377	37.650	21.913	22.415	2241.500
12800	100	1.048	0.815	81.450	20.844	21.379	2137.850
12900	100	0.000	0.524	52.400	26.887	23.866	2386.550
13000	100	0.000	0.000	0.000	24.720	25.804	2580.350
13100	100	0.000	0.000	0.000	24.106	24.413	2441.300
13200	100	0.034	0.017	1.700	19.325	21.716	2171.550
13300	100	0.122	0.078	7.800	17.376	18.351	1835.050
13400	100	0.046	0.084	8.400	2.614	9.995	999.500
13500	100	0.168	0.107	10.700	4.349	3.482	348.150

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
		sq-m	sq-m	Cum	sq-m	sq-m	Cum
13600	100	0.573	0.371	37.050	4.281	4.315	431.500
13700	100	1.723	1.148	114.800	5.423	4.852	485.200
13800	100	2.813	2.268	226.800	4.784	5.104	510.350
13900	100	3.796	3.305	330.450	4.025	4.405	440.450
14000	100	4.933	4.365	436.450	5.128	4.577	457.650
14100	100	6.205	5.569	556.900	4.223	4.676	467.550
14200	100	7.621	6.913	691.300	5.277	4.750	475.000
14300	100	6.163	6.892	689.200	2.487	3.882	388.200
14400	100	3.694	4.929	492.850	2.327	2.407	240.700
14500	100	4.136	3.915	391.500	2.935	2.631	263.100
14600	100	1.193	2.665	266.450	4.682	3.809	380.850
14700	100	0.059	0.626	62.600	5.392	5.037	503.700
14800	100	0.151	0.105	10.500	6.726	6.059	605.900
14900	100	1.517	0.834	83.400	2.729	4.728	472.750
15000	100	0.847	1.182	118.200	2.895	2.812	281.200
15100	100	0.350	0.599	59.850	3.160	3.028	302.750
15200	100	0.041	0.196	19.550	4.661	3.911	391.050
15300	100	0.000	0.021	2.050	5.107	4.884	488.400
15400	100	0.000	0.000	0.000	6.248	5.678	567.750
15500	100	0.000	0.000	0.000	6.864	6.556	655.600
15600	100	0.000	0.000	0.000	4.841	5.853	585.250
15700	100	0.088	0.044	4.400	2.871	3.856	385.600
15800	100	1.861	0.975	97.450	5.574	4.223	422.250
15900	100	3.176	2.519	251.850	1.389	3.482	348.150
16000	100	3.317	3.247	324.650	2.466	1.928	192.750
16100	100	0.000	1.659	165.850	1.700	2.083	208.300
16200	100	0.333	0.167	16.650	2.266	1.983	198.300
16300	100	6.383	3.358	335.800	2.879	2.573	257.250
16400	100	2.091	4.237	423.700	2.650	2.765	276.450
16500	100	0.556	1.324	132.350	2.686	2.668	266.800
16600	100	0.117	0.337	33.650	4.216	3.451	345.100
16700	100	0.000	0.059	5.850	5.967	5.092	509.150
16800	100	0.000	0.000	0.000	7.176	6.572	657.150
16900	100	3.178	1.589	158.900	3.206	5.191	519.100
17000	100	0.632	1.905	190.500	3.313	3.260	325.950
17100	100	0.392	0.512	51.200	3.565	3.439	343.900
17200	100	0.111	0.252	25.150	4.580	4.073	407.250
17300	100	0.016	0.064	6.350	5.612	5.096	509.600
17400	100	0.000	0.008	0.800	5.509	5.561	556.050
17500	100	0.000	0.000	0.000	5.188	5.349	534.850
17600	100	3.908	1.954	195.400	1.987	3.588	358.750

		Earthwork in Cutting			Earthwork in filling		
Change	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	0.746	2.327	232.700	3.441	2.714	271.400
17800	100	3.424	2.085	208.500	1.345	2.393	239.300
17900	100	1.015	2.220	221.950	4.190	2.768	276.750
Total				30101.450			296471.400
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							30101.450
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							296471.400
NET QUANTITY OF EARTHWORK IN FILLING							266369.95

		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 SAHOKARMA MR (0.000 TO 1.600 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	2.393	1.197	119.650	1.841	0.921	92.050
200	100	7.537	4.965	496.500	2.201	2.021	202.100
300	100	4.293	5.915	591.500	1.911	2.056	205.600
400	100	0.425	2.359	235.900	3.708	2.810	280.950
500	100	0.809	0.617	61.700	3.911	3.810	380.950
600	100	0.000	0.405	40.450	9.132	6.522	652.150
700	100	1.901	0.951	95.050	2.786	5.959	595.900
800	100	0.231	1.066	106.600	4.706	3.746	374.600
900	100	0.000	0.116	11.550	14.901	9.804	980.350
1000	100	1.776	0.888	88.800	3.268	9.085	908.450
1100	100	1.583	1.680	167.950	1.894	2.581	258.100
1200	100	0.114	0.849	84.850	5.247	3.571	357.050
1300	100	0.000	0.057	5.700	13.237	9.242	924.200
1400	100	0.723	0.362	36.150	3.608	8.423	842.250
1500	100	0.275	0.499	49.900	2.648	3.128	312.800
1600	100	0.000	0.138	13.750	6.526	4.587	458.700
Total				2206.000			7826.200
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							2206.000
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							7826.200
NET QUANTITY OF EARTHWORK IN FILLING							5620.20

		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 DHAMINI SUB DY (0.000 TO 5.300 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	0.000	0.000	0.000	5.616	2.808	280.800
200	100	1.105	0.553	55.250	5.495	5.556	555.550
300	100	2.971	2.038	203.800	4.844	5.170	516.950
400	100	5.343	4.157	415.700	4.022	4.433	443.300
500	100	6.799	6.071	607.100	2.587	3.305	330.450
600	100	6.558	6.679	667.850	1.733	2.160	216.000
700	100	6.471	6.515	651.450	1.629	1.681	168.100
800	100	6.075	6.273	627.300	1.961	1.795	179.500
900	100	5.128	5.602	560.150	1.295	1.628	162.800
1000	100	4.203	4.666	466.550	1.224	1.260	125.950
1100	100	3.386	3.795	379.450	1.488	1.356	135.600
1200	100	2.659	3.023	302.250	1.637	1.563	156.250
1300	100	2.004	2.332	233.150	2.573	2.105	210.500
1400	100	1.204	1.604	160.400	3.392	2.983	298.250
1500	100	0.653	0.929	92.850	3.925	3.659	365.850
1600	100	0.238	0.446	44.550	5.394	4.660	465.950
1700	100	0.000	0.119	11.900	8.742	7.068	706.800
1800	100	0.000	0.000	0.000	12.281	10.512	1051.150
1900	100	1.089	0.545	54.450	2.666	7.474	747.350
2000	100	0.015	0.552	55.200	7.476	5.071	507.100
2100	100	0.000	0.008	0.750	15.305	11.391	1139.050
2200	100	0.860	0.430	43.000	3.530	9.418	941.750
2300	100	0.587	0.724	72.350	4.560	4.045	404.500
2400	100	0.400	0.494	49.350	5.155	4.858	485.750
2500	100	0.199	0.300	29.950	6.048	5.602	560.150
2600	100	0.000	0.100	9.950	7.822	6.935	693.500
2700	100	2.106	1.053	105.300	4.998	6.410	641.000
2800	100	0.095	1.101	110.050	6.203	5.601	560.050
2900	100	0.000	0.048	4.750	9.596	7.900	789.950
3000	100	0.000	0.000	0.000	14.540	12.068	1206.800
3100	100	0.942	0.471	47.100	3.767	9.154	915.350
3200	100	0.000	0.471	47.100	7.201	5.484	548.400
3300	100	1.519	0.760	75.950	6.374	6.788	678.750
3400	100	0.614	1.067	106.650	4.424	5.399	539.900
3500	100	0.037	0.326	32.550	4.280	4.352	435.200
3600	100	0.000	0.019	1.850	9.239	6.760	675.950
3700	100	0.032	0.016	1.600	8.567	8.903	890.300
3800	100	0.081	0.057	5.650	8.056	8.312	831.150
3900	100	0.136	0.109	10.850	7.534	7.795	779.500
4000	100	0.196	0.166	16.600	6.975	7.255	725.450
4100	100	0.170	0.183	18.300	6.047	6.511	651.100
4200	100	0.155	0.163	16.250	4.619	5.333	533.300
4300	100	0.201	0.178	17.800	4.840	4.730	472.950

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
		sq-m	sq-m	Cum	sq-m	sq-m	Cum
4400	100	0.138	0.170	16.950	4.770	4.805	480.500
4500	100	0.295	0.217	21.650	4.365	4.568	456.750
4600	100	0.257	0.276	27.600	4.345	4.355	435.500
4700	100	0.411	0.334	33.400	4.302	4.324	432.350
4800	100	1.358	0.885	88.450	3.826	4.064	406.400
4900	100	1.073	1.216	121.550	4.447	4.137	413.650
5000	100	0.803	0.938	93.800	4.495	4.471	447.100
5100	100	0.532	0.668	66.750	5.339	4.917	491.700
5200	100	0.262	0.397	39.700	4.292	4.816	481.550
5300	100	0.000	0.131	13.100	6.164	5.228	522.800
Total				6936.000			28292.300
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							6936.000
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							28292.300
NET QUANTITY OF EARTHWORK IN FILLING							21356.30

Change	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 BHADWA MR (0.000 TO 2.900 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	1.393	0.697	69.650	3.247	1.624	162.350
200	100	1.463	1.428	142.800	3.379	3.313	331.300
300	100	1.623	1.543	154.300	3.229	3.304	330.400
400	100	0.580	1.102	110.150	6.854	5.042	504.150
500	100	0.546	0.563	56.300	5.922	6.388	638.800
600	100	0.514	0.530	53.000	5.927	5.925	592.450
700	100	0.483	0.499	49.850	6.373	6.150	615.000
800	100	0.453	0.468	46.800	5.882	6.128	612.750
900	100	0.429	0.441	44.100	6.148	6.015	601.500
1000	100	0.279	0.354	35.400	7.001	6.575	657.450
1100	100	0.059	0.169	16.900	5.874	6.438	643.750
1200	100	0.000	0.030	2.950	7.251	6.563	656.250
1300	100	0.000	0.000	0.000	6.988	7.120	711.950
1400	100	0.000	0.000	0.000	10.414	8.701	870.100
1500	100	1.823	0.912	91.150	3.792	7.103	710.300
1600	100	0.411	1.117	111.700	2.101	2.947	294.650
1700	100	2.041	1.226	122.600	0.953	1.527	152.700
1800	100	0.499	1.270	127.000	2.531	1.742	174.200
1900	100	0.000	0.250	24.950	14.923	8.727	872.700
2000	100	0.577	0.289	28.850	3.920	9.422	942.150
2100	100	0.000	0.289	28.850	3.732	3.826	382.600
2200	100	1.011	0.506	50.550	3.907	3.820	381.950
2300	100	1.377	1.194	119.400	4.535	4.221	422.100
2400	100	0.507	0.942	94.200	4.932	4.734	473.350
2500	100	0.356	0.432	43.150	3.857	4.395	439.450
2600	100	0.393	0.375	37.450	2.207	3.032	303.200
2700	100	0.820	0.607	60.650	4.004	3.106	310.550
2800	100	0.043	0.432	43.150	6.488	5.246	524.600
2900	100	0.000	0.022	2.150	6.148	6.318	631.800
Total				1768.000			14944.500
TOTAL QUANTITY OF EARTHWORK IN EXCAVATION							1768.000
TOTAL QUANTITY OF EARTHWORK IN BACKFILLING							14944.500
NET QUANTITY OF EARTHWORK IN FILLING							13176.50

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND				
KOTWARA SUB DY. (0.000 TO 30.800 KM)				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	Length (m)	Perimeter (m)	Quantity	
0.00 - 5.120	5120	11.37	58214.40	Sqm
5.120 - 13.020	7900	10.460	82634.00	Sqm
13.020 - 16.200	3180	6.670	21210.60	Sqm
16.200 - 17.350	1150	6.310	7256.50	Sqm
17.350 - 20.200	2850	5.750	16387.50	Sqm
20.200 - 21.350	1150	5.380	6187.00	Sqm
21.350 - 23.830	2480	5.150	12772.00	Sqm
23.830 - 26.400	2570	4.670	12001.90	Sqm
26.400 - 27.075	675	4.230	2855.25	Sqm
27.075 - 28.800	1725	3.270	5640.75	Sqm
28.800 - 29.000	200	2.790	558.00	Sqm
29.000 - 30.000	1000	2.410	2410.00	Sqm
30.000 - 30.350	350	1.910	668.50	Sqm
30.350 - 30.650	300	1.580	474.00	Sqm
30.650 - 30.800	150	1.300	195.00	Sqm
	TOTAL		216663.90	Sqm

LIP CUTTING QUANTITY					
Reaches (km)	Length (m)	Perimeter (m)	Thickness (m)	Quantity	
0.00 - 5.120	5120	11.370	0.15	8732.16	Cum
5.120 - 13.020	7900	10.460	0.15	12395.10	Cum
13.020 - 16.200	3180	6.670	0.15	3181.59	Cum
16.200 - 17.350	1150	6.310	0.15	1088.48	Cum
17.350 - 20.200	2850	5.750	0.15	2458.13	Cum
20.200 - 21.350	1150	5.380	0.15	928.05	Cum
21.350 - 23.830	2480	5.150	0.15	1915.80	Cum
23.830 - 26.400	2570	4.670	0.15	1800.29	Cum
26.400 - 27.075	675	4.230	0.15	428.29	Cum
27.075 - 28.800	1725	3.270	0.15	846.11	Cum
28.800 - 29.000	200	2.790	0.15	83.70	Cum
29.000 - 30.000	1000	2.410	0.15	361.50	Cum
30.000 - 30.350	350	1.910	0.15	100.28	Cum
30.350 - 30.650	300	1.580	0.15	71.10	Cum
30.650 - 30.800	150	1.300	0.15	29.25	Cum
	TOTAL			32499.59	Cum

GAMHARIA MINOR (0.000 TO 2.850 KM)					
JUNGLE CLEARANCE QUANTITY					
Reaches (km)	Length (m)	Perimeter (m)	Quantity		
0.00 - 1.000	1000	2.17	2170.00		Sqm
1.000 - 1.500	500	1.91	955.00		Sqm
1.500 - 2.200	700	1.54	1078.00		Sqm
2.200 - 2.850	650	1.25	812.50		Sqm
	TOTAL		5015.50		Sqm
LIP CUTTING QUANTITY					
Reaches (km)	Length (m)	Perimeter (m)	Thickness (m)	Quantity	
0.00 - 1.000	2300	2.17	0.15	748.65	Cum
1.000 - 1.500	1850	1.91	0.15	530.03	Cum
1.500 - 2.200	800	1.54	0.15	184.80	Cum
2.200 - 2.850	801	1.25	1.15	1151.44	Cum
	TOTAL			2614.91	Cum

NAGWA MINOR (0.000 TO 1.950 KM)					
JUNGLE CLEARANCE QUANTITY					
Reaches (km)	Length (m)	Perimeter (m)	Quantity		
0.00 - 0.150	150	2.660	399.00		Sqm
0.150 - 1.150	1000	2.320	2320.00		Sqm
1.150 - 1.450	300	1.890	567.00		Sqm
1.450 - 1.950	500	1.300	650.00		Sqm
	TOTAL		3936.00		Sqm

LIP CUTTING QUANTITY					
Reaches (km)	Length (m)	Perimeter (m)	Thickness (m)	Quantity	
0.00 - 0.150	150	2.66	0.15	59.85	Cum
0.150 - 1.150	1000	2.32	0.15	348.00	Cum
1.150 - 1.450	300	1.89	0.15	85.05	Cum
1.450 - 1.950	500	1.30	1.15	747.50	Cum
	TOTAL			1240.40	Cum

PAWAI MINOR (0.000 TO 1.900 KM)					
JUNGLE CLEARANCE QUANTITY					
Reaches (km)	Length (m)	Perimeter (m)	Quantity		
0.00 - 0.450	450	2.21	994.50		Sqm
0.450 - 1.100	650	1.89	1228.50		Sqm
1.100 - 1.400	300	1.4	420.00		Sqm
1.400 - 1.900	500	1.599	799.50		Sqm
	TOTAL		3442.50		Sqm

LIP CUTTING QUANTITY					
Reaches (km)	Length (m)	Perimeter (m)	Thickness (m)	Quantity	
0.00 - 0.450	450	2.21	0.15	149.18	Cum
0.450 - 1.100	650	1.89	0.15	184.28	Cum
1.100 - 1.400	300	1.89	0.15	85.05	Cum
1.400 - 1.900	500	1.599	0.15	119.93	Cum
	TOTAL			538.43	Cum

BHUTAILI MR. (0.000 TO 2.050 KM)					
JUNGLE CLEARANCE QUANTITY					
Reaches (km)	Length (m)	Perimeter (m)	Quantity		
0.00 - 0.650	650	2.21	1436.50		Sqm
0.650 - 1.625	975	1.89	1842.75		Sqm
1.625 - 2.050	425	1.4	595.00		Sqm
	TOTAL		3874.25		Sqm

LIP CUTTING QUANTITY					
Reaches (km)	Length (m)	Perimeter (m)	Thickness (m)	Quantity	
0.00 - 0.650	650	2.21	0.15	215.48	Cum
0.650 - 1.625	975	1.89	0.15	276.41	Cum
1.625 - 2.050	425	1.4	0.15	89.25	Cum
	TOTAL			581.14	Cum

SALOPURA MR (0.000 TO 3.100 KM)					
JUNGLE CLEARANCE QUANTITY					
Reaches (km)	Length (m)	Perimeter (m)	Quantity		
0.00 - 0.710	710	2.32	1647.20		Sqm
0.710 - 1.350	640	1.94	1241.60		Sqm
1.350 - 3.100	1750	1.42	2485.00		Sqm
	TOTAL		5373.80		Sqm

LIP CUTTING QUANTITY					
Reaches (km)	Length (m)	Perimeter (m)	Thickness (m)	Quantity	
0.00 - 0.710	710	2.32	0.15	247.08	Cum
0.710 - 1.350	640	1.94	0.15	186.24	Cum
1.350 - 3.100	1750	1.42	0.15	372.75	Cum
	TOTAL			806.07	Cum

SINGHI SUB - DY. MIINOR (0.000 TO 17.950 KM)				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	Length (m)	Perimeter (m)	Quantity	
0.00 - 2.800	2800	6.41	17948.00	Sqm
2.800 - 4.584	1784	5.96	10632.64	Sqm
4.584 - 7.000	2416	5.29	12780.64	Sqm
7.000 - 10.250	3250	4.94	16055.00	Sqm
10.250 - 12.550	2300	4.66	10718.00	Sqm
12.550 - 13.380	830	4.11	3411.30	Sqm
13.380 - 15.200	1820	2.09	3803.80	Sqm
15.200 - 17.950	2750	1.56	4290.00	Sqm
	TOTAL		79639.38	Sqm

LIP CUTTING QUANTITY					
Reaches (km)	Length (m)	Perimeter (m)	Thickness (m)	Quantity	
0.00 - 2.800	2800	6.410	0.15	2692.20	Cum
2.800 - 4.584	1784	5.960	0.15	1594.90	Cum
4.584 - 7.000	2416	5.290	0.15	1917.10	Cum
7.000 - 10.250	3250	4.940	0.15	2408.25	Cum
10.250 - 12.550	2300	4.660	0.15	1607.70	Cum
12.550 - 13.380	830	4.110	0.15	511.70	Cum
13.380 - 15.200	1820	2.090	0.15	570.57	Cum
15.200 - 17.950	2750	1.560	0.15	643.50	Cum
	TOTAL			11945.91	Cum

SAHOKARMA MR. (0.000 TO 1.950 KM)				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	Length (m)	Perimeter (m)	Quantity	
0.00 - 1.000	1000	2.17	2170.00	Sqm
1.000 - 1.400	400	1.81	724.00	Sqm
1.400 - 1.950	550	1.2	660.00	Sqm
	TOTAL		3554.00	Sqm

LIP CUTTING QUANTITY					
Reaches (km)	Length (m)	Perimeter (m)	Thickness (m)	Quantity	
0.00 - 1.000	1000	2.17	0.15	325.50	Cum
1.000 - 1.400	400	1.81	1.15	832.60	Cum
1.400 - 1.950	550	1.2	2.15	1419.00	Cum
	TOTAL			2577.10	Cum

DHAMNI MIINOR (0.000 TO 5.400 KM)				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	Length (m)	Perimeter (m)	Quantity	
0.00 - 1.350	1350	3.040	4104.00	Sqm
1.350 - 3.050	1700	2.580	4386.00	Sqm
3.050 - 3.300	250	2.170	542.50	Sqm
3.300 - 4.450	1150	1.84	2116.00	Sqm
4.450 - 5.400	950	1.4	1330.00	Sqm
	TOTAL		12478.50	Sqm

LIP CUTTING QUANTITY					
Reaches (km)	Length (m)	Perimeter (m)	Thickness (m)	Quantity	
0.00 - 1.350	1350	3.040	0.15	615.60	Cum
1.350 - 3.050	1700	2.580	0.15	657.90	Cum
3.050 - 3.300	250	2.170	0.15	81.38	Cum
3.300 - 4.450	1150	1.840	0.15	317.40	Cum
4.450 - 5.400	950	1.400	0.15	199.50	Cum
	TOTAL			1871.78	Cum

BHADWA MINOR (0.000 TO 3.000 KM)					
JUNGLE CLEARANCE QUANTITY					
Reaches (km)	Length (m)	Perimeter (m)	Quantity		
0.00 - 1.000	1000	2.63	2630.00		Sqm
1.000 - 1.600	600	2.01	1206.00		Sqm
1.600 - 2.000	400	1.79	716.00		Sqm
2.000 - 3.000	1000	1.25	1250.00		Sqm
	TOTAL		5802.00		Sqm

LIP CUTTING QUANTITY					
Reaches (km)	Length (m)	Perimeter (m)	Thickness (m)	Quantity	
0.00 - 1.000	1000	2.63	0.15	394.50	Cum
1.000 - 1.600	600	2.01	0.15	180.90	Cum
1.600 - 2.000	400	1.79	0.15	107.40	Cum
2.000 - 3.000	1000	1.25	0.15	187.50	Cum
	TOTAL			870.30	Cum

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND				
DETAILS OF QUANTITIES FOR EARTH WORK FOR KOTWARA 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	216663.90	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	93515.300	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	37406.12	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	172022.750	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, unloadng, 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	51606.83	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	43005.69	Cum

S.No.	Items	No.	Quantity	Unit
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	77410.24	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 including 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	32499.59	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	265538.05	Cum

S.No.	Items	No.	Quantity	Unit
DETAILS OF QUANTITIES FOR EARTH WORK FOR GAMHARIA 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	5015.50	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	8654.975	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	3461.99	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	6402.975	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, unloadng, 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	1920.89	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	1600.74	Cum

S.No.	Items	No.	Quantity	Unit
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	2881.34	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 including 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	2614.91	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	15057.95	Cum

S.No.	Items	No.	Quantity	Unit
DETAILS OF QUANTITIES FOR EARTH WORK FOR NAGWA 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	3936.00	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	592.300	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	236.92	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	8623.750	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, unloading, 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	2587.13	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	2155.94	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	3880.69	Cum

S.No.	Items	No.	Quantity	Unit
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 including 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	1240.40	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	9216.05	Cum

S.No.	Items	No.	Quantity	Unit
DETAILS OF QUANTITIES FOR EARTH WORK FOR PAWAI 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	3442.50	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	2153.400	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	861.36	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	9172.600	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, unloading, 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	2751.78	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	2293.15	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	4127.67	Cum

S.No.	Items	No.	Quantity	Unit
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 including 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	538.43	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	11326.00	Cum

S.No.	Items	No.	Quantity	Unit
DETAILS OF QUANTITIES FOR EARTH WORK FOR BHUTAILI 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	3874.25	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	876.900	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	350.76	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	10069.250	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, unloading, 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	3020.78	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	2517.31	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	4531.16	Cum

S.No.	Items	No.	Quantity	Unit
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 including 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	581.14	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	10946.15	Cum

S.No.	Items	No.	Quantity	Unit
DETAILS OF QUANTITIES FOR EARTH WORK FOR SALOPURA 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	5373.80	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	2643.375	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	1057.35	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	17852.200	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	5355.66	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	4463.05	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	8033.49	Cum

S.No.	Items	No.	Quantity	Unit
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 including 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	806.07	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	20495.58	Cum

S.No.	Items	No.	Quantity	Unit
DETAILS OF QUANTITIES FOR EARTH WORK FOR SINGHI 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	79639.38	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	30101.450	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	12040.58	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	266369.950	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	79910.99	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	66592.49	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	119866.48	Cum

S.No.	Items	No.	Quantity	Unit

S.No.	Items	No.	Quantity	Unit
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 including 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	11945.91	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	296471.40	Cum

S.No.	Items	No.	Quantity	Unit
DETAILS OF QUANTITIES FOR EARTH WORK FOR SAHOKARMA 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	3554.00	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	2206.000	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	882.4	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	5620.200	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	1686.06	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	1405.05	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	2529.09	Cum

S.No.	Items	No.	Quantity	Unit
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 including 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	2577.10	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	7826.20	Cum

S.No.	Items	No.	Quantity	Unit
DETAILS OF QUANTITIES FOR EARTH WORK FOR DHAMNI 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	12478.50	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	6936.000	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	2774.4	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	21356.300	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	6406.89	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	5339.08	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	9610.34	Cum

S.No.	Items	No.	Quantity	Unit
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 including 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	1871.78	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	28292.30	Cum

S.No.	Items	No.	Quantity	Unit
DETAILS OF QUANTITIES FOR EARTH WORK FOR BHADWA 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	5802.00	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	1768.000	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	707.2	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	13176.500	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	3952.95	Cum
b.	Lead Beyond 500 m but upto 1 km (25% of net filling)	1	3294.13	Cum
c.	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	1	5929.43	Cum

S.No.	Items	No.	Quantity	Unit
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 including 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	870.30	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	14944.50	Cum

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND						
ABSTRACT OF QUANTITY OF EARTHWORK FOR KOTWARA 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.	216663.90	Sqm	11.80	2557585.159
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.				
		<i>100% of Total Cutting for ordinary soil</i>	93515.30	Cum	156.50	14635144.45
3	5.1.22	<i>Extra for wet earth all complete as per specifications and direction of E/I.</i>	37406.12	Cum	17.22	644040.3994
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.	172022.75	Cum	165.12	28403701.59
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 embankments, unloading, 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)	51606.83	Cum	174.89	9025517.62
B.	5.1.46.2	Lead Beyond 500 m but upto 1 km (25% of net filling)	43005.69	Cum	217.92	9371799.42
C.	5.1.46.4	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	77410.24	Cum	319.14	24704703.20

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 including 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.				
			32499.59	Cum	196.10	6373168.62
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.	172022.75	Cum	61.88	10645171.10
TOTAL COST OF EARTHWORK (in Rs.)						106360831.55
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						1063.608

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR GAMHARIA 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.	5015.50	Sqm	11.80	59204.91769
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.				
		<i>100% of Total Cutting for ordinary soil</i>	8654.98	Cum	156.50	1354503.588
3	5.1.22	<i>Extra for wet earth all complete as per specifications and direction of E/I.</i>	3461.99	Cum	17.22	59606.86172
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.	6402.98	Cum	165.12	1057233.37
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)	1920.89	Cum	174.89	335944.89
B.	5.1.46.2	Lead Beyond 500 m but upto 1 km (25% of net filling)	1600.74	Cum	217.92	348834.08
C.	5.1.46.4	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	2881.34	Cum	319.14	919550.45
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.				
			2614.91	Cum	196.10	512784.34

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.	15057.95	Cum	61.88	931821.25
TOTAL COST OF EARTHWORK (in Rs.)						5579483.74
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						55.795

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR NAGWA 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.	3936.00	Sqm	11.80	46462.07876
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.				
		<i>100% of Total Cutting for ordinary soil</i>	592.30	Cum	156.50	92694.95
3	5.1.22	<i>Extra for wet earth all complete as per specifications and direction of E/I.</i>	236.92	Cum	17.22	4079.173446
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.	8623.75	Cum	165.12	1423918.76
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)	2587.13	Cum	174.89	452462.29
B.	5.1.46.2	Lead Beyond 500 m but upto 1 km (25% of net filling)	2155.94	Cum	217.92	469821.90
C.	5.1.46.4	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	3880.69	Cum	319.14	1238482.61
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.				
			1240.40	Cum	196.10	243242.44

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.	9216.05	Cum	61.88	570310.78
TOTAL COST OF EARTHWORK (in Rs.)						4541474.99
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						45.415

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR PAWAI 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.	3442.50	Sqm	11.80	40636.61233
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.				
		<i>100% of Total Cutting for ordinary soil</i>	2153.40	Cum	156.50	337007.1
3	5.1.22	<i>Extra for wet earth all complete as per specifications and direction of E/I.</i>	861.36	Cum	17.22	14830.47797
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.	9172.60	Cum	165.12	1514542.66
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)	2751.78	Cum	174.89	481258.80
B.	5.1.46.2	Lead Beyond 500 m but upto 1 km (25% of net filling)	2293.15	Cum	217.92	499723.25
C.	5.1.46.4	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	4127.67	Cum	319.14	1317304.60
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.				
			538.43	Cum	196.10	105585.14

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.	11326.00	Cum	61.88	700879.44
TOTAL COST OF EARTHWORK (in Rs.)						5011768.08
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						50.118

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR BHUTAILI 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.	3874.25	Sqm	11.80	45733.15768
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.				
		<i>100% of Total Cutting for ordinary soil</i>	876.90	Cum	156.50	137234.85
3	5.1.22	<i>Extra for wet earth all complete as per specifications and direction of E/I.</i>	350.76	Cum	17.22	6039.215254
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.	10069.25	Cum	165.12	1662593.88
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 embankments, unloading, 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 lifts 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)	3020.78	Cum	174.89	528303.34
B.	5.1.46.2	Lead Beyond 500 m but upto 1 km (25% of net filling)	2517.31	Cum	217.92	548572.74
C.	5.1.46.4	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	4531.16	Cum	319.14	1446075.20
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 including 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.				
			581.14	Cum	196.10	113961.06

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.	10946.15	Cum	61.88	677373.43
TOTAL COST OF EARTHWORK (in Rs.)						5165886.88
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						51.659

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR SALOPURA 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.	5373.80	Sqm	11.80	63434.4306
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.				
		<i>100% of Total Cutting for ordinary soil</i>	2643.38	Cum	156.50	413688.1875
3	5.1.22	<i>Extra for wet earth all complete as per specifications and direction of E/I.</i>	1057.35	Cum	17.22	18204.93856
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.	17852.20	Cum	165.12	2947683.15
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)	5355.66	Cum	174.89	936651.38
B.	5.1.46.2	Lead Beyond 500 m but upto 1 km (25% of net filling)	4463.05	Cum	217.92	972587.86
C.	5.1.46.4	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	8033.49	Cum	319.14	2563808.00
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.				
			806.07	Cum	196.10	158070.33

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.	20495.58	Cum	61.88	1268314.24
TOTAL COST OF EARTHWORK (in Rs.)						9342442.50
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						93.424

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR SINGHI 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.	79639.38	Sqm	11.80	940094.2952
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.				
		<i>100% of Total Cutting for ordinary soil</i>	30101.45	Cum	156.50	4710876.925
3	5.1.22	<i>Extra for wet earth all complete as per specifications and direction of E/I.</i>	12040.58	Cum	17.22	207308.8562
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.	266369.95	Cum	165.12	43981930.13
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)	79910.99	Cum	174.89	13975632.17
B.	5.1.46.2	Lead Beyond 500 m but upto 1 km (25% of net filling)	66592.49	Cum	217.92	14511834.88
C.	5.1.46.4	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	119866.48	Cum	319.14	38254187.63
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.				
			11945.91	Cum	196.10	2342592.36

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.	296471.40	Cum	61.88	18346345.35
TOTAL COST OF EARTHWORK (in Rs.)						137270802.59
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						1372.708

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR SAHOKARMA 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.	3554.00	Sqm	11.80	41952.80181
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.				
		<i>100% of Total Cutting for ordinary soil</i>	2206.00	Cum	156.50	345239
3	5.1.22	<i>Extra for wet earth all complete as per specifications and direction of E/I.</i>	882.40	Cum	17.22	15192.73446
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.	5620.20	Cum	165.12	927984.72
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)	1686.06	Cum	174.89	294875.03
B.	5.1.46.2	Lead Beyond 500 m but upto 1 km (25% of net filling)	1405.05	Cum	217.92	306188.50
C.	5.1.46.4	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	2529.09	Cum	319.14	807133.78
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.				
			2577.10	Cum	196.10	505369.31

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.	7826.20	Cum	61.88	484303.61
TOTAL COST OF EARTHWORK (in Rs.)						3728239.48
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						37.282

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR DHAMNI 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.	12478.50	Sqm	11.80	147301.0797
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.				
		<i>100% of Total Cutting for ordinary soil</i>	6936.00	Cum	156.50	1085484
3	5.1.22	<i>Extra for wet earth all complete as per specifications and direction of E/I.</i>	2774.40	Cum	17.22	47768.27119
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.	21356.30	Cum	165.12	3526265.99
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)	6406.89	Cum	174.89	1120500.99
B.	5.1.46.2	Lead Beyond 500 m but upto 1 km (25% of net filling)	5339.08	Cum	217.92	1163491.22
C.	5.1.46.4	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	9610.34	Cum	319.14	3067042.31
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.				
			1871.78	Cum	196.10	367055.08

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.	28292.30	Cum	61.88	1750793.86
TOTAL COST OF EARTHWORK (in Rs.)						12275702.80
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						122.757

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR BHADWA 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.	5802.00	Sqm	11.80	68489.07037
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.				
		<i>100% of Total Cutting for ordinary soil</i>	1768.00	Cum	156.50	276692
3	5.1.22	<i>Extra for wet earth all complete as per specifications and direction of E/I.</i>	707.20	Cum	17.22	12176.22599
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.	13176.50	Cum	165.12	2175650.45
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)	3952.95	Cum	174.89	691331.43
B.	5.1.46.2	Lead Beyond 500 m but upto 1 km (25% of net filling)	3294.13	Cum	217.92	717855.72
C.	5.1.46.4	Lead Beyond 1.5 km but upto 2 km (45% of net filling)	5929.43	Cum	319.14	1892316.69
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.				
			870.30	Cum	196.10	170665.83

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.	14944.50	Cum	61.88	924800.70
TOTAL COST OF EARTHWORK (in Rs.)						6929978.12
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						69.300

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	$0.1332x(L^{.2}XHxh)^{.659}$		
	(L) is length = clear vent width in m + 0.50m.	1.100	0.500	1.60
	(H) is height of gate in m = clear vent height in m + 0.20m.	1.130	0.200	1.33
	(h) is head of water above sill of gate in m	1.130	0.3	1.430
	Weight of lift gate including embedded parts	0.38		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	0.38	1
	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		
		1.430	400	572
	Columns with bracings/Anchors/Stiffeners	0.572		T
(ii)	Beams with cross beams/stiffeners	400 kg per meter span		
		1.43	400	572
	Beams with cross beams/stiffeners	0.572		T
(iii)	Railing/ Chequered plate/Ladder etc	10% of wt. of columns/beams		
		1.144	10%	0.1144
	Railing/ Chequered plate/Ladder etc	0.1144		T
Total Weight of One Gate		1.94		T

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF NAGWA MR.				
Calculation procedure of Gate's weight for estimation purpose				
1	Weight of 1 Vertical lift gate including embedded parts	$0.1332x(L^{.2}XHxh)^{.659}$		
	(L) is length = clear vent width in m + 0.50m.	1.500	0.500	2.00
	(H) is height of gate in m = clear vent height in m + 0.20m.	1.902	0.200	2.10
	(h) is head of water above sill of gate in m	1.902	0.3	2.202
	Weight of lift gate including embedded parts	0.91		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	0.91	1
	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		
		2.202	400	880.8
	Columns with bracings/Anchors/Stiffeners	0.8808		T
(ii)	Beams with cross beams/stiffeners	400 kg per meter span		
		2.202	400	880.8
	Beams with cross beams/stiffeners	0.8808		T
(iii)	Railing/ Chequered plate/Ladder etc	10% of wt. of columns/beams		
		1.7616	10%	0.17616
	Railing/ Chequered plate/Ladder etc	0.17616		T
Total Weight of One Gate		3.15		T

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF PAWAI MINOR				
Calculation procedure of Gate's weight for estimation purpose				
1	Weight of 1 Vertical lift gate including embedded parts	$0.1332 \times (L^2 \times H \times h)^{0.659}$		
	(L) is length = clear vent width in m + 0.50m.	1.500	0.500	2.00
	(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	0.50		T
2	Capacity of screw hoist in tone including 25% reserve capacity (Hoist capacity shall be rounded off to next 1 tonne)	2.50 x Wt of gate		
		2.5	0.50	1
	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		
		1.415	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		2.05		T

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF BHUTAILI MINOR				
Calculation procedure of Gate's weight for estimation purpose				
1	Weight of 1 Vertical lift gate including embedded parts	$0.1332 \times (L^2 \times H \times h)^{0.659}$		
	(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 x Wt of gate		
		2.5	0.40	1
	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		1.93		T

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF SALOPURA MINOR				
Calculation procedure of Gate's weight for estimation purpose				
1	Weight of 1 Vertical lift gate including embedded parts	$0.1332 \times (L^2 \times H \times h)^{0.659}$		
	(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.	1.150	0.200	1.35
	(h) is head of water above sill of gate in m	1.150	0.3	1.450
	Weight of lift gate including embedded parts	0.42		T
2	Capacity of screw hoist in tone including 25% reserve capacity (Hoist capacity shall be rounded off to next 1 tonne)	2.50 x Wt of gate		
		2.5	0.42	1
	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		
		1.450	400	580
	Columns with bracings/Anchors/Stiffeners	0.58		T
(ii)	Beams with cross beams/stiffeners	400 kg per meter span		
		1.45	400	580
	Beams with cross beams/stiffeners	0.58		T
(iii)	Railing/ Chequered plate/Ladder etc	10% of wt. of columns/beams		
		1.16	10%	0.116
	Railing/ Chequered plate/Ladder etc	0.116		T
Total Weight of One Gate		1.99		T

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF SINGHI SUB DY.				
Calculation procedure of Gate's weight for estimation purpose				
1	Weight of 1 Vertical lift gate including embedded parts	$0.1332 \times (L^2 \times H \times h)^{0.659}$		
	(L) is length = clear vent width in m + 0.50m.	2.000	0.500	2.50
	(H) is height of gate in m = clear vent height in m + 0.20m.	1.750	0.200	1.95
	(h) is head of water above sill of gate in m	1.750	0.3	2.050
	Weight of lift gate including embedded parts	1.11		T
2	Capacity of screw hoist in tone including 25% reserve capacity (Hoist capacity shall be rounded off to next 1 tonne)	2.50 x Wt of gate		
		2.5	1.11	1
	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		
		2.050	400	820
	Columns with bracings/Anchors/Stiffeners	0.82		T
(ii)	Beams with cross beams/stiffeners	400 kg per meter span		
		2.05	400	820
	Beams with cross beams/stiffeners	0.82		T
(iii)	Railing/ Chequered plate/Ladder etc	10% of wt. of columns/beams		
		1.64	10%	0.164
	Railing/ Chequered plate/Ladder etc	0.164		T
Total Weight of One Gate		3.21		T
Total Weight of Two Gates		6.43		T

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF SAHOKARMA 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.	1.050	0.500	1.55
	(H) is height of gate in m = clear vent height in m + 0.20m.	1.150	0.200	1.35
	(h) is head of water above sill of gate in m	1.150	0.3	1.450
	Weight of lift gate including embedded parts	0.37		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	0.37	1
	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		
		1.450	400	580
	Columns with bracings/Anchors/Stiffeners	0.58		T
(ii)	Beams with cross beams/stiffeners	400 kg per meter span		
		1.45	400	580
	Beams with cross beams/stiffeners	0.58		T
(iii)	Railing/ Chequered plate/Ladder etc	10% of wt. of columns/beams		
		1.16	10%	0.116
	Railing/ Chequered plate/Ladder etc	0.116		T
Total Weight of One Gate		1.95		T

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF DHAMNI MINOR				
Calculation procedure of Gate's weight for estimation purpose				
1	Weight of 1 Vertical lift gate including embedded parts	$0.1332 \times (L^2 \times H \times h)^{0.659}$		
	(L) is length = clear vent width in m + 0.50m.	1.700	0.500	2.20
	(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	0.64		T
2	Capacity of screw hoist in tone including 25% reserve capacity (Hoist capacity shall be rounded off to next 1 tonne)	2.50 x Wt of gate		
		2.5	0.64	1
	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		
		1.550	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		2.31		T

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF BHADWA MINOR				
Calculation procedure of Gate's weight for estimation purpose				
1	Weight of 1 Vertical lift gate including embedded parts	$0.1332 \times (L^2 \times H \times h)^{0.659}$		
	(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.	1.200	0.200	1.40
	(h) is head of water above sill of gate in m	1.200	0.3	1.500
	Weight of lift gate including embedded parts	0.51		T
2	Capacity of screw hoist in tone including 25% reserve capacity (Hoist	2.50 x Wt of gate		
		2.5	0.51	1
	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		
		1.500	400	600
	Columns with bracings/Anchors/Stiffeners	0.6		T
(ii)	Beams with cross beams/stiffeners	400 kg per meter span		
		1.5	400	600
	Beams with cross beams/stiffeners	0.6		T
(iii)	Railing/ Chequered plate/Ladder etc	10% of wt. of columns/beams		
		1.2	10%	0.12
	Railing/ Chequered plate/Ladder etc	0.12		T
Total Weight of One Gate		2.13		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
	<i>Total 1+2+3= (B) =</i>	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
	<i>Total = B+4+5+6+7 = C</i>	Rs.	155373.89
8	Other incidental charge , 3 % = of C	Rs.	4661.22
	<i>Total C+8 = D</i>	Rs.	160035.11

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
ABSTRACT OF COST FOR HR FOR GAMHARIA MR OFFTAKING FROM RD-0+005 KM (R.) AT KOTWARA DY.								
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)
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.	146.003	Cum	195.20	28499.88			
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.	16.80	Cum	6381.70	107201.63	5.44	7.56	15.12
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.	77.49	Cum	6914.20	535786.67	31.96	33.32	66.64
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.	14.75	Cum	8151.40	120216.23	8.36	5.75	11.65

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)
5	Providing M.S. reinforcements 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.	2.24	MT	73574.90	164571.33			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1.94	MT	160035.11	309895.78			
7	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	274.73	Sqm	578.60	158961.27			
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.	12.02	Sqm	680.10	8177.52			
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry. (WRD M-002)	1.35	Cum	694.61	937.72			
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.	1.35	Cum	1237.00	1669.95			
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)	0.73	Cum	1377.70	1000.21			
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.	0.73	Cum	516.50	374.98			
13	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	3.35	Sqm	63.20	211.59			
14	Providing Drainage Spouts complete as per drawings & technical 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 MARCH 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	32.00	Sqm	149.30	4778.15			
18	Carriage of materials							
	Coarse Sand (60 Km lead)	46.632	Cum	1075.00	50129.35			
	Coarse Aggregates (100 Km lead)	94.137	Cum	1398.00	131604.06			
	Cement (30 km lead)	45.770	MT	742.00	33961.09			
	Boulder (60 Km lead)	1.35	Cum	1159.00	1564.65			
	Steel (30 Km lead)	4.17	MT	742.00	3096.52			
TOTAL (In Rs.)					1679341.07			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	46.63	Cum	584.64	27262.90	2726.29		
	Coarse Aggregate	94.14	Cum	944.26	88890.16	8889.02		
	Boulders	1.35	Cum	694.61	937.72	93.77		
	<i>Total</i>					11709.08		
	For 1 nos. HR, Total Seigniorage charges					11709.08		

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)
ABSTRACT OF COST FOR HR FOR NAGWA MR OFFTAKING FROM RD-1+140 KM (R.) AT KOTWARA 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.	150.531	Cum	195.20	29383.58			
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.	19.37	Cum	6381.70	123613.82	6.28	8.72	17.43
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.	80.40	Cum	6914.20	555867.20	33.16	34.57	69.14
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.	18.53	Cum	8151.40	151037.80	10.51	7.23	14.64

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)
5	Providing M.S. reinforcements 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.	2.28	MT	73574.90	167566.23			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	3.15	MT	160035.11	504004.48			
7	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	309.00	Sqm	578.60	178785.73			
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.	22.23	Sqm	680.10	15118.62			
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry. (WRD M-002)	2.43	Cum	694.61	1687.90			
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.	2.43	Cum	1237.00	3005.91			
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)	0.99	Cum	1377.70	1363.92			
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.	0.99	Cum	516.50	511.34			
13	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	3.60	Sqm	63.20	227.82			
14	Providing Drainage Spouts complete as per drawings & technical 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 MARCH 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	29.06	Sqm	149.30	4338.44			
18	Carriage of materials							
	Coarse Sand (60 Km lead)	50.513	Cum	1075.00	54301.16			
	Coarse Aggregates (100 Km lead)	102.201	Cum	1398.00	142876.59			
	Cement (30 km lead)	49.945	MT	742.00	37059.05			
	Boulder (60 Km lead)	2.43	Cum	1159.00	2816.37			
	Steel (30 Km lead)	5.43	MT	742.00	4026.71			
TOTAL (In Rs.)					1994295.16			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	50.51	Cum	584.64	29531.75	2953.18		
	Coarse Aggregate	102.20	Cum	944.26	96504.04	9650.40		
	Boulders	2.43	Cum	694.61	1687.90	168.79		
	<i>Total</i>					12772.37		
	For 1 nos. HR, Total Seigniorage charges					12772.37		

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)
ABSTRACT OF COST FOR HR FOR PAWAI MR OFFTAKING FROM RD-5.120 KM (R.) AT KOTWARA 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.	189.227	Cum	195.20	36937.07			
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.	19.25	Cum	6381.70	122851.69	6.24	8.66	17.33
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.	92.01	Cum	6914.20	636209.40	37.96	39.57	79.13
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.	16.46	Cum	8151.40	134189.92	9.33	6.42	13.01

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)
5	Providing M.S. reinforcements 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.	2.51	MT	73574.90	184581.32			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	2.05	MT	160035.11	327306.08			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	328.23	Sqm	578.60	189916.49			
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.	11.70	Sqm	680.10	7957.17			
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry. (WRD M-002)	2.43	Cum	694.61	1687.90			
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.	2.43	Cum	1237.00	3005.91			
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)	0.99	Cum	1377.70	1363.92			
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.	0.99	Cum	516.50	511.34			
13	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	3.80	Sqm	63.20	240.04			
14	Providing Drainage Spouts complete as per drawings & technical 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 MARCH 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	33.36	Sqm	149.30	4980.94			
18	Carriage of materials							
	Coarse Sand (60 Km lead)	54.649	Cum	1075.00	58748.15			
	Coarse Aggregates (100 Km lead)	110.454	Cum	1398.00	154414.00			
	Cement (30 km lead)	53.527	MT	742.00	39717.34			
	Boulder (60 Km lead)	2.43	Cum	1159.00	2816.37			
	Steel (30 Km lead)	4.55	MT	742.00	3379.04			
TOTAL (In Rs.)					1927516.58			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	54.65	Cum	584.64	31950.25	3195.02		
	Coarse Aggregate	110.45	Cum	944.26	104296.82	10429.68		
	Boulders	2.43	Cum	694.61	1687.90	168.79		
	<i>Total</i>					13793.50		
	For 1 nos. HR, Total Seigniorage charges					13793.50		

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)
ABSTRACT OF COST FOR HR FOR BHUTAILI MR OFFTAKING FROM RD-9.875 KM (R.) AT KOTWARA DY 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.	193.589	Cum	195.20	37788.59			
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.	18.73	Cum	6381.70	119528.01	6.07	8.43	16.86
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.	94.56	Cum	6914.20	653798.76	39.01	40.66	81.32
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.	15.47	Cum	8151.40	126105.68	8.77	6.03	12.22

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)
5	Providing M.S. reinforcements 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.	2.48	MT	73574.90	182310.16			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1.93	MT	160035.11	308829.62			
7	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	327.73	Sqm	578.60	189623.00			
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.	11.70	Sqm	680.10	7957.17			
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.	3.07	Sqm	63.20	193.96			
14	Providing Drainage Spouts complete as per drawings & technical 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 MARCH 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	36.78	Sqm	149.30	5490.66			
18	Carriage of materials							
	Coarse Sand (60 Km lead)	55.122	Cum	1075.00	59256.35			
	Coarse Aggregates (100 Km lead)	111.191	Cum	1398.00	155445.12			
	Cement (30 km lead)	53.846	MT	742.00	39953.52			
	Boulder (60 Km lead)	1.62	Cum	1159.00	1877.58			
	Steel (30 Km lead)	4.41	MT	742.00	3270.47			
TOTAL (In Rs.)					1912760.57			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	55.12	Cum	584.64	32226.63	3222.66		
	Coarse Aggregate	111.19	Cum	944.26	104993.28	10499.33		
	Boulders	1.62	Cum	694.61	1125.27	112.53		
	<i>Total</i>					13834.52		
	For 1 nos. HR, Total Seigniorage charges					13834.52		

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)
ABSTRACT OF COST FOR HR FOR SALOPURA MR. OFFTAKING FROM RD-10+660 KM (R.) AT KOTWARA DY 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.	201.767	Cum	195.20	39384.91			
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.	23.02	Cum	6381.70	146895.52	7.46	10.36	20.72
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.	122.52	Cum	6914.20	847134.23	50.54	52.68	105.37
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.	22.66	Cum	8151.40	184744.88	12.85	8.84	17.90

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)
5	Providing M.S. reinforcements 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.	3.06	MT	73574.90	225230.34			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1.99	MT	160035.11	319000.90			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	396.47	Sqm	578.60	229395.72			
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.	12.23	Sqm	680.10	8320.34			
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.	3.21	Sqm	63.20	202.78			
14	Providing Drainage Spouts complete as per drawings & technical 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 MARCH 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	35.13	Sqm	149.30	5244.23			
18	Carriage of materials							
	Coarse Sand (60 Km lead)	71.881	Cum	1075.00	77272.34			
	Coarse Aggregates (100 Km lead)	144.781	Cum	1398.00	202404.02			
	Cement (30 km lead)	70.848	MT	742.00	52569.51			
	Boulder (60 Km lead)	1.62	Cum	1159.00	1877.58			
	Steel (30 Km lead)	5.05	MT	742.00	3750.48			
TOTAL (In Rs.)					2364759.69			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	71.88	Cum	584.64	42024.65	4202.47		
	Coarse Aggregate	144.78	Cum	944.26	136711.03	13671.10		
	Boulders	1.62	Cum	694.61	1125.27	112.53		
	<i>Total</i>					17986.09		
	For 1 nos. HR, Total Seigniorage charges					17986.09		

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)
ABSTRACT OF COST FOR HR FOR SINGHI SUB DY. OFFTAKING FROM RD-13+020 KM (R.) AT KOTWARA DY 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.	274.930	Cum	195.20	53666.33			
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.	33.96	Cum	6381.70	216698.79	11.00	15.28	30.56
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.	147.78	Cum	6914.20	1021783.81	60.96	63.55	127.09
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.	37.73	Cum	8151.40	6323.69	21.39	14.72	29.81

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)
5	Providing M.S. reinforcements 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.	4.48	MT	73574.90	329718.17			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	6.43	MT	160035.11	1028905.99			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	452.98	Sqm	578.60	262094.75			
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.	31.93	Sqm	680.10	21712.87			
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry. (WRD M-002)	9.05	Cum	694.61	6282.75			
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.	9.05	Cum	1237.00	11188.67			
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)	2.61	Cum	1377.70	3591.66			
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.	2.61	Cum	516.50	1346.52			
13	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	4.13	Sqm	63.20	260.97			
14	Providing Drainage Spouts complete as per drawings & technical 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 MARCH 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	43.07	Sqm	149.30	6431.04			
18	Carriage of materials							
	Coarse Sand (60 Km lead)	93.541	Cum	1075.00	100556.62			
	Coarse Aggregates (100 Km lead)	190.066	Cum	1398.00	265712.83			
	Cement (30 km lead)	93.355	MT	742.00	69269.26			
	Boulder (60 Km lead)	9.05	Cum	1159.00	10483.16			
	Steel (30 Km lead)	10.91	MT	742.00	8095.70			
TOTAL (In Rs.)					3440826.07			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	93.54	Cum	584.64	54687.84	5468.78		
	Coarse Aggregate	190.07	Cum	944.26	179472.10	17947.21		
	Boulders	9.05	Cum	694.61	6282.75	628.27		
	<i>Total</i>					24044.27		
	For 1 nos. HR, Total Seigniorage charges					24044.27		

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)
ABSTRACT OF COST FOR HR FOR SAHOKARMA MR. OFFTAKING FROM RD-16+200 KM (R.) AT KOTWARA DY 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.	149.931	Cum	195.20	29266.47			
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.	17.01	Cum	6381.70	108576.46	5.51	7.66	15.31
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.	74.21	Cum	6914.20	513104.30	30.61	31.91	63.82
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.	14.84	Cum	8151.40	120926.59	8.41	5.79	11.72

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)
5	Providing M.S. reinforcements 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.	2.05	MT	73574.90	150697.76			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1.95	MT	160035.11	311345.37			
7	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	286.22	Sqm	578.60	165607.64			
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.	12.24	Sqm	680.10	8324.42			
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry. (WRD M-002)	1.22	Cum	694.61	843.95			
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.	1.22	Cum	1237.00	1502.96			
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)	0.69	Cum	1377.70	954.75			
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.	0.69	Cum	516.50	357.93			
13	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	3.21	Sqm	63.20	202.78			
14	Providing Drainage Spouts complete as per drawings & technical 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 MARCH 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	23.31	Sqm	149.30	3480.66			
18	Carriage of materials							
	Coarse Sand (60 Km lead)	45.352	Cum	1075.00	48753.66			
	Coarse Aggregates (100 Km lead)	91.546	Cum	1398.00	127981.09			
	Cement (30 km lead)	44.536	MT	742.00	33045.45			
	Boulder (60 Km lead)	1.22	Cum	1159.00	1408.19			
	Steel (30 Km lead)	3.99	MT	742.00	2963.33			
TOTAL (In Rs.)					1646046.25			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	45.35	Cum	584.64	26514.74	2651.47		
	Coarse Aggregate	91.55	Cum	944.26	86443.08	8644.31		
	Boulders	1.22	Cum	694.61	843.95	84.40		
	<i>Total</i>					11380.18		
	For 1 nos. HR, Total Seigniorage charges					11380.18		

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)
ABSTRACT OF COST FOR HR FOR DHAMNI MR. OFFTAKING FROM RD-17+300 KM (L.) AT KOTWARA DY 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.	101.919	Cum	195.20	19894.69			
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.	20.02	Cum	6381.70	127745.43	6.49	9.01	18.02
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.	103.64	Cum	6914.20	716560.80	42.75	44.56	89.13
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.	17.77	Cum	8151.40	144821.61	10.07	6.93	14.04

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)
5	Providing M.S. reinforcements 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.	2.79	MT	73574.90	205066.02			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	2.31	MT	160035.11	369053.36			
7	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	367.79	Sqm	578.60	212803.27			
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.	13.32	Sqm	680.10	9058.93			
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry. (WRD M-002)	2.97	Cum	694.61	2062.99			
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.	2.97	Cum	1237.00	3673.89			
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)	1.12	Cum	1377.70	1545.78			
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.	1.12	Cum	516.50	579.51			
13	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	3.49	Sqm	63.20	220.29			
14	Providing Drainage Spouts complete as per drawings & technical 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 MARCH 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	17.62	Sqm	149.30	2630.85			
18	Carriage of materials							
	Coarse Sand (60 Km lead)	60.500	Cum	1075.00	65037.83			
	Coarse Aggregates (100 Km lead)	122.300	Cum	1398.00	170975.79			
	Cement (30 km lead)	59.309	MT	742.00	44007.38			
	Boulder (60 Km lead)	2.97	Cum	1159.00	3442.23			
	Steel (30 Km lead)	5.09	MT	742.00	3779.19			
TOTAL (In Rs.)					2119662.34			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	60.50	Cum	584.64	35370.90	3537.09		
	Coarse Aggregate	122.30	Cum	944.26	115483.26	11548.33		
	Boulders	2.97	Cum	694.61	2062.99	206.30		
	<i>Total</i>					15291.72		
	For 1 nos. HR, Total Seigniorage charges					15291.72		

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)
ABSTRACT OF COST FOR PIPE HR OF NAWAKHAP MR OFFTAKING FROM RD- 23+830 KM (R.),KOTWARA 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.	29.965	Cum	195.20	5849.24			
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.	9.57	Cum	6381.70	61086.15	3.10	4.31	8.61
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.	6.21	Cum	6914.20	42929.47	2.56	2.67	5.34
4	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.	0.12	MT	73574.90	8965.06			
5	Structural Steel (Average rate of Angle, Joint and Channel) etc.	0.08	MT	160035.11	12278.01			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	71.84	Sqm	578.60	41566.00			

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)
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 .	7.50	RM	2532.61	18994.58			
8	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			
9	Providing compacted 75 mm thick sand filter of required F.M. as per design on slopes and in bed of canal with local sand including cost of water, ramming, levelling and dressing, etc. all complete as per specification and direction of E/I. (5.2.1)	1.03	Cum	339.90	351.17			
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	8.12	Sqm	149.30	1212.66			

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)
11	Carriage of materials							
	Coarse Sand (60 Km lead)	6.977	Cum	1075.00	7500.55			
	Coarse Aggregates (100 Km lead)	13.955	Cum	1398.00	19508.41			
	Cement (30 km lead)	5.663	MT	742.00	4201.59			
	Steel (30 Km lead)	0.20	MT	742.00	147.34			
	Hume Pipe (30 km Lead)	7.50	RM	919.00	6892.50			
TOTAL (In Rs.)					236817.22			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	6.98	Cum	584.64	4079.18	407.92		
	Coarse Aggregate	13.95	Cum	944.26	13176.69	1317.67		
	<i>Total</i>					1725.59		
	For 1 nos. HR, Total Seigniorage charges					1725.59		

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)
ABSTRACT OF COST FOR HR FOR BHADWA MR OFFTAKING FROM RD-27+075 KM (L.) AT KOTWARA DY 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.	126.520	Cum	195.20	24696.66			
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.	18.09	Cum	6381.70	115461.82	5.86	8.14	16.28
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.	71.13	Cum	6914.20	491836.01	29.34	30.59	61.18
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.	16.08	Cum	8151.40	131102.37	9.12	6.27	12.71

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)
5	Providing M.S. reinforcements 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.	2.10	MT	73574.90	154309.88			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	2.13	MT	160035.11	340252.07			
7	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	285.74	Sqm	578.60	165329.82			
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.	12.78	Sqm	680.10	8691.68			
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.	3.35	Sqm	63.20	211.59			
14	Providing Drainage Spouts complete as per drawings & technical 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 MARCH 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	20.42	Sqm	149.30	3049.17			
18	Carriage of materials							
	Coarse Sand (60 Km lead)	45.002	Cum	1075.00	48377.07			
	Coarse Aggregates (100 Km lead)	91.089	Cum	1398.00	127341.98			
	Cement (30 km lead)	44.324	MT	742.00	32888.53			
	Boulder (60 Km lead)	2.16	Cum	1159.00	2503.44			
	Steel (30 Km lead)	4.22	MT	742.00	3133.78			
TOTAL (In Rs.)					1671810.89			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	45.00	Cum	584.64	26309.92	2630.99		
	Coarse Aggregate	91.09	Cum	944.26	86011.40	8601.14		
	Boulders	2.16	Cum	694.61	1500.36	150.04		
	<i>Total</i>					11382.17		
	For 1 nos. HR, Total Seigniorage charges					11382.17		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILS OF QUANTITIES OF HR FOR GAMHARIA MR OFFTAKING FROM RD-0+005 KM (R.) AT KOTWARA DY.							
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	1.01	1.60	2.630	8.448	Cum
	Section B-B	2	5.25	1.69	3.102	54.980	Cum
	Section C-C	2	0.50	1.69	3.102	5.236	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.52	1.23	2.630	11.355	Cum
	Left Bank Sec a to d	1	3.14	2.61	1.980	16.237	Cum
	D/S Transition wall						
	Sec 4-4	2	0.49	1.10	2.803	3.040	Cum
	Avg. of Sec 1-1 & 3-3	2	2.63	1.89	2.803	27.792	Cum
	Floor						
	U/S key	1	1.2975	2.107	0.850	2.324	Cum
	Floor	1	3.33	2.107	0.650	4.561	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
		2	0.135	1.1	0.200	0.059	Cum
		1	1.22	1.1	0.650	0.872	Cum
		1	0.725	1.1	0.650	0.518	Cum
	D/S Portion C.C. Blocks (600x600x300)mm	1	2.000	1.100	0.600	1.320	Cum
	Toe Wall Base D/S Portion	1	1.100	0.850	1.200	1.122	Cum
	Toe Wall Base (For Brick Pitching)	2	3.000	0.600	1.050	3.780	Cum
						146.00	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	0.618	2.481	0.150	0.23	Cum
		1	1.560	1.474	0.150	0.34	Cum
		1	1.280	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	0.147	1.100	0.150	0.02	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	1.005	1.598	0.300	0.96	Cum
	Section B-B	2	5.250	1.688	0.300	5.32	Cum
	Section C-C	2	0.500	1.688	0.300	0.51	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.516	1.228	0.300	1.30	Cum
	Left Bank Sec a to d	1	3.142	2.610	0.150	1.23	Cum
	D/S Transition wall						
	Sec 4-4	2	0.493	1.100	0.300	0.33	Cum
	Avg. of Sec 1-1 & 3-3	2	2.630	1.885	0.300	2.97	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	0.600	0.150	0.27	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					16.80	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.						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Abutment						
	Section A-A	2	1.01	0.82	0.50	0.82	Cum
		2	1.01	1.01	0.63	1.28	Cum
		2	1.01	1.20	1.20	2.89	Cum
	Section B-B	2	5.25	1.05	1.28	14.11	Cum
		2	5.25	1.29	0.90	12.17	Cum
	Section C-C	2	0.50	1.05	0.98	1.03	Cum
		2	0.50	1.29	1.20	1.55	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.52	0.45	0.50	0.79	Cum
		1	3.52	0.64	0.63	1.42	Cum
		1	3.52	0.83	1.20	3.49	Cum
	Left Bank						
	Section a-a	1		2.475	0.50	1.24	Sqm
		1		2.33	0.20	0.47	Sqm
		1		1.33	1.13	1.50	Sqm
						3.20	Sqm
	Section b-b	1		2.48	0.50	1.24	Sqm
		1		2.10	0.20	0.42	Sqm
		1		1.29	1.13	1.46	Sqm
						3.12	Sqm
	Section c-c	1		2.48	0.50	1.24	Sqm
		1		1.68	0.20	0.34	Sqm
		1		1.08	1.13	1.22	Sqm
						2.80	Sqm
	Section d-d	1		2.48	0.50	1.24	Sqm
		1		0.48	0.20	0.10	Sqm
		1		0.48	1.13	0.54	Sqm
						1.88	Sqm
	Bottom Key	1	3.14	1.30	0.70	2.85	Cum
	Top Stem Area	1	3.14	2.75		8.63	Cum
	D/S Transition wall						
	Sec 4-4	2	0.49	0.70	0.90	0.62	Cum
		2	0.49	0.53	1.10	0.57	Cum
		2	0.49	0.35	0.50	0.17	Cum
	Avg. of Sec 1-1 & 3-3	2	2.63	1.49	0.90	7.04	Cum
		2	2.63	1.21	1.10	7.00	Cum
		2	2.63	0.74	0.50	1.94	Cum
	TOTAL					68.38	Cum
	Floor						
	U/S key	1	1.30	2.11	0.70	1.91	Cum
	Floor	1	3.33	2.11	0.50	3.51	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
		2	0.14	1.10		0.30	Cum
		1	1.22	1.10	0.50	0.67	Cum
	D/S key	1	0.73	1.10	0.50	0.40	Cum
	TOTAL					77.49	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	3.20	2.11	0.20	1.35	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	1.22	1.10	0.20	0.27	Cum
	Top Slab	1	5.25	1.90	0.33	3.26	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					14.75	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
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.						
	Dia of Bars	Length	Nos.		Weight per m	Quantity	Unit
	<i>Slab Per Span</i>						
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
	<i>Dirt Wall</i>						
d1	12	4.460	26		0.888	102.938	Kg
d2	12	5.550	14		0.888	68.975	Kg
	<i>Crash Barrier</i>						
x1	12	2.501	30		0.888	66.604	Kg
x2	16	1.265	30		1.578	59.890	Kg
x3	10	1.800	24		0.616	26.631	Kg
	<i>Floor R/F</i>						
	<i>U/S Key</i>						
	12	6.675	10		0.888	59.254	Kg
	12	1.800	25		0.888	39.947	Kg
	<i>floor raft</i>						
	12	3.395	10		0.888	30.138	Kg
	12	7.425	20		0.888	131.824	Kg
	12	1.800	69		0.888	110.253	Kg
	0.25 % Skin Reinforcement for Transition walls	68.38	0.25%	0.17	7850	1341.90	Kg
	TOTAL Weight of steel (in kg)					2236.79	Kg
	TOTAL Weight of Steel (in Tonne)					2.24	MT
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1		1.94		1.94	MT
	*Separate sheet attached						
7	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	<i>Section A-A</i>	4	1.01		0.50	2.01	Sqm
		4		0.82	0.50	1.64	Sqm
		4	1.01		0.63	2.53	Sqm
		4		1.01	0.63	2.54	Sqm
		4	1.01		1.20	4.82	Sqm
		4		1.20	1.20	5.75	Sqm
	<i>Section B-B</i>	4	5.25		1.28	26.78	Sqm
		4		1.05	1.28	5.38	Sqm
		4	5.25		0.90	18.90	Sqm
		4		1.29	0.90	4.64	Sqm
	<i>Section C-C</i>	4	0.50		0.98	1.95	Sqm
		4		1.05	0.98	4.11	Sqm
		4	0.50		1.20	2.40	Sqm
		4		1.29	1.20	6.18	Sqm
	U/S Transition wall						
	<i>Right Bank (Section D-D)</i>	2	3.52		0.50	3.52	Sqm
		2		0.45	0.50	0.45	Sqm
		2	3.52		0.63	4.43	Sqm
		2		0.64	0.63	0.81	Sqm
		2	3.52		1.20	8.44	Sqm
		2		0.83	1.20	1.99	Sqm
	Left Bank						
	<i>Bottom Key</i>	2	3.14		0.70	4.40	Sqm
		2		1.30	0.70	1.82	Sqm
	<i>Section a-a</i>	2	1.05		0.50	1.05	Sqm
		2		2.48	0.50	2.48	Sqm
		2	1.05		0.20	0.42	Sqm
		2		2.33	0.20	0.93	Sqm
		2	1.05		1.13	2.37	Sqm
		2		1.33	1.13	3.00	Sqm
	<i>Section b-b</i>	2	1.05		0.50	1.05	Sqm
		2		2.48	0.50	2.48	Sqm
		2	1.05		0.20	0.42	Sqm
		2		2.10	0.20	0.84	Sqm
		2	1.05		1.13	2.37	Sqm
		2		1.29	1.13	2.92	Sqm
	<i>Section c-c</i>	2	1.05		0.50	1.05	Sqm
		2		2.48	0.50	2.48	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	1.05		0.20	0.42	Sqm
		2		1.68	0.20	0.67	Sqm
		2	1.05		1.13	2.37	Sqm
		2		1.08	1.13	2.44	Sqm
	Section d-d	2	1.05		0.50	1.05	Sqm
		2		2.48	0.50	2.48	Sqm
		2	1.05		0.20	0.42	Sqm
		2		0.48	0.20	0.19	Sqm
		2	1.05		1.13	2.37	Sqm
		2		0.48	1.13	1.08	Sqm
	D/S Transition wall						
	Sec 4-4	4	0.49		0.90	1.77	Sqm
		4		0.70	0.90	2.52	Sqm
		4	0.49		1.10	2.18	Sqm
		4		0.53	1.10	2.32	Sqm
		4	0.49		0.50	0.99	Sqm
		4		0.35	0.50	0.70	Sqm
	Avg. of Sec 1-1 & 3-3	4	2.63		0.90	9.47	Sqm
		4		1.49	0.90	5.36	Sqm
		4	2.63		1.10	11.60	Sqm
		4		1.21	1.10	5.32	Sqm
		4	2.63		0.50	5.26	Sqm
		4		0.74	0.50	1.48	Sqm
	Floor						
	U/S key	2	1.30		0.70	1.82	Sqm
		2		2.11	0.70	2.95	Sqm
	Floor	2	3.33		0.50	3.33	Sqm
		2		2.11	0.50	2.11	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
		4	0.14			0.54	Sqm
		4		1.10		4.40	Sqm
		2	1.22		0.50	1.22	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		0.33	3.43	Sqm
		2		1.90	0.33	1.24	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					274.73	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	2.00		12.02	Sqm
	TOTAL					12.02	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	0.50	0.90	1.35	Cum
	TOTAL					1.35	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)						
	<i>In D/S Portion below C.C. Blocks</i>	1	2.20	1.10	0.15	0.36	Cum
	<i>In D/S Portion below Stone Chips</i>	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.						
	<i>U/S transition</i>	2	1.80	0.48		1.73	Sqm
	<i>On Abutment Top</i>	2	4.82	0.45		1.62	Sqm
	TOTAL					3.35	Sqm
12	Providing Drainage Spouts complete as per drawings & technical 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 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						
	<i>Abutment</i>						
	<i>Section A-A</i>	2	1.01	0.84		1.696	Cum
	<i>Section B-B</i>	2	5.25	1.14		11.970	Cum
	<i>Section C-C</i>	2	0.50	1.07		1.068	Cum
	<i>U/S Transition wall</i>						
	<i>Right Bank (Section D-D)</i>	1	3.52	0.78		2.725	Cum
	<i>D/S Transition wall</i>						
	<i>Sec 4-4</i>	2	0.49	0.87		0.858	Cum
	<i>Avg. of Sec 1-1 & 3-3</i>	2	2.63	2.60		13.687	Cum
	TOTAL					32.00	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF HR FOR NAGWA MR OFFTAKING FROM RD-1+140 KM (R.) AT KOTWARA DY							
1	0						
	Abutment						
	Section A-A	2	1.00	1.70	2.297	7.787	Cum
	Section B-B	2	4.82	1.71	2.297	37.909	Cum
	Section C-C	2	1.94	1.53	2.297	13.675	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.47	1.10	2.297	8.760	Cum
	Left Bank Sec a to d	1	3.52	2.88	2.842	28.854	Cum
	D/S Transition wall						
	Sec 4-4	2	0.50	1.10	2.220	2.427	Cum
	Avg. of Sec 1-1 & 3-3	2	2.66	1.92	2.220	22.630	Cum
	Floor						
	U/S key	1	1.419	2.81	0.850	3.389	Cum
	Floor	1	2.238	2.81	0.650	4.088	Cum
		1	1.393	1.5	0.650	1.358	Cum
		1	2.314	1.5	0.650	2.256	Cum
		1	1.5	0.144		0.216	Cum
		1	2.179	1.5	1.200	3.922	Cum
		1	1.418	1.5	0.525	1.117	Cum
		1	0.900	1.5	0.525	0.709	Cum
		1	1.01	1.5	0.750	1.136	Cum
		1	0.7	1.5	0.550	0.578	Cum
	D/S Portion C.C. Blocks (600x600x300)mm	1	2.200	1.500	0.600	1.980	Cum
	Toe Wall Base D/S Portion	1	1.500	0.850	1.200	1.530	Cum
	Toe Wall Base (For Brick Pitching)	2	3.000	0.600	1.050	3.780	Cum
	Boulder Pitching (D/S Portion)	1	3.000	0.900	0.900	2.430	Cum
						150.53	Cum
2	Item of Works						
	PCC Below Floor						
		1	0.618	3.347	0.150	0.31	Cum
		1	1.782	2.038	0.150	0.54	Cum
		1	1.281	1.500	0.150	0.29	Cum
		1	2.594	1.500	0.150	0.58	Cum
		1	2.238	1.500	0.150	0.50	Cum
		1	1.448	1.500	0.150	0.33	Cum
		1	0.135	1.500	0.150	0.03	Cum
		1	0.456	1.500	0.150	0.10	Cum
		1	0.692	1.500	0.150	0.16	Cum
	PCC Below Abutment						
	Section A-A	2	1.000	1.695	0.300	1.02	Cum
	Section B-B	2	4.820	1.712	0.300	4.95	Cum
	Section C-C	2	1.943	1.532	0.300	1.79	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.467	1.100	0.300	1.14	Cum
	Left Bank Sec a to d	1	3.524	2.881	0.150	1.52	Cum
	D/S Transition wall						
	Sec 4-4	2	0.497	1.100	0.300	0.33	Cum
	Avg. of Sec 1-1 & 3-3	2	2.656	1.919	0.300	3.06	Cum
	Toe Wall Base D/S Portion	1	1.500	0.850	0.300	0.38	Cum
	Toe Wall Stem D/S Portion	1	1.500	0.450	0.900	0.61	Cum
	Toe Wall Base (For Brick Pitching)	1	3.000	0.600	0.150	0.27	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					19.37	Cum
3	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Abutment						
	Section A-A	2	1.00	0.82	0.50	0.82	Cum
		2	1.00	1.06	0.79	1.68	Cum
		2	1.00	1.30	1.81	4.69	Cum
	Section B-B	2	4.82	1.07	0.82	8.43	Cum
		2	4.82	1.31	0.90	11.38	Cum
	Section C-C	2	1.94	0.98	0.52	1.97	Cum
		2	1.94	1.13	1.20	5.28	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.47	0.35	0.50	0.61	Cum
		1	3.47	0.53	0.52	0.95	Cum
		1	3.47	0.70	0.90	2.18	Cum
	Left Bank						
	Section a-a	1		2.718	0.50	1.36	Sqm
		1		2.57	0.20	0.51	Sqm
		1		1.45	1.29	1.87	Sqm
						3.74	Sqm
	Section b-b	1		2.72	0.50	1.36	Sqm
		1		2.16	0.20	0.43	Sqm
		1		1.32	1.29	1.71	Sqm
						3.50	Sqm
	Section c-c	1		2.72	0.50	1.36	Sqm
		1		1.78	0.20	0.36	Sqm
		1		1.13	1.29	1.46	Sqm
						3.17	Sqm
	Section d-d	1		2.72	0.50	1.36	Sqm
		1		0.48	0.20	0.10	Sqm
		1		0.48	1.29	0.62	Sqm
						2.08	Sqm
	Bottom Key	1	3.52	1.42	0.70	3.50	Cum
	Top Stem Area	1	3.52	3.12		11.00	Cum
	D/S Transition wall						
	Sec 4-4	2	0.50	0.35	0.50	0.17	Cum
		2	0.50	0.53	0.52	0.27	Cum
		2	0.50	0.70	0.90	0.63	Cum
	Avg. of Sec 1-1 & 3-3	2	2.66	0.74	0.50	1.96	Cum
		2	2.66	1.22	0.52	3.38	Cum
		2	2.66	1.52	0.90	7.26	Cum
	TOTAL					66.16	Cum
	Floor						
	U/S key	1	1.42	2.81	0.70	2.79	Cum
	Floor	1	2.24	2.81	0.50	3.14	Cum
		1	1.39	1.50	0.50	1.04	Cum
		1	2.31	1.50	0.50	1.74	Cum
		1	1.50	0.14		0.22	Cum
		1	2.18	1.50	0.75	2.45	Cum
		1	1.42	1.50	0.53	1.12	Cum
		1	0.90	1.50	0.30	0.41	Cum
		1	1.01	1.50	0.60	0.91	Cum
	D/S key	1	0.70	1.50	0.40	0.42	Cum
	TOTAL					80.40	Cum
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.						
	Over Floor	1	3.69	2.81	0.20	2.07	Cum
		1	2.04	1.50	0.20	0.61	Cum
		1	3.08	1.50	0.20	0.92	Cum
		1	0.95	1.50	0.20	0.28	Cum
		1	1.01	1.50	0.20	0.30	Cum
	Top Slab	1	5.25	2.30	0.33	3.94	Cum
	75mm Th. Wearing coat on top slab	1	4.25	2.30	0.08	0.73	Cum
	Dirt wall	2	6.76	0.82	0.50	5.55	Cum
		2	6.76	0.40	0.43	2.32	Cum
	Parapet	2	3.14	0.45	0.18	0.49	Cum
		2	3.14	0.35	0.25	0.55	Cum
		2	3.14	0.22	0.55	0.75	Cum
	TOTAL					18.53	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
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.						
	Dia of Bars	Length	Nos.		Weight per m	Quantity	Unit
	<i>Slab Per Span</i>						
a1	16	2.760	29		1.578	126.314	Kg
a2	10	5.650	12		0.616	41.796	Kg
a3	10	5.150	2		0.616	6.350	Kg
a4	10	2.680	18		0.616	29.738	Kg
a5	10	5.550	9		0.616	30.792	Kg
	<i>Dirt Wall</i>						
d1	12	4.460	26		0.888	102.938	Kg
d2	12	5.550	14		0.888	68.975	Kg
	<i>Crash Barrier</i>						
x1	12	2.501	38		0.888	84.366	Kg
x2	16	1.265	38		1.578	75.861	Kg
x3	10	2.200	24		0.616	32.549	Kg
	<i>Floor R/F</i>						
	<i>U/S Key</i>						
	12	7.219	6		0.888	38.450	Kg
	12	2.200	27		0.888	52.730	Kg
	<i>floor raft</i>						
	12	3.395	6		0.888	18.083	Kg
	12	8.676	12		0.888	92.421	Kg
	12	2.600	77		0.888	177.718	Kg
	0.25 % Skin Reinforcement for Transition walls	66.16	0.25%	0.17	7850	1298.41	Kg
	TOTAL Weight of steel (in kg)					2277.49	Kg
	TOTAL Weight of Steel (in Tonne)					2.28	MT
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1	3.15			3.15	MT
	*Separate sheet attached						
7	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.						
	Abutment						
	<i>Section A-A</i>	4	1.00		0.50	2.00	Sqm
		4		0.82	0.50	1.64	Sqm
		4	1.00		0.79	3.17	Sqm
		4		1.06	0.79	3.35	Sqm
		4	1.00		1.81	7.24	Sqm
		4		1.30	1.81	9.38	Sqm
	<i>Section B-B</i>	4	4.82		0.82	15.81	Sqm
		4		1.07	0.82	3.50	Sqm
		4	4.82		0.90	17.35	Sqm
		4		1.31	0.90	4.72	Sqm
	<i>Section C-C</i>	4	1.94		0.52	4.04	Sqm
		4		0.98	0.52	2.03	Sqm
		4	1.94		1.20	9.33	Sqm
		4		1.13	1.20	5.43	Sqm
	U/S Transition wall						
	<i>Right Bank (Section D-D)</i>	2	3.47		0.50	3.47	Sqm
		2		0.35	0.50	0.35	Sqm
		2	3.47		0.52	3.61	Sqm
		2		0.53	0.52	0.55	Sqm
		2	3.47		0.90	6.24	Sqm
		2		0.70	0.90	1.26	Sqm
	Left Bank						
	<i>Bottom Key</i>	2	3.52		0.70	4.93	Sqm
		2		1.42	0.70	1.99	Sqm
	<i>Section a-a</i>	2	1.17		0.50	1.17	Sqm
		2		2.72	0.50	2.72	Sqm
		2	1.17		0.20	0.47	Sqm
		2		2.57	0.20	1.03	Sqm
		2	1.17		1.29	3.04	Sqm
		2		1.45	1.29	3.74	Sqm
	<i>Section b-b</i>	2	1.17		0.50	1.17	Sqm
		2		2.72	0.50	2.72	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	1.17		0.20	0.47	Sqm
		2		2.16	0.20	0.86	Sqm
		2	1.17		1.29	3.04	Sqm
		2		1.32	1.29	3.41	Sqm
	Section c-c	2	1.17		0.50	1.17	Sqm
		2		2.72	0.50	2.72	Sqm
		2	1.17		0.20	0.47	Sqm
		2		1.78	0.20	0.71	Sqm
		2	1.17		1.29	3.04	Sqm
		2		1.13	1.29	2.92	Sqm
	Section d-d	2	1.17		0.50	1.17	Sqm
		2		2.72	0.50	2.72	Sqm
		2	1.17		0.20	0.47	Sqm
		2		0.48	0.20	0.19	Sqm
		2	1.17		1.29	3.04	Sqm
		2		0.48	1.29	1.24	Sqm
	D/S Transition wall						
	Sec 4-4	4	0.50		0.50	0.99	Sqm
		4		0.35	0.50	0.70	Sqm
		4	0.50		0.52	1.03	Sqm
		4		0.53	0.52	1.09	Sqm
		4	0.50		0.90	1.79	Sqm
		4		0.70	0.90	2.52	Sqm
	Avg. of Sec 1-1 & 3-3	4	2.66		0.50	5.31	Sqm
		4		0.74	0.50	1.48	Sqm
		4	2.66		0.52	5.52	Sqm
		4		1.22	0.52	2.54	Sqm
		4	2.66		0.90	9.56	Sqm
		4		1.52	0.90	5.47	Sqm
	Floor						
	U/S key	2	1.42		0.70	1.99	Sqm
		2		2.81	0.70	3.93	Sqm
	Floor	2	2.24		0.50	2.24	Sqm
		2		2.81	0.50	2.81	Sqm
		2	1.39		0.50	1.39	Sqm
		2		1.50	0.50	1.50	Sqm
		2	2.31		0.50	2.31	Sqm
		2		1.50	0.50	1.50	Sqm
		2	1.50		0.00	3.00	Sqm
		2		0.14	0.00	0.29	Sqm
		2	2.18		0.75	3.27	Sqm
		2		1.50	0.75	2.25	Sqm
		2	1.42		0.53	1.49	Sqm
		2		1.50	0.53	1.58	Sqm
		2	0.90			1.80	Sqm
		2		1.50		3.00	Sqm
		2	1.01		0.60	1.21	Sqm
		2		1.50	0.60	1.80	Sqm
	D/S key	2	0.70		0.40	0.56	Sqm
		2		1.50	0.40	1.20	Sqm
	Toe Wall Base D/S Portion	2	1.50		0.30	0.90	Sqm
		2		0.85	0.30	0.51	Sqm
	Toe Wall Stem D/S Portion	2	1.50		0.90	2.70	Sqm
		2		0.45	0.90	0.81	Sqm
	Toe Wall Base (For Brick Pitching)	4	3.00		0.15	1.80	Sqm
		4		0.60	0.15	0.36	Sqm
	Toe Wall Stem (For Brick Pitching)	4	3.00		0.90	10.80	Sqm
		4		0.30	0.90	1.08	Sqm
	Top Slab	2	5.25		0.33	3.43	Sqm
		2		2.30	0.33	1.50	Sqm
		1	5.25	2.30		12.08	Sqm
	Dirt wall	4	6.76		0.50	13.53	Sqm
		4		0.82	0.50	1.64	Sqm
		4	6.76		0.43	11.58	Sqm
		4		0.40	0.43	0.68	Sqm
	Parapet	4	3.14		0.18	2.20	Sqm
		4		0.45	0.18	0.31	Sqm
		4	3.14		0.25	3.14	Sqm
		4		0.35	0.25	0.35	Sqm
		4	3.14		0.55	6.91	Sqm
		4		0.22	0.55	0.48	Sqm
	TOTAL					309.00	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
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.						
	<i>In D/S Portion On Slopes</i>	2	3.00	3.71		22.23	Sqm
	TOTAL					22.23	Sqm
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry. (WRD M-002)						
	<i>Boulder Apron in D/S Portion</i>	1	3.00	0.90	0.90	2.43	Cum
	TOTAL					2.43	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)						
	<i>In D/S Portion below C.C. Blocks</i>	1	2.20	1.50	0.15	0.50	Cum
	<i>In D/S Portion below Stone Chips</i>	1	2.20	1.50	0.15	0.50	Cum
	TOTAL					0.99	Cum
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>U/S transition</i>	2	1.94	0.48		1.86	Sqm
	<i>On Abutment Top</i>	2	5.66	0.45		1.74	Sqm
	TOTAL					3.60	Sqm
12	Providing Drainage Spouts complete as per drawings & technical 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 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						
	<i>Abutment</i>						
	<i>Section A-A</i>	2	1.00	1.12		2.234	Cum
	<i>Section B-B</i>	2	4.82	0.98		9.428	Cum
	<i>Section C-C</i>	2	1.94	0.77		2.992	Cum
	<i>U/S Transition wall</i>						
	<i>Right Bank (Section D-D)</i>	1	3.47	1.12		3.873	Cum
	<i>D/S Transition wall</i>						
	<i>Sec 4-4</i>	2	0.50	0.65		0.646	Cum
	<i>Avg. of Sec 1-1 & 3-3</i>	2	2.66	1.86		9.886	Cum
	TOTAL					29.06	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF HR FOR PAWAI MR OFFTAKING FROM RD-5.120 KM (R.) AT KOTWARA DY							
1	0						
	Abutment						
	Section A-A	2	1.00	1.59	3.399	10.802	Cum
	Section B-B	2	3.60	2.16	3.399	52.935	Cum
	Section C-C	2	2.18	1.98	3.399	29.320	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.94	1.22	3.399	16.333	Cum
	Left Bank Sec a to d	1	3.11	2.64	2.665	21.875	Cum
	D/S Transition wall						
	Sec 4-4	2	0.49	1.10	3.099	3.348	Cum
	Avg. of Sec 1-1 & 3-3	2	2.61	1.86	3.099	30.092	Cum
	Floor						
	U/S key	1	1.28625	2.3775	0.850	2.599	Cum
	Floor	1	1.9725	2.3775	0.650	3.048	Cum
		1	1.3935	1.5	0.650	1.359	Cum
		1	0.671	1.5	0.650	0.654	Cum
		1	1.5	0.02951		0.044	Cum
		1	3.161	1.5	0.950	4.504	Cum
		1	0.9	1.5	0.350	0.473	Cum
		1	0.531	1.5	0.350	0.279	Cum
		1	1.164	1.5	0.650	1.135	Cum
		1	0.725	1.5	0.650	0.707	Cum
	D/S Portion C.C. Blocks (600x600x300)mm	1	2.200	1.500	0.600	1.980	Cum
	Toe Wall Base D/S Portion	1	1.500	0.850	1.200	1.530	Cum
	Toe Wall Base (For Brick Pitching)	2	3.000	0.600	1.050	3.780	Cum
	Boulder Pitching (D/S Portion)	1	3.000	0.900	0.900	2.430	Cum
						189.23	Cum
2	Item of Works						
	PCC Below Floor						
		1	0.618	2.721	0.150	0.25	Cum
		1	1.541	1.843	0.150	0.43	Cum
		1	1.281	1.500	0.150	0.29	Cum
		1	0.671	1.500	0.150	0.15	Cum
		1	3.339	1.500	0.150	0.75	Cum
		1	0.973	1.500	0.150	0.22	Cum
		1	0.170	1.500	0.150	0.04	Cum
		1	0.567	1.500	0.150	0.13	Cum
		1	0.693	1.500	0.150	0.16	Cum
	PCC Below Abutment						
	Section A-A	2	1.000	1.589	0.300	0.95	Cum
	Section B-B	2	3.600	2.163	0.300	4.67	Cum
	Section C-C	2	2.175	1.983	0.300	2.59	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.942	1.219	0.300	1.44	Cum
	Left Bank Sec a to d	1	3.108	2.641	0.150	1.23	Cum
	D/S Transition wall						
	Sec 4-4	2	0.491	1.100	0.300	0.32	Cum
	Avg. of Sec 1-1 & 3-3	2	2.611	1.860	0.300	2.91	Cum
	Toe Wall Base D/S Portion	1	1.500	0.850	0.300	0.38	Cum
	Toe Wall Stem D/S Portion	1	1.500	0.450	0.900	0.61	Cum
	Toe Wall Base (For Brick Pitching)	1	3.000	0.600	0.150	0.27	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					19.25	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
3	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 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	0.82	0.50	0.82	Cum
		2	1.00	1.00	0.62	1.24	Cum
		2	1.00	1.19	1.20	2.85	Cum
	Section B-B	2	3.60	1.29	1.57	14.61	Cum
		2	3.60	1.76	0.90	11.42	Cum
	Section C-C	2	2.18	1.20	1.27	6.64	Cum
		2	2.18	1.58	1.20	8.26	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.94	0.45	0.50	0.89	Cum
		1	3.94	0.63	0.62	1.54	Cum
		1	3.94	0.82	1.20	3.87	Cum
	Left Bank						
	Section a-a	1		2.453	0.50	1.23	Sqm
		1		2.30	0.20	0.46	Sqm
		1		1.32	1.12	1.47	Sqm
						3.15	Sqm
	Section b-b	1		2.45	0.50	1.23	Sqm
		1		2.08	0.20	0.42	Sqm
		1		1.28	1.12	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		1.08	1.12	1.20	Sqm
						2.76	Sqm
	Section d-d	1		2.45	0.50	1.23	Sqm
		1		0.48	0.20	0.10	Sqm
		1		0.48	1.12	0.54	Sqm
						1.86	Sqm
	Bottom Key	1	3.11	1.29	0.70	2.80	Cum
	Top Stem Area	1	3.11	2.71		8.42	Cum
	D/S Transition wall						
	Sec 4-4	2	0.49	0.35	0.50	0.17	Cum
		2	0.49	0.53	1.40	0.72	Cum
		2	0.49	0.70	0.90	0.62	Cum
	Avg. of Sec 1-1 & 3-3	2	2.61	0.64	0.50	1.68	Cum
		2	2.61	1.10	1.40	8.02	Cum
		2	2.61	1.46	0.90	6.86	Cum
	TOTAL					81.44	Cum
	Floor						
	U/S key	1	1.29	2.38	0.70	2.14	Cum
	Floor	1	1.97	2.38	0.50	2.34	Cum
		1	1.39	1.50	0.50	1.05	Cum
		1	0.67	1.50	0.50	0.50	Cum
		1	1.50	0.03		0.04	Cum
		1	3.16	1.50	0.50	2.37	Cum
		1	0.90	1.50	0.35	0.47	Cum
		1	0.53	1.50	0.30	0.24	Cum
		1	1.16	1.50	0.50	0.87	Cum
	D/S key	1	0.73	1.50	0.50	0.54	Cum
	TOTAL					92.01	Cum
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.						
	Over Floor	1	3.17	2.38	0.20	1.51	Cum
		1	0.67	1.50	0.20	0.20	Cum
		1	3.00	1.50	0.20	0.90	Cum
		1	0.95	1.50	0.20	0.28	Cum
		1	1.28	1.50	0.20	0.38	Cum
	Top Slab	1	5.25	2.30	0.33	3.94	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	75mm Th. Wearing coat on top slab	1	4.25	2.30	0.08	0.73	Cum
	Dirt wall	2	5.78	0.82	0.50	4.74	Cum
		2	5.78	0.40	0.43	1.98	Cum
	Parapet	2	3.14	0.45	0.18	0.49	Cum
		2	3.14	0.35	0.25	0.55	Cum
		2	3.14	0.22	0.55	0.75	Cum
	TOTAL					16.46	Cum
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, etc. excluding cost of form work as						
	Dia of Bars	Length	Nos.		Weight per m	Quantity	Unit
	<i>Slab Per Span</i>						
a1	16	2.760	29		1.578	126.314	Kg
a2	10	5.650	12		0.616	41.796	Kg
a3	10	5.150	2		0.616	6.350	Kg
a4	10	2.680	18		0.616	29.738	Kg
a5	10	5.550	9		0.616	30.792	Kg
	<i>Dirt Wall</i>						
d1	12	4.460	26		0.888	102.938	Kg
d2	12	5.550	14		0.888	68.975	Kg
	<i>Crash Barrier</i>						
x1	12	2.501	38		0.888	84.366	Kg
x2	16	1.265	38		1.578	75.861	Kg
x3	10	2.200	24		0.616	32.549	Kg
	<i>Floor R/F</i>						
	<i>U/S Key</i>						
	12	6.710	6		0.888	35.739	Kg
	12	2.200	24		0.888	46.871	Kg
	<i>floor raft</i>						
	12	3.395	6		0.888	18.083	Kg
	12	7.446	12		0.888	79.318	Kg
	12	2.200	67		0.888	130.847	Kg
	0.25 % Skin Reinforcement for Transition walls	81.44	0.25%	0.20	7850	1598.22	Kg
	TOTAL Weight of steel (in kg)					2508.75	Kg
	TOTAL Weight of Steel (in Tonne)					2.51	MT
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1	2.05			2.05	MT
	*Separate sheet attached						
7	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.						
	Abutment						
	Section A-A	4	1.00		0.50	2.00	Sqm
		4		0.82	0.50	1.64	Sqm
		4	1.00		0.62	2.46	Sqm
		4		1.00	0.62	2.47	Sqm
		4	1.00		1.20	4.80	Sqm
		4		1.19	1.20	5.71	Sqm
	Section B-B	4	3.60		1.57	22.62	Sqm
		4		1.29	1.57	8.12	Sqm
		4	3.60		0.90	12.96	Sqm
		4		1.76	0.90	6.35	Sqm
	Section C-C	4	2.18		1.27	11.06	Sqm
		4		1.20	1.27	6.11	Sqm
		4	2.18		1.20	10.44	Sqm
		4		1.58	1.20	7.60	Sqm
	U/S Transition wall						
	Right Bank (Section D-D)	2	3.94		0.50	3.94	Sqm
		2		0.45	0.50	0.45	Sqm
		2	3.94		0.62	4.85	Sqm
		2		0.63	0.62	0.78	Sqm
		2	3.94		1.20	9.46	Sqm
		2		0.82	1.20	1.97	Sqm
	Left Bank						
	Bottom Key	2	3.11		0.70	4.35	Sqm
		2		1.29	0.70	1.80	Sqm
	Section a-a	2	1.04		0.50	1.04	Sqm
		2		2.45	0.50	2.45	Sqm
		2	1.04		0.20	0.41	Sqm
		2		2.30	0.20	0.92	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	1.04		1.12	2.31	Sqm
		2		1.32	1.12	2.94	Sqm
	Section b-b	2	1.04		0.50	1.04	Sqm
		2		2.45	0.50	2.45	Sqm
		2	1.04		0.20	0.41	Sqm
		2		2.08	0.20	0.83	Sqm
		2	1.04		1.12	2.31	Sqm
		2		1.28	1.12	2.85	Sqm
	Section c-c	2	1.04		0.50	1.04	Sqm
		2		2.45	0.50	2.45	Sqm
		2	1.04		0.20	0.41	Sqm
		2		1.67	0.20	0.67	Sqm
		2	1.04		1.12	2.31	Sqm
		2		1.08	1.12	2.40	Sqm
	Section d-d	2	1.04		0.50	1.04	Sqm
		2		2.45	0.50	2.45	Sqm
		2	1.04		0.20	0.41	Sqm
		2		0.48	0.20	0.19	Sqm
		2	1.04		1.12	2.31	Sqm
		2		0.48	1.12	1.07	Sqm
	D/S Transition wall						
	Sec 4-4	4	0.49		0.50	0.98	Sqm
		4		0.35	0.50	0.70	Sqm
		4	0.49		1.40	2.75	Sqm
		4		0.53	1.40	2.94	Sqm
		4	0.49		0.90	1.77	Sqm
		4		0.70	0.90	2.52	Sqm
	Avg. of Sec 1-1 & 3-3	4	2.61		0.50	5.22	Sqm
		4		0.64	0.50	1.28	Sqm
		4	2.61		1.40	14.61	Sqm
		4		1.10	1.40	6.14	Sqm
		4	2.61		0.90	9.40	Sqm
		4		1.46	0.90	5.25	Sqm
	Floor						
	U/S key	2	1.29		0.70	1.80	Sqm
		2		2.38	0.70	3.33	Sqm
	Floor	2	1.97		0.50	1.97	Sqm
		2		2.38	0.50	2.38	Sqm
		2	1.39		0.50	1.39	Sqm
		2		1.50	0.50	1.50	Sqm
		2	0.67		0.50	0.67	Sqm
		2		1.50	0.50	1.50	Sqm
		2	1.50		0.00	3.00	Sqm
		2		0.03	0.00	0.06	Sqm
		2	3.16		0.50	3.16	Sqm
		2		1.50	0.50	1.50	Sqm
		2	0.90		0.35	0.63	Sqm
		2		1.50	0.35	1.05	Sqm
		2	0.53			1.06	Sqm
		2		1.50		3.00	Sqm
		2	1.16		0.50	1.16	Sqm
		2		1.50	0.50	1.50	Sqm
	D/S key	2	0.73		0.50	0.73	Sqm
		2		1.50	0.50	1.50	Sqm
	Toe Wall Base D/S Portion	2	1.50		0.30	0.90	Sqm
		2		0.85	0.30	0.51	Sqm
	Toe Wall Stem D/S Portion	2	1.50		0.90	2.70	Sqm
		2		0.45	0.90	0.81	Sqm
	Toe Wall Base (For Brick Pitching)	4	3.00		0.15	1.80	Sqm
		4		0.60	0.15	0.36	Sqm
	Toe Wall Stem (For Brick Pitching)	4	3.00		0.90	10.80	Sqm
		4		0.30	0.90	1.08	Sqm
	Top Slab	2	5.25		0.33	3.43	Sqm
		2		2.30	0.33	1.50	Sqm
		1	5.25			12.08	Sqm
	Dirt wall	4	5.78		0.50	11.55	Sqm
		4		0.82	0.50	1.64	Sqm
		4	5.78		0.43	9.89	Sqm
		4		0.40	0.43	0.68	Sqm
	Parapet	4	3.14		0.18	2.20	Sqm
		4		0.45	0.18	0.31	Sqm
		4	3.14		0.25	3.14	Sqm
		4		0.35	0.25	0.35	Sqm
		4	3.14		0.55	6.91	Sqm
		4		0.22	0.55	0.48	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					328.23	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.						
	<i>In D/S Portion On Slopes</i>	2	3.00	1.95		11.70	Sqm
	TOTAL					11.70	Sqm
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry. (WRD M-002)						
	<i>Boulder Apron in D/S Portion</i>	1	3.00	0.90	0.90	2.43	Cum
	TOTAL					2.43	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)						
	<i>In D/S Portion below C.C. Blocks</i>	1	2.20	1.50	0.15	0.50	Cum
	<i>In D/S Portion below Stone Chips</i>	1	2.20	1.50	0.15	0.50	Cum
	TOTAL					0.99	Cum
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>U/S transition</i>	2	2.04	0.48		1.96	Sqm
	<i>On Abutment Top</i>	2	4.63	0.45		1.84	Sqm
	TOTAL					3.80	Sqm
12	Providing Drainage Spouts complete as per drawings & technical 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 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						
	<i>Abutment</i>						
	<i>Section A-A</i>	2	1.00	0.83		1.662	Cum
	<i>Section B-B</i>	2	3.60	1.82		13.126	Cum
	<i>Section C-C</i>	2	2.18	1.53		6.660	Cum
	<i>U/S Transition wall</i>						
	<i>Right Bank (Section D-D)</i>	1	3.94	0.83		3.276	Cum
	<i>D/S Transition wall</i>						
	<i>Sec 4-4</i>	2	0.49	0.98		0.962	Cum
	<i>Avg. of Sec 1-1 & 3-3</i>	2	2.61	1.47		7.676	Cum
	TOTAL					33.36	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF HR FOR BHUTAILI MR OFFTAKING FROM RD-9.875 KM (R.) AT KOTWARA DY CANAL							
1	0						
	Abutment						
	Section A-A	2	1.00	1.58	3.555	11.234	Cum
	Section B-B	2	3.60	2.25	3.555	57.514	Cum
	Section C-C	2	2.20	2.07	3.555	32.332	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.47	1.21	3.555	14.909	Cum
	Left Bank Sec a to d	1	3.07	2.62	2.650	21.337	Cum
	D/S Transition wall						
	Sec 4-4	2	0.49	1.10	3.255	3.516	Cum
	Avg. of Sec 1-1 & 3-3	2	2.61	1.86	3.255	31.607	Cum
	Floor						
	U/S key	1	1.275	2.3775	0.850	2.577	Cum
	Floor	1	1.95	2.3775	0.650	3.013	Cum
		1	1.3935	1.2	0.650	1.087	Cum
		1	0.671	1.2	0.650	0.523	Cum
		1	1.2	0.02951		0.035	Cum
		1	3.161	1.2	0.950	3.604	Cum
		1	0.9	1.2	0.350	0.378	Cum
		1	0.531	1.2	0.350	0.223	Cum
		1	1.187	1.2	0.650	0.926	Cum
		1	0.725	1.2	0.650	0.566	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
	Toe Wall Base (For Brick Pitching)	2	3.000	0.600	1.050	3.780	Cum
	Boulder Pitching (D/S Portion)	1	3.000	0.600	0.900	1.620	Cum
						193.59	Cum
2	Item of Works						
	PCC Below Floor						
		1	0.618	2.521	0.150	0.23	Cum
		1	1.521	1.553	0.150	0.35	Cum
		1	1.281	1.200	0.150	0.23	Cum
		1	0.671	1.200	0.150	0.12	Cum
		1	3.339	1.200	0.150	0.60	Cum
		1	0.973	1.200	0.150	0.18	Cum
		1	0.192	1.200	0.150	0.03	Cum
		1	0.567	1.200	0.150	0.10	Cum
		1	0.693	1.200	0.150	0.12	Cum
	PCC Below Abutment						
	Section A-A	2	1.000	1.580	0.300	0.95	Cum
	Section B-B	2	3.600	2.247	0.300	4.85	Cum
	Section C-C	2	2.200	2.067	0.300	2.73	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.466	1.210	0.300	1.26	Cum
	Left Bank Sec a to d	1	3.072	2.621	0.150	1.21	Cum
	D/S Transition wall						
	Sec 4-4	2	0.491	1.100	0.300	0.32	Cum
	Avg. of Sec 1-1 & 3-3	2	2.611	1.860	0.300	2.91	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	0.600	0.150	0.27	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					18.73	Cum
3	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 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	0.82	0.50	0.82	Cum
		2	1.00	1.00	0.60	1.20	Cum
		2	1.00	1.18	1.20	2.83	Cum
	Section B-B	2	3.60	1.33	1.71	16.44	Cum
		2	3.60	1.85	0.90	11.97	Cum
	Section C-C	2	2.20	1.24	1.41	7.73	Cum
		2	2.20	1.67	1.20	8.80	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.47	0.45	0.50	0.78	Cum
		1	3.47	0.63	0.60	1.31	Cum
		1	3.47	0.81	1.20	3.37	Cum
	Left Bank						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section a-a	1		2.453	0.50	1.23	Sqm
		1		2.29	0.20	0.46	Sqm
		1		1.32	1.10	1.45	Sqm
						3.13	Sqm
	Section b-b	1		2.45	0.50	1.23	Sqm
		1		2.05	0.20	0.41	Sqm
		1		1.27	1.10	1.39	Sqm
						3.03	Sqm
	Section c-c	1		2.45	0.50	1.23	Sqm
		1		1.66	0.20	0.33	Sqm
		1		1.07	1.10	1.18	Sqm
						2.74	Sqm
	Section d-d	1		2.45	0.50	1.23	Sqm
		1		0.48	0.20	0.10	Sqm
		1		0.48	1.10	0.53	Sqm
						1.85	Sqm
	Bottom Key	1	3.07	1.29	0.70	2.77	Cum
	Top Stem Area	1	3.07	2.69		8.26	Cum
	D/S Transition wall						
	Sec 4-4	2	0.49	0.35	0.50	0.17	Cum
		2	0.49	0.53	1.56	0.80	Cum
		2	0.49	0.70	0.90	0.62	Cum
	Avg. of Sec 1-1 & 3-3	2	2.61	0.64	0.50	1.66	Cum
		2	2.61	1.09	1.56	8.86	Cum
		2	2.61	1.46	0.90	6.86	Cum
	TOTAL					85.23	Cum
	Floor						
	U/S key	1	1.28	2.38	0.70	2.12	Cum
	Floor	1	1.95	2.38	0.50	2.32	Cum
		1	1.39	1.20	0.50	0.84	Cum
		1	0.67	1.20	0.50	0.40	Cum
		1	1.20	0.03		0.04	Cum
		1	3.16	1.20	0.50	1.90	Cum
		1	0.90	1.20	0.35	0.38	Cum
		1	0.53	1.20	0.30	0.19	Cum
		1	1.19	1.20	0.50	0.71	Cum
	D/S key	1	0.73	1.20	0.50	0.44	Cum
	TOTAL					94.56	Cum
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.						
	Over Floor	1	3.40	2.38	0.20	1.62	Cum
		1	0.67	1.20	0.20	0.16	Cum
		1	3.00	1.20	0.20	0.72	Cum
		1	0.95	1.20	0.20	0.23	Cum
		1	1.30	1.20	0.20	0.31	Cum
	Top Slab	1	5.25	2.00	0.33	3.43	Cum
	75mm Th. Wearing coat on top slab	1	4.25	2.00	0.08	0.64	Cum
	Dirt wall	2	5.80	0.82	0.50	4.76	Cum
		2	5.80	0.40	0.43	1.99	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					15.47	Cum
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.						
	Dia of Bars	Length	Nos.		Weight per m	Quantity	Unit
	<i>Slab Per Span</i>						
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

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
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	6.668	5		0.888	29.596	Kg
	12	1.900	25		0.888	42.166	Kg
	floor raft						
	12	3.395	5		0.888	15.069	Kg
	12	7.469	10		0.888	66.303	Kg
	12	1.900	67		0.888	113.005	Kg
	0.25 % Skin Reinforcement for Transition walls	85.23	0.25%	0.21	7850	1672.67	Kg
	TOTAL Weight of steel (in kg)					2477.89	Kg
	TOTAL Weight of Steel (in Tonne)					2.48	MT
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1	1.93			1.93	MT
	*Separate sheet attached						
7	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.						
	Abutment						
	Section A-A	4	1.00		0.50	2.00	Sqm
		4		0.82	0.50	1.64	Sqm
		4	1.00		0.60	2.40	Sqm
		4		1.00	0.60	2.40	Sqm
		4	1.00		1.20	4.80	Sqm
		4		1.18	1.20	5.66	Sqm
	Section B-B	4	3.60		1.71	24.65	Sqm
		4		1.33	1.71	9.13	Sqm
		4	3.60		0.90	12.96	Sqm
		4		1.85	0.90	6.65	Sqm
	Section C-C	4	2.20		1.41	12.43	Sqm
		4		1.24	1.41	7.02	Sqm
		4	2.20		1.20	10.56	Sqm
		4		1.67	1.20	8.00	Sqm
	U/S Transition wall						
	Right Bank (Section D-D)	2	3.47		0.50	3.47	Sqm
		2		0.45	0.50	0.45	Sqm
		2	3.47		0.60	4.16	Sqm
		2		0.63	0.60	0.76	Sqm
		2	3.47		1.20	8.32	Sqm
		2		0.81	1.20	1.94	Sqm
	Left Bank						
	Bottom Key	2	3.07		0.70	4.30	Sqm
		2		1.29	0.70	1.80	Sqm
	Section a-a	2	1.02		0.50	1.02	Sqm
		2		2.45	0.50	2.45	Sqm
		2	1.02		0.20	0.41	Sqm
		2		2.29	0.20	0.92	Sqm
		2	1.02		1.10	2.25	Sqm
		2		1.32	1.10	2.90	Sqm
	Section b-b	2	1.02		0.50	1.02	Sqm
		2		2.45	0.50	2.45	Sqm
		2	1.02		0.20	0.41	Sqm
		2		2.05	0.20	0.82	Sqm
		2	1.02		1.10	2.25	Sqm
		2		1.27	1.10	2.79	Sqm
	Section c-c	2	1.02		0.50	1.02	Sqm
		2		2.45	0.50	2.45	Sqm
		2	1.02		0.20	0.41	Sqm
		2		1.66	0.20	0.67	Sqm
		2	1.02		1.10	2.25	Sqm
		2		1.07	1.10	2.36	Sqm
	Section d-d	2	1.02		0.50	1.02	Sqm
		2		2.45	0.50	2.45	Sqm
		2	1.02		0.20	0.41	Sqm
		2		0.48	0.20	0.19	Sqm
		2	1.02		1.10	2.25	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		0.48	1.10	1.06	Sqm
	D/S Transition wall						
	Sec 4-4	4	0.49		0.50	0.98	Sqm
		4		0.35	0.50	0.70	Sqm
		4	0.49		1.56	3.05	Sqm
		4		0.53	1.56	3.27	Sqm
		4	0.49		0.90	1.77	Sqm
		4		0.70	0.90	2.52	Sqm
	Avg. of Sec 1-1 & 3-3	4	2.61		0.50	5.22	Sqm
		4		0.64	0.50	1.27	Sqm
		4	2.61		1.56	16.24	Sqm
		4		1.09	1.56	6.78	Sqm
		4	2.61		0.90	9.40	Sqm
		4		1.46	0.90	5.25	Sqm
	Floor						
	U/S key	2	1.28		0.70	1.79	Sqm
		2		2.38	0.70	3.33	Sqm
	Floor	2	1.95		0.50	1.95	Sqm
		2		2.38	0.50	2.38	Sqm
		2	1.39		0.50	1.39	Sqm
		2		1.20	0.50	1.20	Sqm
		2	0.67		0.50	0.67	Sqm
		2		1.20	0.50	1.20	Sqm
		2	1.20		0.00	2.40	Sqm
		2		0.03	0.00	0.06	Sqm
		2	3.16		0.50	3.16	Sqm
		2		1.20	0.50	1.20	Sqm
		2	0.90		0.35	0.63	Sqm
		2		1.20	0.35	0.84	Sqm
		2	0.53			1.06	Sqm
		2		1.20		2.40	Sqm
		2	1.19		0.50	1.19	Sqm
		2		1.20	0.50	1.20	Sqm
	D/S key	2	0.73		0.50	0.73	Sqm
		2		1.20	0.50	1.20	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
	Toe Wall Base (For Brick Pitching)	4	3.00		0.15	1.80	Sqm
		4		0.60	0.15	0.36	Sqm
	Toe Wall Stem (For Brick Pitching)	4	3.00		0.90	10.80	Sqm
		4		0.30	0.90	1.08	Sqm
	Top Slab	2	5.25		0.33	3.43	Sqm
		2		2.00	0.33	1.31	Sqm
		1	5.25	2.00		10.50	Sqm
	Dirt wall	4	5.80		0.50	11.60	Sqm
		4		0.82	0.50	1.64	Sqm
		4	5.80		0.43	9.93	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					327.73	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	1.95		11.70	Sqm
	TOTAL					11.70	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	0.60	0.90	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

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					0.79	Cum
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>U/S transition</i>	2	1.65	0.48		1.58	Sqm
	<i>On Abutment Top</i>	2	4.65	0.45		1.49	Sqm
	TOTAL					3.07	Sqm
12	Providing Drainage Spouts complete as per drawings & technical 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 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						
	<i>Abutment</i>						
	<i>Section A-A</i>	2	1.00	0.82		1.640	Cum
	<i>Section B-B</i>	2	3.60	2.15		15.480	Cum
	<i>Section C-C</i>	2	2.20	1.72		7.568	Cum
	<i>U/S Transition wall</i>						
	<i>Right Bank (Section D-D)</i>	1	3.47	0.82		2.842	Cum
	<i>D/S Transition wall</i>						
	<i>Sec 4-4</i>	2	0.49	1.04		1.021	Cum
	<i>Avg. of Sec 1-1 & 3-3</i>	2	2.61	1.58		8.225	Cum
	TOTAL					36.78	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF HR FOR SALOPURA MR. OFFTAKING FROM RD-10+660 KM (R.) AT KOTWARA DY CANAL							
1	0						
	Abutment						
	Section A-A	2	1.00	1.61	0.300	0.966	Cum
	Section B-B	2	7.76	1.70	3.426	90.368	Cum
	Section C-C	2	2.97	1.52	3.426	30.901	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.43	1.24	0.300	1.274	Cum
	Left Bank Sec a to d	1	3.07	2.69	2.700	22.295	Cum
	D/S Transition wall						
	Sec 4-4	2	0.50	1.10	2.200	2.401	Cum
	Avg. of Sec 1-1 & 3-3	2	2.64	1.90	2.200	22.119	Cum
	Floor						
	U/S key	1	1.3125	2.3775	0.600	1.872	Cum
	Floor	1	2.025	2.3775	0.900	4.333	Cum
		1	1.3875	1.2	0.900	1.499	Cum
		1	4.8725	1.2	0.900	5.262	Cum
		1	1.2	0.01		0.012	Cum
		1	3.671	1.2	1.200	5.286	Cum
		1	1.2	1.2	0.650	0.936	Cum
		1	0.864	1.2	0.650	0.674	Cum
		1	1.621	1.2	0.900	1.751	Cum
		1	0.925	1.2	1.450	1.610	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
	Toe Wall Base (For Brick Pitching)	2	3.000	0.600	1.050	3.780	Cum
	Boulder Pitching (D/S Portion)	1	3.000	0.600	0.900	1.620	Cum
						201.77	Cum
2	Item of Works						
	PCC Below Floor						
		1	0.623	2.684	0.150	0.25	Cum
		1	1.495	1.601	0.150	0.36	Cum
		1	1.216	1.200	0.150	0.22	Cum
		1	4.984	1.200	0.150	0.90	Cum
		1	3.730	1.200	0.150	0.67	Cum
		1	1.265	1.200	0.150	0.23	Cum
		1	0.254	1.200	0.150	0.05	Cum
		1	1.453	1.200	0.150	0.26	Cum
		1	0.693	1.200	0.150	0.12	Cum
	PCC Below Abutment						
	Section A-A	2	1.000	1.610	0.300	0.97	Cum
	Section B-B	2	7.758	1.700	0.300	7.91	Cum
	Section C-C	2	2.967	1.520	0.300	2.71	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.425	1.240	0.300	1.27	Cum
	Left Bank Sec a to d	1	3.072	2.688	0.150	1.24	Cum
	D/S Transition wall						
	Sec 4-4	2	0.496	1.100	0.300	0.33	Cum
	Avg. of Sec 1-1 & 3-3	2	2.643	1.902	0.300	3.02	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	0.600	0.150	0.27	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					23.02	Cum
3	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 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	0.82	0.50	0.82	Cum
		2	1.00	1.02	0.65	1.32	Cum
		2	1.00	1.21	0.95	2.30	Cum
	Section B-B	2	7.76	1.06	0.80	13.16	Cum
		2	7.76	1.30	1.95	39.33	Cum
	Section C-C	2	2.97	0.97	0.50	2.88	Cum
		2	2.97	1.12	2.25	14.95	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.43	0.45	0.50	0.77	Cum
		1	3.43	0.65	0.65	1.44	Cum
		1	3.43	0.84	0.95	2.73	Cum
	Left Bank						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section a-a	1		2.505	0.50	1.25	Sqm
		1		2.21	0.20	0.44	Sqm
		1		1.34	1.15	1.54	Sqm
						3.24	Sqm
	Section b-b	1		2.51	0.50	1.25	Sqm
		1		2.05	0.20	0.41	Sqm
		1		1.26	1.15	1.45	Sqm
						3.11	Sqm
	Section c-c	1		2.51	0.50	1.25	Sqm
		1		1.69	0.20	0.34	Sqm
		1		1.09	1.15	1.25	Sqm
						2.84	Sqm
	Section d-d	1		2.51	0.50	1.25	Sqm
		1		0.48	0.20	0.10	Sqm
		1		0.48	1.15	0.55	Sqm
						1.90	Sqm
	Bottom Key	1	3.07	1.31	0.70	2.82	Cum
	Top Stem Area	1	3.07	2.77		8.52	Cum
	D/S Transition wall						
	Sec 4-4	2	0.50	0.35	0.50	0.17	Cum
		2	0.50	0.53	0.50	0.26	Cum
		2	0.50	0.70	0.90	0.62	Cum
	Avg. of Sec 1-1 & 3-3	2	2.64	0.74	0.50	1.95	Cum
		2	2.64	1.21	0.50	3.21	Cum
		2	2.64	1.50	0.90	7.15	Cum
	TOTAL					104.41	Cum
	Floor						
	U/S key	1	1.31	2.38	0.45	1.40	Cum
	Floor	1	2.03	2.38	0.75	3.61	Cum
		1	1.39	1.20	0.75	1.25	Cum
		1	4.87	1.20	0.75	4.39	Cum
		1	1.20	0.01		0.01	Cum
		1	3.67	1.20	0.75	3.30	Cum
		1	1.20	1.20	0.65	0.94	Cum
		1	0.86	1.20	0.30	0.31	Cum
		1	1.62	1.20	0.75	1.46	Cum
	D/S key	1	0.93	1.20	1.30	1.44	Cum
	TOTAL					122.52	Cum
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.						
	Over Floor	1	3.48	2.38	0.20	1.65	Cum
		1	4.76	1.20	0.20	1.14	Cum
		1	3.50	1.20	0.20	0.84	Cum
		1	0.95	1.20	0.20	0.23	Cum
		1	2.68	1.20	0.20	0.64	Cum
	Top Slab	1	5.25	2.00	0.33	3.43	Cum
	75mm Th. Wearing coat on top slab	1	4.25	2.00	0.08	0.64	Cum
	Dirt wall	2	10.73	0.82	0.50	8.79	Cum
		2	10.73	0.40	0.43	3.67	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					22.66	Cum
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.						
	Dia of Bars	Length	Nos.		Weight per m	Quantity	Unit
	<i>Slab Per Span</i>						
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

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
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	6.812	5		0.888	30.235	Kg
	12	1.900	25		0.888	42.166	Kg
	floor raft						
	12	6.143	5		0.888	27.266	Kg
	12	13.326	10		0.888	118.295	Kg
	12	2.500	115		0.888	255.215	Kg
	0.25 % Skin Reinforcement for Transition walls	104.41	0.25%	0.26	7850	2048.99	Kg
	TOTAL Weight of steel (in kg)					3061.24	Kg
	TOTAL Weight of Steel (in Tonne)					3.06	MT
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1	1.99			1.99	MT
	*Separate sheet attached						
7	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.						
	Abutment						
	Section A-A	4	1.00		0.50	2.00	Sqm
		4		0.82	0.50	1.64	Sqm
		4	1.00		0.65	2.60	Sqm
		4		1.02	0.65	2.64	Sqm
		4	1.00		0.95	3.80	Sqm
		4		1.21	0.95	4.60	Sqm
	Section B-B	4	7.76		0.80	24.83	Sqm
		4		1.06	0.80	3.39	Sqm
		4	7.76		1.95	60.51	Sqm
		4		1.30	1.95	10.14	Sqm
	Section C-C	4	2.97		0.50	5.93	Sqm
		4		0.97	0.50	1.94	Sqm
		4	2.97		2.25	26.70	Sqm
		4		1.12	2.25	10.08	Sqm
	U/S Transition wall						
	Right Bank (Section D-D)	2	3.43		0.50	3.43	Sqm
		2		0.45	0.50	0.45	Sqm
		2	3.43		0.65	4.45	Sqm
		2		0.65	0.65	0.84	Sqm
		2	3.43		0.95	6.51	Sqm
		2		0.84	0.95	1.60	Sqm
	Left Bank						
	Bottom Key	2	3.07		0.70	4.30	Sqm
		2		1.31	0.70	1.84	Sqm
	Section a-a	2	1.02		0.50	1.02	Sqm
		2		2.51	0.50	2.51	Sqm
		2	1.02		0.20	0.41	Sqm
		2		2.21	0.20	0.88	Sqm
		2	1.02		1.15	2.36	Sqm
		2		1.34	1.15	3.09	Sqm
	Section b-b	2	1.02		0.50	1.02	Sqm
		2		2.51	0.50	2.51	Sqm
		2	1.02		0.20	0.41	Sqm
		2		2.05	0.20	0.82	Sqm
		2	1.02		1.15	2.36	Sqm
		2		1.26	1.15	2.90	Sqm
	Section c-c	2	1.02		0.50	1.02	Sqm
		2		2.51	0.50	2.51	Sqm
		2	1.02		0.20	0.41	Sqm
		2		1.69	0.20	0.68	Sqm
		2	1.02		1.15	2.36	Sqm
		2		1.09	1.15	2.50	Sqm
	Section d-d	2	1.02		0.50	1.02	Sqm
		2		2.51	0.50	2.51	Sqm
		2	1.02		0.20	0.41	Sqm
		2		0.48	0.20	0.19	Sqm
		2	1.02		1.15	2.36	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		0.48	1.15	1.10	Sqm
	D/S Transition wall						
	Sec 4-4	4	0.50		0.50	0.99	Sqm
		4		0.35	0.50	0.70	Sqm
		4	0.50		0.50	0.99	Sqm
		4		0.53	0.50	1.05	Sqm
		4	0.50		0.90	1.79	Sqm
		4		0.70	0.90	2.52	Sqm
	Avg. of Sec 1-1 & 3-3	4	2.64		0.50	5.29	Sqm
		4		0.74	0.50	1.48	Sqm
		4	2.64		0.50	5.29	Sqm
		4		1.21	0.50	2.43	Sqm
		4	2.64		0.90	9.51	Sqm
		4		1.50	0.90	5.41	Sqm
	Floor						
	U/S key	2	1.31		0.45	1.18	Sqm
		2		2.38	0.45	2.14	Sqm
	Floor	2	2.03		0.75	3.04	Sqm
		2		2.38	0.75	3.57	Sqm
		2	1.39		0.75	2.08	Sqm
		2		1.20	0.75	1.80	Sqm
		2	4.87		0.75	7.31	Sqm
		2		1.20	0.75	1.80	Sqm
		2	1.20		0.00	2.40	Sqm
		2		0.01	0.00	0.02	Sqm
		2	3.67		0.75	5.51	Sqm
		2		1.20	0.75	1.80	Sqm
		2	1.20		0.65	1.56	Sqm
		2		1.20	0.65	1.56	Sqm
		2	0.86			1.73	Sqm
		2		1.20		2.40	Sqm
		2	1.62		0.75	2.43	Sqm
		2		1.20	0.75	1.80	Sqm
	D/S key	2	0.93		1.30	2.41	Sqm
		2		1.20	1.30	3.12	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
	Toe Wall Base (For Brick Pitching)	4	3.00		0.15	1.80	Sqm
		4		0.60	0.15	0.36	Sqm
	Toe Wall Stem (For Brick Pitching)	4	3.00		0.90	10.80	Sqm
		4		0.30	0.90	1.08	Sqm
	Top Slab	2	5.25		0.33	3.43	Sqm
		2		2.00	0.33	1.31	Sqm
		1	5.25	2.00		10.50	Sqm
	Dirt wall	4	10.73		0.50	21.45	Sqm
		4		0.82	0.50	1.64	Sqm
		4	10.73		0.43	18.36	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					396.47	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	2.04		12.23	Sqm
	TOTAL					12.23	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	0.60	0.90	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

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					0.79	Cum
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>U/S transition</i>	2	1.73	0.48		1.66	Sqm
	<i>On Abutment Top</i>	2	9.61	0.45		1.55	Sqm
	TOTAL					3.21	Sqm
12	Providing Drainage Spouts complete as per drawings & technical 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 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						
	<i>Abutment</i>						
	<i>Section A-A</i>	2	1.00	0.74		1.484	Cum
	<i>Section B-B</i>	2	7.76	1.23		19.116	Cum
	<i>Section C-C</i>	2	2.97	1.11		6.557	Cum
	<i>U/S Transition wall</i>						
	<i>Right Bank (Section D-D)</i>	1	3.43	0.74		2.541	Cum
	<i>D/S Transition wall</i>						
	<i>Sec 4-4</i>	2	0.50	0.65		0.645	Cum
	<i>Avg. of Sec 1-1 & 3-3</i>	2	2.64	0.90		4.783	Cum
	TOTAL					35.13	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF HR FOR SINGHI SUB DY. OFFTAKING FROM RD-13+020 KM (R.) AT KOTWARA DY CANAL							
1	0						
	Abutment						
	Section A-A	2	1.00	1.81	1.571	5.681	Cum
	Section B-B	2	6.43	2.06	2.985	79.053	Cum
	Section C-C	2	2.05	1.88	2.985	23.031	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.03	1.44	1.571	6.846	Cum
	Left Bank Sec a to d	1	3.96	3.16	3.330	41.726	Cum
	D/S Transition wall						
	Sec 4-4	2	0.55	1.10	2.800	3.357	Cum
	Avg. of Sec 1-1 & 3-3	2	3.10	2.42	2.800	42.087	Cum
	Floor						
	U/S key	1	1.56	6.1725	0.850	8.185	Cum
	Floor	1	2.52	6.1725	0.650	10.111	Cum
		1	1.3935	3.95	0.650	3.578	Cum
		1	2.715	3.95	0.650	6.971	Cum
		1	3.95	0.0295		0.117	Cum
		1	4.161	3.95	0.950	15.614	Cum
		1	0.9	3.95	0.350	1.244	Cum
		1	0.531	3.95	0.350	0.734	Cum
		1	1.039	3.95	0.650	2.668	Cum
		1	0.725	3.95	0.650	1.861	Cum
	D/S Portion C.C. Blocks (600x600x300)mm	1	2.200	3.950	0.600	5.214	Cum
	Toe Wall Base D/S Portion	1	3.950	0.850	1.200	4.029	Cum
	Toe Wall Base (For Brick Pitching)	2	3.000	0.600	1.050	3.780	Cum
	Boulder Pitching (D/S Portion)	1	3.000	3.350	0.900	9.045	Cum
						274.93	Cum
2	Item of Works						
	PCC Below Floor						
		1	0.627	7.381	0.150	0.69	Cum
		1	2.520	5.161	0.150	1.95	Cum
		1	1.272	3.950	0.150	0.75	Cum
		1	2.715	3.950	0.150	1.61	Cum
		1	4.339	3.950	0.150	2.57	Cum
		1	0.949	3.950	0.150	0.56	Cum
		1	0.072	3.950	0.150	0.04	Cum
		1	0.559	3.950	0.150	0.33	Cum
		1	0.693	3.950	0.150	0.41	Cum
	PCC Below Abutment						
	Section A-A	2	1.000	1.808	0.300	1.08	Cum
	Section B-B	2	6.428	2.060	0.300	7.95	Cum
	Section C-C	2	2.052	1.880	0.300	2.31	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.031	1.438	0.300	1.31	Cum
	Left Bank Sec a to d	1	3.964	3.161	0.150	1.88	Cum
	D/S Transition wall						
	Sec 4-4	2	0.545	1.100	0.300	0.36	Cum
	Avg. of Sec 1-1 & 3-3	2	3.103	2.422	0.300	4.51	Cum
	Toe Wall Base D/S Portion	1	3.950	0.850	0.300	1.01	Cum
	Toe Wall Stem D/S Portion	1	3.950	0.450	0.900	1.60	Cum
	Toe Wall Base (For Brick Pitching)	1	3.000	0.600	0.150	0.27	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	18	0.600	0.600	0.300	1.94	Cum
	TOTAL					33.96	Cum
3	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 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	0.82	0.50	0.82	Cum
		2	1.00	1.11	0.98	2.18	Cum
		2	1.00	1.41	0.70	1.97	Cum
	Section B-B	2	6.43	1.24	1.40	22.32	Cum
		2	6.43	1.66	0.90	19.21	Cum
	Section C-C	2	2.05	1.15	1.10	5.19	Cum
		2	2.05	1.48	1.20	7.29	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.03	0.45	0.50	0.68	Cum
		1	3.03	0.74	0.98	2.21	Cum
		1	3.03	1.04	0.70	2.20	Cum
	Left Bank						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section a-a	1		3	0.75	2.25	Sqm
		1		2.85	0.20	0.57	Sqm
		1		1.59	1.48	2.35	Sqm
						5.17	Sqm
	Section b-b	1		3.00	0.75	2.25	Sqm
		1		2.46	0.20	0.49	Sqm
		1		1.47	1.48	2.18	Sqm
						4.92	Sqm
	Section c-c	1		3.00	0.75	2.25	Sqm
		1		1.88	0.20	0.38	Sqm
		1		1.18	1.48	1.74	Sqm
						4.37	Sqm
	Section d-d	1		3.00	0.75	2.25	Sqm
		1		0.48	0.20	0.10	Sqm
		1		0.48	1.48	0.71	Sqm
						3.06	Sqm
	Bottom Key	1	3.96	1.56	0.75	4.64	Cum
	Top Stem Area	1	3.96	4.38		17.36	Cum
	D/S Transition wall						
	Sec 4-4	2	0.55	0.35	0.50	0.19	Cum
		2	0.55	0.53	1.10	0.63	Cum
		2	0.55	0.70	0.90	0.69	Cum
	Avg. of Sec 1-1 & 3-3	2	3.10	0.77	0.50	2.40	Cum
		2	3.10	1.49	1.10	10.18	Cum
		2	3.10	2.02	0.90	11.29	Cum
	TOTAL					111.46	Cum
	Floor						
	U/S key	1	1.56	6.17	0.70	6.74	Cum
	Floor	1	2.52	6.17	0.50	7.78	Cum
		1	1.39	3.95	0.50	2.75	Cum
		1	2.72	3.95	0.50	5.36	Cum
		1	3.95	0.03		0.12	Cum
		1	4.16	3.95	0.50	8.22	Cum
		1	0.90	3.95	0.35	1.24	Cum
		1	0.53	3.95	0.30	0.63	Cum
		1	1.04	3.95	0.50	2.05	Cum
	D/S key	1	0.73	3.95	0.50	1.43	Cum
	TOTAL					147.78	Cum
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.						
	Over Floor	1	3.97	6.17	0.20	4.90	Cum
		1	2.72	3.95	0.20	2.14	Cum
		1	4.00	3.95	0.20	3.16	Cum
		1	0.95	3.95	0.20	0.75	Cum
		1	1.13	3.95	0.20	0.89	Cum
	Top Slab	1	5.25	4.75	0.43	10.64	Cum
	75mm Th. Wearing coat on top slab	1	4.25	4.75	0.08	1.51	Cum
	Dirt wall	2	8.48	0.82	0.50	6.95	Cum
		2	8.48	0.40	0.53	3.58	Cum
	Parapet	2	5.59	0.45	0.18	0.87	Cum
		2	5.59	0.35	0.25	0.98	Cum
		2	5.59	0.22	0.55	1.34	Cum
	TOTAL					37.73	Cum
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.						
	Dia of Bars	Length	Nos.		Weight per m	Quantity	Unit
	Slab Per Span						
a1	20	5.410	34		2.466	453.567	Kg
a2	10	5.730	38		0.616	134.228	Kg
a3	10	5.150	2		0.616	6.350	Kg
a4	10	5.270	23		0.616	74.721	Kg

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
a5	10	5.590	21		0.616	72.366	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	2.601	78		0.888	180.095	Kg
x2	16	1.365	78		1.578	168.024	Kg
x3	10	4.650	24		0.616	68.797	Kg
	Floor R/F						
	U/S Key						
	12	8.581	16		0.888	121.878	Kg
	12	4.650	30		0.888	123.835	Kg
	floor raft						
	12	3.395	16		0.888	48.220	Kg
	12	10.365	32		0.888	294.433	Kg
	12	4.650	91		0.888	375.632	Kg
	0.25 % Skin Reinforcement for Transition walls	111.46	0.25%	0.28	7850	2187.34	Kg
	TOTAL Weight of steel (in kg)					4481.39	Kg
	TOTAL Weight of Steel (in Tonne)					4.48	MT
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1	6.43			6.43	MT
	*Separate sheet attached						
7	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.						
	Abutment						
	Section A-A	4	1.00		0.50	2.00	Sqm
		4		0.82	0.50	1.64	Sqm
		4	1.00		0.98	3.92	Sqm
		4		1.11	0.98	4.37	Sqm
		4	1.00		0.70	2.80	Sqm
		4		1.41	0.70	3.94	Sqm
	Section B-B	4	6.43		1.40	36.00	Sqm
		4		1.24	1.40	6.94	Sqm
		4	6.43		0.90	23.14	Sqm
		4		1.66	0.90	5.98	Sqm
	Section C-C	4	2.05		1.10	9.03	Sqm
		4		1.15	1.10	5.06	Sqm
		4	2.05		1.20	9.85	Sqm
		4		1.48	1.20	7.10	Sqm
	U/S Transition wall						
	Right Bank (Section D-D)	2	3.03		0.50	3.03	Sqm
		2		0.45	0.50	0.45	Sqm
		2	3.03		0.98	5.94	Sqm
		2		0.74	0.98	1.46	Sqm
		2	3.03		0.70	4.24	Sqm
		2		1.04	0.70	1.45	Sqm
	Left Bank						
	Bottom Key	2	3.96		0.75	5.95	Sqm
		2		1.56	0.75	2.34	Sqm
	Section a-a	2	1.32		0.75	1.98	Sqm
		2		3.00	0.75	4.50	Sqm
		2	1.32		0.20	0.53	Sqm
		2		2.85	0.20	1.14	Sqm
		2	1.32		1.48	3.91	Sqm
		2		1.59	1.48	4.71	Sqm
	Section b-b	2	1.32		0.75	1.98	Sqm
		2		3.00	0.75	4.50	Sqm
		2	1.32		0.20	0.53	Sqm
		2		2.46	0.20	0.99	Sqm
		2	1.32		1.48	3.91	Sqm
		2		1.47	1.48	4.36	Sqm
	Section c-c	2	1.32		0.75	1.98	Sqm
		2		3.00	0.75	4.50	Sqm
		2	1.32		0.20	0.53	Sqm
		2		1.88	0.20	0.75	Sqm
		2	1.32		1.48	3.91	Sqm
		2		1.18	1.48	3.49	Sqm
	Section d-d	2	1.32		0.75	1.98	Sqm
		2		3.00	0.75	4.50	Sqm
		2	1.32		0.20	0.53	Sqm
		2		0.48	0.20	0.19	Sqm
		2	1.32		1.48	3.91	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		0.48	1.48	1.42	Sqm
	D/S Transition wall						
	Sec 4-4	4	0.55		0.50	1.09	Sqm
		4		0.35	0.50	0.70	Sqm
		4	0.55		1.10	2.40	Sqm
		4		0.53	1.10	2.31	Sqm
		4	0.55		0.90	1.96	Sqm
		4		0.70	0.90	2.52	Sqm
	Avg. of Sec 1-1 & 3-3	4	3.10		0.50	6.21	Sqm
		4		0.77	0.50	1.55	Sqm
		4	3.10		1.10	13.65	Sqm
		4		1.49	1.10	6.56	Sqm
		4	3.10		0.90	11.17	Sqm
		4		2.02	0.90	7.28	Sqm
	Floor						
	U/S key	2	1.56		0.70	2.18	Sqm
		2		6.17	0.70	8.64	Sqm
	Floor	2	2.52		0.50	2.52	Sqm
		2		6.17	0.50	6.17	Sqm
		2	1.39		0.50	1.39	Sqm
		2		3.95	0.50	3.95	Sqm
		2	2.72		0.50	2.72	Sqm
		2		3.95	0.50	3.95	Sqm
		2	3.95		0.00	7.90	Sqm
		2		0.03	0.00	0.06	Sqm
		2	4.16		0.50	4.16	Sqm
		2		3.95	0.50	3.95	Sqm
		2	0.90		0.35	0.63	Sqm
		2		3.95	0.35	2.77	Sqm
		2	0.53			1.06	Sqm
		2		3.95		7.90	Sqm
		2	1.04		0.50	1.04	Sqm
		2		3.95	0.50	3.95	Sqm
	D/S key	2	0.73		0.50	0.73	Sqm
		2		3.95	0.50	3.95	Sqm
	Toe Wall Base D/S Portion	2	3.95		0.30	2.37	Sqm
		2		0.85	0.30	0.51	Sqm
	Toe Wall Stem D/S Portion	2	3.95		0.90	7.11	Sqm
		2		0.45	0.90	0.81	Sqm
	Toe Wall Base (For Brick Pitching)	4	3.00		0.15	1.80	Sqm
		4		0.60	0.15	0.36	Sqm
	Toe Wall Stem (For Brick Pitching)	4	3.00		0.90	10.80	Sqm
		4		0.30	0.90	1.08	Sqm
	Top Slab	2	5.25		0.43	4.48	Sqm
		2		4.75	0.43	4.05	Sqm
		1	5.25	4.75		24.94	Sqm
	Dirt wall	4	8.48		0.50	16.96	Sqm
		4		0.82	0.50	1.64	Sqm
		4	8.48		0.53	17.91	Sqm
		4		0.40	0.53	0.84	Sqm
	Parapet	4	5.59		0.18	3.91	Sqm
		4		0.45	0.18	0.31	Sqm
		4	5.59		0.25	5.59	Sqm
		4		0.35	0.25	0.35	Sqm
		4	5.59		0.55	12.30	Sqm
		4		0.22	0.55	0.48	Sqm
	TOTAL					452.98	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	5.32		31.93	Sqm
	TOTAL					31.93	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	3.35	0.90	9.05	Cum
	TOTAL					9.05	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	3.95	0.15	1.30	Cum
	In D/S Portion below Stone Chips	1	2.20	3.95	0.15	1.30	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					2.61	Cum
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>U/S transition</i>	2	2.22	0.48		2.13	Sqm
	<i>On Abutment Top</i>	2	7.90	0.45		2.00	Sqm
	TOTAL					4.13	Sqm
12	Providing Drainage Spouts complete as per drawings & technical 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 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						
	<i>Abutment</i>						
	<i>Section A-A</i>	2	1.00	1.02		2.040	Cum
	<i>Section B-B</i>	2	6.43	1.57		20.184	Cum
	<i>Section C-C</i>	2	2.05	1.45		5.951	Cum
	<i>U/S Transition wall</i>						
	<i>Right Bank (Section D-D)</i>	1	3.03	1.02		3.091	Cum
	<i>D/S Transition wall</i>						
	<i>Sec 4-4</i>	2	0.55	0.87		0.948	Cum
	<i>Avg. of Sec 1-1 & 3-3</i>	2	3.10	1.75		10.861	Cum
	TOTAL					43.07	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF HR FOR SAHOKARMA MR. OFFTAKING FROM RD-16+200 KM (R.) AT KOTWARA DY CANAL							
1	0						
	Abutment						
	Section A-A	2	1.00	1.61	2.839	9.142	Cum
	Section B-B	2	3.60	1.83	2.839	37.345	Cum
	Section C-C	2	2.13	1.65	2.839	19.872	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.43	1.24	2.839	12.057	Cum
	Left Bank Sec a to d	1	3.19	2.69	2.700	23.152	Cum
	D/S Transition wall						
	Sec 4-4	2	0.50	1.10	2.539	2.771	Cum
	Avg. of Sec 1-1 & 3-3	2	2.64	1.90	2.539	25.527	Cum
	Floor						
	U/S key	1	1.4025	2.3775	0.850	2.834	Cum
	Floor	1	2.205	2.3775	0.650	3.408	Cum
		1	1.3935	1.05	0.650	0.951	Cum
		1	0.671	1.05	0.650	0.458	Cum
		1	1.05	0.0295		0.031	Cum
		1	3.16	1.05	0.950	3.152	Cum
		1	0.9	1.05	0.350	0.331	Cum
		1	0.531	1.05	0.350	0.195	Cum
		1	1.111	1.05	0.650	0.758	Cum
		1	0.725	1.05	0.650	0.495	Cum
	D/S Portion C.C. Blocks (600x600x300)mm	1	2.200	1.050	0.600	1.386	Cum
	Toe Wall Base D/S Portion	1	1.050	0.850	1.200	1.071	Cum
	Toe Wall Base (For Brick Pitching)	2	3.000	0.600	1.050	3.780	Cum
	Boulder Pitching (D/S Portion)	1	3.000	0.450	0.900	1.215	Cum
						149.93	Cum
2	Item of Works						
	PCC Below Floor						
		1	0.630	2.528	0.150	0.24	Cum
		1	1.588	1.445	0.150	0.34	Cum
		1	1.270	1.050	0.150	0.20	Cum
		1	0.670	1.050	0.150	0.11	Cum
		1	3.339	1.050	0.150	0.53	Cum
		1	0.973	1.050	0.150	0.15	Cum
		1	0.237	1.050	0.150	0.04	Cum
		1	0.568	1.050	0.150	0.09	Cum
		1	0.572	1.050	0.150	0.09	Cum
	PCC Below Abutment						
	Section A-A	2	1.000	1.610	0.300	0.97	Cum
	Section B-B	2	3.600	1.827	0.300	3.95	Cum
	Section C-C	2	2.125	1.647	0.300	2.10	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.425	1.240	0.300	1.27	Cum
	Left Bank Sec a to d	1	3.190	2.688	0.150	1.29	Cum
	D/S Transition wall						
	Sec 4-4	2	0.496	1.100	0.300	0.33	Cum
	Avg. of Sec 1-1 & 3-3	2	2.643	1.902	0.300	3.02	Cum
	Toe Wall Base D/S Portion	1	1.050	0.850	0.300	0.27	Cum
	Toe Wall Stem D/S Portion	1	1.050	0.450	0.900	0.43	Cum
	Toe Wall Base (For Brick Pitching)	1	3.000	0.600	0.150	0.27	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					17.01	Cum
3	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 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	0.82	0.50	0.82	Cum
		2	1.00	1.02	0.65	1.32	Cum
		2	1.00	1.21	1.20	2.90	Cum
	Section B-B	2	3.60	1.12	1.01	8.18	Cum
		2	3.60	1.43	0.90	9.25	Cum
	Section C-C	2	2.13	1.03	0.71	3.12	Cum
		2	2.13	1.25	1.20	6.36	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.43	0.45	0.50	0.77	Cum
		1	3.43	0.65	0.65	1.44	Cum
		1	3.43	0.84	1.20	3.45	Cum
	Left Bank						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section a-a	1		2.505	0.50	1.25	Sqm
		1		2.36	0.20	0.47	Sqm
		1		1.59	1.15	1.83	Sqm
						3.55	Sqm
	Section b-b	1		2.51	0.50	1.25	Sqm
		1		2.05	0.20	0.41	Sqm
		1		1.26	1.15	1.45	Sqm
						3.11	Sqm
	Section c-c	1		2.51	0.50	1.25	Sqm
		1		1.69	0.20	0.34	Sqm
		1		1.09	1.15	1.25	Sqm
						2.84	Sqm
	Section d-d	1		2.51	0.50	1.25	Sqm
		1		0.48	0.20	0.10	Sqm
		1		0.48	1.15	0.55	Sqm
						1.90	Sqm
	Bottom Key	1	3.19	1.31	0.70	2.93	Cum
	Top Stem Area	1	3.19	2.85		9.10	Cum
	D/S Transition wall						
	Sec 4-4	2	0.50	0.35	0.50	0.17	Cum
		2	0.50	0.53	0.84	0.44	Cum
		2	0.50	0.70	0.90	0.62	Cum
	Avg. of Sec 1-1 & 3-3	2	2.64	0.69	0.50	1.83	Cum
		2	2.64	1.17	0.84	5.17	Cum
		2	2.64	1.50	0.90	7.15	Cum
	TOTAL					65.02	Cum
	Floor						
	U/S key	1	1.40	2.38	0.70	2.33	Cum
	Floor	1	2.21	2.38	0.50	2.62	Cum
		1	1.39	1.05	0.50	0.73	Cum
		1	0.67	1.05	0.50	0.35	Cum
		1	1.05	0.03		0.03	Cum
		1	3.16	1.05	0.50	1.66	Cum
		1	0.90	1.05	0.35	0.33	Cum
		1	0.53	1.05	0.30	0.17	Cum
		1	1.11	1.05	0.50	0.58	Cum
	D/S key	1	0.73	1.05	0.50	0.38	Cum
	TOTAL					74.21	Cum
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.						
	Over Floor	1	3.48	2.38	0.20	1.65	Cum
		1	0.67	1.05	0.20	0.14	Cum
		1	3.00	1.05	0.20	0.63	Cum
		1	0.95	1.05	0.20	0.20	Cum
		1	1.23	1.05	0.20	0.26	Cum
	Top Slab	1	5.25	1.85	0.33	3.17	Cum
	75mm Th. Wearing coat on top slab	1	4.25	1.85	0.08	0.59	Cum
	Dirt wall	2	5.73	0.82	0.50	4.69	Cum
		2	5.73	0.40	0.43	1.96	Cum
	Parapet	2	2.69	0.45	0.18	0.42	Cum
		2	2.69	0.35	0.25	0.47	Cum
		2	2.69	0.22	0.55	0.65	Cum
	TOTAL					14.84	Cum
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.						
	Dia of Bars	Length	Nos.		Weight per m	Quantity	Unit
	<i>Slab Per Span</i>						
a1	16	2.310	29		1.578	105.720	Kg
a2	10	5.650	9		0.616	31.347	Kg
a3	10	5.150	2		0.616	6.350	Kg
a4	10	2.230	18		0.616	24.745	Kg

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
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	2.501	30		0.888	66.604	Kg
x2	16	1.265	30		1.578	59.890	Kg
x3	10	1.750	24		0.616	25.891	Kg
	Floor R/F						
	U/S Key						
	12	6.812	5		0.888	30.235	Kg
	12	1.690	25		0.888	37.505	Kg
	floor raft						
	12	3.395	5		0.888	15.069	Kg
	12	7.395	10		0.888	65.646	Kg
	12	1.690	67		0.888	100.515	Kg
	0.25 % Skin Reinforcement for Transition walls	65.02	0.25%	0.16	7850	1276.00	Kg
	TOTAL Weight of steel (in kg)					2048.22	Kg
	TOTAL Weight of Steel (in Tonne)					2.05	MT
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1	1.95			1.95	MT
	*Separate sheet attached						
7	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.						
	Abutment						
	Section A-A	4	1.00		0.50	2.00	Sqm
		4		0.82	0.50	1.64	Sqm
		4	1.00		0.65	2.60	Sqm
		4		1.02	0.65	2.64	Sqm
		4	1.00		1.20	4.80	Sqm
		4		1.21	1.20	5.81	Sqm
	Section B-B	4	3.60		1.01	14.56	Sqm
		4		1.12	1.01	4.54	Sqm
		4	3.60		0.90	12.96	Sqm
		4		1.43	0.90	5.14	Sqm
	Section C-C	4	2.13		0.71	6.04	Sqm
		4		1.03	0.71	2.94	Sqm
		4	2.13		1.20	10.20	Sqm
		4		1.25	1.20	5.99	Sqm
	U/S Transition wall						
	Right Bank (Section D-D)	2	3.43		0.50	3.43	Sqm
		2		0.45	0.50	0.45	Sqm
		2	3.43		0.65	4.45	Sqm
		2		0.65	0.65	0.84	Sqm
		2	3.43		1.20	8.22	Sqm
		2		0.84	1.20	2.02	Sqm
	Left Bank						
	Bottom Key	2	3.19		0.70	4.47	Sqm
		2		1.31	0.70	1.84	Sqm
	Section a-a	2	1.06		0.50	1.06	Sqm
		2		2.51	0.50	2.51	Sqm
		2	1.06		0.20	0.43	Sqm
		2		2.36	0.20	0.94	Sqm
		2	1.06		1.15	2.45	Sqm
		2		1.59	1.15	3.66	Sqm
	Section b-b	2	1.06		0.50	1.06	Sqm
		2		2.51	0.50	2.51	Sqm
		2	1.06		0.20	0.43	Sqm
		2		2.05	0.20	0.82	Sqm
		2	1.06		1.15	2.45	Sqm
		2		1.26	1.15	2.90	Sqm
	Section c-c	2	1.06		0.50	1.06	Sqm
		2		2.51	0.50	2.51	Sqm
		2	1.06		0.20	0.43	Sqm
		2		1.69	0.20	0.68	Sqm
		2	1.06		1.15	2.45	Sqm
		2		1.09	1.15	2.50	Sqm
	Section d-d	2	1.06		0.50	1.06	Sqm
		2		2.51	0.50	2.51	Sqm
		2	1.06		0.20	0.43	Sqm
		2		0.48	0.20	0.19	Sqm
		2	1.06		1.15	2.45	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		0.48	1.15	1.10	Sqm
	D/S Transition wall						
	Sec 4-4	4	0.50		0.50	0.99	Sqm
		4		0.35	0.50	0.70	Sqm
		4	0.50		0.84	1.66	Sqm
		4		0.53	0.84	1.76	Sqm
		4	0.50		0.90	1.79	Sqm
		4		0.70	0.90	2.52	Sqm
	Avg. of Sec 1-1 & 3-3	4	2.64		0.50	5.29	Sqm
		4		0.69	0.50	1.38	Sqm
		4	2.64		0.84	8.87	Sqm
		4		1.17	0.84	3.91	Sqm
		4	2.64		0.90	9.51	Sqm
		4		1.50	0.90	5.41	Sqm
	Floor						
	U/S key	2	1.40		0.70	1.96	Sqm
		2		2.38	0.70	3.33	Sqm
	Floor	2	2.21		0.50	2.21	Sqm
		2		2.38	0.50	2.38	Sqm
		2	1.39		0.50	1.39	Sqm
		2		1.05	0.50	1.05	Sqm
		2	0.67		0.50	0.67	Sqm
		2		1.05	0.50	1.05	Sqm
		2	1.05		0.00	2.10	Sqm
		2		0.03	0.00	0.06	Sqm
		2	3.16		0.50	3.16	Sqm
		2		1.05	0.50	1.05	Sqm
		2	0.90		0.35	0.63	Sqm
		2		1.05	0.35	0.74	Sqm
		2	0.53			1.06	Sqm
		2		1.05		2.10	Sqm
		2	1.11		0.50	1.11	Sqm
		2		1.05	0.50	1.05	Sqm
	D/S key	2	0.73		0.50	0.73	Sqm
		2		1.05	0.50	1.05	Sqm
	Toe Wall Base D/S Portion	2	1.05		0.30	0.63	Sqm
		2		0.85	0.30	0.51	Sqm
	Toe Wall Stem D/S Portion	2	1.05		0.90	1.89	Sqm
		2		0.45	0.90	0.81	Sqm
	Toe Wall Base (For Brick Pitching)	4	3.00		0.15	1.80	Sqm
		4		0.60	0.15	0.36	Sqm
	Toe Wall Stem (For Brick Pitching)	4	3.00		0.90	10.80	Sqm
		4		0.30	0.90	1.08	Sqm
	Top Slab	2	5.25		0.33	3.43	Sqm
		2		1.85	0.33	1.21	Sqm
		1	5.25	1.85		9.71	Sqm
	Dirt wall	4	5.73		0.50	11.45	Sqm
		4		0.82	0.50	1.64	Sqm
		4	5.73		0.43	9.80	Sqm
		4		0.40	0.43	0.68	Sqm
	Parapet	4	2.69		0.18	1.88	Sqm
		4		0.45	0.18	0.31	Sqm
		4	2.69		0.25	2.69	Sqm
		4		0.35	0.25	0.35	Sqm
		4	2.69		0.55	5.92	Sqm
		4		0.22	0.55	0.48	Sqm
	TOTAL					286.22	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	2.04		12.24	Sqm
	TOTAL					12.24	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	0.45	0.90	1.22	Cum
	TOTAL					1.22	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	1.05	0.15	0.35	Cum
	In D/S Portion below Stone Chips	1	2.20	1.05	0.15	0.35	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					0.69	Cum
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>U/S transition</i>	2	1.73	0.48		1.66	Sqm
	<i>On Abutment Top</i>	2	4.61	0.45		1.55	Sqm
	TOTAL					3.21	Sqm
12	Providing Drainage Spouts complete as per drawings & technical 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 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						
	<i>Abutment</i>						
	<i>Section A-A</i>	2	1.00	0.87		1.740	Cum
	<i>Section B-B</i>	2	3.60	1.10		7.920	Cum
	<i>Section C-C</i>	2	2.13	0.92		3.910	Cum
	<i>U/S Transition wall</i>						
	<i>Right Bank (Section D-D)</i>	1	3.43	0.87		2.980	Cum
	<i>D/S Transition wall</i>						
	<i>Sec 4-4</i>	2	0.50	0.77		0.764	Cum
	<i>Avg. of Sec 1-1 & 3-3</i>	2	2.64	1.14		6.000	Cum
	TOTAL					23.31	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF HR FOR DHAMNI MR. OFFTAKING FROM RD-17+300 KM (L.) AT KOTWARA DY CANAL							
1	0						
	Abutment						
	Section A-A	2	1.00	1.67	1.500	5.007	Cum
	Section B-B	2	3.60	1.76	1.500	19.008	Cum
	Section C-C	2	2.48	1.58	1.500	11.736	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.26	1.30	1.500	6.355	Cum
	Left Bank Sec a to d	1	3.42	2.82	1.649	15.934	Cum
	D/S Transition wall						
	Sec 4-4	2	0.51	1.10	1.200	1.336	Cum
	Avg. of Sec 1-1 & 3-3	2	2.71	1.99	1.200	12.923	Cum
	Floor						
	U/S key	1	1.387	2.3775	0.850	2.803	Cum
	Floor	1	2.174	2.3775	0.650	3.360	Cum
		1	1.3945	1.7	0.650	1.541	Cum
		1	0.671	1.7	0.650	0.741	Cum
		1	1.7	0.0295		0.050	Cum
		1	3.16	1.7	0.950	5.103	Cum
		1	0.9	1.7	0.350	0.536	Cum
		1	0.531	1.7	0.350	0.316	Cum
		1	1.463	1.7	0.650	1.617	Cum
		1	0.925	1.7	1.453	2.285	Cum
	D/S Portion C.C. Blocks (600x600x300)mm	1	2.200	1.700	0.600	2.244	Cum
	Toe Wall Base D/S Portion	1	1.700	0.850	1.200	1.734	Cum
	Toe Wall Base (For Brick Pitching)	2	3.000	0.600	1.200	4.320	Cum
	Boulder Pitching (D/S Portion)	1	3.000	1.100	0.900	2.970	Cum
						101.92	Cum
2	Item of Works						
	PCC Below Floor						
		1	0.630	3.683	0.150	0.35	Cum
		1	1.722	2.256	0.150	0.58	Cum
		1	1.270	1.700	0.150	0.32	Cum
		1	0.670	1.700	0.150	0.17	Cum
		1	3.339	1.700	0.150	0.85	Cum
		1	0.973	1.700	0.150	0.25	Cum
		1	0.670	1.700	0.150	0.17	Cum
		1	1.465	1.700	0.150	0.37	Cum
		1	0.692	1.700	0.150	0.18	Cum
	PCC Below Abutment						
	Section A-A	2	1.000	1.669	0.300	1.00	Cum
	Section B-B	2	3.600	1.760	0.300	3.80	Cum
	Section C-C	2	2.476	1.580	0.300	2.35	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.261	1.299	0.300	1.27	Cum
	Left Bank Sec a to d	1	3.423	2.823	0.150	1.45	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	2.710	1.987	0.300	3.23	Cum
	Toe Wall Base D/S Portion	1	1.700	0.850	0.300	0.43	Cum
	Toe Wall Stem D/S Portion	1	1.700	0.450	0.900	0.69	Cum
	Toe Wall Base (For Brick Pitching)	1	3.000	0.600	0.300	0.54	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					20.02	Cum
3	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 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	0.82	0.50	0.82	Cum
		2	1.00	1.04	0.75	1.56	Cum
		2	1.00	1.27	2.00	5.08	Cum
	Section B-B	2	3.60	1.09	0.90	7.06	Cum
		2	3.60	1.36	1.70	16.68	Cum
	Section C-C	2	2.48	1.00	0.60	2.97	Cum
		2	2.48	1.18	2.00	11.70	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.26	0.45	0.50	0.73	Cum
		1	3.26	0.67	0.75	1.65	Cum
		1	3.26	0.90	2.00	5.87	Cum
	Left Bank						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section a-a	1		2.654	0.50	1.33	Sqm
		1		2.50	0.20	0.50	Sqm
		1		1.42	1.25	1.77	Sqm
						3.60	Sqm
	Section b-b	1		2.65	0.50	1.33	Sqm
		1		2.05	0.20	0.41	Sqm
		1		1.26	1.25	1.58	Sqm
						3.31	Sqm
	Section c-c	1		2.65	0.50	1.33	Sqm
		1		1.69	0.20	0.34	Sqm
		1		1.09	1.25	1.36	Sqm
						3.02	Sqm
	Section d-d	1		2.65	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	3.42	1.39	0.70	3.32	Cum
	Top Stem Area	1	3.42	2.99		10.23	Cum
	D/S Transition wall						
	Sec 4-4	2	0.51	0.35	0.50	0.18	Cum
		2	0.51	0.53	0.60	0.32	Cum
		2	0.51	0.70	1.70	1.21	Cum
	Avg. of Sec 1-1 & 3-3	2	2.71	0.74	0.50	2.01	Cum
		2	2.71	1.26	0.60	4.09	Cum
		2	2.71	1.59	1.70	14.65	Cum
	TOTAL					90.15	Cum
	Floor						
	U/S key	1	1.39	2.38	0.70	2.31	Cum
	Floor	1	2.17	2.38	0.50	2.58	Cum
		1	1.39	1.70	0.50	1.19	Cum
		1	0.67	1.70	0.50	0.57	Cum
		1	1.70	0.03		0.05	Cum
		1	3.16	1.70	0.50	2.69	Cum
		1	0.90	1.70	0.35	0.54	Cum
		1	0.53	1.70	0.30	0.27	Cum
		1	1.46	1.70	0.50	1.24	Cum
	D/S key	1	0.93	1.70	1.30	2.05	Cum
	TOTAL					103.64	Cum
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.						
	Over Floor	1	3.37	2.38	0.20	1.60	Cum
		1	0.67	1.70	0.20	0.23	Cum
		1	3.00	1.70	0.20	1.02	Cum
		1	0.95	1.70	0.20	0.32	Cum
		1	1.58	1.70	0.20	0.54	Cum
	Top Slab	1	5.25	2.50	0.33	4.29	Cum
	75mm Th. Wearing coat on top slab	1	4.25	2.50	0.08	0.80	Cum
	Dirt wall	2	6.08	0.82	0.50	4.98	Cum
		2	6.08	0.40	0.43	2.08	Cum
	Parapet	2	3.34	0.45	0.18	0.52	Cum
		2	3.34	0.35	0.25	0.59	Cum
		2	3.34	0.22	0.55	0.80	Cum
	TOTAL					17.77	Cum
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.						
	Dia of Bars	Length	Nos.		Weight per m	Quantity	Unit
	<i>Slab Per Span</i>						
a1	16	2.960	29		1.578	135.467	Kg
a2	10	5.650	13		0.616	45.279	Kg
a3	10	5.150	2		0.616	6.350	Kg
a4	10	2.880	18		0.616	31.957	Kg

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
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	2.400	24		0.616	35.508	Kg
	Floor R/F						
	U/S Key						
	12	7.095	7		0.888	44.088	Kg
	12	2.340	26		0.888	54.008	Kg
	floor raft						
	12	5.497	7		0.888	34.158	Kg
	12	7.745	14		0.888	96.254	Kg
	12	2.340	73		0.888	151.637	Kg
	0.25 % Skin Reinforcement for Transition walls	90.15	0.25%	0.23	7850	1769.25	Kg
	TOTAL Weight of steel (in kg)					2787.17	Kg
	TOTAL Weight of Steel (in Tonne)					2.79	MT
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1	2.31			2.31	MT
	*Separate sheet attached						
7	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.						
	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		1.04	0.75	3.13	Sqm
		4	1.00		2.00	8.01	Sqm
		4		1.27	2.00	10.17	Sqm
	Section B-B	4	3.60		0.90	12.96	Sqm
		4		1.09	0.90	3.92	Sqm
		4	3.60		1.70	24.52	Sqm
		4		1.36	1.70	9.26	Sqm
	Section C-C	4	2.48		0.60	5.94	Sqm
		4		1.00	0.60	2.40	Sqm
		4	2.48		2.00	19.84	Sqm
		4		1.18	2.00	9.45	Sqm
	U/S Transition wall						
	Right Bank (Section D-D)	2	3.26		0.50	3.26	Sqm
		2		0.45	0.50	0.45	Sqm
		2	3.26		0.75	4.88	Sqm
		2		0.67	0.75	1.01	Sqm
		2	3.26		2.00	13.06	Sqm
		2		0.90	2.00	3.60	Sqm
	Left Bank						
	Bottom Key	2	3.42		0.70	4.79	Sqm
		2		1.39	0.70	1.94	Sqm
	Section a-a	2	1.14		0.50	1.14	Sqm
		2		2.65	0.50	2.65	Sqm
		2	1.14		0.20	0.46	Sqm
		2		2.50	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		2.65	0.50	2.65	Sqm
		2	1.14		0.20	0.46	Sqm
		2		2.05	0.20	0.82	Sqm
		2	1.14		1.25	2.85	Sqm
		2		1.26	1.25	3.15	Sqm
	Section c-c	2	1.14		0.50	1.14	Sqm
		2		2.65	0.50	2.65	Sqm
		2	1.14		0.20	0.46	Sqm
		2		1.69	0.20	0.68	Sqm
		2	1.14		1.25	2.85	Sqm
		2		1.09	1.25	2.72	Sqm
	Section d-d	2	1.14		0.50	1.14	Sqm
		2		2.65	0.50	2.65	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

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		0.48	1.25	1.20	Sqm
	D/S Transition wall						
	Sec 4-4	4	0.51		0.50	1.01	Sqm
		4		0.35	0.50	0.70	Sqm
		4	0.51		0.60	1.21	Sqm
		4		0.53	0.60	1.26	Sqm
		4	0.51		1.70	3.45	Sqm
		4		0.70	1.70	4.77	Sqm
	Avg. of Sec 1-1 & 3-3	4	2.71		0.50	5.42	Sqm
		4		0.74	0.50	1.49	Sqm
		4	2.71		0.60	6.50	Sqm
		4		1.26	0.60	3.02	Sqm
		4	2.71		1.70	18.46	Sqm
		4		1.59	1.70	10.81	Sqm
	Floor						
	U/S key	2	1.39		0.70	1.94	Sqm
		2		2.38	0.70	3.33	Sqm
	Floor	2	2.17		0.50	2.17	Sqm
		2		2.38	0.50	2.38	Sqm
		2	1.39		0.50	1.39	Sqm
		2		1.70	0.50	1.70	Sqm
		2	0.67		0.50	0.67	Sqm
		2		1.70	0.50	1.70	Sqm
		2	1.70		0.00	3.40	Sqm
		2		0.03	0.00	0.06	Sqm
		2	3.16		0.50	3.16	Sqm
		2		1.70	0.50	1.70	Sqm
		2	0.90		0.35	0.63	Sqm
		2		1.70	0.35	1.19	Sqm
		2	0.53			1.06	Sqm
		2		1.70		3.40	Sqm
		2	1.46		0.50	1.46	Sqm
		2		1.70	0.50	1.70	Sqm
	D/S key	2	0.93		1.30	2.41	Sqm
		2		1.70	1.30	4.43	Sqm
	Toe Wall Base D/S Portion	2	1.70		0.30	1.02	Sqm
		2		0.85	0.30	0.51	Sqm
	Toe Wall Stem D/S Portion	2	1.70		0.90	3.06	Sqm
		2		0.45	0.90	0.81	Sqm
	Toe Wall Base (For Brick Pitching)	4	3.00		0.30	3.60	Sqm
		4		0.60	0.30	0.72	Sqm
	Toe Wall Stem (For Brick Pitching)	4	3.00		0.90	10.80	Sqm
		4		0.30	0.90	1.08	Sqm
	Top Slab	2	5.25		0.33	3.43	Sqm
		2		2.50	0.33	1.63	Sqm
		1	5.25	2.50		13.13	Sqm
	Dirt wall	4	6.08		0.50	12.15	Sqm
		4		0.82	0.50	1.64	Sqm
		4	6.08		0.43	10.40	Sqm
		4		0.40	0.43	0.68	Sqm
	Parapet	4	3.34		0.18	2.34	Sqm
		4		0.45	0.18	0.31	Sqm
		4	3.34		0.25	3.34	Sqm
		4		0.35	0.25	0.35	Sqm
		4	3.34		0.55	7.35	Sqm
		4		0.22	0.55	0.48	Sqm
	TOTAL					367.79	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		13.32	Sqm
	TOTAL					13.32	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	1.10	0.90	2.97	Cum
	TOTAL					2.97	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	1.70	0.15	0.56	Cum
	In D/S Portion below Stone Chips	1	2.20	1.70	0.15	0.56	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					1.12	Cum
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>U/S transition</i>	2	1.87	0.48		1.80	Sqm
	<i>On Abutment Top</i>	2	5.04	0.45		1.69	Sqm
	TOTAL					3.49	Sqm
12	Providing Drainage Spouts complete as per drawings & technical 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 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						
	<i>Abutment</i>						
	<i>Section A-A</i>	2	1.00	0.18		0.360	Cum
	<i>Section B-B</i>	2	3.60	1.37		9.868	Cum
	<i>Section C-C</i>	2	2.48	1.14		5.648	Cum
	<i>U/S Transition wall</i>						
	<i>Right Bank (Section D-D)</i>	1	3.26	0.18		0.587	Cum
	<i>D/S Transition wall</i>						
	<i>Sec 4-4</i>	2	0.51	0.18		0.182	Cum
	<i>Avg. of Sec 1-1 & 3-3</i>	2	2.71	0.18		0.976	Cum
	TOTAL					17.62	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF HR FOR BHADWA MR OFFTAKING FROM RD-27+075 KM (L.) AT KOTWARA DY CANAL							
1	0						
	Abutment						
	Section A-A	2	1.00	1.64	1.962	6.435	Cum
	Section B-B	2	3.60	1.73	1.962	24.439	Cum
	Section C-C	2	2.05	1.55	1.962	12.469	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.23	1.27	1.962	8.053	Cum
	Left Bank Sec a to d	1	3.31	2.76	2.750	25.062	Cum
	D/S Transition wall						
	Sec 4-4	2	0.50	1.10	2.250	2.480	Cum
	Avg. of Sec 1-1 & 3-3	2	2.68	1.94	2.250	23.416	Cum
	Floor						
	U/S key	1	1.35	2.3775	0.850	2.728	Cum
	Floor	1	2.1	2.3775	0.650	3.245	Cum
		1	1.444	1.4	0.650	1.314	Cum
		1	0.671	1.4	0.650	0.611	Cum
		1	1.4	0.005		0.007	Cum
		1	3.16	1.4	0.950	4.203	Cum
		1	0.9	1.4	0.350	0.441	Cum
		1	0.526	1.4	0.350	0.258	Cum
		1	1.037	1.4	0.650	0.944	Cum
		1	0.725	1.4	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
	Toe Wall Base (For Brick Pitching)	2	3.000	0.600	1.200	4.320	Cum
	Boulder Pitching (D/S Portion)	1	3.000	0.800	0.900	2.160	Cum
						126.52	Cum
2	Item of Works						
	PCC Below Floor						
		1	0.625	3.215	0.150	0.30	Cum
		1	1.655	1.902	0.150	0.47	Cum
		1	1.375	1.400	0.150	0.29	Cum
		1	0.670	1.400	0.150	0.14	Cum
		1	3.239	1.400	0.150	0.68	Cum
		1	0.949	1.400	0.150	0.20	Cum
		1	0.700	1.400	0.150	0.15	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	1.000	1.640	0.300	0.98	Cum
	Section B-B	2	3.600	1.730	0.300	3.74	Cum
	Section C-C	2	2.050	1.550	0.300	1.91	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.232	1.270	0.300	1.23	Cum
	Left Bank Sec a to d	1	3.308	2.755	0.150	1.37	Cum
	D/S Transition wall						
	Sec 4-4	2	0.501	1.100	0.300	0.33	Cum
	Avg. of Sec 1-1 & 3-3	2	2.676	1.945	0.300	3.12	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	0.600	0.300	0.54	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					18.09	Cum
3	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 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	0.82	0.50	0.82	Cum
		2	1.00	1.03	0.70	1.44	Cum
		2	1.00	1.24	1.20	2.98	Cum
	Section B-B	2	3.60	1.08	0.85	6.58	Cum
		2	3.60	1.33	0.90	8.62	Cum
	Section C-C	2	2.05	0.99	0.55	2.22	Cum
		2	2.05	1.15	1.20	5.66	Cum
	U/S Transition wall						
	Right Bank (Section D-D)	1	3.23	0.45	0.50	0.73	Cum
		1	3.23	0.66	0.70	1.49	Cum
		1	3.23	0.87	1.20	3.37	Cum
	Left Bank						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section a-a	1		2.58	0.50	1.29	Sqm
		1		2.43	0.20	0.49	Sqm
		1		1.38	1.20	1.66	Sqm
						3.43	Sqm
	Section b-b	1		2.58	0.50	1.29	Sqm
		1		2.09	0.20	0.42	Sqm
		1		1.29	1.20	1.54	Sqm
						3.25	Sqm
	Section c-c	1		2.58	0.50	1.29	Sqm
		1		1.73	0.20	0.35	Sqm
		1		1.10	1.20	1.32	Sqm
						2.96	Sqm
	Section d-d	1		2.58	0.50	1.29	Sqm
		1		0.48	0.20	0.10	Sqm
		1		0.48	1.20	0.58	Sqm
						1.96	Sqm
	Bottom Key	1	3.31	1.35	0.70	3.13	Cum
	Top Stem Area	1	3.31	2.90		9.60	Cum
	D/S Transition wall						
	Sec 4-4	2	0.50	0.35	0.50	0.18	Cum
		2	0.50	0.53	0.55	0.29	Cum
		2	0.50	0.70	0.90	0.63	Cum
	Avg. of Sec 1-1 & 3-3	2	2.68	0.74	0.50	1.99	Cum
		2	2.68	1.24	0.55	3.64	Cum
		2	2.68	1.54	0.90	7.44	Cum
	TOTAL					60.80	Cum
	Floor						
	U/S key	1	1.35	2.38	0.70	2.25	Cum
	Floor	1	2.10	2.38	0.50	2.50	Cum
		1	1.44	1.40	0.50	1.01	Cum
		1	0.67	1.40	0.50	0.47	Cum
		1	1.40	0.01		0.01	Cum
		1	3.16	1.40	0.50	2.21	Cum
		1	0.90	1.40	0.35	0.44	Cum
		1	0.53	1.40	0.30	0.22	Cum
		1	1.04	1.40	0.50	0.73	Cum
	D/S key	1	0.73	1.40	0.50	0.51	Cum
	TOTAL					71.13	Cum
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.						
	Over Floor	1	3.55	2.38	0.20	1.69	Cum
		1	0.67	1.40	0.20	0.19	Cum
		1	3.00	1.40	0.20	0.84	Cum
		1	0.95	1.40	0.20	0.27	Cum
		1	1.15	1.40	0.20	0.32	Cum
	Top Slab	1	5.25	2.20	0.33	3.77	Cum
	75mm Th. Wearing coat on top slab	1	4.25	2.20	0.08	0.70	Cum
	Dirt wall	2	5.65	0.82	0.50	4.63	Cum
		2	5.65	0.40	0.43	1.93	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					16.08	Cum
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.						
	Dia of Bars	Length	Nos.		Weight per m	Quantity	Unit
	<i>Slab Per Span</i>						
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	2.580	18		0.616	28.628	Kg

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
a5	10	5.550	8		0.616	27.371	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	2.400	24		0.616	35.508	Kg
	Floor R/F						
	U/S Key						
	12	6.955	6		0.888	37.044	Kg
	12	2.100	25		0.888	46.604	Kg
	floor raft						
	12	3.395	6		0.888	18.083	Kg
	12	7.332	12		0.888	78.104	Kg
	12	2.100	63		0.888	117.443	Kg
	0.25 % Skin Reinforcement for Transition walls	60.80	0.25%	0.15	7850	1193.13	Kg
	TOTAL Weight of steel (in kg)					2097.32	Kg
	TOTAL Weight of Steel (in Tonne)					2.10	MT
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1	2.13			2.13	MT
	*Separate sheet attached						
7	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.						
	Abutment						
	Section A-A	4	1.00		0.50	2.00	Sqm
		4		0.82	0.50	1.64	Sqm
		4	1.00		0.70	2.80	Sqm
		4		1.03	0.70	2.88	Sqm
		4	1.00		1.20	4.80	Sqm
		4		1.24	1.20	5.95	Sqm
	Section B-B	4	3.60		0.85	12.24	Sqm
		4		1.08	0.85	3.66	Sqm
		4	3.60		0.90	12.96	Sqm
		4		1.33	0.90	4.79	Sqm
	Section C-C	4	2.05		0.55	4.51	Sqm
		4		0.99	0.55	2.17	Sqm
		4	2.05		1.20	9.84	Sqm
		4		1.15	1.20	5.52	Sqm
	U/S Transition wall						
	Right Bank (Section D-D)	2	3.23		0.50	3.23	Sqm
		2		0.45	0.50	0.45	Sqm
		2	3.23		0.70	4.52	Sqm
		2		0.66	0.70	0.92	Sqm
		2	3.23		1.20	7.76	Sqm
		2		0.87	1.20	2.09	Sqm
	Left Bank						
	Bottom Key	2	3.31		0.70	4.63	Sqm
		2		1.35	0.70	1.89	Sqm
	Section a-a	2	1.10		0.50	1.10	Sqm
		2		2.58	0.50	2.58	Sqm
		2	1.10		0.20	0.44	Sqm
		2		2.43	0.20	0.97	Sqm
		2	1.10		1.20	2.65	Sqm
		2		1.38	1.20	3.31	Sqm
	Section b-b	2	1.10		0.50	1.10	Sqm
		2		2.58	0.50	2.58	Sqm
		2	1.10		0.20	0.44	Sqm
		2		2.09	0.20	0.84	Sqm
		2	1.10		1.20	2.65	Sqm
		2		1.29	1.20	3.09	Sqm
	Section c-c	2	1.10		0.50	1.10	Sqm
		2		2.58	0.50	2.58	Sqm
		2	1.10		0.20	0.44	Sqm
		2		1.73	0.20	0.69	Sqm
		2	1.10		1.20	2.65	Sqm
		2		1.10	1.20	2.65	Sqm
	Section d-d	2	1.10		0.50	1.10	Sqm
		2		2.58	0.50	2.58	Sqm
		2	1.10		0.20	0.44	Sqm
		2		0.48	0.20	0.19	Sqm
		2	1.10		1.20	2.65	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		0.48	1.20	1.15	Sqm
	D/S Transition wall						
	Sec 4-4	4	0.50		0.50	1.00	Sqm
		4		0.35	0.50	0.70	Sqm
		4	0.50		0.55	1.10	Sqm
		4		0.53	0.55	1.16	Sqm
		4	0.50		0.90	1.80	Sqm
		4		0.70	0.90	2.52	Sqm
	Avg. of Sec 1-1 & 3-3	4	2.68		0.50	5.35	Sqm
		4		0.74	0.50	1.49	Sqm
		4	2.68		0.55	5.89	Sqm
		4		1.24	0.55	2.72	Sqm
		4	2.68		0.90	9.63	Sqm
		4		1.54	0.90	5.56	Sqm
	Floor						
	U/S key	2	1.35		0.70	1.89	Sqm
		2		2.38	0.70	3.33	Sqm
	Floor	2	2.10		0.50	2.10	Sqm
		2		2.38	0.50	2.38	Sqm
		2	1.44		0.50	1.44	Sqm
		2		1.40	0.50	1.40	Sqm
		2	0.67		0.50	0.67	Sqm
		2		1.40	0.50	1.40	Sqm
		2	1.40		0.00	2.80	Sqm
		2		0.01	0.00	0.01	Sqm
		2	3.16		0.50	3.16	Sqm
		2		1.40	0.50	1.40	Sqm
		2	0.90		0.35	0.63	Sqm
		2		1.40	0.35	0.98	Sqm
		2	0.53			1.05	Sqm
		2		1.40		2.80	Sqm
		2	1.04		0.50	1.04	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
	Toe Wall Base (For Brick Pitching)	4	3.00		0.30	3.60	Sqm
		4		0.60	0.30	0.72	Sqm
	Toe Wall Stem (For Brick Pitching)	4	3.00		0.90	10.80	Sqm
		4		0.30	0.90	1.08	Sqm
	Top Slab	2	5.25		0.33	3.43	Sqm
		2		2.20	0.33	1.44	Sqm
		1	5.25	2.20		11.55	Sqm
	Dirt wall	4	5.65		0.50	11.30	Sqm
		4		0.82	0.50	1.64	Sqm
		4	5.65		0.43	9.67	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					285.74	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		12.78	Sqm
	TOTAL					12.78	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	0.80	0.90	2.16	Cum
	TOTAL					2.16	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	1.40	0.15	0.46	Cum
	In D/S Portion below Stone Chips	1	2.20	1.40	0.15	0.46	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					0.92	Cum
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>U/S transition</i>	2	1.80	0.48		1.73	Sqm
	<i>On Abutment Top</i>	2	4.57	0.45		1.62	Sqm
	TOTAL					3.35	Sqm
12	Providing Drainage Spouts complete as per drawings & technical 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 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						
	<i>Abutment</i>						
	<i>Section A-A</i>	2	1.00	0.90		1.794	Cum
	<i>Section B-B</i>	2	3.60	0.93		6.696	Cum
	<i>Section C-C</i>	2	2.05	0.78		3.198	Cum
	<i>U/S Transition wall</i>						
	<i>Right Bank (Section D-D)</i>	1	3.23	0.90		2.899	Cum
	<i>D/S Transition wall</i>						
	<i>Sec 4-4</i>	2	0.50	0.67		0.671	Cum
	<i>Avg. of Sec 1-1 & 3-3</i>	2	2.68	0.97		5.165	Cum
	TOTAL					20.42	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF PIPE HR OF NAWAKHAP MR OFFTAKING FROM RD- 23+830 KM (R.),KOTWARA 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.						
	U/S Toe Wall Base	1	0.63	0.85	1.20	0.64	Cum
	D/S Toe Wall Base	1	0.88	0.85	1.20	0.90	Cum
	Floor Apron (U/S Portion)	1	1.30	0.60	1.11	0.87	Cum
	U/S Transitions Floor (Left & Right)						
	Section X-X	2	0.85	1	2.20	3.73	Cum
	D/S Transitions Floor (Left & Right)						
	Section Y-Y	2	2.13	1	2.05	8.72	Cum
	PCC Below Hume Pipe	1	7.55	1.37	1.46	15.10	Cum
	TOTAL					29.97	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	0.63	0.85	0.30	0.16	Cum
	U/S Toe Wall Stem	1	0.63	0.45	0.90	0.26	Cum
	D/S Toe Wall Base	1	0.88	0.85	0.30	0.23	Cum
	D/S Toe Wall Stem	1	0.88	0.45	0.90	0.36	Cum
	Floor Apron (U/S Portion)	1	1.30	0.60	0.39	0.30	Cum
	Floor Apron (D/S Portion)	1	1.55	0.72	0.39	0.43	Cum
	U/S Transitions Floor (Left & Right)						
	Section X-X	2	0.85	1.00	0.30	0.51	Cum
	D/S Transitions Floor (Left & Right)						
	Section Y-Y	2	2.13	1.00	0.30	1.28	Cum
	PCC Below Hume Pipe	1	7.55	1.37	0.30	3.10	Cum
	PCC Below Hume Pipe in (Curve Portion)	2	7.55	0.51	0.24	1.80	Cum
	Collar Joint	3	1.37	0.30	1.14	1.41	Cum
	Deduct Pipe Area	3	0.28		0.30	-0.25	Cum
	TOTAL					9.57	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 X-X	2	0.85	0.60	0.90	0.92	Cum
		2	0.85	0.45	0.50	0.38	Cum
		2	0.85	0.30	0.50	0.25	Cum
	D/S Transitions Floor (Left & Right)						
	Section Y-Y	2	2.13	0.60	0.90	2.30	Cum
		2	2.13	0.45	0.35	0.67	Cum
		2	2.13	0.30	0.50	0.64	Cum
	Gate Abutment	2	0.70	0.60	1.10	0.92	Cum
	Deduct gate Groove	2	0.20	0.10	1.10	-0.04	Cum
	Parapet wall for earth filling Protection	2	1.14	0.25	0.30	0.17	Cum
	TOTAL					6.21	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	0.63		0.30	0.38	Sqm
		2		0.85	0.30	0.51	Sqm
	U/S Toe Wall Stem	2	0.63		0.90	1.13	Sqm
		2		0.45	0.90	0.81	Sqm
	D/S Toe Wall Base	2	0.88		0.30	0.53	Sqm
		2		0.85	0.30	0.51	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	D/S Toe Wall Stem	2	0.88	0.45	0.90	1.59	Sqm
		2			0.90	0.81	Sqm
	Floor Apron (U/S Portion)	2	1.30		0.39	1.00	Sqm
		2		0.60	0.39	0.46	Sqm
	Floor Apron (D/S Portion)	2	1.55		0.39	1.19	Sqm
		2		0.72	0.39	0.56	Sqm
	U/S Transitions Floor (Left & Right)						
	Section X-X	4	0.85		0.90	3.05	Sqm
		4		0.60	0.90	2.16	Sqm
		4	0.85		0.35	1.19	Sqm
		4		0.45	0.35	0.63	Sqm
		4	0.85		0.50	1.70	Sqm
		4		0.30	0.50	0.60	Sqm
	D/S Transitions Floor (Left & Right)						
	Section Y-Y	4	2.13		0.90	7.66	Sqm
		4		0.60	0.90	2.16	Sqm
		4	2.13		0.35	2.98	Sqm
		4		0.45	0.35	0.63	Sqm
		4	2.13		0.50	4.26	Sqm
		4		0.30	0.50	0.60	Sqm
	Gate Abutment	4	0.70		1.10	3.08	Sqm
		4		0.60	1.10	2.64	Sqm
	Parapet wall for earth filling Protection	4	1.14		0.30	1.37	Sqm
		4		0.25	0.30	0.30	Sqm
	PCC Below Hume Pipe	2	7.55		0.30	4.53	Sqm
		2		1.37	0.30	0.82	Sqm
	PCC Below Hume Pipe in (Curve Portion)	4	7.55		0.24	7.10	Sqm
		4		0.51	0.24	0.48	Sqm
	Collar Joint	6	1.37		1.44	11.84	Sqm
		6		0.30	1.44	2.59	Sqm
	TOTAL					71.84	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	6.21	0.25%	0.02	7850	121.85	Kg
	TOTAL Weight of steel (in kg)					121.85	Kg
	TOTAL Weight of Steel (in Tonne)					0.12	MT
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.						
	Spindle 25 mm dia	1	0.000491	7850.00	0.82	3.16	Kg
		1	0.000491	7850.00	0.23	0.87	Kg
	800 X800 MM MS GATE	1		40.19		40.19	Kg
	I.M.C. Groove (100 x 50) 9.56 kg/m	2	9.56		0.70	13.38	Kg
		2	9.56		1.00	19.12	Kg
	TOTAL (In Kg)					76.72	Kg
	TOTAL					0.08	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 compacted 75 mm thick sand filter of required F.M. as per design on slopes and in bed of canal with local sand including cost of water, ramming, levelling and dressing, etc. all complete as per specification and direction of E/I. (5.2.1)						
		1	10.055	1.37	0.075	1.03	Cum
	TOTAL					1.03	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
9	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 Toe Wall Base	1	0.63	0.25		0.160	Cum
	D/S Toe Wall Base	1	0.88	0.27		0.237	Cum
	U/S Transitions Floor (Left & Right)						
	Section X-X	2	0.85	0.60		1.025	Cum
	D/S Transitions Floor (Left & Right)						
	Section Y-Y	2	2.13	0.55		2.351	
	Above Hume Pipe	1	1.14	3.81		4.349	Cum
	TOTAL					8.12	Cum

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR KOTWARA SUB DISTRIBUTARY								
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 0.457 METER AT CH.5.500 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.	324.537	Cum	195.20	63349.68			
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.	31.10	Cum	6381.70	198454.43	10.08	13.99	27.99
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.	140.39	Cum	6914.20	970672.36	57.91	60.37	120.73

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)
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.	1.68	Cum	8151.40	13675.28	0.95	0.65	1.33
5	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.	2.20	MT	73574.90	162166.10			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	367.21	Sqm	578.60	212466.80			
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.	48.14	Sqm	680.10	32742.73			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	8.40	Cum	694.61	5834.72			
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.	8.40	Cum	1237.00	10390.80			
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.	8.40	Cum	1377.70	11572.68			
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.	8.40	Cum	516.50	4338.60			

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)
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	17.59	Sqm	63.20	1111.89			
13	Providing Drainage Spouts complete as per drawings & technical 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	84.84	Cum	149.30	12667.13			

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)	75.015	Cum	1075.00	80641.20			
	Coarse Aggregates (100 Km lead)	150.047	Cum	1398.00	209765.59			
	Cement (30 km lead)	68.937	MT	742.00	51151.21			
	Boulder (60 Km lead)	8.40	Cum	1159.00	9735.60			
	Brick (15 km lead)	2888.00	No.	3.18	9183.84			
	Steel (30 Km lead)	2.20	MT	742.00	1635.44			
TOTAL (In Rs.)					2072733.50			
TOTAL (In Rs.)					2072733.50			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	75.02	Cum	584.64	43856.81	4385.68		
	Coarse Aggregate	150.05	Cum	944.26	141683.30	14168.33		
	Boulders	8.40	Cum	694.61	5834.72	583.47		
	<i>Total</i>					19137.48		
	For 1 nos. fall, Total Seigniorage charges					19137.48		

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 1.520 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.	427.163	Cum	195.20	83382.30			
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.	41.74	Cum	6381.70	266348.70	13.52	18.78	37.56
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.	308.42	Cum	6914.20	2132474.44	127.22	132.62	265.24
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.	2.15	Cum	8151.40	17500.53	1.22	0.84	1.70

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)
5	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.	4.84	MT	73574.90	356263.42			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	589.98	Sqm	578.60	341360.95			
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.	48.14	Sqm	680.10	32742.73			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	8.40	Cum	694.61	5834.72			
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.	8.40	Cum	1237.00	10390.80			
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.	8.40	Cum	1377.70	11572.68			
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.	8.40	Cum	516.50	4338.60			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	21.28	Sqm	63.20	1344.81			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	95.12	Cum	149.30	14200.78			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	152.239	Cum	1075.00	163656.99			
	Coarse Aggregates (100 Km lead)	304.500	Cum	1398.00	425690.42			
	Cement (30 km lead)	141.963	MT	742.00	105336.50			
	Boulder (60 Km lead)	8.40	Cum	1159.00	9735.60			
	Brick (15 km lead)	2888.00	No.	3.18	9183.84			
	Steel (30 Km lead)	4.84	MT	742.00	3592.90			
TOTAL (In Rs.)					4006129.10			
TOTAL (In Rs.)					4006129.10			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	152.24	Cum	584.64	89005.04	8900.50		
	Coarse Aggregate	304.50	Cum	944.26	287526.78	28752.68		
	Boulders	8.40	Cum	694.61	5834.72	583.47		
	<i>Total</i>					38236.65		
	For 1 nos. fall, Total Seigniorage charges					38236.65		

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 1.830 METER AT CH. 6.940 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.	629.230	Cum	195.20	122825.68			
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.	46.90	Cum	6381.70	299301.72	15.20	21.10	42.21
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.	384.16	Cum	6914.20	2656139.66	158.46	165.19	330.38
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.	2.36	Cum	8151.40	19236.77	1.34	0.92	1.86

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)
5	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.	6.03	MT	73574.90	443749.93			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	666.57	Sqm	578.60	385678.45			
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.	48.14	Sqm	680.10	32742.73			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	8.40	Cum	694.61	5834.72			
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.	8.40	Cum	1237.00	10390.80			
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.	8.40	Cum	1377.70	11572.68			
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.	8.40	Cum	516.50	4338.60			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	23.26	Sqm	63.20	1469.95			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	173.06	Cum	149.30	25838.22			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	187.213	Cum	1075.00	201253.94			
	Coarse Aggregates (100 Km lead)	374.450	Cum	1398.00	523480.45			
	Cement (30 km lead)	174.999	MT	742.00	129848.91			
	Boulder (60 Km lead)	8.40	Cum	1159.00	9735.60			
	Brick (15 km lead)	2888.00	No.	3.18	9183.84			
	Steel (30 Km lead)	6.03	MT	742.00	4475.20			
TOTAL (In Rs.)					4908275.25			
TOTAL (In Rs.)					4908275.25			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	187.21	Cum	584.64	109452.19	10945.22		
	Coarse Aggregate	374.45	Cum	944.26	353577.72	35357.77		
	Boulders	8.40	Cum	694.61	5834.72	583.47		
	<i>Total</i>					46886.46		
	For 1 nos. fall, Total Seigniorage charges					46886.46		

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. 10.300 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.	469.219	Cum	195.20	91591.59			
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.	41.74	Cum	6381.70	266373.20	13.52	18.78	37.57
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.	308.55	Cum	6914.20	2133383.38	127.28	132.68	265.35
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.	2.15	Cum	8151.40	17500.53	1.22	0.84	1.70

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)
5	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.	4.84	MT	73574.90	356415.27			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	590.14	Sqm	578.60	341457.66			
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.	48.14	Sqm	680.10	32742.73			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	8.40	Cum	694.61	5834.72			
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.	8.40	Cum	1237.00	10390.80			
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.	8.40	Cum	1377.70	11572.68			
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.	8.40	Cum	516.50	4338.60			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	21.28	Sqm	63.20	1344.81			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	119.40	Cum	149.30	17827.06			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	152.297	Cum	1075.00	163719.61			
	Coarse Aggregates (100 Km lead)	304.616	Cum	1398.00	425853.30			
	Cement (30 km lead)	142.018	MT	742.00	105377.66			
	Boulder (60 Km lead)	8.40	Cum	1159.00	9735.60			
	Brick (15 km lead)	2888.00	No.	3.18	9183.84			
	Steel (30 Km lead)	4.84	MT	742.00	3594.43			
TOTAL (In Rs.)					4019414.89			
TOTAL (In Rs.)					4019414.89			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	152.30	Cum	584.64	89039.10	8903.91		
	Coarse Aggregate	304.62	Cum	944.26	287636.79	28763.68		
	Boulders	8.40	Cum	694.61	5834.72	583.47		
	<i>Total</i>					38251.06		
	For 1 nos. fall, Total Seigniorage charges					38251.06		

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 0.762 METER AT CH. 29.875 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.	74.905	Cum	195.20	14621.54			
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.	11.00	Cum	6381.70	70215.75	3.56	4.95	9.90
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.	44.82	Cum	6914.20	309885.54	18.49	19.27	38.54
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.	0.70	Cum	8151.40	5685.23	0.40	0.27	0.55

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)
5	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.	1.06	MT	73574.90	77656.88			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	165.69	Sqm	578.60	95869.22			
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.	11.21	Sqm	680.10	7626.64			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.32	Cum	694.61	218.80			
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.	0.32	Cum	1237.00	389.66			
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.	0.32	Cum	1377.70	433.98			
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.	0.32	Cum	516.50	162.70			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	11.61	Sqm	63.20	733.70			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	22.46	Cum	149.30	3353.61			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	24.495	Cum	1075.00	26332.40			
	Coarse Aggregates (100 Km lead)	48.997	Cum	1398.00	68498.49			
	Cement (30 km lead)	22.448	MT	742.00	16656.45			
	Boulder (60 Km lead)	0.32	Cum	1159.00	365.09			
	Brick (15 km lead)	672.00	No.	3.18	2136.96			
	Steel (30 Km lead)	1.06	MT	742.00	783.17			
TOTAL (In Rs.)					712803.19			
TOTAL (In Rs.)					712803.19			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	24.50	Cum	584.64	14320.91	1432.09		
	Coarse Aggregate	49.00	Cum	944.26	46266.37	4626.64		
	Boulders	0.32	Cum	694.61	218.80	21.88		
	<i>Total</i>					6080.61		
	For 1 nos. fall, Total Seigniorage charges					6080.61		

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 0.762 METER AT CH. 30.000 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.	75.145	Cum	195.20	14668.21			
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.	9.81	Cum	6381.70	62586.25	3.18	4.41	8.83
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.	39.82	Cum	6914.20	275290.98	16.42	17.12	34.24
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.	0.63	Cum	8151.40	5170.23	0.36	0.25	0.50

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)
5	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.	0.94	MT	73574.90	68987.54			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	151.80	Sqm	578.60	87831.87			
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.	6.43	Sqm	680.10	4370.32			
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			
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.	10.93	Sqm	63.20	690.81			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	22.35	Cum	149.30	3337.25			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	21.781	Cum	1075.00	23414.75			
	Coarse Aggregates (100 Km lead)	43.569	Cum	1398.00	60909.00			
	Cement (30 km lead)	19.961	MT	742.00	14811.03			
	Boulder (60 Km lead)	0.14	Cum	1159.00	156.47			
	Brick (15 km lead)	385.00	No.	3.18	1224.30			
	Steel (30 Km lead)	0.94	MT	742.00	695.74			
TOTAL (In Rs.)					635838.63			
TOTAL (In Rs.)					635838.63			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	21.78	Cum	584.64	12734.14	1273.41		
	Coarse Aggregate	43.57	Cum	944.26	41140.15	4114.02		
	Boulders	0.14	Cum	694.61	93.77	9.38		
	<i>Total</i>					5396.81		
	For 1 nos. fall, Total Seigniorage charges					5396.81		

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)
ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR PAWAI MR.								
SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH. 0.200 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.	114.589	Cum	195.20	22367.76			
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.	9.47	Cum	6381.70	60432.50	3.07	4.26	8.52
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.	41.42	Cum	6914.20	286387.19	17.09	17.81	35.62
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	5210.21	0.36	0.25	0.50

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)
5	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.	0.98	MT	73574.90	71768.23			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	152.51	Sqm	578.60	88243.43			
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.	0.41	Cum	694.61	281.32			
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	500.99			
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.	0.41	Cum	1377.70	557.97			
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.	0.41	Cum	516.50	209.18			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.41	Sqm	63.20	594.62			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	29.95	Cum	149.30	4471.53			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	22.321	Cum	1075.00	23995.39			
	Coarse Aggregates (100 Km lead)	44.649	Cum	1398.00	62419.26			
	Cement (30 km lead)	20.516	MT	742.00	15223.17			
	Boulder (60 Km lead)	0.41	Cum	1159.00	469.40			
	Brick (15 km lead)	353.00	No.	3.18	1122.54			
	Steel (30 Km lead)	0.98	MT	742.00	723.78			
TOTAL (In Rs.)					660158.94			
TOTAL (In Rs.)					660158.94			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	22.32	Cum	584.64	13049.92	1304.99		
	Coarse Aggregate	44.65	Cum	944.26	42160.24	4216.02		
	Boulders	0.41	Cum	694.61	281.32	28.13		
	<i>Total</i>					5549.15		
	For 1 nos. fall, Total Seigniorage charges					5549.15		

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. 0.375 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.	77.737	Cum	195.20	15174.19			
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.	8.82	Cum	6381.70	56272.66	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.	35.72	Cum	6914.20	247003.79	14.74	15.36	30.72
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.	0.59	Cum	8151.40	4806.72	0.33	0.23	0.47

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)
5	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.	0.84	MT	73574.90	61898.80			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	139.03	Sqm	578.60	80444.76			
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.	0.41	Cum	694.61	281.32			
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	500.99			
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.	0.41	Cum	1377.70	557.97			
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.	0.41	Cum	516.50	209.18			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.64	Sqm	63.20	546.28			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	23.85	Cum	149.30	3560.97			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	19.559	Cum	1075.00	21026.32			
	Coarse Aggregates (100 Km lead)	39.125	Cum	1398.00	54696.24			
	Cement (30 km lead)	17.928	MT	742.00	13302.22			
	Boulder (60 Km lead)	0.41	Cum	1159.00	469.40			
	Brick (15 km lead)	353.00	No.	3.18	1122.54			
	Steel (30 Km lead)	0.84	MT	742.00	624.25			
TOTAL (In Rs.)					577679.07			
TOTAL (In Rs.)					577679.07			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	19.56	Cum	584.64	11435.19	1143.52		
	Coarse Aggregate	39.12	Cum	944.26	36943.83	3694.38		
	Boulders	0.41	Cum	694.61	281.32	28.13		
	<i>Total</i>					4866.03		
	For 1 nos. fall, Total Seigniorage charges					4866.03		

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 1.829 METER AT CH. 1.720 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.	61.277	Cum	195.20	11961.18			
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.	9.25	Cum	6381.70	58998.92	3.00	4.16	8.32
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.	59.94	Cum	6914.20	414468.75	24.73	25.78	51.55
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.	0.68	Cum	8151.40	5561.99	0.39	0.27	0.54

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)
5	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.	1.41	MT	73574.90	103865.29			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	207.64	Sqm	578.60	120140.77			
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.	5.08	Sqm	680.10	3452.19			
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			
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.	11.62	Sqm	63.20	734.49			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	14.28	Cum	149.30	2132.28			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	30.203	Cum	1075.00	32467.72			
	Coarse Aggregates (100 Km lead)	60.412	Cum	1398.00	84455.82			
	Cement (30 km lead)	28.109	MT	742.00	20857.18			
	Boulder (60 Km lead)	0.07	Cum	1159.00	78.23			
	Brick (15 km lead)	304.00	No.	3.18	966.72			
	Steel (30 Km lead)	1.41	MT	742.00	1047.48			
TOTAL (In Rs.)					872624.65			
TOTAL (In Rs.)					872624.65			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	30.20	Cum	584.64	17657.61	1765.76		
	Coarse Aggregate	60.41	Cum	944.26	57044.53	5704.45		
	Boulders	0.07	Cum	694.61	46.89	4.69		
	<i>Total</i>					7474.90		
	For 1 nos. fall, Total Seigniorage charges					7474.90		

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)
ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR BHUTAILI MR.								
SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH.0.580 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.	69.812	Cum	195.20	13627.22			
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.	10.65	Cum	6381.70	67962.46	3.45	4.79	9.58
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.	56.59	Cum	6914.20	391302.11	23.35	24.34	48.67
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	6815.39	0.47	0.33	0.66

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)
5	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.	1.33	MT	73574.90	98059.77			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	195.55	Sqm	578.60	113145.84			
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			
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.	13.84	Sqm	63.20	874.81			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	43.36	Cum	149.30	6474.02			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	29.454	Cum	1075.00	31662.84			
	Coarse Aggregates (100 Km lead)	58.916	Cum	1398.00	82364.53			
	Cement (30 km lead)	27.270	MT	742.00	20234.01			
	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)	1.33	MT	742.00	988.93			
TOTAL (In Rs.)					851155.61			
TOTAL (In Rs.)					851155.61			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	29.45	Cum	584.64	17219.87	1721.99		
	Coarse Aggregate	58.92	Cum	944.26	55631.99	5563.20		
	Boulders	0.27	Cum	694.61	187.54	18.75		
	<i>Total</i>					7303.94		
	For 1 nos. fall, Total Seigniorage charges					7303.94		

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.1.350 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.	25.950	Cum	195.20	5065.42			
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.	7.57	Cum	6381.70	48302.33	2.45	3.41	6.81
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.	27.23	Cum	6914.20	188291.98	11.23	11.71	23.42
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	4431.10	0.31	0.21	0.43

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)
5	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.	0.64	MT	73574.90	47185.71			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	117.87	Sqm	578.60	68199.88			
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.	5.61	Sqm	680.10	3817.40			
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			
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.	9.07	Sqm	63.20	573.35			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	20.87	Cum	149.30	3116.09			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	15.328	Cum	1075.00	16477.64			
	Coarse Aggregates (100 Km lead)	30.662	Cum	1398.00	42864.80			
	Cement (30 km lead)	13.994	MT	742.00	10383.55			
	Boulder (60 Km lead)	0.18	Cum	1159.00	208.62			
	Brick (15 km lead)	336.00	No.	3.18	1068.48			
	Steel (30 Km lead)	0.64	MT	742.00	475.87			
TOTAL (In Rs.)					452328.26			
TOTAL (In Rs.)					452328.26			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	15.33	Cum	584.64	8961.39	896.14		
	Coarse Aggregate	30.66	Cum	944.26	28952.44	2895.24		
	Boulders	0.18	Cum	694.61	125.03	12.50		
	<i>Total</i>					3803.89		
	For 1 nos. fall, Total Seigniorage charges					3803.89		

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)
ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR SALOPURA MINOR								
SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH.0.487 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.	75.744	Cum	195.20	14785.23			
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.	9.80	Cum	6381.70	62552.35	3.18	4.41	8.82
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.	47.47	Cum	6914.20	328188.35	19.58	20.41	40.82
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.	0.64	Cum	8151.40	5208.01	0.36	0.25	0.50

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)
5	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.	1.12	MT	73574.90	82243.54			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	170.90	Sqm	578.60	98881.37			
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.	7.18	Sqm	680.10	4882.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.32	Cum	694.61	218.80			
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.	0.32	Cum	1237.00	389.66			
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.	0.32	Cum	1377.70	433.98			
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.	0.32	Cum	516.50	162.70			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	10.08	Sqm	63.20	636.94			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	22.58	Cum	149.30	3371.31			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	25.070	Cum	1075.00	26950.59			
	Coarse Aggregates (100 Km lead)	50.147	Cum	1398.00	70105.53			
	Cement (30 km lead)	23.118	MT	742.00	17153.35			
	Boulder (60 Km lead)	0.32	Cum	1159.00	365.09			
	Brick (15 km lead)	430.00	No.	3.18	1367.40			
	Steel (30 Km lead)	1.12	MT	742.00	829.42			
TOTAL (In Rs.)					729903.11			
TOTAL (In Rs.)					729903.11			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	25.07	Cum	584.64	14657.11	1465.71		
	Coarse Aggregate	50.15	Cum	944.26	47351.82	4735.18		
	Boulders	0.32	Cum	694.61	218.80	21.88		
	<i>Total</i>					6222.77		
	For 1 nos. fall, Total Seigniorage charges					6222.77		

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)
SHARDA TYPE FALL OF HEIGHT 2.134 METER AT CH.1.185 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.	127.106	Cum	195.20	24811.13			
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.	12.09	Cum	6381.70	77127.46	3.92	5.44	10.88
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.	89.54	Cum	6914.20	619081.86	36.93	38.50	77.00
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.	0.83	Cum	8151.40	6780.54	0.47	0.32	0.66

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)
5	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.	2.11	MT	73574.90	155141.05			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	268.01	Sqm	578.60	155073.26			
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.	5.72	Sqm	680.10	3890.85			
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.	13.22	Sqm	63.20	835.28			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	35.59	Cum	149.30	5313.64			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	44.264	Cum	1075.00	47584.03			
	Coarse Aggregates (100 Km lead)	88.537	Cum	1398.00	123774.38			
	Cement (30 km lead)	41.322	MT	742.00	30660.73			
	Boulder (60 Km lead)	0.27	Cum	1159.00	312.93			
	Brick (15 km lead)	343.00	No.	3.18	1090.74			
	Steel (30 Km lead)	2.11	MT	742.00	1564.59			
TOTAL (In Rs.)					1265252.85			
TOTAL (In Rs.)					1265252.85			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	44.26	Cum	584.64	25878.63	2587.86		
	Coarse Aggregate	88.54	Cum	944.26	83601.71	8360.17		
	Boulders	0.27	Cum	694.61	187.54	18.75		
	<i>Total</i>					10966.79		
	For 1 nos. fall, Total Seigniorage charges					10966.79		

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 1.220 METER AT CH.2.800 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.	59.822	Cum	195.20	11677.20			
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.	7.51	Cum	6381.70	47924.59	2.43	3.38	6.76
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.	31.30	Cum	6914.20	216383.69	12.91	13.46	26.91
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.	0.55	Cum	8151.40	4463.01	0.31	0.21	0.43

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)
5	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.	0.74	MT	73574.90	54225.45			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	131.39	Sqm	578.60	76020.40			
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.	5.07	Sqm	680.10	3450.15			
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			
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.	9.38	Sqm	63.20	592.52			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	21.31	Cum	149.30	3181.85			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	17.050	Cum	1075.00	18328.73			
	Coarse Aggregates (100 Km lead)	34.105	Cum	1398.00	47679.39			
	Cement (30 km lead)	15.653	MT	742.00	11614.52			
	Boulder (60 Km lead)	0.07	Cum	1159.00	78.23			
	Brick (15 km lead)	304.00	No.	3.18	966.72			
	Steel (30 Km lead)	0.74	MT	742.00	546.86			
TOTAL (In Rs.)					508568.96			
TOTAL (In Rs.)					508568.96			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	17.05	Cum	584.64	9968.10	996.81		
	Coarse Aggregate	34.11	Cum	944.26	32204.39	3220.44		
	Boulders	0.07	Cum	694.61	46.89	4.69		
	<i>Total</i>					4221.94		
	For 1 nos. fall, Total Seigniorage charges					4221.94		

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)
ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR SINGHI SUB DISTRIBUTARY								
SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH.0.650 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.	277.937	Cum	195.20	54253.21			
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.	27.03	Cum	6381.70	172470.04	8.76	12.16	24.32
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.	165.12	Cum	6914.20	1141668.32	68.11	71.00	142.00
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.	1.45	Cum	8151.40	11840.72	0.82	0.57	1.15

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)
5	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.	2.59	MT	73574.90	190733.66			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	396.68	Sqm	578.60	229517.05			
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.	3.52	Cum	694.61	2443.29			
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.	3.52	Cum	1237.00	4351.15			
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.	3.52	Cum	1377.70	4846.06			
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.	3.52	Cum	516.50	1816.79			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	18.39	Sqm	63.20	1162.06			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	75.53	Cum	149.30	11276.71			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	83.729	Cum	1075.00	90009.12			
	Coarse Aggregates (100 Km lead)	167.473	Cum	1398.00	234127.75			
	Cement (30 km lead)	77.692	MT	742.00	57647.24			
	Boulder (60 Km lead)	3.52	Cum	1159.00	4076.78			
	Brick (15 km lead)	2239.00	No.	3.18	7120.02			
	Steel (30 Km lead)	2.59	MT	742.00	1923.54			
TOTAL (In Rs.)					2257844.98			
TOTAL (In Rs.)					2257844.98			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	83.73	Cum	584.64	48951.57	4895.16		
	Coarse Aggregate	167.47	Cum	944.26	158138.39	15813.84		
	Boulders	3.52	Cum	694.61	2443.29	244.33		
	<i>Total</i>					20953.32		
	For 1 nos. fall, Total Seigniorage charges					20953.32		

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 1.220 METER AT CH.1.350 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.	206.172	Cum	195.20	40244.83			
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.	27.03	Cum	6381.70	172470.04	8.76	12.16	24.32
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.	165.12	Cum	6914.20	1141668.32	68.11	71.00	142.00
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.	1.45	Cum	8151.40	11840.72	0.82	0.57	1.15

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)
5	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.	2.59	MT	73574.90	190733.66			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	396.68	Sqm	578.60	229517.05			
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.	3.52	Cum	694.61	2443.29			
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.	3.52	Cum	1237.00	4351.15			
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.	3.52	Cum	1377.70	4846.06			
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.	3.52	Cum	516.50	1816.79			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	18.39	Sqm	63.20	1162.06			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	41.97	Cum	149.30	6266.77			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	83.729	Cum	1075.00	90009.12			
	Coarse Aggregates (100 Km lead)	167.473	Cum	1398.00	234127.75			
	Cement (30 km lead)	77.692	MT	742.00	57647.24			
	Boulder (60 Km lead)	3.52	Cum	1159.00	4076.78			
	Brick (15 km lead)	2239.00	No.	3.18	7120.02			
	Steel (30 Km lead)	2.59	MT	742.00	1923.54			
TOTAL (In Rs.)					2238826.66			
TOTAL (In Rs.)					2238826.66			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	83.73	Cum	584.64	48951.57	4895.16		
	Coarse Aggregate	167.47	Cum	944.26	158138.39	15813.84		
	Boulders	3.52	Cum	694.61	2443.29	244.33		
	<i>Total</i>					20953.32		
	For 1 nos. fall, Total Seigniorage charges					20953.32		

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 0.305 METER AT CH.2.740 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.	169.720	Cum	195.20	33129.30			
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.	22.60	Cum	6381.70	144211.74	7.32	10.17	20.34
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.	102.30	Cum	6914.20	707325.33	42.20	43.99	87.98
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.	1.16	Cum	8151.40	9440.67	0.66	0.45	0.91

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)
5	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.	1.61	MT	73574.90	118169.83			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	293.74	Sqm	578.60	169958.62			
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.	37.32	Sqm	680.10	25384.05			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	3.52	Cum	694.61	2443.29			
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.	3.52	Cum	1237.00	4351.15			
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.	3.52	Cum	1377.70	4846.06			
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.	3.52	Cum	516.50	1816.79			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	16.05	Sqm	63.20	1014.57			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	45.64	Cum	149.30	6814.16			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	54.610	Cum	1075.00	58705.55			
	Coarse Aggregates (100 Km lead)	109.231	Cum	1398.00	152705.23			
	Cement (30 km lead)	50.177	MT	742.00	37231.51			
	Boulder (60 Km lead)	3.52	Cum	1159.00	4076.78			
	Brick (15 km lead)	2239.00	No.	3.18	7120.02			
	Steel (30 Km lead)	1.61	MT	742.00	1191.74			
TOTAL (In Rs.)					1501113.80			
TOTAL (In Rs.)					1501113.80			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	54.61	Cum	584.64	31927.08	3192.71		
	Coarse Aggregate	109.23	Cum	944.26	103142.66	10314.27		
	Boulders	3.52	Cum	694.61	2443.29	244.33		
	<i>Total</i>					13751.30		
	For 1 nos. fall, Total Seigniorage charges					13751.30		

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 0.762 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.	175.168	Cum	195.20	34192.83			
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.	22.75	Cum	6381.70	145206.72	7.37	10.24	20.48
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.	115.51	Cum	6914.20	798692.22	47.65	49.67	99.34
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.	1.19	Cum	8151.40	9721.52	0.68	0.47	0.94

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)
5	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.	1.81	MT	73574.90	133434.11			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	320.21	Sqm	578.60	185274.15			
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.	3.05	Cum	694.61	2115.09			
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.	3.05	Cum	1237.00	3766.67			
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.	3.05	Cum	1377.70	4195.10			
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.	3.05	Cum	516.50	1572.74			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	16.50	Sqm	63.20	1042.95			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	50.19	Cum	149.30	7492.93			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	60.376	Cum	1075.00	64903.77			
	Coarse Aggregates (100 Km lead)	120.763	Cum	1398.00	168826.84			
	Cement (30 km lead)	55.698	MT	742.00	41328.09			
	Boulder (60 Km lead)	3.05	Cum	1159.00	3529.16			
	Brick (15 km lead)	2239.00	No.	3.18	7120.02			
	Steel (30 Km lead)	1.81	MT	742.00	1345.68			
TOTAL (In Rs.)					1650322.03			
TOTAL (In Rs.)					1650322.03			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	60.38	Cum	584.64	35297.99	3529.80		
	Coarse Aggregate	120.76	Cum	944.26	114031.79	11403.18		
	Boulders	3.05	Cum	694.61	2115.09	211.51		
	<i>Total</i>					15144.49		
	For 1 nos. fall, Total Seigniorage charges					15144.49		

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.4.455 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.	310.853	Cum	195.20	60678.43			
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.	28.23	Cum	6381.70	180146.97	9.15	12.70	25.41
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.	207.38	Cum	6914.20	1433866.86	85.54	89.17	178.35
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.	1.49	Cum	8151.40	12165.48	0.85	0.58	1.18

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)
5	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.	3.26	MT	73574.90	239550.03			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	456.84	Sqm	578.60	264325.80			
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.	37.32	Sqm	680.10	25384.05			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	3.05	Cum	694.61	2115.09			
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.	3.05	Cum	1237.00	3766.67			
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.	3.05	Cum	1377.70	4195.10			
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.	3.05	Cum	516.50	1572.74			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	19.87	Sqm	63.20	1256.02			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	82.61	Cum	149.30	12334.12			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	102.458	Cum	1075.00	110142.74			
	Coarse Aggregates (100 Km lead)	204.932	Cum	1398.00	286494.44			
	Cement (30 km lead)	95.537	MT	742.00	70888.13			
	Boulder (60 Km lead)	3.05	Cum	1159.00	3529.16			
	Brick (15 km lead)	2239.00	No.	3.18	7120.02			
	Steel (30 Km lead)	3.26	MT	742.00	2415.85			
TOTAL (In Rs.)					2733125.09			
TOTAL (In Rs.)					2733125.09			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	102.46	Cum	584.64	59901.26	5990.13		
	Coarse Aggregate	204.93	Cum	944.26	193508.76	19350.88		
	Boulders	3.05	Cum	694.61	2115.09	211.51		
	<i>Total</i>					25552.51		
	For 1 nos. fall, Total Seigniorage charges					25552.51		

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)
ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR SAHOKARMA MINOR								
SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH.0.450 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.	67.900	Cum	195.20	13253.99			
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.	9.28	Cum	6381.70	59234.10	3.01	4.18	8.35
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.	46.79	Cum	6914.20	323528.82	19.30	20.12	40.24
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	4978.39	0.35	0.24	0.48

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)
5	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.	1.10	MT	73574.90	81075.87			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	169.85	Sqm	578.60	98274.85			
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.	0.24	Cum	694.61	164.10			
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	292.24			
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.	0.24	Cum	1377.70	325.48			
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	122.02			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.85	Sqm	63.20	622.67			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	19.44	Cum	149.30	2902.05			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	24.536	Cum	1075.00	26375.73			
	Coarse Aggregates (100 Km lead)	49.077	Cum	1398.00	68609.97			
	Cement (30 km lead)	22.655	MT	742.00	16810.23			
	Boulder (60 Km lead)	0.24	Cum	1159.00	273.81			
	Brick (15 km lead)	430.00	No.	3.18	1367.40			
	Steel (30 Km lead)	1.10	MT	742.00	817.65			
TOTAL (In Rs.)					715088.87			
TOTAL (In Rs.)					715088.87			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	24.54	Cum	584.64	14344.47	1434.45		
	Coarse Aggregate	49.08	Cum	944.26	46341.67	4634.17		
	Boulders	0.24	Cum	694.61	164.10	16.41		
	<i>Total</i>					6085.02		
	For 1 nos. fall, Total Seigniorage charges					6085.02		

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)
SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH.0.620 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.	92.955	Cum	195.20	18144.89			
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.	10.79	Cum	6381.70	68884.23	3.50	4.86	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.	79.47	Cum	6914.20	549451.00	32.78	34.17	68.34
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.	0.98	Cum	8151.40	7962.78	0.55	0.38	0.77

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)
5	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.	1.87	MT	73574.90	137691.66			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	258.87	Sqm	578.60	149781.91			
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.	0.24	Cum	694.61	164.10			
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	292.24			
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.	0.24	Cum	1377.70	325.48			
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	122.02			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	16.86	Sqm	63.20	1065.53			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	4.00	No.	5588.70	22354.80			

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)
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	20.60	Cum	149.30	3075.75			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	39.409	Cum	1075.00	42364.80			
	Coarse Aggregates (100 Km lead)	78.828	Cum	1398.00	110201.54			
	Cement (30 km lead)	36.831	MT	742.00	27328.82			
	Boulder (60 Km lead)	0.24	Cum	1159.00	273.81			
	Brick (15 km lead)	430.00	No.	3.18	1367.40			
	Steel (30 Km lead)	1.87	MT	742.00	1388.61			
TOTAL (In Rs.)					1147123.48			
TOTAL (In Rs.)					1147123.48			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	39.41	Cum	584.64	23040.14	2304.01		
	Coarse Aggregate	78.83	Cum	944.26	74434.12	7443.41		
	Boulders	0.24	Cum	694.61	164.10	16.41		
	<i>Total</i>					9763.84		
	For 1 nos. fall, Total Seigniorage charges					9763.84		

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)
ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR DHAMNI MINOR								
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.	62.926	Cum	195.20	12283.16			
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.	8.69	Cum	6381.70	55462.81	2.82	3.91	7.82
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.	44.52	Cum	6914.20	307827.78	18.36	19.14	38.29
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	5570.06	0.39	0.27	0.54

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)
5	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.	1.05	MT	73574.90	77141.21			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	163.05	Sqm	578.60	94339.54			
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.	5.61	Sqm	680.10	3817.40			
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.	11.53	Sqm	63.20	728.63			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	17.72	Cum	149.30	2646.02			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	23.321	Cum	1075.00	25070.59			
	Coarse Aggregates (100 Km lead)	46.650	Cum	1398.00	65216.41			
	Cement (30 km lead)	21.568	MT	742.00	16003.64			
	Boulder (60 Km lead)	0.16	Cum	1159.00	182.54			
	Brick (15 km lead)	336.00	No.	3.18	1068.48			
	Steel (30 Km lead)	1.05	MT	742.00	777.97			
TOTAL (In Rs.)					679916.21			
TOTAL (In Rs.)					679916.21			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	23.32	Cum	584.64	13634.67	1363.47		
	Coarse Aggregate	46.65	Cum	944.26	44049.53	4404.95		
	Boulders	0.16	Cum	694.61	109.40	10.94		
	<i>Total</i>					5779.36		
	For 1 nos. fall, Total Seigniorage charges					5779.36		

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 0.762 METER AT CH.4.800 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.	29.484	Cum	195.20	5755.37			
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.	3.18	Cum	6381.70	20278.17	1.03	1.43	2.86
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.	18.44	Cum	6914.20	127521.86	7.61	7.93	15.86
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.	0.37	Cum	8151.40	3055.92	0.21	0.15	0.30

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)
5	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	31956.80			
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	82.04	Sqm	578.60	47471.15			
7	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	6.06	Sqm	63.20	382.86			
8	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			
9	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	8.22	Cum	149.30	1226.71			
10	Carriage of materials							
	Coarse Sand (60 Km lead)	9.507	Cum	1075.00	10219.81			
	Coarse Aggregates (100 Km lead)	19.017	Cum	1398.00	26586.25			
	Cement (30 km lead)	8.850	MT	742.00	6566.72			
	Boulder (60 Km lead)	0.00	Cum	1159.00	0.00			
	Brick (15 km lead)	0.00	No.	3.18	0.00			
	Steel (30 Km lead)	0.43	MT	742.00	322.28			
TOTAL (In Rs.)					292521.30			
TOTAL (In Rs.)					292521.30			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	9.51	Cum	584.64	5558.06	555.81		
	Coarse Aggregate	19.02	Cum	944.26	17957.32	1795.73		
	Boulders	0.00	Cum	694.61	0.00	0.00		
	<i>Total</i>					2351.54		
	For 1 nos. fall, Total Seigniorage charges					2351.54		

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)
ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR BHADWA MR.								
SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH. 0.450 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.	56.176	Cum	195.20	10965.52			
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.	8.24	Cum	6381.70	52558.90	2.67	3.71	7.41
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.	38.92	Cum	6914.20	269095.55	16.05	16.74	33.47
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	4609.37	0.32	0.22	0.45

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)
5	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.	0.92	MT	73574.90	67434.97			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	149.28	Sqm	578.60	86372.29			
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.	5.62	Sqm	680.10	3819.44			
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			
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.	9.28	Sqm	63.20	586.77			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.	2.00	No.	5588.70	11177.40			

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)
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	15.33	Cum	149.30	2288.15			
15	Carriage of materials							
	Coarse Sand (60 Km lead)	20.662	Cum	1075.00	22211.61			
	Coarse Aggregates (100 Km lead)	41.330	Cum	1398.00	57778.75			
	Cement (30 km lead)	19.043	MT	742.00	14130.08			
	Boulder (60 Km lead)	0.14	Cum	1159.00	156.47			
	Brick (15 km lead)	336.00	No.	3.18	1068.48			
	Steel (30 Km lead)	0.92	MT	742.00	680.08			
TOTAL (In Rs.)					605450.31			
TOTAL (In Rs.)					605450.31			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	20.66	Cum	584.64	12079.81	1207.98		
	Coarse Aggregate	41.33	Cum	944.26	39025.86	3902.59		
	Boulders	0.14	Cum	694.61	93.77	9.38		
	<i>Total</i>					5119.94		
	For 1 nos. fall, Total Seigniorage charges					5119.94		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR KOTWARA SUB DISTRIBUTARY							
S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH.5.500 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	1.10	1.912	3.811	16.060	Cum
	Section 2-2	2	3.00	1.638	3.811	37.455	Cum
	Section 3-3	2	2.20	1.518	3.611	24.119	Cum
	Section 5-5	2	7.64	2.062	3.811	120.090	Cum
	Section 6-6	2	4.26	1.518	3.611	46.724	Cum
	U/S Key Floor	1	0.61	7.600	0.800	3.724	Cum
	U/S Floor	1	2.00	7.600	1.357	20.626	Cum
	D/S Floor	1	3.00	7.600	0.900	20.520	Cum
		1	2.50	7.600	0.700	13.300	Cum
	D/S Key Floor	1	0.68	7.600	1.050	5.387	Cum
	Toe Wall D/S Portion	1	19.16	0.750	0.900	12.933	Cum
	Boulder Pitching (D/S Portion)	2	4.00	0.600	0.750	3.600	Cum
						324.54	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	0.54	7.600	0.150	0.62	Cum
		1	0.73	7.600	0.150	0.83	Cum
		1	4.35	7.600	0.150	4.96	Cum
		1	0.35	7.600	0.150	0.40	Cum
		1	1.04	7.600	0.150	1.18	Cum
		1	1.01	7.600	0.150	1.15	Cum
		1	0.54	7.600	0.150	0.62	Cum
	PCC Below Abutment						
	Section 1-1	2	1.10	1.912	0.150	0.63	Cum
	Section 2-2	2	3.00	1.638	0.150	1.47	Cum
	Section 3-3	2	2.20	1.518	0.150	1.00	Cum
	Section 5-5	2	7.64	2.062	0.150	4.73	Cum
	Section 6-6	2	4.26	1.518	0.150	1.94	Cum
	Toe Wall D/S Portion	1	19.16	0.750	0.300	4.31	Cum
	Toe Wall D/S Portion	1	18.86	0.450	0.600	5.09	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					31.10	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	0.88	0.450	0.450	0.36	Cum
		2	0.88	1.031	1.937	3.50	Cum
		2	0.88	1.762	0.550	1.70	Cum
	Section 2-2	2	3.00	0.450	0.450	1.22	Cum
		2	3.00	0.894	1.480	7.94	Cum
		2	3.00	1.488	0.550	4.91	Cum
	Section 3-3	2	1.67	0.450	0.450	0.67	Cum
		2	1.67	0.834	1.280	3.56	Cum
		2	1.67	1.368	0.500	2.28	Cum
	Section 5-5	2	7.60	0.450	0.450	3.08	Cum
		2	7.60	1.031	1.937	30.34	Cum
		2	7.60	1.762	0.550	14.72	Cum
	Section 6-6	2	4.95	0.450	0.450	2.00	Cum
		2	4.95	0.834	1.280	10.56	Cum
		2	4.95	1.368	0.500	6.77	Cum
	Floor	1	0.61	7.600	0.650	3.03	Cum
		1	5.00	7.600	0.550	20.90	Cum
		1	0.28	7.600	0.250	0.54	Cum
		1	0.20	7.600	0.400	0.61	Cum
		1	2.30	7.600	0.500	8.74	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	0.68	7.600	0.900	4.62	Cum
	Crest	1	0.90	7.600	1.227	8.36	Cum
	TOTAL					140.39	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	7.600	0.150	0.80	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	19.55	0.450	0.050	0.44	Cum
	On Abutment Top (Right Side)	1	19.55	0.450	0.050	0.44	Cum
	TOTAL					1.68	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	140.39	0.002	0.281	7850.0	2204.10	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	1.58	Sqm
		4		0.450	0.450	0.81	Sqm
		4	0.88		1.937	6.79	Sqm
		4		1.031	1.937	7.99	Sqm
		4	0.88		0.550	1.93	Sqm
		4		1.762	0.550	3.88	Sqm
	Section 2-2	4	3.00		0.450	5.40	Sqm
		4		0.450	0.450	0.81	Sqm
		4	3.00		1.480	17.76	Sqm
		4		0.894	1.480	5.29	Sqm
		4	3.00		0.550	6.60	Sqm
		4		1.488	0.550	3.27	Sqm
	Section 3-3	4	1.67		0.450	3.00	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.67		1.280	8.53	Sqm
		4		0.834	1.280	4.27	Sqm
		4	1.67		0.500	3.33	Sqm
		4		1.368	0.500	2.74	Sqm
	Section 5-5	4	7.60		0.450	13.67	Sqm
		4		0.450	0.450	0.81	Sqm
		4	7.60		1.937	58.86	Sqm
		4		1.031	1.937	7.99	Sqm
		4	7.60		0.550	16.71	Sqm
		4		1.762	0.550	3.88	Sqm
	Section 6-6	4	4.95		0.450	8.90	Sqm
		4		0.450	0.450	0.81	Sqm
		4	4.95		1.280	25.32	Sqm
		4		0.834	1.280	4.27	Sqm
		4	4.95		0.500	9.89	Sqm
		4		1.368	0.500	2.74	Sqm
	Floor	2	0.61		0.650	0.80	Sqm
		2		7.600	0.650	9.88	Sqm
		2	5.00		0.550	5.50	Sqm
		2		7.600	0.550	8.36	Sqm
		2	0.28		0.250	0.14	Sqm
		2		7.600	0.250	3.80	Sqm
		2	0.20		0.400	0.16	Sqm
		2		7.600	0.400	6.08	Sqm
		2	2.30		0.500	2.30	Sqm
		2		7.600	0.500	7.60	Sqm
		2	0.68		0.900	1.22	Sqm
		2		7.600	0.900	13.68	Sqm
	Crest	2	0.90		1.227	2.20	Sqm
		2		7.600	1.227	18.65	Sqm
	Toe Wall D/S Portion	2	19.16		0.300	11.50	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	18.86		0.600	22.63	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					367.21	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.						
	<i>In D/S Portion On Slopes</i>	2	4.00	6.018		48.14	Sqm
	TOTAL					48.14	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	<i>In D/S Portion</i>	1	4.00	7.000	0.300	8.40	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	7.000	0.150	8.40	Cum
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>On Abutment Top (Left Side)</i>	1	19.55	0.450		8.80	Sqm
	<i>On Abutment Top (Right Side)</i>	1	19.55	0.450		8.80	Sqm
	TOTAL					17.59	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1		4.254		4.25	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.10	2.520		5.554	Cum
	<i>Section 2-2</i>	2	3.00	1.800		10.800	Cum
	<i>Section 3-3</i>	2	2.20	1.490		6.556	Cum
	<i>Section 5-5</i>	2	7.64	2.520		38.511	Cum
	<i>Section 6-6</i>	2	4.26	1.490		12.701	Cum
	<i>D/S protection</i>	2					
	<i>Toe wall</i>	2	19.16	0.150	0.600	5.748	Cum
		2	4.00	0.150	0.600	0.720	Cum
	TOTAL					84.84	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 1.520 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.55	2.610	2.766	22.416	Cum
	<i>Section 2-2</i>	2	5.50	1.698	2.766	51.663	Cum
	<i>Section 3-3</i>	2	3.20	1.518	2.566	24.929	Cum
	<i>Section 5-5</i>	2	7.50	2.760	2.766	114.459	Cum
	<i>Section 6-6</i>	2	4.26	1.518	2.566	33.203	Cum
	<i>U/S Key Floor</i>	1	0.64	7.600	0.900	4.361	Cum
	<i>U/S Floor</i>	1	3.50	7.600	3.020	80.332	Cum
	<i>D/S Floor</i>	1	5.50	7.600	1.150	48.070	Cum
		1	1.00	7.600	0.900	6.840	Cum
		1	2.50	7.600	0.850	16.150	Cum
	<i>D/S Key Floor</i>	1	0.90	7.600	1.200	8.208	Cum
	<i>Toe Wall D/S Portion</i>	1	19.16	0.750	0.900	12.933	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	4.00	0.600	0.750	3.600	Cum
						427.16	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.						
	<i>PCC Below Floor</i>	1	0.54	7.600	0.150	0.62	Cum
		1	0.89	7.600	0.150	1.02	Cum
		1	0.46	7.600	0.150	0.52	Cum
		1	0.50	7.600	0.150	0.56	Cum
		1	7.32	7.600	0.150	8.35	Cum
		1	1.31	7.600	0.150	1.49	Cum
		1	0.95	7.600	0.150	1.08	Cum
		1	2.01	7.600	0.150	2.29	Cum
		1	0.54	7.600	0.150	0.62	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.55	2.610	0.150	1.22	Cum
	<i>Section 2-2</i>	2	5.50	1.698	0.150	2.80	Cum
	<i>Section 3-3</i>	2	3.20	1.518	0.150	1.46	Cum
	<i>Section 5-5</i>	2	7.50	2.760	0.150	6.21	Cum
	<i>Section 6-6</i>	2	4.26	1.518	0.150	1.94	Cum
	<i>Toe Wall D/S Portion</i>	1	19.16	0.750	0.300	4.31	Cum
	<i>Toe Wall D/S Portion</i>	1	18.86	0.450	0.600	5.09	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	4.00	0.600	0.150	0.72	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	4.00	0.300	0.600	1.44	Cum
	TOTAL					41.74	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.33	0.450	0.450	0.54	Cum
		2	1.33	1.380	3.100	11.36	Cum
		2	1.33	2.460	1.050	6.86	Cum
	<i>Section 2-2</i>	2	5.50	0.450	0.450	2.23	Cum
		2	5.50	0.924	1.580	16.06	Cum
		2	5.50	1.548	1.050	17.88	Cum
	<i>Section 3-3</i>	2	2.67	0.450	0.450	1.08	Cum
		2	2.67	0.834	1.280	5.69	Cum
		2	2.67	1.368	0.700	5.11	Cum
	<i>Section 5-5</i>	2	7.45	0.450	0.450	3.02	Cum
		2	7.45	1.380	3.100	63.76	Cum
		2	7.45	2.460	0.700	25.67	Cum
	<i>Section 6-6</i>	2	4.95	0.450	0.450	2.00	Cum
		2	4.95	0.834	1.280	10.56	Cum
		2	4.95	1.368	0.700	9.47	Cum
	<i>Floor</i>	1	0.64	7.600	0.750	3.63	Cum
		1	9.00	7.600	0.700	47.88	Cum
		1	7.36	7.600	0.350	19.58	Cum
		1	0.31	7.600	0.600	1.41	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	0.30	7.600	0.600	1.37	Cum
		1	0.70	7.600	0.750	3.99	Cum
		1	0.05	7.600	0.725	0.28	Cum
		1	2.45	7.600	0.700	13.03	Cum
		1	0.90	7.600	1.800	12.31	Cum
	Crest	1	1.32	7.600	2.360	23.65	Cum
	TOTAL					308.42	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	0.95	7.600	0.150	1.08	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	23.64	0.450	0.050	0.53	Cum
	On Abutment Top (Right Side)	1	23.64	0.450	0.050	0.53	Cum
	TOTAL					2.15	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	308.42	0.002	0.617	7850.0	4842.19	Kg
	Total Weight in Metric Tonne					4.84	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	1.33		0.450	2.39	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.33		3.100	16.46	Sqm
		4		1.380	3.100	17.11	Sqm
		4	1.33		1.050	5.58	Sqm
		4		2.460	1.050	10.33	Sqm
	Section 2-2	4	5.50		0.450	9.90	Sqm
		4		0.450	0.450	0.81	Sqm
		4	5.50		1.580	34.76	Sqm
		4		0.924	1.580	5.84	Sqm
		4	5.50		1.050	23.10	Sqm
		4		1.548	1.050	6.50	Sqm
	Section 3-3	4	2.67		0.450	4.80	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.67		1.280	13.65	Sqm
		4		0.834	1.280	4.27	Sqm
		4	2.67		0.700	7.46	Sqm
		4		1.368	0.700	3.83	Sqm
	Section 5-5	4	7.45		0.450	13.41	Sqm
		4		0.450	0.450	0.81	Sqm
		4	7.45		3.100	92.41	Sqm
		4		1.380	3.100	17.11	Sqm
		4	7.45		0.700	20.87	Sqm
		4		2.460	0.700	6.89	Sqm
	Section 6-6	4	4.95		0.450	8.90	Sqm
		4		0.450	0.450	0.81	Sqm
		4	4.95		1.280	25.32	Sqm
		4		0.834	1.280	4.27	Sqm
		4	4.95		0.700	13.85	Sqm
		4		1.368	0.700	3.83	Sqm
	Floor	2	0.64		0.750	0.96	Sqm
		2		7.600	0.750	11.40	Sqm
		2	9.00		0.700	12.60	Sqm
		2		7.600	0.700	10.64	Sqm
		2	0.31		0.600	0.37	Sqm
		2		7.600	0.600	9.12	Sqm
		2	0.30		0.600	0.36	Sqm
		2		7.600	0.600	9.12	Sqm
		2	0.70		0.750	1.05	Sqm
		2		7.600	0.750	11.40	Sqm
		2	0.050		0.725	0.07	Sqm
		2		7.600	0.725	11.02	Sqm
		2	2.450		0.700	3.43	Sqm
		2		7.600	0.700	10.64	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	0.90		1.800	3.24	Sqm
		2		7.600	1.800	27.36	Sqm
	Crest	2	1.32		2.360	6.22	Sqm
		2		7.600	2.360	35.87	Sqm
	Toe Wall D/S Portion	2	19.16		0.300	11.50	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	18.86		0.600	22.63	Sqm
		2		0.450	0.600	0.54	Sqm
	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					589.98	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.						
	<i>In D/S Portion On Slopes</i>	2	4.00	6.018		48.14	Sqm
	TOTAL					48.14	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	<i>In D/S Portion</i>	1	4.00	7.000	0.300	8.40	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	7.000	0.150	8.40	Cum
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>On Abutment Top (Left Side)</i>	1	23.64	0.450		10.64	Sqm
	<i>On Abutment Top (Right Side)</i>	1	23.64	0.450		10.64	Sqm
	TOTAL					21.28	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1		34.367		34.37	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.55	1.370		4.254	Cum
	<i>Section 2-2</i>	2	5.50	1.370		15.070	Cum
	<i>Section 3-3</i>	2	3.20	0.966		6.182	Cum
	<i>Section 5-5</i>	2	7.50	1.370		20.540	Cum
	<i>Section 6-6</i>	2	4.26	0.966		8.234	Cum
	<i>D/S protection</i>	2					
	<i>Toe wall</i>	2	19.16	0.150	0.600	5.748	Cum
		2	4.00	0.150	0.600	0.720	Cum
	TOTAL					95.12	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 1.830 METER AT CH. 6.940 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.71	2.796	3.908	37.457	Cum
	<i>Section 2-2</i>	2	6.00	1.698	3.908	79.629	Cum
	<i>Section 3-3</i>	2	4.70	1.518	3.708	52.910	Cum
	<i>Section 5-5</i>	2	7.46	2.946	3.908	171.727	Cum
	<i>Section 6-6</i>	2	4.26	1.518	3.708	47.979	Cum
	<i>U/S Key Floor</i>	1	0.64	7.600	0.900	4.361	Cum
	<i>U/S Floor</i>	1	4.50	7.600	3.480	119.016	Cum
	<i>D/S Floor</i>	1	6.00	7.600	1.200	54.720	Cum
		1	2.50	7.600	0.950	18.050	Cum
		1	2.50	7.600	0.900	17.100	Cum
	<i>D/S Key Floor</i>	1	0.95	7.600	1.350	9.747	Cum
	<i>Toe Wall D/S Portion</i>	1	19.16	0.750	0.900	12.933	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	4.00	0.600	0.750	3.600	Cum
						629.23	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.						
	<i>PCC Below Floor</i>	1	0.54	7.600	0.150	0.62	Cum
		1	0.84	7.600	0.150	0.96	Cum
		1	1.18	7.600	0.150	1.35	Cum
		1	0.64	7.600	0.150	0.73	Cum
		1	8.08	7.600	0.150	9.22	Cum
		1	0.85	7.600	0.150	0.97	Cum
		1	1.83	7.600	0.150	2.08	Cum
		1	0.21	7.600	0.150	0.24	Cum
		1	0.75	7.600	0.150	0.85	Cum
		1	2.24	7.600	0.150	2.55	Cum
		1	0.54	7.600	0.150	0.62	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.71	2.796	0.150	1.44	Cum
	<i>Section 2-2</i>	2	6.00	1.698	0.150	3.06	Cum
	<i>Section 3-3</i>	2	4.70	1.518	0.150	2.14	Cum
	<i>Section 5-5</i>	2	7.46	2.946	0.150	6.59	Cum
	<i>Section 6-6</i>	2	4.26	1.518	0.150	1.94	Cum
	<i>Toe Wall D/S Portion</i>	1	19.16	0.750	0.300	4.31	Cum
	<i>Toe Wall D/S Portion</i>	1	18.86	0.450	0.600	5.09	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	4.00	0.600	0.150	0.72	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	4.00	0.300	0.600	1.44	Cum
	TOTAL					46.90	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.49	0.450	0.450	0.60	Cum
		2	1.49	1.473	3.410	14.96	Cum
		2	1.49	2.646	1.200	9.46	Cum
	<i>Section 2-2</i>	2	6.00	0.450	0.450	2.43	Cum
		2	6.00	0.924	1.580	17.52	Cum
		2	6.00	1.548	1.200	22.29	Cum
	<i>Section 3-3</i>	2	4.17	0.450	0.450	1.69	Cum
		2	4.17	0.834	1.280	8.89	Cum
		2	4.17	1.368	0.750	8.55	Cum
	<i>Section 5-5</i>	2	7.41	0.450	0.450	3.00	Cum
		2	7.41	1.473	3.410	74.48	Cum
		2	7.41	2.646	0.750	29.43	Cum
	<i>Section 6-6</i>	2	4.95	0.450	0.450	2.00	Cum
		2	4.95	0.834	1.280	10.56	Cum
		2	4.95	1.368	0.750	10.15	Cum
	<i>Floor</i>	1	0.64	7.600	0.750	3.63	Cum
		1	10.50	7.600	0.750	59.85	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	8.11	7.600	0.450	27.74	Cum
		1	0.37	7.600	0.600	1.70	Cum
		1	0.30	7.600	0.750	1.71	Cum
		1	2.20	7.600	0.900	15.05	Cum
		1	0.15	7.600	0.825	0.94	Cum
		1	2.35	7.600	0.750	13.40	Cum
		1	0.95	7.600	2.000	14.44	Cum
	Crest	1	1.47	7.600	2.660	29.69	Cum
	TOTAL					384.16	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	1.05	7.600	0.150	1.20	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	25.84	0.450	0.050	0.58	Cum
	On Abutment Top (Right Side)	1	25.84	0.450	0.050	0.58	Cum
	TOTAL					2.36	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	384.16	0.002	0.768	7850.0	6031.27	Kg
	Total Weight in Metric Tonne					6.03	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	1.49		0.450	2.68	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.49		3.410	20.31	Sqm
		4		1.473	3.410	20.09	Sqm
		4	1.49		1.200	7.15	Sqm
		4		2.646	1.200	12.70	Sqm
	Section 2-2	4	6.00		0.450	10.80	Sqm
		4		0.450	0.450	0.81	Sqm
		4	6.00		1.580	37.92	Sqm
		4		0.924	1.580	5.84	Sqm
		4	6.00		1.200	28.80	Sqm
		4		1.548	1.200	7.43	Sqm
	Section 3-3	4	4.17		0.450	7.50	Sqm
		4		0.450	0.450	0.81	Sqm
		4	4.17		1.280	21.33	Sqm
		4		0.834	1.280	4.27	Sqm
		4	4.17		0.750	12.50	Sqm
		4		1.368	0.750	4.10	Sqm
	Section 5-5	4	7.41		0.450	13.35	Sqm
		4		0.450	0.450	0.81	Sqm
		4	7.41		3.410	101.13	Sqm
		4		1.473	3.410	20.09	Sqm
		4	7.41		0.750	22.24	Sqm
		4		2.646	0.750	7.94	Sqm
	Section 6-6	4	4.95		0.450	8.90	Sqm
		4		0.450	0.450	0.81	Sqm
		4	4.95		1.280	25.32	Sqm
		4		0.834	1.280	4.27	Sqm
		4	4.95		0.750	14.84	Sqm
		4		1.368	0.750	4.10	Sqm
	Floor	2	0.64		0.750	0.96	Sqm
		2		7.600	0.750	11.40	Sqm
		2	10.50		0.750	15.75	Sqm
		2		7.600	0.750	11.40	Sqm
		2	0.37		0.600	0.45	Sqm
		2		7.600	0.600	9.12	Sqm
		2	0.30		0.750	0.45	Sqm
		2		7.600	0.750	11.40	Sqm
		2	2.20		0.900	3.96	Sqm
		2		7.600	0.900	13.68	Sqm
		2	0.150		0.825	0.25	Sqm
		2		7.600	0.825	12.54	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	2.350		0.750	3.53	Sqm
		2		7.600	0.750	11.40	Sqm
		2	0.95		2.000	3.80	Sqm
		2		7.600	2.000	30.40	Sqm
	Crest	2	1.47		2.660	7.81	Sqm
		2		7.600	2.660	40.43	Sqm
	Toe Wall D/S Portion	2	19.16		0.300	11.50	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	18.86		0.600	22.63	Sqm
		2		0.450	0.600	0.54	Sqm
	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					666.57	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.						
	<i>In D/S Portion On Slopes</i>	2	4.00	6.018		48.14	Sqm
	TOTAL					48.14	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	<i>In D/S Portion</i>	1	4.00	7.000	0.300	8.40	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	7.000	0.150	8.40	Cum
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>On Abutment Top (Left Side)</i>	1	25.84	0.450		11.63	Sqm
	<i>On Abutment Top (Right Side)</i>	1	25.84	0.450		11.63	Sqm
	TOTAL					23.26	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1		62.442		62.44	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.71	2.918		10.001	Cum
	<i>Section 2-2</i>	2	6.00	2.030		24.360	Cum
	<i>Section 3-3</i>	2	4.70	1.522		14.307	Cum
	<i>Section 5-5</i>	2	7.46	2.850		42.511	Cum
	<i>Section 6-6</i>	2	4.26	1.522		12.974	Cum
	<i>D/S protection</i>	2					
	<i>Toe wall</i>	2	19.16	0.150	0.600	5.748	Cum
		2	4.00	0.150	0.600	0.720	Cum
	TOTAL					173.06	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH. 10.300 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.55	2.612	3.227	26.147	Cum
	<i>Section 2-2</i>	2	5.50	1.698	3.227	60.274	Cum
	<i>Section 3-3</i>	2	3.20	1.518	3.027	29.408	Cum
	<i>Section 5-5</i>	2	7.50	2.762	3.227	133.623	Cum
	<i>Section 6-6</i>	2	4.26	1.518	3.027	39.168	Cum
	<i>U/S Key Floor</i>	1	0.64	7.600	0.900	4.361	Cum
	<i>U/S Floor</i>	1	3.50	7.600	3.024	80.438	Cum
	<i>D/S Floor</i>	1	5.50	7.600	1.150	48.070	Cum
		1	1.00	7.600	0.900	6.840	Cum
		1	2.50	7.600	0.850	16.150	Cum
	<i>D/S Key Floor</i>	1	0.90	7.600	1.200	8.208	Cum
	<i>Toe Wall D/S Portion</i>	1	19.16	0.750	0.900	12.933	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	4.00	0.600	0.750	3.600	Cum
						469.22	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.						
	<i>PCC Below Floor</i>	1	0.54	7.600	0.150	0.62	Cum
		1	0.89	7.600	0.150	1.02	Cum
		1	0.46	7.600	0.150	0.52	Cum
		1	0.50	7.600	0.150	0.56	Cum
		1	7.32	7.600	0.150	8.35	Cum
		1	1.31	7.600	0.150	1.49	Cum
		1	0.95	7.600	0.150	1.08	Cum
		1	2.01	7.600	0.150	2.29	Cum
		1	0.54	7.600	0.150	0.62	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.55	2.612	0.150	1.22	Cum
	<i>Section 2-2</i>	2	5.50	1.698	0.150	2.80	Cum
	<i>Section 3-3</i>	2	3.20	1.518	0.150	1.46	Cum
	<i>Section 5-5</i>	2	7.50	2.762	0.150	6.21	Cum
	<i>Section 6-6</i>	2	4.26	1.518	0.150	1.94	Cum
	<i>Toe Wall D/S Portion</i>	1	19.16	0.750	0.300	4.31	Cum
	<i>Toe Wall D/S Portion</i>	1	18.86	0.450	0.600	5.09	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	4.00	0.600	0.150	0.72	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	4.00	0.300	0.600	1.44	Cum
	TOTAL					41.74	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.33	0.450	0.450	0.54	Cum
		2	1.33	1.381	3.104	11.37	Cum
		2	1.33	2.462	1.050	6.86	Cum
	<i>Section 2-2</i>	2	5.50	0.450	0.450	2.23	Cum
		2	5.50	0.924	1.580	16.06	Cum
		2	5.50	1.548	1.050	17.88	Cum
	<i>Section 3-3</i>	2	2.67	0.450	0.450	1.08	Cum
		2	2.67	0.834	1.280	5.69	Cum
		2	2.67	1.368	0.700	5.11	Cum
	<i>Section 5-5</i>	2	7.45	0.450	0.450	3.02	Cum
		2	7.45	1.381	3.104	63.89	Cum
		2	7.45	2.462	0.700	25.69	Cum
	<i>Section 6-6</i>	2	4.95	0.450	0.450	2.00	Cum
		2	4.95	0.834	1.280	10.56	Cum
		2	4.95	1.368	0.700	9.47	Cum
	<i>Floor</i>	1	0.64	7.600	0.750	3.63	Cum
		1	9.00	7.600	0.700	47.88	Cum
		1	7.36	7.600	0.350	19.58	Cum
		1	0.31	7.600	0.600	1.41	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	0.30	7.600	0.600	1.37	Cum
		1	0.70	7.600	0.750	3.99	Cum
		1	0.05	7.600	0.725	0.28	Cum
		1	2.45	7.600	0.700	13.03	Cum
		1	0.90	7.600	1.800	12.31	Cum
	Crest	1	1.32	7.600	2.359	23.63	Cum
	TOTAL					308.55	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	7.600	0.150	1.08	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	23.64	0.450	0.050	0.53	Cum
	On Abutment Top (Right Side)	1	23.64	0.450	0.050	0.53	Cum
	TOTAL					2.15	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	308.55	0.002	0.617	7850.0	4844.25	Kg
	Total Weight in Metric Tonne					4.84	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	1.33		0.450	2.39	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.33		3.104	16.46	Sqm
		4		1.381	3.104	17.15	Sqm
		4	1.33		1.050	5.57	Sqm
		4		2.462	1.050	10.34	Sqm
	Section 2-2	4	5.50		0.450	9.90	Sqm
		4		0.450	0.450	0.81	Sqm
		4	5.50		1.580	34.76	Sqm
		4		0.924	1.580	5.84	Sqm
		4	5.50		1.050	23.10	Sqm
		4		1.548	1.050	6.50	Sqm
	Section 3-3	4	2.67		0.450	4.80	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.67		1.280	13.65	Sqm
		4		0.834	1.280	4.27	Sqm
		4	2.67		0.700	7.46	Sqm
		4		1.368	0.700	3.83	Sqm
	Section 5-5	4	7.45		0.450	13.41	Sqm
		4		0.450	0.450	0.81	Sqm
		4	7.45		3.104	92.52	Sqm
		4		1.381	3.104	17.15	Sqm
		4	7.45		0.700	20.87	Sqm
		4		2.462	0.700	6.89	Sqm
	Section 6-6	4	4.95		0.450	8.90	Sqm
		4		0.450	0.450	0.81	Sqm
		4	4.95		1.280	25.32	Sqm
		4		0.834	1.280	4.27	Sqm
		4	4.95		0.700	13.85	Sqm
		4		1.368	0.700	3.83	Sqm
	Floor	2	0.64		0.750	0.96	Sqm
		2		7.600	0.750	11.40	Sqm
		2	9.00		0.700	12.60	Sqm
		2		7.600	0.700	10.64	Sqm
		2	0.31		0.600	0.37	Sqm
		2		7.600	0.600	9.12	Sqm
		2	0.30		0.600	0.36	Sqm
		2		7.600	0.600	9.12	Sqm
		2	0.70		0.750	1.05	Sqm
		2		7.600	0.750	11.40	Sqm
		2	0.050		0.725	0.07	Sqm
		2		7.600	0.725	11.02	Sqm
		2	2.450		0.700	3.43	Sqm
		2		7.600	0.700	10.64	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	0.90		1.800	3.24	Sqm
		2		7.600	1.800	27.36	Sqm
	Crest	2	1.32		2.359	6.22	Sqm
		2		7.600	2.359	35.86	Sqm
	Toe Wall D/S Portion	2	19.16		0.300	11.50	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	18.86		0.600	22.63	Sqm
		2		0.450	0.600	0.54	Sqm
	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					590.14	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.						
	<i>In D/S Portion On Slopes</i>	2	4.00	6.018		48.14	Sqm
	TOTAL					48.14	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	<i>In D/S Portion</i>	1	4.00	7.000	0.300	8.40	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	7.000	0.150	8.40	Cum
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>On Abutment Top (Left Side)</i>	1	23.64	0.450		10.64	Sqm
	<i>On Abutment Top (Right Side)</i>	1	23.64	0.450		10.64	Sqm
	TOTAL					21.28	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1		34.452		34.45	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.55	1.998		6.196	Cum
	<i>Section 2-2</i>	2	5.50	1.940		21.340	Cum
	<i>Section 3-3</i>	2	3.20	1.460		9.344	Cum
	<i>Section 5-5</i>	2	7.50	1.945		29.159	Cum
	<i>Section 6-6</i>	2	4.26	1.460		12.445	Cum
	<i>D/S protection</i>	2					
	<i>Toe wall</i>	2	19.16	0.150	0.600	5.748	Cum
		2	4.00	0.150	0.600	0.720	Cum
	TOTAL					119.40	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 0.762 METER AT CH. 29.875 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	0.94	1.651	1.819	5.655	Cum
	<i>Section 2-2</i>	2	3.21	1.194	1.819	13.930	Cum
	<i>Section 3-3</i>	2	1.49	1.074	1.619	5.192	Cum
	<i>Section 5-5</i>	2	4.03	1.801	1.819	26.421	Cum
	<i>Section 6-6</i>	2	2.12	1.074	1.619	7.359	Cum
	<i>U/S Key Floor</i>	1	0.52	1.200	0.850	0.530	Cum
	<i>U/S Floor</i>	1	2.00	1.200	1.612	3.869	Cum
	<i>D/S Floor</i>	1	3.00	1.200	0.850	3.060	Cum
		1	2.00	1.200	0.650	1.560	Cum
	<i>D/S Key Floor</i>	1	0.63	1.200	0.850	0.638	Cum
	<i>Toe Wall D/S Portion</i>	1	7.58	0.750	0.900	5.117	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	1.75	0.600	0.750	1.575	Cum
						74.91	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.						
	<i>PCC Below Floor</i>	1	0.54	1.200	0.150	0.10	Cum
		1	0.78	1.200	0.150	0.14	Cum
		1	4.38	1.200	0.150	0.79	Cum
		1	0.28	1.200	0.150	0.05	Cum
		1	0.64	1.200	0.150	0.11	Cum
		1	0.78	1.200	0.150	0.14	Cum
		1	0.54	1.200	0.150	0.10	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	0.94	1.651	0.150	0.47	Cum
	<i>Section 2-2</i>	2	3.21	1.194	0.150	1.15	Cum
	<i>Section 3-3</i>	2	1.49	1.074	0.150	0.48	Cum
	<i>Section 5-5</i>	2	4.03	1.801	0.150	2.18	Cum
	<i>Section 6-6</i>	2	2.12	1.074	0.150	0.68	Cum
	<i>Toe Wall D/S Portion</i>	1	7.58	0.750	0.300	1.71	Cum
	<i>Toe Wall D/S Portion</i>	1	7.28	0.450	0.600	1.97	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.75	0.600	0.150	0.32	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.75	0.300	0.600	0.63	Cum
	TOTAL					11.00	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.04	0.450	0.450	0.42	Cum
		2	1.04	0.901	1.502	2.81	Cum
		2	1.04	1.501	0.500	1.56	Cum
	<i>Section 2-2</i>	2	3.21	0.450	0.450	1.30	Cum
		2	3.21	0.672	0.740	3.19	Cum
		2	3.21	1.044	0.500	3.35	Cum
	<i>Section 3-3</i>	2	1.18	0.450	0.450	0.48	Cum
		2	1.18	0.612	0.540	0.78	Cum
		2	1.18	0.924	0.500	1.09	Cum
	<i>Section 5-5</i>	2	3.99	0.450	0.450	1.62	Cum
		2	3.99	0.901	1.502	10.79	Cum
		2	3.99	1.501	0.500	5.99	Cum
	<i>Section 6-6</i>	2	2.58	0.450	0.450	1.04	Cum
		2	2.58	0.612	0.540	1.70	Cum
		2	2.58	0.924	0.500	2.38	Cum
	<i>Floor</i>	1	0.52	1.200	0.700	0.44	Cum
		1	5.00	1.200	0.500	3.00	Cum
		1	0.31	1.200	0.200	0.07	Cum
		1	0.20	1.200	0.400	0.10	Cum
		1	1.80	1.200	0.500	1.08	Cum
		1	0.63	1.200	0.700	0.53	Cum
	<i>Crest</i>	1	0.83	1.200	1.112	1.10	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					44.82	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	1.200	0.150	0.12	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	12.90	0.450	0.050	0.29	Cum
	On Abutment Top (Right Side)	1	12.90	0.450	0.050	0.29	Cum
	TOTAL					0.70	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	44.82	0.003	0.134	7850.0	1055.48	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	1.04		0.450	1.87	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.04		1.502	6.25	Sqm
		4		0.901	1.502	5.41	Sqm
		4	1.04		0.500	2.08	Sqm
		4		1.501	0.500	3.00	Sqm
	Section 2-2	4	3.21		0.450	5.77	Sqm
		4		0.450	0.450	0.81	Sqm
		4	3.21		0.740	9.49	Sqm
		4		0.672	0.740	1.99	Sqm
		4	3.21		0.500	6.41	Sqm
		4		1.044	0.500	2.09	Sqm
	Section 3-3	4	1.18		0.450	2.13	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.18		0.540	2.55	Sqm
		4		0.612	0.540	1.32	Sqm
		4	1.18		0.500	2.36	Sqm
		4		0.924	0.500	1.85	Sqm
	Section 5-5	4	3.99		0.450	7.18	Sqm
		4		0.450	0.450	0.81	Sqm
		4	3.99		1.502	23.96	Sqm
		4		0.901	1.502	5.41	Sqm
		4	3.99		0.500	7.98	Sqm
		4		1.501	0.500	3.00	Sqm
	Section 6-6	4	2.58		0.450	4.64	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.58		0.540	5.57	Sqm
		4		0.612	0.540	1.32	Sqm
		4	2.58		0.500	5.16	Sqm
		4		0.924	0.500	1.85	Sqm
	Floor	2	0.52		0.700	0.73	Sqm
		2		1.200	0.700	1.68	Sqm
		2	5.00		0.500	5.00	Sqm
		2		1.200	0.500	1.20	Sqm
		2	0.31		0.200	0.12	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	1.80		0.500	1.80	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	0.83		1.112	1.84	Sqm
		2		1.200	1.112	2.67	Sqm
	Toe Wall D/S Portion	2	7.58		0.300	4.55	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	7.28		0.600	8.74	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

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	4	1.75		0.600	4.20	Sqm
		4		0.300	0.600	0.72	Sqm
	TOTAL					165.69	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.						
	<i>In D/S Portion On Slopes</i>	2	1.75	3.204		11.21	Sqm
	TOTAL					11.21	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	<i>In D/S Portion</i>	1	1.75	0.600	0.300	0.32	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	0.600	0.150	0.32	Cum
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>On Abutment Top (Left Side)</i>	1	12.90	0.450		5.80	Sqm
	<i>On Abutment Top (Right Side)</i>	1	12.90	0.450		5.80	Sqm
	TOTAL					11.61	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1		1.881		1.88	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	0.94	0.840		1.582	Cum
	<i>Section 2-2</i>	2	3.21	0.835		5.356	Cum
	<i>Section 3-3</i>	2	1.49	0.593		1.771	Cum
	<i>Section 5-5</i>	2	4.03	0.840		6.775	Cum
	<i>Section 6-6</i>	2	2.12	0.593		2.510	Cum
	<i>D/S protection</i>	2					
	<i>Toe wall</i>	2	7.58	0.150	0.600	2.274	Cum
		2	1.75	0.150	0.600	0.315	Cum
	TOTAL					22.46	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 0.762 METER AT CH. 30.000 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.07	1.651	1.976	6.998	Cum
	<i>Section 2-2</i>	2	3.00	1.140	1.976	13.516	Cum
	<i>Section 3-3</i>	2	1.45	1.020	1.776	5.253	Cum
	<i>Section 5-5</i>	2	4.03	1.801	1.976	28.698	Cum
	<i>Section 6-6</i>	2	1.86	1.020	1.776	6.721	Cum
	<i>U/S Key Floor</i>	1	0.52	0.900	0.850	0.398	Cum
	<i>U/S Floor</i>	1	2.00	0.900	1.612	2.902	Cum
	<i>D/S Floor</i>	1	3.00	0.900	0.850	2.295	Cum
		2	1.75	0.900	0.650	2.048	Cum
	<i>D/S Key Floor</i>	1	0.63	0.900	0.850	0.478	Cum
	<i>Toe Wall D/S Portion</i>	1	6.65	0.750	0.900	4.489	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	1.50	0.600	0.750	1.350	Cum
						75.14	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.						
	<i>PCC Below Floor</i>	1	0.54	0.900	0.150	0.07	Cum
		1	0.78	0.900	0.150	0.11	Cum
		1	4.38	0.900	0.150	0.59	Cum
		1	0.28	0.900	0.150	0.04	Cum
		1	0.39	0.900	0.150	0.05	Cum
		1	0.78	0.900	0.150	0.11	Cum
		1	0.54	0.900	0.150	0.07	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.07	1.651	0.150	0.53	Cum
	<i>Section 2-2</i>	2	3.00	1.140	0.150	1.03	Cum
	<i>Section 3-3</i>	2	1.45	1.020	0.150	0.44	Cum
	<i>Section 5-5</i>	2	4.03	1.801	0.150	2.18	Cum
	<i>Section 6-6</i>	2	1.86	1.020	0.150	0.57	Cum
	<i>Toe Wall D/S Portion</i>	1	6.65	0.750	0.300	1.50	Cum
	<i>Toe Wall D/S Portion</i>	1	6.35	0.450	0.600	1.71	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.50	0.600	0.150	0.27	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.50	0.300	0.600	0.54	Cum
	TOTAL					9.81	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	0.85	0.450	0.450	0.34	Cum
		2	0.85	0.901	1.502	2.29	Cum
		2	0.85	1.501	0.500	1.27	Cum
	<i>Section 2-2</i>	2	3.00	0.450	0.450	1.22	Cum
		2	3.00	0.645	0.650	2.52	Cum
		2	3.00	0.990	0.500	2.97	Cum
	<i>Section 3-3</i>	2	1.17	0.450	0.450	0.47	Cum
		2	1.17	0.585	0.450	0.61	Cum
		2	1.17	0.870	0.500	1.01	Cum
	<i>Section 5-5</i>	2	3.99	0.450	0.450	1.62	Cum
		2	3.99	0.901	1.502	10.79	Cum
		2	3.99	1.501	0.500	5.99	Cum
	<i>Section 6-6</i>	2	2.29	0.450	0.450	0.93	Cum
		2	2.29	0.585	0.450	1.21	Cum
		2	2.29	0.870	0.500	1.99	Cum
	<i>Floor</i>	1	0.52	0.900	0.700	0.33	Cum
		1	5.00	0.900	0.500	2.25	Cum
		1	0.31	0.900	0.200	0.06	Cum
		1	0.20	0.900	0.400	0.07	Cum
		1	1.55	0.900	0.500	0.70	Cum
		1	0.63	0.900	0.700	0.39	Cum
	<i>Crest</i>	1	0.83	0.900	1.067	0.80	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					39.82	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	0.900	0.150	0.09	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	12.15	0.450	0.050	0.27	Cum
	On Abutment Top (Right Side)	1	12.15	0.450	0.050	0.27	Cum
	TOTAL					0.63	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	39.82	0.00	0.119	7850.0	937.65	Kg
	Total Weight in Metric Tonne					0.94	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	0.85		0.450	1.53	Sqm
		4		0.450	0.450	0.81	Sqm
		4	0.85		1.502	5.09	Sqm
		4		0.901	1.502	5.41	Sqm
		4	0.85		0.500	1.70	Sqm
		4		1.501	0.500	3.00	Sqm
	Section 2-2	4	3.00		0.450	5.40	Sqm
		4		0.450	0.450	0.81	Sqm
		4	3.00		0.650	7.80	Sqm
		4		0.645	0.650	1.68	Sqm
		4	3.00		0.500	6.00	Sqm
		4		0.990	0.500	1.98	Sqm
	Section 3-3	4	1.17		0.450	2.10	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.17		0.450	2.10	Sqm
		4		0.585	0.450	1.05	Sqm
		4	1.17		0.500	2.33	Sqm
		4		0.870	0.500	1.74	Sqm
	Section 5-5	4	3.99		0.450	7.18	Sqm
		4		0.450	0.450	0.81	Sqm
		4	3.99		1.502	23.96	Sqm
		4		0.901	1.502	5.41	Sqm
		4	3.99		0.500	7.98	Sqm
		4		1.501	0.500	3.00	Sqm
	Section 6-6	4	2.29		0.450	4.12	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.29		0.450	4.12	Sqm
		4		0.585	0.450	1.05	Sqm
		4	2.29		0.500	4.58	Sqm
		4		0.870	0.500	1.74	Sqm
	Floor	2	0.52		0.700	0.73	Sqm
		2		0.900	0.700	1.26	Sqm
		2	5.00		0.500	5.00	Sqm
		2		0.900	0.500	0.90	Sqm
		2	0.31		0.200	0.12	Sqm
		2		0.900	0.200	0.36	Sqm
		2	0.20		0.400	0.16	Sqm
		2		0.900	0.400	0.72	Sqm
		2	1.55		0.500	1.55	Sqm
		2		0.900	0.500	0.90	Sqm
		2	0.63		0.700	0.88	Sqm
		2		0.900	0.700	1.26	Sqm
	Crest	2	0.83		1.067	1.77	Sqm
		2		0.900	1.067	1.92	Sqm
	Toe Wall D/S Portion	2	6.65		0.300	3.99	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	6.35		0.600	7.62	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

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	4	1.50		0.600	3.60	Sqm
		4		0.300	0.600	0.72	Sqm
	TOTAL					151.80	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.						
	<i>In D/S Portion On Slopes</i>	2	1.50	2.142		6.43	Sqm
	TOTAL					6.43	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	<i>In D/S Portion</i>	1	1.50	0.300	0.300	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	0.300	0.150	0.14	Cum
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>On Abutment Top (Left Side)</i>	1	12.15	0.450		5.47	Sqm
	<i>On Abutment Top (Right Side)</i>	1	12.15	0.450		5.47	Sqm
	TOTAL					10.93	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1		1.739		1.74	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.07	1.000		2.145	Cum
	<i>Section 2-2</i>	2	3.00	0.744		4.464	Cum
	<i>Section 3-3</i>	2	1.45	0.556		1.612	Cum
	<i>Section 5-5</i>	2	4.03	1.000		8.064	Cum
	<i>Section 6-6</i>	2	1.86	0.556		2.063	Cum
	<i>D/S protection</i>	2					
	<i>Toe wall</i>	2	6.65	0.150	0.600	1.995	Cum
		2	1.50	0.150	0.600	0.270	Cum
	TOTAL					22.35	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR PAWAI MR.							
SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH. 0.200 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.22	1.780	3.544	15.436	Cum
	<i>Section 2-2</i>	2	3.00	1.140	3.544	24.241	Cum
	<i>Section 3-3</i>	2	2.20	1.020	3.344	15.008	Cum
	<i>Section 5-5</i>	2	2.29	1.930	3.544	31.299	Cum
	<i>Section 6-6</i>	2	0.96	1.020	3.344	6.515	Cum
	<i>U/S Key Floor</i>	1	0.63	1.500	0.850	0.797	Cum
	<i>U/S Floor</i>	1	2.50	1.500	2.017	7.564	Cum
	<i>D/S Floor</i>	1	3.00	1.500	1.050	4.725	Cum
		1	2.50	1.500	0.850	3.188	Cum
	<i>D/S Key Floor</i>	1	0.70	1.500	0.750	0.788	Cum
	<i>Toe Wall D/S Portion</i>	1	5.45	0.750	0.900	3.679	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	1.50	0.600	0.750	1.350	Cum
						114.59	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.						
	<i>PCC Below Floor</i>	1	0.54	1.500	0.150	0.12	Cum
		1	0.78	1.500	0.150	0.18	Cum
		1	0.26	1.500	0.150	0.06	Cum
		1	0.14	1.500	0.150	0.03	Cum
		1	4.42	1.500	0.150	0.99	Cum
		1	0.42	1.500	0.150	0.10	Cum
		1	0.99	1.500	0.150	0.22	Cum
		1	1.12	1.500	0.150	0.25	Cum
		1	0.54	1.500	0.150	0.12	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.22	1.780	0.150	0.65	Cum
	<i>Section 2-2</i>	2	3.00	1.140	0.150	1.03	Cum
	<i>Section 3-3</i>	2	2.20	1.020	0.150	0.67	Cum
	<i>Section 5-5</i>	2	2.29	1.930	0.150	1.32	Cum
	<i>Section 6-6</i>	2	0.96	1.020	0.150	0.29	Cum
	<i>Toe Wall D/S Portion</i>	1	5.45	0.750	0.300	1.23	Cum
	<i>Toe Wall D/S Portion</i>	1	5.15	0.450	0.600	1.39	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.50	0.600	0.150	0.27	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.50	0.300	0.600	0.54	Cum
	TOTAL					9.47	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.00	0.450	0.450	0.40	Cum
		2	1.00	0.965	1.717	3.31	Cum
		2	1.00	1.630	0.600	1.95	Cum
	<i>Section 2-2</i>	2	3.00	0.450	0.450	1.22	Cum
		2	3.00	0.645	0.650	2.52	Cum
		2	3.00	0.990	0.600	3.56	Cum
	<i>Section 3-3</i>	2	1.92	0.450	0.450	0.78	Cum
		2	1.92	0.585	0.450	1.01	Cum
		2	1.92	0.870	0.500	1.67	Cum
	<i>Section 5-5</i>	2	2.24	0.450	0.450	0.91	Cum
		2	2.24	0.965	1.717	7.44	Cum
		2	2.24	1.630	0.500	3.66	Cum
	<i>Section 6-6</i>	2	1.39	0.450	0.450	0.56	Cum
		2	1.39	0.585	0.450	0.73	Cum
		2	1.39	0.870	0.500	1.21	Cum
	<i>Floor</i>	1	0.63	1.500	0.700	0.66	Cum
		1	5.50	1.500	0.500	4.13	Cum
		1	4.24	1.500	0.100	0.64	Cum
		1	0.26	1.500	0.300	0.12	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	0.20	1.500	0.750	0.23	Cum
		1	2.30	1.500	0.500	1.73	Cum
		1	0.70	1.500	1.000	1.05	Cum
	Crest	1	0.97	1.500	1.357	1.97	Cum
	TOTAL					41.42	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	0.75	1.500	0.150	0.17	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	10.45	0.450	0.050	0.24	Cum
	On Abutment Top (Right Side)	1	10.45	0.450	0.050	0.24	Cum
	TOTAL					0.64	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 @0.3% of M-20	41.42	0.00	0.124	7850.0	975.44	Kg
	Total Weight in Metric Tonne					0.98	MT
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	4	1.00		0.450	1.80	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.00		1.717	6.86	Sqm
		4		0.965	1.717	6.63	Sqm
		4	1.00		0.600	2.40	Sqm
		4		1.630	0.600	3.91	Sqm
	Section 2-2	4	3.00		0.450	5.40	Sqm
		4		0.450	0.450	0.81	Sqm
		4	3.00		0.650	7.80	Sqm
		4		0.645	0.650	1.68	Sqm
		4	3.00		0.600	7.20	Sqm
		4		0.990	0.600	2.38	Sqm
	Section 3-3	4	1.92		0.450	3.45	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.92		0.450	3.45	Sqm
		4		0.585	0.450	1.05	Sqm
		4	1.92		0.500	3.83	Sqm
		4		0.870	0.500	1.74	Sqm
	Section 5-5	4	2.24		0.450	4.04	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.24		1.717	15.41	Sqm
		4		0.965	1.717	6.63	Sqm
		4	2.24		0.500	4.49	Sqm
		4		1.630	0.500	3.26	Sqm
	Section 6-6	4	1.39		0.450	2.50	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.39		0.450	2.50	Sqm
		4		0.585	0.450	1.05	Sqm
		4	1.39		0.500	2.78	Sqm
		4		0.870	0.500	1.74	Sqm
	Floor	2	0.63		0.700	0.88	Sqm
		2		1.500	0.700	2.10	Sqm
		2	5.50		0.500	5.50	Sqm
		2		1.500	0.500	1.50	Sqm
		2	0.26		0.300	0.15	Sqm
		2		1.500	0.300	0.90	Sqm
		2	0.20		0.750	0.30	Sqm
		2		1.500	0.750	2.25	Sqm
		2	2.30		0.500	2.30	Sqm
		2		1.500	0.500	1.50	Sqm
		2	0.70		1.000	1.40	Sqm
		2		1.500	1.000	3.00	Sqm
	Crest	2	0.97		1.357	2.63	Sqm
		2		1.500	1.357	4.07	Sqm
	Toe Wall D/S Portion	2	5.45		0.300	3.27	Sqm
		2		0.750	0.300	0.45	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall D/S Portion	2	5.15		0.600	6.18	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					152.51	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.						
	<i>In D/S Portion On Slopes</i>	2	1.50	1.962		5.89	Sqm
	TOTAL					5.89	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	<i>In D/S Portion</i>	1	1.50	0.900	0.300	0.41	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	0.900	0.150	0.41	Cum
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>On Abutment Top (Left Side)</i>	1	10.45	0.450		4.70	Sqm
	<i>On Abutment Top (Right Side)</i>	1	10.45	0.450		4.70	Sqm
	TOTAL					9.41	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1		4.956		4.96	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.22	2.155		5.273	Cum
	<i>Section 2-2</i>	2	3.00	0.757		4.542	Cum
	<i>Section 3-3</i>	2	2.20	0.556		2.446	Cum
	<i>Section 5-5</i>	2	2.29	2.134		9.765	Cum
	<i>Section 6-6</i>	2	0.96	0.556		1.062	Cum
	<i>D/S protection</i>	2					
	<i>Toe wall</i>	2	5.45	0.150	0.600	1.635	Cum
		2	1.50	0.150	0.600	0.270	Cum
	TOTAL					29.95	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 0.375 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.14	1.688	2.508	9.669	Cum
	<i>Section 2-2</i>	2	2.75	1.140	2.508	15.725	Cum
	<i>Section 3-3</i>	2	1.70	1.020	2.308	8.004	Cum
	<i>Section 5-5</i>	2	2.31	1.838	2.508	21.260	Cum
	<i>Section 6-6</i>	2	0.96	1.020	2.308	4.496	Cum
	<i>U/S Key Floor</i>	1	0.63	1.500	0.850	0.797	Cum
	<i>U/S Floor</i>	1	2.25	1.500	1.764	5.954	Cum
	<i>D/S Floor</i>	1	2.75	1.500	0.950	3.919	Cum
		1	2.00	1.500	0.750	2.250	Cum
	<i>D/S Key Floor</i>	1	0.65	1.500	0.650	0.634	Cum
	<i>Toe Wall D/S Portion</i>	1	5.45	0.750	0.900	3.679	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	1.50	0.600	0.750	1.350	Cum
						77.74	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.						
	<i>PCC Below Floor</i>	1	0.54	1.500	0.150	0.12	Cum
		1	0.78	1.500	0.150	0.18	Cum
		1	4.23	1.500	0.150	0.95	Cum
		1	0.28	1.500	0.150	0.06	Cum
		1	0.79	1.500	0.150	0.18	Cum
		1	0.78	1.500	0.150	0.18	Cum
		1	0.54	1.500	0.150	0.12	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.14	1.688	0.150	0.58	Cum
	<i>Section 2-2</i>	2	2.75	1.140	0.150	0.94	Cum
	<i>Section 3-3</i>	2	1.70	1.020	0.150	0.52	Cum
	<i>Section 5-5</i>	2	2.31	1.838	0.150	1.27	Cum
	<i>Section 6-6</i>	2	0.96	1.020	0.150	0.29	Cum
	<i>Toe Wall D/S Portion</i>	1	5.45	0.750	0.300	1.23	Cum
	<i>Toe Wall D/S Portion</i>	1	5.15	0.450	0.600	1.39	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.50	0.600	0.150	0.27	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.50	0.300	0.600	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	0.92	0.450	0.450	0.37	Cum
		2	0.92	0.919	1.564	2.63	Cum
		2	0.92	1.538	0.500	1.41	Cum
	<i>Section 2-2</i>	2	2.75	0.450	0.450	1.11	Cum
		2	2.75	0.645	0.650	2.31	Cum
		2	2.75	0.990	0.500	2.72	Cum
	<i>Section 3-3</i>	2	1.92	0.450	0.450	0.78	Cum
		2	1.92	0.585	0.450	1.01	Cum
		2	1.92	0.870	0.500	1.67	Cum
	<i>Section 5-5</i>	2	2.26	0.450	0.450	0.92	Cum
		2	2.26	0.919	1.564	6.50	Cum
		2	2.26	1.538	0.500	3.48	Cum
	<i>Section 6-6</i>	2	1.39	0.450	0.450	0.56	Cum
		2	1.39	0.585	0.450	0.73	Cum
		2	1.39	0.870	0.500	1.21	Cum
	<i>Floor</i>	1	0.63	1.500	0.700	0.66	Cum
		1	5.00	1.500	0.500	3.75	Cum
		1	0.16	1.500	0.200	0.05	Cum
		1	0.20	1.500	0.400	0.12	Cum
		1	1.80	1.500	0.500	1.35	Cum
		1	0.65	1.500	0.800	0.78	Cum
	<i>Crest</i>	1	0.89	1.500	1.204	1.61	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					35.72	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	1.500	0.150	0.16	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	9.60	0.450	0.050	0.22	Cum
	On Abutment Top (Right Side)	1	9.60	0.450	0.050	0.22	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	35.72	0.00	0.107	7850.0	841.30	Kg
	Total Weight in Metric Tonne					0.84	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	0.92		0.450	1.65	Sqm
		4		0.450	0.450	0.81	Sqm
		4	0.92		1.564	5.73	Sqm
		4		0.919	1.564	5.75	Sqm
		4	0.92		0.500	1.83	Sqm
		4		1.538	0.500	3.08	Sqm
	Section 2-2	4	2.75		0.450	4.95	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.75		0.650	7.15	Sqm
		4		0.645	0.650	1.68	Sqm
		4	2.75		0.500	5.50	Sqm
		4		0.990	0.500	1.98	Sqm
	Section 3-3	4	1.92		0.450	3.45	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.92		0.450	3.45	Sqm
		4		0.585	0.450	1.05	Sqm
		4	1.92		0.500	3.83	Sqm
		4		0.870	0.500	1.74	Sqm
	Section 5-5	4	2.26		0.450	4.07	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.26		1.564	14.15	Sqm
		4		0.919	1.564	5.75	Sqm
		4	2.26		0.500	4.52	Sqm
		4		1.538	0.500	3.08	Sqm
	Section 6-6	4	1.39		0.450	2.50	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.39		0.450	2.50	Sqm
		4		0.585	0.450	1.05	Sqm
		4	1.39		0.500	2.78	Sqm
		4		0.870	0.500	1.74	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	0.16		0.200	0.06	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	0.65		0.800	1.04	Sqm
		2		1.500	0.800	2.40	Sqm
	Crest	2	0.89		1.204	2.15	Sqm
		2		1.500	1.204	3.61	Sqm
	Toe Wall D/S Portion	2	5.45		0.300	3.27	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	5.15		0.600	6.18	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

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	4	1.50		0.600	3.60	Sqm
		4		0.300	0.600	0.72	Sqm
	TOTAL					139.03	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.						
	<i>In D/S Portion On Slopes</i>	2	1.50	1.962		5.89	Sqm
	TOTAL					5.89	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	<i>In D/S Portion</i>	1	1.50	0.900	0.300	0.41	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	0.900	0.150	0.41	Cum
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>On Abutment Top (Left Side)</i>	1	9.60	0.450		4.32	Sqm
	<i>On Abutment Top (Right Side)</i>	1	9.60	0.450		4.32	Sqm
	TOTAL					8.64	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1		3.546		3.55	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.14	1.645		3.757	Cum
	<i>Section 2-2</i>	2	2.75	0.742		4.081	Cum
	<i>Section 3-3</i>	2	1.70	0.556		1.890	Cum
	<i>Section 5-5</i>	2	2.31	1.650		7.610	Cum
	<i>Section 6-6</i>	2	0.96	0.556		1.062	Cum
	<i>D/S protection</i>	2					
	<i>Toe wall</i>	2	5.45	0.150	0.600	1.635	Cum
		2	1.50	0.150	0.600	0.270	Cum
	TOTAL					23.85	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 1.829 METER AT CH. 1.720 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.54	2.177	1.241	8.299	Cum
	<i>Section 2-2</i>	2	3.70	1.050	1.241	9.643	Cum
	<i>Section 3-3</i>	2	4.00	0.930	1.041	7.745	Cum
	<i>Section 5-5</i>	2	1.99	2.327	1.241	11.514	Cum
	<i>Section 6-6</i>	2	0.82	0.930	1.041	1.588	Cum
	<i>U/S Key Floor</i>	1	0.65	0.750	0.950	0.463	Cum
	<i>U/S Floor</i>	1	3.50	0.750	3.129	8.214	Cum
	<i>D/S Floor</i>	1	3.50	0.750	1.400	3.675	Cum
		1	1.50	0.750	1.200	1.350	Cum
		2	3.00	0.750	0.850	3.825	Cum
	<i>D/S Key Floor</i>	1	0.90	0.750	1.100	0.743	Cum
	<i>Toe Wall D/S Portion</i>	1	4.25	0.750	0.900	2.869	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	1.50	0.600	0.750	1.350	Cum
						61.28	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.						
	<i>PCC Below Floor</i>	1	0.54	0.750	0.150	0.06	Cum
		1	0.90	0.750	0.150	0.10	Cum
		1	0.66	0.750	0.150	0.07	Cum
		1	0.35	0.750	0.150	0.04	Cum
		1	5.35	0.750	0.150	0.60	Cum
		1	0.50	0.750	0.150	0.06	Cum
		1	1.00	0.750	0.150	0.11	Cum
		1	0.14	0.750	0.150	0.02	Cum
		1	1.40	0.750	0.150	0.16	Cum
		1	2.01	0.750	0.150	0.23	Cum
		1	0.54	0.750	0.150	0.06	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.54	2.177	0.150	1.00	Cum
	<i>Section 2-2</i>	2	3.70	1.050	0.150	1.17	Cum
	<i>Section 3-3</i>	2	4.00	0.930	0.150	1.12	Cum
	<i>Section 5-5</i>	2	1.99	2.327	0.150	1.39	Cum
	<i>Section 6-6</i>	2	0.82	0.930	0.150	0.23	Cum
	<i>Toe Wall D/S Portion</i>	1	4.25	0.750	0.300	0.96	Cum
	<i>Toe Wall D/S Portion</i>	1	3.95	0.450	0.600	1.07	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.50	0.600	0.150	0.27	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.50	0.300	0.600	0.54	Cum
	TOTAL					9.25	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.31	0.450	0.450	0.53	Cum
		2	1.31	1.164	2.379	7.26	Cum
		2	1.31	2.027	0.950	5.05	Cum
	<i>Section 2-2</i>	2	3.70	0.450	0.450	1.50	Cum
		2	3.70	0.600	0.500	2.22	Cum
		2	3.70	0.900	0.950	6.33	Cum
	<i>Section 3-3</i>	2	3.76	0.450	0.450	1.52	Cum
		2	3.76	0.540	0.300	1.22	Cum
		2	3.76	0.780	0.700	4.11	Cum
	<i>Section 5-5</i>	2	1.95	0.450	0.450	0.79	Cum
		2	1.95	1.164	2.379	10.79	Cum
		2	1.95	2.027	0.700	5.53	Cum
	<i>Section 6-6</i>	2	1.29	0.450	0.450	0.52	Cum
		2	1.29	0.540	0.300	0.42	Cum
		2	1.29	0.780	0.700	1.40	Cum
	<i>Floor</i>	1	0.65	0.750	0.800	0.39	Cum
		1	7.00	0.750	0.700	3.68	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	5.21	0.750	0.250	0.98	Cum
		1	0.32	0.750	0.350	0.08	Cum
		1	0.20	0.750	0.750	0.11	Cum
		1	1.30	0.750	0.800	0.78	Cum
		1	0.10	0.750	0.750	0.06	Cum
		1	2.90	0.750	0.700	1.52	Cum
		1	0.90	0.750	1.800	1.22	Cum
	Crest	1	1.24	0.750	2.094	1.95	Cum
	TOTAL					59.94	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	0.750	0.150	0.10	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	12.91	0.450	0.050	0.29	Cum
	On Abutment Top (Right Side)	1	12.91	0.450	0.050	0.29	Cum
	TOTAL					0.68	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	59.94	0.00	0.180	7850.0	1411.69	Kg
	Total Weight in Metric Tonne					1.41	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	1.31		0.450	2.36	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.31		2.379	12.48	Sqm
		4		1.164	2.379	11.07	Sqm
		4	1.31		0.950	4.98	Sqm
		4		2.027	0.950	7.70	Sqm
	Section 2-2	4	3.70		0.450	6.66	Sqm
		4		0.450	0.450	0.81	Sqm
		4	3.70		0.500	7.40	Sqm
		4		0.600	0.500	1.20	Sqm
		4	3.70		0.950	14.06	Sqm
		4		0.900	0.950	3.42	Sqm
	Section 3-3	4	3.76		0.450	6.77	Sqm
		4		0.450	0.450	0.81	Sqm
		4	3.76		0.300	4.51	Sqm
		4		0.540	0.300	0.65	Sqm
		4	3.76		0.700	10.53	Sqm
		4		0.780	0.700	2.18	Sqm
	Section 5-5	4	1.95		0.450	3.51	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.95		2.379	18.55	Sqm
		4		1.164	2.379	11.07	Sqm
		4	1.95		0.700	5.46	Sqm
		4		2.027	0.700	5.68	Sqm
	Section 6-6	4	1.29		0.450	2.31	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.29		0.300	1.54	Sqm
		4		0.540	0.300	0.65	Sqm
		4	1.29		0.700	3.60	Sqm
		4		0.780	0.700	2.18	Sqm
	Floor	2	0.65		0.800	1.04	Sqm
		2		0.750	0.800	1.20	Sqm
		2	7.00		0.700	9.80	Sqm
		2		0.750	0.700	1.05	Sqm
		2	0.32		0.350	0.23	Sqm
		2		0.750	0.350	0.53	Sqm
		2	0.20		0.750	0.30	Sqm
		2		0.750	0.750	1.13	Sqm
		2	1.30		0.800	2.08	Sqm
		2		0.750	0.800	1.20	Sqm
		2	0.100		0.750	0.15	Sqm
		2		0.750	0.750	1.13	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	2.900		0.700	4.06	Sqm
		2		0.750	0.700	1.05	Sqm
		2	0.90		1.800	3.24	Sqm
		2		0.750	1.800	2.70	Sqm
	Crest	2	1.24		2.094	5.20	Sqm
		2		0.750	2.094	3.14	Sqm
	Toe Wall D/S Portion	2	4.25		0.300	2.55	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	3.95		0.600	4.74	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					207.64	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.						
	<i>In D/S Portion On Slopes</i>	2	1.50	1.692		5.08	Sqm
	TOTAL					5.08	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	<i>In D/S Portion</i>	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.						
	<i>On Abutment Top (Left Side)</i>	1	12.91	0.450		5.81	Sqm
	<i>On Abutment Top (Right Side)</i>	1	12.91	0.450		5.81	Sqm
	TOTAL					11.62	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1		8.910		8.91	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.54	0.200		0.614	Cum
	<i>Section 2-2</i>	2	3.70	0.200		1.480	Cum
	<i>Section 3-3</i>	2	4.00	0.097		0.776	Cum
	<i>Section 5-5</i>	2	1.99	0.200		0.797	Cum
	<i>Section 6-6</i>	2	0.82	0.097		0.159	Cum
	<i>D/S protection</i>	2					
	<i>Toe wall</i>	2	4.25	0.150	0.600	1.275	Cum
		2	1.50	0.150	0.600	0.270	Cum
	TOTAL					14.28	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR BHUTAILI MR.							
SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH.0.580 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.37	2.054	1.440	8.095	Cum
	<i>Section 2-2</i>	2	3.65	1.140	1.440	11.984	Cum
	<i>Section 3-3</i>	2	3.30	1.020	1.240	8.348	Cum
	<i>Section 5-5</i>	2	2.23	2.204	1.440	14.155	Cum
	<i>Section 6-6</i>	2	0.96	1.020	1.240	2.416	Cum
	<i>U/S Key Floor</i>	1	0.70	1.200	1.150	0.966	Cum
	<i>U/S Floor</i>	1	3.25	1.200	2.830	11.037	Cum
	<i>D/S Floor</i>	1	3.25	1.200	0.850	3.315	Cum
		1	4.79	1.200	0.200	1.149	Cum
		1	2.00	1.200	0.650	1.558	Cum
		1	2.00	1.200	0.500	1.200	Cum
	<i>D/S Key Floor</i>	1	0.83	1.200	0.770	0.762	Cum
	<i>Toe Wall D/S Portion</i>	1	5.15	0.750	0.900	3.476	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	1.50	0.600	0.750	1.350	Cum
						69.81	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.						
	<i>PCC Below Floor</i>	1	0.54	1.200	0.150	0.10	Cum
		1	1.17	1.350	0.150	0.24	Cum
		1	0.38	1.350	0.150	0.08	Cum
		1	0.49	1.350	0.150	0.10	Cum
		1	4.82	1.350	0.150	0.98	Cum
		1	0.49	1.350	0.150	0.10	Cum
		1	1.59	1.350	0.150	0.32	Cum
		1	0.21	1.350	0.150	0.04	Cum
		1	0.50	1.350	0.150	0.10	Cum
		1	1.68	1.350	0.150	0.34	Cum
		1	0.54	1.350	0.150	0.11	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.37	2.05	0.150	0.84	Cum
	<i>Section 2-2</i>	2	3.65	1.14	0.150	1.25	Cum
	<i>Section 3-3</i>	2	3.30	1.02	0.150	1.01	Cum
	<i>Section 5-5</i>	2	2.23	2.20	0.150	1.47	Cum
	<i>Section 6-6</i>	2	0.96	1.02	0.150	0.29	Cum
	<i>Toe Wall D/S Portion</i>	1	5.15	0.75	0.300	1.16	Cum
	<i>Toe Wall D/S Portion</i>	1	4.85	0.45	0.600	1.31	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.50	0.60	0.150	0.27	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.50	0.30	0.600	0.54	Cum
	TOTAL					10.65	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.14	0.450	0.450	0.46	Cum
		2	1.14	1.102	2.174	5.48	Cum
		2	1.14	1.904	0.800	3.48	Cum
	<i>Section 2-2</i>	2	3.65	0.450	0.450	1.48	Cum
		2	3.65	0.645	0.650	3.06	Cum
		2	3.65	0.990	0.800	5.78	Cum
	<i>Section 3-3</i>	2	3.02	0.450	0.450	1.22	Cum
		2	3.02	0.585	0.450	1.59	Cum
		2	3.02	0.870	0.650	3.41	Cum
	<i>Section 5-5</i>	2	2.19	0.450	0.450	0.89	Cum
		2	2.19	1.102	2.174	10.47	Cum
		2	2.19	1.904	0.500	4.16	Cum
	<i>Section 6-6</i>	2	1.39	0.450	0.450	0.56	Cum
		2	1.39	0.585	0.450	0.73	Cum
		2	1.39	0.870	0.500	1.21	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Floor	1	0.70	1.200	1.000	0.84	Cum
		1	6.50	1.200	0.500	3.90	Cum
		1	4.79	1.200	0.200	1.15	Cum
		1	0.24	1.200	0.350	0.10	Cum
		1	0.20	1.200	0.550	0.13	Cum
		1	1.80	1.200	0.650	1.40	Cum
		1	0.15	1.200	0.575	0.10	Cum
		1	1.85	1.200	0.500	1.11	Cum
		1	0.83	1.200	1.500	1.49	Cum
	Crest	1	1.09	1.200	1.814	2.38	Cum
	TOTAL					56.59	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	1.200	0.150	0.14	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	15.38	0.450	0.050	0.35	Cum
	On Abutment Top (Right Side)	1	15.38	0.450	0.050	0.35	Cum
	TOTAL					0.84	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	56.59	0.003	0.170	7850.0	1332.79	Kg
	Total Weight in Metric Tonne					1.33	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	1.14		0.450	2.06	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.14		2.174	9.94	Sqm
		4		1.102	2.174	9.58	Sqm
		4	1.14		0.800	3.66	Sqm
		4		1.904	0.800	6.09	Sqm
	Section 2-2	4	3.65		0.450	6.57	Sqm
		4		0.450	0.450	0.81	Sqm
		4	3.65		0.650	9.49	Sqm
		4		0.645	0.650	1.68	Sqm
		4	3.65		0.800	11.68	Sqm
		4		0.990	0.800	3.17	Sqm
	Section 3-3	4	3.02		0.450	5.43	Sqm
		4		0.450	0.450	0.81	Sqm
		4	3.02		0.450	5.43	Sqm
		4		0.585	0.450	1.05	Sqm
		4	3.02		0.650	7.84	Sqm
		4		0.870	0.650	2.26	Sqm
	Section 5-5	4	2.19		0.450	3.93	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.19		2.174	19.01	Sqm
		4		1.102	2.174	9.58	Sqm
		4	2.19		0.500	4.37	Sqm
		4		1.904	0.500	3.81	Sqm
	Section 6-6	4	1.39		0.450	2.50	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.39		0.450	2.50	Sqm
		4		0.585	0.450	1.05	Sqm
		4	1.39		0.500	2.78	Sqm
		4		0.870	0.500	1.74	Sqm
	Floor	2	0.70		1.000	1.40	Sqm
		2		1.200	1.000	2.40	Sqm
		2	6.50		0.500	6.50	Sqm
		2		1.200	0.500	1.20	Sqm
		2	0.24		0.350	0.17	Sqm
		2		1.200	0.350	0.84	Sqm
		2	4.79		0.2	1.92	Sqm
		2		1.2	0.2	0.48	Sqm
		2	0.24		0.35	0.17	Sqm
		2		1.2	0.35	0.84	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	1.80		0.65	2.34	Sqm
		2		1.2	0.65	1.56	Sqm
		2	0.15		0.575	0.17	Sqm
		2		1.2	0.575	1.38	Sqm
		2	1.85		0.500	1.85	Sqm
		2		1.200	0.500	1.20	Sqm
		2	0.83		1.500	2.48	Sqm
		2		1.200	1.500	3.60	Sqm
	Crest	2	1.09		1.814	3.97	Sqm
		2		1.200	1.814	4.35	Sqm
	Toe Wall D/S Portion	2	5.15		0.300	3.09	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	4.85		0.600	5.82	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					195.55	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	1.961		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	0.600	0.300	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	0.600	0.150	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	15.38	0.450		6.92	Sqm
	On Abutment Top (Right Side)	1	15.38	0.450		6.92	Sqm
	TOTAL					13.84	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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		9.568		9.568	Cum
	Abutment						
	Section 1-1	2	1.37	2.990		8.184	Cum
	Section 2-2	2	3.65	0.786		5.738	Cum
	Section 3-3	2	3.30	0.578		3.815	Cum
	Section 5-5	2	2.23	2.946		13.139	Cum
	Section 6-6	2	0.96	0.578		1.104	Cum
	Toe wall	2	5.15	0.150	0.600	1.545	Cum
		2	1.50	0.150	0.600	0.270	Cum
	TOTAL					43.36	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH.1.350 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.15	1.476	0.681	2.313	Cum
	<i>Section 2-2</i>	2	2.00	1.110	0.681	3.024	Cum
	<i>Section 3-3</i>	2	2.45	0.990	0.481	2.333	Cum
	<i>Section 5-5</i>	2	2.25	1.626	0.681	4.988	Cum
	<i>Section 6-6</i>	2	0.91	0.990	0.481	0.867	Cum
	<i>U/S Key Floor</i>	1	0.63	1.000	0.850	0.531	Cum
	<i>U/S Floor</i>	1	2.25	1.000	1.460	3.285	Cum
	<i>D/S Floor</i>	1	2.00	1.000	0.850	1.700	Cum
		1	2.75	1.000	0.650	1.788	Cum
	<i>D/S Key Floor</i>	1	0.63	1.000	0.850	0.531	Cum
	<i>Toe Wall D/S Portion</i>	1	4.80	0.750	0.900	3.240	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	1.50	0.600	0.750	1.350	Cum
						25.95	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.						
	<i>PCC Below Floor</i>	1	0.54	1.000	0.150	0.08	Cum
		1	0.78	1.000	0.150	0.12	Cum
		1	3.63	1.000	0.150	0.54	Cum
		1	0.28	1.000	0.150	0.04	Cum
		1	1.39	1.000	0.150	0.21	Cum
		1	0.78	1.000	0.150	0.12	Cum
		1	0.54	1.000	0.150	0.08	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.15	1.48	0.150	0.51	Cum
	<i>Section 2-2</i>	2	2.00	1.11	0.150	0.67	Cum
	<i>Section 3-3</i>	2	2.45	0.99	0.150	0.73	Cum
	<i>Section 5-5</i>	2	2.25	1.63	0.150	1.10	Cum
	<i>Section 6-6</i>	2	0.91	0.99	0.150	0.27	Cum
	<i>Toe Wall D/S Portion</i>	1	4.80	0.75	0.300	1.08	Cum
	<i>Toe Wall D/S Portion</i>	1	4.50	0.45	0.600	1.22	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.50	0.60	0.150	0.27	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.50	0.30	0.600	0.54	Cum
	TOTAL					7.57	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.03	0.450	0.450	0.42	Cum
		2	1.03	0.813	1.210	2.03	Cum
		2	1.03	1.326	0.500	1.37	Cum
	<i>Section 2-2</i>	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
	<i>Section 3-3</i>	2	2.18	0.450	0.450	0.88	Cum
		2	2.18	0.570	0.400	0.99	Cum
		2	2.18	0.840	0.500	1.83	Cum
	<i>Section 5-5</i>	2	2.20	0.450	0.450	0.89	Cum
		2	2.20	0.813	1.210	4.33	Cum
		2	2.20	1.326	0.500	2.92	Cum
	<i>Section 6-6</i>	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
	<i>Floor</i>	1	0.63	1.000	0.700	0.44	Cum
		1	4.25	1.000	0.500	2.13	Cum
		1	0.31	1.000	0.200	0.06	Cum
		1	0.20	1.000	0.400	0.08	Cum
		1	2.55	1.000	0.500	1.28	Cum
		1	0.63	1.000	0.700	0.44	Cum
	<i>Crest</i>	1	0.74	1.000	0.885	0.65	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					27.23	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	1.000	0.150	0.09	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	10.08	0.450	0.050	0.23	Cum
	On Abutment Top (Right Side)	1	10.08	0.450	0.050	0.23	Cum
	TOTAL					0.54	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	27.23	0.003	0.082	7850.0	641.33	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	1.03		0.450	1.86	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.03		1.210	4.99	Sqm
		4		0.813	1.210	3.93	Sqm
		4	1.03		0.500	2.06	Sqm
		4		1.326	0.500	2.65	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	2.18		0.450	3.92	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.18		0.400	3.49	Sqm
		4		0.570	0.400	0.91	Sqm
		4	2.18		0.500	4.36	Sqm
		4		0.840	0.500	1.68	Sqm
	Section 5-5	4	2.20		0.450	3.96	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.20		1.210	10.65	Sqm
		4		0.813	1.210	3.93	Sqm
		4	2.20		0.500	4.40	Sqm
		4		1.326	0.500	2.65	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		1.000	0.700	1.40	Sqm
		2	4.25		0.500	4.25	Sqm
		2		1.000	0.500	1.00	Sqm
		2	0.31		0.200	0.12	Sqm
		2		1.000	0.200	0.40	Sqm
		2	0.20		0.400	0.16	Sqm
		2		1.000	0.400	0.80	Sqm
		2	2.55		0.500	2.55	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	0.74		0.885	1.31	Sqm
		2		1.000	0.885	1.77	Sqm
	Toe Wall D/S Portion	2	4.80		0.300	2.88	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	4.50		0.600	5.40	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

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	4	1.50		0.600	3.60	Sqm
		4		0.300	0.600	0.72	Sqm
	TOTAL					117.87	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.						
	<i>In D/S Portion On Slopes</i>	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.						
	<i>In D/S Portion</i>	1	1.50	0.400	0.300	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	0.400	0.150	0.18	Cum
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>On Abutment Top (Left Side)</i>	1	10.08	0.450		4.54	Sqm
	<i>On Abutment Top (Right Side)</i>	1	10.08	0.450		4.54	Sqm
	TOTAL					9.07	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1		3.482		3.48	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.15	1.390		3.198	Cum
	<i>Section 2-2</i>	2	2.00	0.693		2.772	Cum
	<i>Section 3-3</i>	2	2.45	0.513		2.514	Cum
	<i>Section 5-5</i>	2	2.25	1.390		6.262	Cum
	<i>Section 6-6</i>	2	0.91	0.513		0.934	Cum
	<i>Toe wall</i>	2	4.80	0.150	0.600	1.440	Cum
		2	1.50	0.150	0.600	0.270	Cum
	TOTAL					20.87	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR SALOPURA MINOR							
SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH.0.487 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.26	1.902	1.902	9.113	Cum
	<i>Section 2-2</i>	2	3.50	1.170	1.902	15.568	Cum
	<i>Section 3-3</i>	2	2.22	1.050	1.702	7.935	Cum
	<i>Section 5-5</i>	2	2.37	2.052	1.902	18.484	Cum
	<i>Section 6-6</i>	2	1.00	1.050	1.702	3.574	Cum
	<i>U/S Key Floor</i>	1	0.68	1.200	1.050	0.851	Cum
	<i>U/S Floor</i>	1	3.00	1.200	2.220	7.992	Cum
	<i>D/S Floor</i>	1	3.50	1.200	0.850	3.570	Cum
		1	2.85	1.200	0.650	2.223	Cum
	<i>D/S Key Floor</i>	1	0.76	1.200	1.400	1.281	Cum
	<i>Toe Wall D/S Portion</i>	1	5.30	0.750	0.900	3.578	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	1.75	0.600	0.750	1.575	Cum
						75.74	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.						
	<i>PCC Below Floor</i>	1	0.54	1.200	0.150	0.10	Cum
		1	1.01	1.200	0.150	0.18	Cum
		1	0.55	1.200	0.150	0.10	Cum
		1	0.21	1.200	0.150	0.04	Cum
		1	4.93	1.200	0.150	0.89	Cum
		1	0.49	1.200	0.150	0.09	Cum
		1	0.86	1.200	0.150	0.16	Cum
		1	1.40	1.200	0.150	0.25	Cum
		1	0.54	1.200	0.150	0.10	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.26	1.902	0.150	0.72	Cum
	<i>Section 2-2</i>	2	3.50	1.170	0.150	1.23	Cum
	<i>Section 3-3</i>	2	2.22	1.050	0.150	0.70	Cum
	<i>Section 5-5</i>	2	2.37	2.052	0.150	1.46	Cum
	<i>Section 6-6</i>	2	1.00	1.050	0.150	0.32	Cum
	<i>Toe Wall D/S Portion</i>	1	5.30	0.750	0.300	1.19	Cum
	<i>Toe Wall D/S Portion</i>	1	5.00	0.450	0.600	1.35	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.75	0.600	0.150	0.32	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.75	0.300	0.600	0.63	Cum
	TOTAL					9.80	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.11	0.450	0.450	0.45	Cum
		2	1.11	1.026	1.920	4.37	Cum
		2	1.11	1.752	0.650	2.53	Cum
	<i>Section 2-2</i>	2	3.50	0.450	0.450	1.42	Cum
		2	3.50	0.660	0.700	3.23	Cum
		2	3.50	1.020	0.650	4.64	Cum
	<i>Section 3-3</i>	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
	<i>Section 5-5</i>	2	2.32	0.450	0.450	0.94	Cum
		2	2.32	1.026	1.920	9.16	Cum
		2	2.32	1.752	0.500	4.07	Cum
	<i>Section 6-6</i>	2	1.53	0.450	0.450	0.62	Cum
		2	1.53	0.600	0.500	0.92	Cum
		2	1.53	0.900	0.500	1.37	Cum
	<i>Floor</i>	1	0.68	1.200	0.900	0.73	Cum
		1	1.75	1.200	0.500	1.05	Cum
		1	0.20	1.200	0.575	0.14	Cum
		1	4.75	1.200	0.650	3.70	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	0.35	1.200	0.232	0.10	Cum
		1	0.20	1.200	0.400	0.10	Cum
		1	2.30	1.200	0.500	1.38	Cum
		1	0.76	1.200	1.250	1.14	Cum
	Crest	1	1.00	1.200	1.495	1.79	Cum
	TOTAL					47.47	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	0.75	1.200	0.150	0.14	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	11.20	0.450	0.050	0.25	Cum
	On Abutment Top (Right Side)	1	11.20	0.450	0.050	0.25	Cum
	TOTAL					0.64	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 @0.3% of M-20	47.47	0.00	0.142	7850.0	1117.82	Kg
	Total Weight in Metric Tonne					1.12	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	2.00	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.11		1.920	8.52	Sqm
		4		1.026	1.920	7.88	Sqm
		4	1.11		0.650	2.89	Sqm
		4		1.752	0.650	4.56	Sqm
	Section 2-2	4	3.50		0.450	6.30	Sqm
		4		0.450	0.450	0.81	Sqm
		4	3.50		0.700	9.79	Sqm
		4		0.660	0.700	1.85	Sqm
		4	3.50		0.650	9.09	Sqm
		4		1.020	0.650	2.65	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	2.32		0.450	4.18	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.32		1.920	17.85	Sqm
		4		1.026	1.920	7.88	Sqm
		4	2.32		0.500	4.65	Sqm
		4		1.752	0.500	3.50	Sqm
	Section 6-6	4	1.53		0.450	2.75	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.53		0.500	3.05	Sqm
		4		0.600	0.500	1.20	Sqm
		4	1.53		0.500	3.05	Sqm
		4		0.900	0.500	1.80	Sqm
	Floor	2	0.68		0.900	1.22	Sqm
		2		1.200	0.900	2.16	Sqm
		2	1.75		0.500	1.75	Sqm
		2		1.200	0.500	1.20	Sqm
		2	4.75		0.650	6.17	Sqm
		2		1.200	0.650	1.56	Sqm
		2	0.35		0.232	0.16	Sqm
		2		1.200	0.232	0.56	Sqm
		2	0.20		0.400	0.16	Sqm
		2		1.200	0.400	0.96	Sqm
		2	2.300		0.500	2.30	Sqm
		2		1.200	0.500	1.20	Sqm
		2	0.76		1.250	1.91	Sqm
		2		1.200	1.250	3.00	Sqm
	Crest	2	1.00		1.495	2.99	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		1.200	1.495	3.59	Sqm
	Toe Wall D/S Portion	2	5.30		0.300	3.18	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	5.00		0.600	6.00	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					170.90	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	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	0.600	0.300	0.32	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	0.600	0.150	0.32	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	11.20	0.450		5.04	Sqm
	On Abutment Top (Right Side)	1	11.20	0.450		5.04	Sqm
	TOTAL					10.08	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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		7.818		7.82	Cum
	Abutment						
	Section 1-1	2	1.26	0.654		1.647	Cum
	Section 2-2	2	3.50	0.635		4.442	Cum
	Section 3-3	2	2.22	0.570		2.531	Cum
	Section 5-5	2	2.37	0.654		3.097	Cum
	Section 6-6	2	1.00	0.570		1.140	Cum
	Toe wall	2	5.30	0.150	0.600	1.590	Cum
		2	1.75	0.150	0.600	0.315	Cum
	TOTAL					22.58	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 2.134 METER AT CH.1.185 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.64	2.402	2.350	18.548	Cum
	<i>Section 2-2</i>	2	4.25	1.122	2.350	22.401	Cum
	<i>Section 3-3</i>	2	4.45	1.002	2.150	19.182	Cum
	<i>Section 5-5</i>	2	2.26	2.552	2.350	27.161	Cum
	<i>Section 6-6</i>	2	1.05	1.002	2.150	4.515	Cum
	<i>U/S Key Floor</i>	1	0.73	1.200	1.250	1.088	Cum
	<i>U/S Floor</i>	1	4.00	1.200	3.534	16.963	Cum
	<i>D/S Floor</i>	1	4.25	1.200	1.000	5.100	Cum
		1	5.15	1.200	0.800	4.944	Cum
	<i>D/S Key Floor</i>	1	0.93	1.200	2.050	2.276	Cum
	<i>Toe Wall D/S Portion</i>	1	5.30	0.750	0.900	3.578	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	1.50	0.600	0.750	1.350	Cum
						127.11	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.						
	<i>PCC Below Floor</i>	1	0.54	1.200	0.150	0.10	Cum
		1	1.23	1.200	0.150	0.22	Cum
		1	0.71	1.200	0.150	0.13	Cum
		1	0.57	1.200	0.150	0.10	Cum
		1	6.26	1.200	0.150	1.13	Cum
		1	0.57	1.200	0.150	0.10	Cum
		1	2.64	1.200	0.150	0.48	Cum
		1	2.12	1.200	0.150	0.38	Cum
		1	0.54	1.200	0.150	0.10	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.64	2.402	0.150	1.18	Cum
	<i>Section 2-2</i>	2	4.25	1.122	0.150	1.43	Cum
	<i>Section 3-3</i>	2	4.45	1.002	0.150	1.34	Cum
	<i>Section 5-5</i>	2	2.26	2.552	0.150	1.73	Cum
	<i>Section 6-6</i>	2	1.05	1.002	0.150	0.32	Cum
	<i>Toe Wall D/S Portion</i>	1	5.30	0.750	0.300	1.19	Cum
	<i>Toe Wall D/S Portion</i>	1	5.00	0.450	0.600	1.35	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.50	0.600	0.150	0.27	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.50	0.300	0.600	0.54	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.49	0.450	0.450	0.60	Cum
		2	1.49	1.276	2.754	10.49	Cum
		2	1.49	2.252	1.050	7.06	Cum
	<i>Section 2-2</i>	2	4.25	0.450	0.450	1.72	Cum
		2	4.25	0.636	0.620	3.35	Cum
		2	4.25	0.972	1.050	8.67	Cum
	<i>Section 3-3</i>	2	4.18	0.450	0.450	1.69	Cum
		2	4.18	0.576	0.420	2.02	Cum
		2	4.18	0.852	0.850	6.05	Cum
	<i>Section 5-5</i>	2	2.22	0.450	0.450	0.90	Cum
		2	2.22	1.276	2.754	15.61	Cum
		2	2.22	2.252	0.650	6.50	Cum
	<i>Section 6-6</i>	2	1.55	0.450	0.450	0.63	Cum
		2	1.55	0.576	0.420	0.75	Cum
		2	1.55	0.852	0.850	2.24	Cum
	<i>Floor</i>	1	0.73	1.200	1.100	0.96	Cum
		1	1.87	1.200	0.650	1.45	Cum
		1	0.40	1.200	0.850	0.41	Cum
		1	5.98	1.200	1.050	7.54	Cum
		1	0.40	1.200	0.352	0.17	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	0.20	1.200	0.750	0.18	Cum
		1	4.55	1.200	0.850	4.64	Cum
		1	0.93	1.200	1.900	2.11	Cum
	Crest	1	1.34	1.200	2.354	3.79	Cum
	TOTAL					89.54	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	0.95	1.200	0.150	0.17	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	14.69	0.450	0.050	0.33	Cum
	On Abutment Top (Right Side)	1	14.69	0.450	0.050	0.33	Cum
	TOTAL					0.83	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 @0.3% of M-20	89.54	0.00	0.269	7850.0	2108.61	Kg
	Total Weight in Metric Tonne					2.11	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	1.49		0.450	2.69	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.49		2.754	16.45	Sqm
		4		1.276	2.754	14.06	Sqm
		4	1.49		1.050	6.27	Sqm
		4		2.252	1.050	9.46	Sqm
	Section 2-2	4	4.25		0.450	7.65	Sqm
		4		0.450	0.450	0.81	Sqm
		4	4.25		0.620	10.54	Sqm
		4		0.636	0.620	1.58	Sqm
		4	4.25		1.050	17.84	Sqm
		4		0.972	1.050	4.08	Sqm
	Section 3-3	4	4.18		0.450	7.52	Sqm
		4		0.450	0.450	0.81	Sqm
		4	4.18		0.420	7.02	Sqm
		4		0.576	0.420	0.97	Sqm
		4	4.18		0.850	14.20	Sqm
		4		0.852	0.850	2.90	Sqm
	Section 5-5	4	2.22		0.450	4.00	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.22		2.754	24.46	Sqm
		4		1.276	2.754	14.06	Sqm
		4	2.22		0.650	5.77	Sqm
		4		2.252	0.650	5.86	Sqm
	Section 6-6	4	1.55		0.450	2.79	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.55		0.420	2.60	Sqm
		4		0.576	0.420	0.97	Sqm
		4	1.55		0.850	5.27	Sqm
		4		0.852	0.850	2.90	Sqm
	Floor	2	0.73		1.100	1.60	Sqm
		2		1.200	1.100	2.64	Sqm
		2	1.87		0.650	2.42	Sqm
		2		1.200	0.650	1.56	Sqm
		2	5.98		1.050	12.57	Sqm
		2		1.200	1.050	2.52	Sqm
		2	0.40		0.352	0.28	Sqm
		2		1.200	0.352	0.84	Sqm
		2	0.20		0.750	0.30	Sqm
		2		1.200	0.750	1.80	Sqm
		2	4.550		0.850	7.74	Sqm
		2		1.200	0.850	2.04	Sqm
		2	0.93		1.900	3.52	Sqm
		2		1.200	1.900	4.56	Sqm
	Crest	2	1.34		2.354	6.32	Sqm
		2		1.200	2.354	5.65	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall D/S Portion	2	5.30		0.300	3.18	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	5.00		0.600	6.00	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					268.01	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.						
	<i>In D/S Portion On Slopes</i>	2	1.50	1.907		5.72	Sqm
	TOTAL					5.72	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	<i>In D/S Portion</i>	1	1.50	0.600	0.300	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	0.600	0.150	0.27	Cum
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>On Abutment Top (Left Side)</i>	1	14.69	0.450		6.61	Sqm
	<i>On Abutment Top (Right Side)</i>	1	14.69	0.450		6.61	Sqm
	TOTAL					13.22	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1		18.690		18.69	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.64	0.551		1.811	Cum
	<i>Section 2-2</i>	2	4.25	0.546		4.639	Cum
	<i>Section 3-3</i>	2	4.45	0.554		4.933	Cum
	<i>Section 5-5</i>	2	2.26	0.551		2.496	Cum
	<i>Section 6-6</i>	2	1.05	0.554		1.161	Cum
	<i>Toe wall</i>	2	5.30	0.150	0.600	1.590	Cum
		2	1.50	0.150	0.600	0.270	Cum
	TOTAL					35.59	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH.2.800 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.20	1.602	2.004	7.683	Cum
	<i>Section 2-2</i>	2	2.50	1.050	2.004	10.521	Cum
	<i>Section 3-3</i>	2	2.70	0.930	1.804	9.060	Cum
	<i>Section 5-5</i>	2	2.39	1.752	2.004	16.800	Cum
	<i>Section 6-6</i>	2	0.82	0.930	1.804	2.751	Cum
	<i>U/S Key Floor</i>	1	0.64	0.750	0.900	0.430	Cum
	<i>U/S Floor</i>	1	2.75	0.750	2.170	4.476	Cum
	<i>D/S Floor</i>	1	2.50	0.750	0.850	1.594	Cum
		1	3.30	0.750	0.650	1.609	Cum
	<i>D/S Key Floor</i>	1	0.73	0.750	1.250	0.680	Cum
	<i>Toe Wall D/S Portion</i>	1	4.25	0.750	0.900	2.869	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	1.50	0.600	0.750	1.350	Cum
						59.82	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.						
	<i>PCC Below Floor</i>	1	0.54	0.750	0.150	0.06	Cum
		1	0.84	0.750	0.150	0.09	Cum
		1	0.51	0.750	0.150	0.06	Cum
		1	0.14	0.750	0.150	0.02	Cum
		1	3.89	0.750	0.150	0.44	Cum
		1	0.42	0.750	0.150	0.05	Cum
		1	1.44	0.750	0.150	0.16	Cum
		1	1.23	0.750	0.150	0.14	Cum
		1	0.54	0.750	0.150	0.06	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.20	1.602	0.150	0.58	Cum
	<i>Section 2-2</i>	2	2.50	1.050	0.150	0.79	Cum
	<i>Section 3-3</i>	2	2.70	0.930	0.150	0.75	Cum
	<i>Section 5-5</i>	2	2.39	1.752	0.150	1.26	Cum
	<i>Section 6-6</i>	2	0.82	0.930	0.150	0.23	Cum
	<i>Toe Wall D/S Portion</i>	1	4.25	0.750	0.300	0.96	Cum
	<i>Toe Wall D/S Portion</i>	1	3.95	0.450	0.600	1.07	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.50	0.600	0.150	0.27	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.50	0.300	0.600	0.54	Cum
	TOTAL					7.51	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.05	0.450	0.450	0.42	Cum
		2	1.05	0.876	1.420	2.60	Cum
		2	1.05	1.452	0.600	1.82	Cum
	<i>Section 2-2</i>	2	2.50	0.450	0.450	1.01	Cum
		2	2.50	0.600	0.500	1.50	Cum
		2	2.50	0.900	0.600	2.70	Cum
	<i>Section 3-3</i>	2	2.46	0.450	0.450	1.00	Cum
		2	2.46	0.540	0.300	0.80	Cum
		2	2.46	0.780	0.500	1.92	Cum
	<i>Section 5-5</i>	2	2.35	0.450	0.450	0.95	Cum
		2	2.35	0.876	1.420	5.84	Cum
		2	2.35	1.452	0.500	3.41	Cum
	<i>Section 6-6</i>	2	1.29	0.450	0.450	0.52	Cum
		2	1.29	0.540	0.300	0.42	Cum
		2	1.29	0.780	0.500	1.00	Cum
	<i>Floor</i>	1	0.64	0.750	0.750	0.36	Cum
		1	1.50	0.750	0.500	0.56	Cum
		1	0.10	0.750	0.550	0.04	Cum
		1	3.66	0.750	0.600	1.65	Cum
		1	0.30	0.750	0.257	0.06	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	0.20	0.750	0.400	0.06	Cum
		1	2.80	0.750	0.500	1.05	Cum
		1	0.73	0.750	1.100	0.60	Cum
	Crest	1	0.93	0.750	1.430	1.00	Cum
	TOTAL					31.30	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	0.750	0.150	0.08	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	10.42	0.450	0.050	0.23	Cum
	On Abutment Top (Right Side)	1	10.42	0.450	0.050	0.23	Cum
	TOTAL					0.55	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	31.30	0.00	0.094	7850.0	737.01	Kg
	Total Weight in Metric Tonne					0.74	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	1.05		0.450	1.88	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.05		1.420	5.95	Sqm
		4		0.876	1.420	4.98	Sqm
		4	1.05		0.600	2.51	Sqm
		4		1.452	0.600	3.48	Sqm
	Section 2-2	4	2.50		0.450	4.50	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.50		0.500	5.00	Sqm
		4		0.600	0.500	1.20	Sqm
		4	2.50		0.600	6.00	Sqm
		4		0.900	0.600	2.16	Sqm
	Section 3-3	4	2.46		0.450	4.43	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.46		0.300	2.95	Sqm
		4		0.540	0.300	0.65	Sqm
		4	2.46		0.500	4.92	Sqm
		4		0.780	0.500	1.56	Sqm
	Section 5-5	4	2.35		0.450	4.23	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.35		1.420	13.34	Sqm
		4		0.876	1.420	4.98	Sqm
		4	2.35		0.500	4.70	Sqm
		4		1.452	0.500	2.90	Sqm
	Section 6-6	4	1.29		0.450	2.31	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.29		0.300	1.54	Sqm
		4		0.540	0.300	0.65	Sqm
		4	1.29		0.500	2.57	Sqm
		4		0.780	0.500	1.56	Sqm
	Floor	2	0.64		0.750	0.96	Sqm
		2		0.750	0.750	1.13	Sqm
		2	1.50		0.500	1.50	Sqm
		2		0.750	0.500	0.75	Sqm
		2	3.66		0.600	4.39	Sqm
		2		0.750	0.600	0.90	Sqm
		2	0.30		0.257	0.15	Sqm
		2		0.750	0.257	0.39	Sqm
		2	0.20		0.400	0.16	Sqm
		2		0.750	0.400	0.60	Sqm
		2	2.800		0.500	2.80	Sqm
		2		0.750	0.500	0.75	Sqm
		2	0.73		1.100	1.60	Sqm
		2		0.750	1.100	1.65	Sqm
	Crest	2	0.93		1.430	2.66	Sqm
		2		0.750	1.430	2.15	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall D/S Portion	2	4.25		0.300	2.55	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	3.95		0.600	4.74	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					131.39	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.						
	<i>In D/S Portion On Slopes</i>	2	1.50	1.691		5.07	Sqm
	TOTAL					5.07	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	<i>In D/S Portion</i>	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.						
	<i>On Abutment Top (Left Side)</i>	1	10.42	0.450		4.69	Sqm
	<i>On Abutment Top (Right Side)</i>	1	10.42	0.450		4.69	Sqm
	TOTAL					9.38	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1		5.643		5.64	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.20	1.160		2.776	Cum
	<i>Section 2-2</i>	2	2.50	0.585		2.925	Cum
	<i>Section 3-3</i>	2	2.70	0.408		2.203	Cum
	<i>Section 5-5</i>	2	2.39	1.160		5.551	Cum
	<i>Section 6-6</i>	2	0.82	0.408		0.669	Cum
	<i>Toe wall</i>	2	4.25	0.150	0.600	1.275	Cum
		2	1.50	0.150	0.600	0.270	Cum
	TOTAL					21.31	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR SINGHI SUB DISTRIBUTARY							
SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH.0.650 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.59	2.262	2.828	20.342	Cum
	<i>Section 2-2</i>	2	4.50	1.530	2.828	38.942	Cum
	<i>Section 3-3</i>	2	2.70	1.410	2.628	20.010	Cum
	<i>Section 5-5</i>	2	6.68	2.412	2.828	91.096	Cum
	<i>Section 6-6</i>	2	3.74	1.410	2.628	27.717	Cum
	<i>U/S Key Floor</i>	1	0.65	3.950	0.950	2.439	Cum
	<i>U/S Floor</i>	1	3.50	3.950	2.370	32.765	Cum
	<i>D/S Floor</i>	1	4.50	3.950	0.950	16.886	Cum
		1	3.40	3.950	0.750	10.073	Cum
	<i>D/S Key Floor</i>	1	0.80	3.950	1.550	4.898	Cum
	<i>Toe Wall D/S Portion</i>	1	14.25	0.750	0.900	9.619	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	3.50	0.600	0.750	3.150	Cum
						277.94	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.						
	<i>PCC Below Floor</i>	1	0.54	3.950	0.150	0.32	Cum
		1	0.89	3.950	0.150	0.53	Cum
		1	0.79	3.950	0.150	0.47	Cum
		1	0.28	3.950	0.150	0.17	Cum
		1	6.53	3.950	0.150	3.87	Cum
		1	0.57	3.950	0.150	0.33	Cum
		1	0.89	3.950	0.150	0.53	Cum
		1	1.57	3.950	0.150	0.93	Cum
		1	0.54	3.950	0.150	0.32	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.59	2.262	0.150	1.08	Cum
	<i>Section 2-2</i>	2	4.50	1.530	0.150	2.07	Cum
	<i>Section 3-3</i>	2	2.70	1.410	0.150	1.14	Cum
	<i>Section 5-5</i>	2	6.68	2.412	0.150	4.83	Cum
	<i>Section 6-6</i>	2	3.74	1.410	0.150	1.58	Cum
	<i>Toe Wall D/S Portion</i>	1	14.25	0.750	0.300	3.21	Cum
	<i>Toe Wall D/S Portion</i>	1	13.95	0.450	0.600	3.77	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	3.50	0.600	0.150	0.63	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	3.50	0.300	0.600	1.26	Cum
	TOTAL					27.03	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.30	0.450	0.450	0.52	Cum
		2	1.30	1.206	2.520	7.88	Cum
		2	1.30	2.112	0.800	4.38	Cum
	<i>Section 2-2</i>	2	4.50	0.450	0.450	1.82	Cum
		2	4.50	0.840	1.300	9.83	Cum
		2	4.50	1.380	0.800	9.94	Cum
	<i>Section 3-3</i>	2	2.22	0.450	0.450	0.90	Cum
		2	2.22	0.780	1.100	3.81	Cum
		2	2.22	1.260	0.600	3.36	Cum
	<i>Section 5-5</i>	2	6.63	0.450	0.450	2.69	Cum
		2	6.63	1.206	2.520	40.32	Cum
		2	6.63	2.112	0.600	16.81	Cum
	<i>Section 6-6</i>	2	4.45	0.450	0.450	1.80	Cum
		2	4.45	0.780	1.100	7.63	Cum
		2	4.45	1.260	0.600	6.72	Cum
	<i>Floor</i>	1	0.65	3.950	0.800	2.05	Cum
		1	1.80	3.950	0.600	4.27	Cum
		1	0.20	3.950	0.700	0.55	Cum
		1	6.00	3.950	0.800	18.95	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	0.40	3.950	0.607	0.96	Cum
		1	0.20	3.950	0.500	0.40	Cum
		1	2.80	3.950	0.600	6.64	Cum
		1	0.80	3.950	1.400	4.42	Cum
	Crest	1	1.20	3.950	1.790	8.47	Cum
	TOTAL					165.12	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	3.950	0.150	0.53	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	20.43	0.450	0.050	0.46	Cum
	On Abutment Top (Right Side)	1	20.43	0.450	0.050	0.46	Cum
	TOTAL					1.45	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	165.12	0.00	0.330	7850.0	2592.37	Kg
	Total Weight in Metric Tonne					2.59	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	1.30		0.450	2.33	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.30		2.520	13.06	Sqm
		4		1.206	2.520	12.16	Sqm
		4	1.30		0.800	4.15	Sqm
		4		2.112	0.800	6.76	Sqm
	Section 2-2	4	4.50		0.450	8.10	Sqm
		4		0.450	0.450	0.81	Sqm
		4	4.50		1.300	23.40	Sqm
		4		0.840	1.300	4.37	Sqm
		4	4.50		0.800	14.40	Sqm
		4		1.380	0.800	4.42	Sqm
	Section 3-3	4	2.22		0.450	4.00	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.22		1.100	9.77	Sqm
		4		0.780	1.100	3.43	Sqm
		4	2.22		0.600	5.33	Sqm
		4		1.260	0.600	3.02	Sqm
	Section 5-5	4	6.63		0.450	11.94	Sqm
		4		0.450	0.450	0.81	Sqm
		4	6.63		2.520	66.87	Sqm
		4		1.206	2.520	12.16	Sqm
		4	6.63		0.600	15.92	Sqm
		4		2.112	0.600	5.07	Sqm
	Section 6-6	4	4.45		0.450	8.00	Sqm
		4		0.450	0.450	0.81	Sqm
		4	4.45		1.100	19.56	Sqm
		4		0.780	1.100	3.43	Sqm
		4	4.45		0.600	10.67	Sqm
		4		1.260	0.600	3.02	Sqm
	Floor	2	0.65		0.800	1.04	Sqm
		2		3.950	0.800	6.32	Sqm
		2	1.80		0.600	2.16	Sqm
		2		3.950	0.600	4.74	Sqm
		2	6.00		0.800	9.60	Sqm
		2		3.950	0.800	6.32	Sqm
		2	0.40		0.607	0.49	Sqm
		2		3.950	0.607	4.80	Sqm
		2	0.20		0.500	0.20	Sqm
		2		3.950	0.500	3.95	Sqm
		2	2.800		0.600	3.36	Sqm
		2		3.950	0.600	4.74	Sqm
		2	0.80		1.400	2.24	Sqm
		2		3.950	1.400	11.06	Sqm
	Crest	2	1.20		1.790	4.29	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		3.950	1.790	14.14	Sqm
	Toe Wall D/S Portion	2	14.25		0.300	8.55	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	13.95		0.600	16.74	Sqm
		2		0.450	0.600	0.54	Sqm
	Toe Wall for resting Brick Edging	4	3.50		0.150	2.10	Sqm
		4		0.600	0.150	0.36	Sqm
	Toe Wall for resting Brick Edging	4	3.50		0.600	8.40	Sqm
		4		0.300	0.600	0.72	Sqm
	TOTAL					396.68	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	3.50	5.332		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	3.350	0.300	3.52	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	3.350	0.150	3.52	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	20.43	0.450		9.19	Sqm
	On Abutment Top (Right Side)	1	20.43	0.450		9.19	Sqm
	TOTAL					18.39	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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		17.942		17.94	Cum
	Abutment						
	Section 1-1	2	1.59	1.468		4.668	Cum
	Section 2-2	2	4.50	1.425		12.825	Cum
	Section 3-3	2	2.70	1.210		6.534	Cum
	Section 5-5	2	6.68	1.468		19.605	Cum
	Section 6-6	2	3.74	1.210		9.051	Cum
	Toe wall	2	14.25	0.150	0.600	4.275	Cum
		2	3.50	0.150	0.600	0.630	Cum
	TOTAL					75.53	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH.1.350 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.59	2.262	1.822	13.106	Cum
	<i>Section 2-2</i>	2	4.50	1.530	1.822	25.089	Cum
	<i>Section 3-3</i>	2	2.70	1.410	1.622	12.350	Cum
	<i>Section 5-5</i>	2	6.68	2.412	1.822	58.691	Cum
	<i>Section 6-6</i>	2	3.74	1.410	1.622	17.107	Cum
	<i>U/S Key Floor</i>	1	0.65	3.950	0.950	2.439	Cum
	<i>U/S Floor</i>	1	3.50	3.950	2.370	32.765	Cum
	<i>D/S Floor</i>	1	4.50	3.950	0.950	16.886	Cum
		1	3.40	3.950	0.750	10.073	Cum
	<i>D/S Key Floor</i>	1	0.80	3.950	1.550	4.898	Cum
	<i>Toe Wall D/S Portion</i>	1	14.25	0.750	0.900	9.619	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	3.50	0.600	0.750	3.150	Cum
						206.17	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.						
	<i>PCC Below Floor</i>	1	0.54	3.950	0.150	0.32	Cum
		1	0.89	3.950	0.150	0.53	Cum
		1	0.79	3.950	0.150	0.47	Cum
		1	0.28	3.950	0.150	0.17	Cum
		1	6.53	3.950	0.150	3.87	Cum
		1	0.57	3.950	0.150	0.33	Cum
		1	0.89	3.950	0.150	0.53	Cum
		1	1.57	3.950	0.150	0.93	Cum
		1	0.54	3.950	0.150	0.32	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.59	2.262	0.150	1.08	Cum
	<i>Section 2-2</i>	2	4.50	1.530	0.150	2.07	Cum
	<i>Section 3-3</i>	2	2.70	1.410	0.150	1.14	Cum
	<i>Section 5-5</i>	2	6.68	2.412	0.150	4.83	Cum
	<i>Section 6-6</i>	2	3.74	1.410	0.150	1.58	Cum
	<i>Toe Wall D/S Portion</i>	1	14.25	0.750	0.300	3.21	Cum
	<i>Toe Wall D/S Portion</i>	1	13.95	0.450	0.600	3.77	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	3.50	0.600	0.150	0.63	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	3.50	0.300	0.600	1.26	Cum
	TOTAL					27.03	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.30	0.450	0.450	0.52	Cum
		2	1.30	1.206	2.520	7.88	Cum
		2	1.30	2.112	0.800	4.38	Cum
	<i>Section 2-2</i>	2	4.50	0.450	0.450	1.82	Cum
		2	4.50	0.840	1.300	9.83	Cum
		2	4.50	1.380	0.800	9.94	Cum
	<i>Section 3-3</i>	2	2.22	0.450	0.450	0.90	Cum
		2	2.22	0.780	1.100	3.81	Cum
		2	2.22	1.260	0.600	3.36	Cum
	<i>Section 5-5</i>	2	6.63	0.450	0.450	2.69	Cum
		2	6.63	1.206	2.520	40.32	Cum
		2	6.63	2.112	0.600	16.81	Cum
	<i>Section 6-6</i>	2	4.45	0.450	0.450	1.80	Cum
		2	4.45	0.780	1.100	7.63	Cum
		2	4.45	1.260	0.600	6.72	Cum
	<i>Floor</i>	1	0.65	3.950	0.800	2.05	Cum
		1	1.80	3.950	0.600	4.27	Cum
		1	0.20	3.950	0.700	0.55	Cum
		1	6.00	3.950	0.800	18.95	Cum
		1	0.40	3.950	0.607	0.96	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	0.20	3.950	0.500	0.40	Cum
		1	2.80	3.950	0.600	6.64	Cum
		1	0.80	3.950	1.400	4.42	Cum
	Crest	1	1.20	3.950	1.790	8.47	Cum
	TOTAL					165.12	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	3.950	0.150	0.53	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	20.43	0.450	0.050	0.46	Cum
	On Abutment Top (Right Side)	1	20.43	0.450	0.050	0.46	Cum
	TOTAL					1.45	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	165.12	0.002	0.330	7850.0	2592.37	Kg
	Total Weight in Metric Tonne					2.59	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	1.30		0.450	2.33	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.30		2.520	13.06	Sqm
		4		1.206	2.520	12.16	Sqm
		4	1.30		0.800	4.15	Sqm
		4		2.112	0.800	6.76	Sqm
	Section 2-2	4	4.50		0.450	8.10	Sqm
		4		0.450	0.450	0.81	Sqm
		4	4.50		1.300	23.40	Sqm
		4		0.840	1.300	4.37	Sqm
		4	4.50		0.800	14.40	Sqm
		4		1.380	0.800	4.42	Sqm
	Section 3-3	4	2.22		0.450	4.00	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.22		1.100	9.77	Sqm
		4		0.780	1.100	3.43	Sqm
		4	2.22		0.600	5.33	Sqm
		4		1.260	0.600	3.02	Sqm
	Section 5-5	4	6.63		0.450	11.94	Sqm
		4		0.450	0.450	0.81	Sqm
		4	6.63		2.520	66.87	Sqm
		4		1.206	2.520	12.16	Sqm
		4	6.63		0.600	15.92	Sqm
		4		2.112	0.600	5.07	Sqm
	Section 6-6	4	4.45		0.450	8.00	Sqm
		4		0.450	0.450	0.81	Sqm
		4	4.45		1.100	19.56	Sqm
		4		0.780	1.100	3.43	Sqm
		4	4.45		0.600	10.67	Sqm
		4		1.260	0.600	3.02	Sqm
	Floor	2	0.65		0.800	1.04	Sqm
		2		3.950	0.800	6.32	Sqm
		2	1.80		0.600	2.16	Sqm
		2		3.950	0.600	4.74	Sqm
		2	6.00		0.800	9.60	Sqm
		2		3.950	0.800	6.32	Sqm
		2	0.40		0.607	0.49	Sqm
		2		3.950	0.607	4.80	Sqm
		2	0.20		0.500	0.20	Sqm
		2		3.950	0.500	3.95	Sqm
		2	2.800		0.600	3.36	Sqm
		2		3.950	0.600	4.74	Sqm
		2	0.80		1.400	2.24	Sqm
		2		3.950	1.400	11.06	Sqm
	Crest	2	1.20		1.790	4.29	Sqm
		2		3.950	1.790	14.14	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall D/S Portion	2	14.25		0.300	8.55	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	13.95		0.600	16.74	Sqm
		2		0.450	0.600	0.54	Sqm
	Toe Wall for resting Brick Edging	4	3.50		0.150	2.10	Sqm
		4		0.600	0.150	0.36	Sqm
	Toe Wall for resting Brick Edging	4	3.50		0.600	8.40	Sqm
		4		0.300	0.600	0.72	Sqm
	TOTAL					396.68	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.						
	<i>In D/S Portion On Slopes</i>	2	3.50	5.332		37.32	Sqm
	TOTAL					37.32	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	<i>In D/S Portion</i>	1	3.50	3.350	0.300	3.52	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	3.350	0.150	3.52	Cum
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>On Abutment Top (Left Side)</i>	1	20.43	0.450		9.19	Sqm
	<i>On Abutment Top (Right Side)</i>	1	20.43	0.450		9.19	Sqm
	TOTAL					18.39	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1		17.942		17.94	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.59	0.457		1.453	Cum
	<i>Section 2-2</i>	2	4.50	0.457		4.113	Cum
	<i>Section 3-3</i>	2	2.70	0.579		3.127	Cum
	<i>Section 5-5</i>	2	6.68	0.457		6.103	Cum
	<i>Section 6-6</i>	2	3.74	0.579		4.331	Cum
	<i>Toe wall</i>	2	14.25	0.150	0.600	4.275	Cum
		2	3.50	0.150	0.600	0.630	Cum
	TOTAL					41.97	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 0.305 METER AT CH. 2.740 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	0.97	1.833	2.227	7.883	Cum
	<i>Section 2-2</i>	2	2.75	1.650	2.227	20.210	Cum
	<i>Section 3-3</i>	2	2.45	1.530	2.027	15.196	Cum
	<i>Section 5-5</i>	2	6.79	1.983	2.227	59.980	Cum
	<i>Section 6-6</i>	2	3.74	1.530	2.027	23.198	Cum
	<i>U/S Key Floor</i>	1	0.63	3.950	0.850	2.098	Cum
	<i>U/S Floor</i>	1	2.00	3.950	1.155	9.125	Cum
	<i>D/S Floor</i>	1	2.75	3.950	0.850	9.233	Cum
		1	3.09	3.950	0.650	7.930	Cum
	<i>D/S Key Floor</i>	1	0.63	3.950	0.850	2.098	Cum
	<i>Toe Wall D/S Portion</i>	1	14.25	0.750	0.900	9.619	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	3.50	0.600	0.750	3.150	Cum
						169.72	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.						
	<i>PCC Below Floor</i>	1	0.54	3.950	0.150	0.32	Cum
		1	0.78	3.950	0.150	0.46	Cum
		1	4.33	3.950	0.150	2.56	Cum
		1	0.28	3.950	0.150	0.17	Cum
		1	1.12	3.950	0.150	0.66	Cum
		1	0.78	3.950	0.150	0.46	Cum
		1	0.54	3.950	0.150	0.32	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	0.97	1.833	0.150	0.53	Cum
	<i>Section 2-2</i>	2	2.75	1.650	0.150	1.36	Cum
	<i>Section 3-3</i>	2	2.45	1.530	0.150	1.12	Cum
	<i>Section 5-5</i>	2	6.79	1.983	0.150	4.04	Cum
	<i>Section 6-6</i>	2	3.74	1.530	0.150	1.72	Cum
	<i>Toe Wall D/S Portion</i>	1	14.25	0.750	0.300	3.21	Cum
	<i>Toe Wall D/S Portion</i>	1	13.95	0.450	0.600	3.77	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	3.50	0.600	0.150	0.63	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	3.50	0.300	0.600	1.26	Cum
	TOTAL					22.60	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	0.82	0.450	0.450	0.33	Cum
		2	0.82	0.992	1.805	2.92	Cum
		2	0.82	1.683	0.500	1.37	Cum
	<i>Section 2-2</i>	2	2.75	0.450	0.450	1.11	Cum
		2	2.75	0.900	1.500	7.43	Cum
		2	2.75	1.500	0.500	4.13	Cum
	<i>Section 3-3</i>	2	1.97	0.450	0.450	0.80	Cum
		2	1.97	0.840	1.300	4.30	Cum
		2	1.97	1.380	0.500	2.72	Cum
	<i>Section 5-5</i>	2	6.75	0.450	0.450	2.73	Cum
		2	6.75	0.992	1.805	24.15	Cum
		2	6.75	1.683	0.500	11.36	Cum
	<i>Section 6-6</i>	2	4.45	0.450	0.450	1.80	Cum
		2	4.45	0.840	1.300	9.71	Cum
		2	4.45	1.380	0.500	6.13	Cum
	<i>Floor</i>	1	0.63	3.950	0.700	1.73	Cum
		1	4.75	3.950	0.500	9.38	Cum
		1	0.40	3.950	0.200	0.32	Cum
		1	0.539	3.950	0.200	0.43	Cum
		1	2.55	3.950	0.500	5.04	Cum
		1	0.63	3.950	0.700	1.73	Cum
	<i>Crest</i>	1	0.75	3.950	0.910	2.70	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					102.30	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	3.950	0.150	0.36	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	17.84	0.450	0.050	0.40	Cum
	On Abutment Top (Right Side)	1	17.84	0.450	0.050	0.40	Cum
	TOTAL					1.16	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	102.30	0.002	0.205	7850.0	1606.12	Kg
	Total Weight in Metric Tonne					1.61	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		1.805	5.89	Sqm
		4		0.992	1.805	7.16	Sqm
		4	0.82		0.500	1.63	Sqm
		4		1.683	0.500	3.37	Sqm
	Section 2-2	4	2.75		0.450	4.95	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.75		1.500	16.50	Sqm
		4		0.900	1.500	5.40	Sqm
		4	2.75		0.500	5.50	Sqm
		4		1.500	0.500	3.00	Sqm
	Section 3-3	4	1.97		0.450	3.55	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.97		1.300	10.24	Sqm
		4		0.840	1.300	4.37	Sqm
		4	1.97		0.500	3.94	Sqm
		4		1.380	0.500	2.76	Sqm
	Section 5-5	4	6.75		0.450	12.14	Sqm
		4		0.450	0.450	0.81	Sqm
		4	6.75		1.805	48.71	Sqm
		4		0.992	1.805	7.16	Sqm
		4	6.75		0.500	13.49	Sqm
		4		1.683	0.500	3.37	Sqm
	Section 6-6	4	4.45		0.450	8.00	Sqm
		4		0.450	0.450	0.81	Sqm
		4	4.45		1.300	23.11	Sqm
		4		0.840	1.300	4.37	Sqm
		4	4.45		0.500	8.89	Sqm
		4		1.380	0.500	2.76	Sqm
	Floor	2	0.63		0.700	0.88	Sqm
		2		3.950	0.700	5.53	Sqm
		2	4.75		0.500	4.75	Sqm
		2		3.950	0.500	3.95	Sqm
		2	0.40		0.200	0.16	Sqm
		2		3.950	0.200	1.58	Sqm
		2	0.54		0.200	0.22	Sqm
		2		3.950	0.200	1.58	Sqm
		2	2.55		0.500	2.55	Sqm
		2		3.950	0.500	3.95	Sqm
		2	0.63		0.700	0.88	Sqm
		2		3.950	0.700	5.53	Sqm
	Crest	2	0.75		0.910	1.37	Sqm
		2		3.950	0.910	7.19	Sqm
	Toe Wall D/S Portion	2	14.25		0.300	8.55	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	13.95		0.600	16.74	Sqm
		2		0.450	0.600	0.54	Sqm
	Toe Wall for resting Brick Edging	4	3.50		0.150	2.10	Sqm
		4		0.600	0.150	0.36	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	4	3.50		0.600	8.40	Sqm
		4		0.300	0.600	0.72	Sqm
	TOTAL					293.74	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.						
	<i>In D/S Portion On Slopes</i>	2	3.50	5.332		37.32	Sqm
	TOTAL					37.32	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	<i>In D/S Portion</i>	1	3.50	3.350	0.300	3.52	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	3.350	0.150	3.52	Cum
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>On Abutment Top (Left Side)</i>	1	17.84	0.450		8.03	Sqm
	<i>On Abutment Top (Right Side)</i>	1	17.84	0.450		8.03	Sqm
	TOTAL					16.05	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1		2.173		2.17	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	0.97	1.173		2.264	Cum
	<i>Section 2-2</i>	2	2.75	1.163		6.397	Cum
	<i>Section 3-3</i>	2	2.45	1.129		5.532	Cum
	<i>Section 5-5</i>	2	6.79	1.173		15.925	Cum
	<i>Section 6-6</i>	2	3.74	1.129		8.445	Cum
	<i>Toe wall</i>	2	14.25	0.150	0.600	4.275	Cum
		2	3.50	0.150	0.600	0.630	Cum
	TOTAL					45.64	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 0.762 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.15	1.987	2.139	9.746	Cum
	<i>Section 2-2</i>	2	3.50	1.530	2.139	22.909	Cum
	<i>Section 3-3</i>	2	1.95	1.410	1.939	10.663	Cum
	<i>Section 5-5</i>	2	6.73	2.137	2.139	61.567	Cum
	<i>Section 6-6</i>	2	3.74	1.410	1.939	20.450	Cum
	<i>U/S Key Floor</i>	1	0.63	3.500	0.850	1.859	Cum
	<i>U/S Floor</i>	1	2.75	3.500	1.712	16.478	Cum
	<i>D/S Floor</i>	1	3.50	3.500	0.850	10.413	Cum
		1	2.55	3.500	0.650	5.801	Cum
	<i>D/S Key Floor</i>	1	0.70	3.500	1.150	2.818	Cum
	<i>Toe Wall D/S Portion</i>	1	13.80	0.750	0.900	9.315	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	3.50	0.600	0.750	3.150	Cum
						175.17	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.						
	<i>PCC Below Floor</i>	1	0.54	3.500	0.150	0.28	Cum
		1	0.78	3.500	0.150	0.41	Cum
		1	0.54	3.500	0.150	0.29	Cum
		1	0.14	3.500	0.150	0.07	Cum
		1	5.18	3.500	0.150	2.72	Cum
		1	0.42	3.500	0.150	0.22	Cum
		1	0.44	3.500	0.150	0.23	Cum
		1	1.12	3.500	0.150	0.59	Cum
		1	0.54	3.500	0.150	0.28	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.15	1.987	0.150	0.68	Cum
	<i>Section 2-2</i>	2	3.50	1.530	0.150	1.61	Cum
	<i>Section 3-3</i>	2	1.95	1.410	0.150	0.82	Cum
	<i>Section 5-5</i>	2	6.73	2.137	0.150	4.32	Cum
	<i>Section 6-6</i>	2	3.74	1.410	0.150	1.58	Cum
	<i>Toe Wall D/S Portion</i>	1	13.80	0.750	0.300	3.11	Cum
	<i>Toe Wall D/S Portion</i>	1	13.50	0.450	0.600	3.65	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	3.50	0.600	0.150	0.63	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	3.50	0.300	0.600	1.26	Cum
	TOTAL					22.75	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.00	0.450	0.450	0.40	Cum
		2	1.00	1.069	2.062	4.39	Cum
		2	1.00	1.837	0.600	2.20	Cum
	<i>Section 2-2</i>	2	3.50	0.450	0.450	1.42	Cum
		2	3.50	0.840	1.300	7.64	Cum
		2	3.50	1.380	0.600	5.80	Cum
	<i>Section 3-3</i>	2	1.47	0.450	0.450	0.60	Cum
		2	1.47	0.780	1.100	2.52	Cum
		2	1.47	1.260	0.500	1.85	Cum
	<i>Section 5-5</i>	2	6.69	0.450	0.450	2.71	Cum
		2	6.69	1.069	2.062	29.48	Cum
		2	6.69	1.837	0.600	14.75	Cum
	<i>Section 6-6</i>	2	4.45	0.450	0.450	1.80	Cum
		2	4.45	0.780	1.100	7.63	Cum
		2	4.45	1.260	0.600	6.72	Cum
	<i>Floor</i>	1	0.63	3.500	0.700	1.53	Cum
		1	1.50	3.500	0.500	2.62	Cum
		1	0.20	3.500	0.550	0.39	Cum
		1	4.65	3.500	0.600	9.77	Cum
		1	0.30	3.500	0.557	0.58	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	0.20	3.500	0.400	0.28	Cum
		1	2.05	3.500	0.500	3.59	Cum
		1	0.70	3.500	1.000	2.45	Cum
	Crest	1	0.93	3.500	1.357	4.40	Cum
	TOTAL					115.51	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	3.500	0.150	0.37	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	18.34	0.450	0.050	0.41	Cum
	On Abutment Top (Right Side)	1	18.34	0.450	0.050	0.41	Cum
	TOTAL					1.19	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	115.51	0.002	0.231	7850.0	1813.58	Kg
	Total Weight in Metric Tonne					1.81	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	1.00		0.450	1.79	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.00		2.062	8.22	Sqm
		4		1.069	2.062	8.81	Sqm
		4	1.00		0.600	2.39	Sqm
		4		1.837	0.600	4.41	Sqm
	Section 2-2	4	3.50		0.450	6.30	Sqm
		4		0.450	0.450	0.81	Sqm
		4	3.50		1.300	18.20	Sqm
		4		0.840	1.300	4.37	Sqm
		4	3.50		0.600	8.40	Sqm
		4		1.380	0.600	3.31	Sqm
	Section 3-3	4	1.47		0.450	2.65	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.47		1.100	6.47	Sqm
		4		0.780	1.100	3.43	Sqm
		4	1.47		0.500	2.94	Sqm
		4		1.260	0.500	2.52	Sqm
	Section 5-5	4	6.69		0.450	12.04	Sqm
		4		0.450	0.450	0.81	Sqm
		4	6.69		2.062	55.18	Sqm
		4		1.069	2.062	8.81	Sqm
		4	6.69		0.600	16.06	Sqm
		4		1.837	0.600	4.41	Sqm
	Section 6-6	4	4.45		0.450	8.00	Sqm
		4		0.450	0.450	0.81	Sqm
		4	4.45		1.100	19.56	Sqm
		4		0.780	1.100	3.43	Sqm
		4	4.45		0.600	10.67	Sqm
		4		1.260	0.600	3.02	Sqm
	Floor	2	0.63		0.700	0.88	Sqm
		2		3.500	0.700	4.90	Sqm
		2	1.50		0.500	1.50	Sqm
		2		3.500	0.500	3.50	Sqm
		2	4.65		0.600	5.58	Sqm
		2		3.500	0.600	4.20	Sqm
		2	0.30		0.557	0.33	Sqm
		2		3.500	0.557	3.90	Sqm
		2	0.20		0.400	0.16	Sqm
		2		3.500	0.400	2.80	Sqm
		2	2.050		0.500	2.05	Sqm
		2		3.500	0.500	3.50	Sqm
		2	0.70		1.000	1.40	Sqm
		2		3.500	1.000	7.00	Sqm
	Crest	2	0.93		1.357	2.51	Sqm
		2		3.500	1.357	9.50	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall D/S Portion	2	13.80		0.300	8.28	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	13.50		0.600	16.20	Sqm
		2		0.450	0.600	0.54	Sqm
	Toe Wall for resting Brick Edging	4	3.50		0.150	2.10	Sqm
		4		0.600	0.150	0.36	Sqm
	Toe Wall for resting Brick Edging	4	3.50		0.600	8.40	Sqm
		4		0.300	0.600	0.72	Sqm
	TOTAL					320.21	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.						
	<i>In D/S Portion On Slopes</i>	2	3.50	5.332		37.32	Sqm
	TOTAL					37.32	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	<i>In D/S Portion</i>	1	3.50	2.900	0.300	3.05	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	3.50	2.900	0.150	3.05	Cum
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>On Abutment Top (Left Side)</i>	1	18.34	0.450		8.25	Sqm
	<i>On Abutment Top (Right Side)</i>	1	18.34	0.450		8.25	Sqm
	TOTAL					16.50	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1		7.750		7.75	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.15	1.085		2.488	Cum
	<i>Section 2-2</i>	2	3.50	1.083		7.581	Cum
	<i>Section 3-3</i>	2	1.95	1.141		4.450	Cum
	<i>Section 5-5</i>	2	6.73	1.085		14.614	Cum
	<i>Section 6-6</i>	2	3.74	1.141		8.535	Cum
	<i>Toe wall</i>	2	13.80	0.150	0.600	4.140	Cum
		2	3.50	0.150	0.600	0.630	Cum
	TOTAL					50.19	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH.4.455 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.55	2.444	2.970	22.466	Cum
	<i>Section 2-2</i>	2	5.00	1.530	2.970	45.441	Cum
	<i>Section 3-3</i>	2	3.70	1.410	2.770	28.902	Cum
	<i>Section 5-5</i>	2	6.64	2.594	2.970	102.304	Cum
	<i>Section 6-6</i>	2	3.74	1.410	2.770	29.215	Cum
	<i>U/S Key Floor</i>	1	0.68	3.500	1.050	2.481	Cum
	<i>U/S Floor</i>	1	4.00	3.500	2.824	39.536	Cum
	<i>D/S Floor</i>	1	5.00	3.500	0.950	16.625	Cum
		1	2.70	3.500	0.750	7.088	Cum
	<i>D/S Key Floor</i>	1	1.65	3.500	0.750	4.331	Cum
	<i>Toe Wall D/S Portion</i>	1	13.80	0.750	0.900	9.315	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	3.50	0.600	0.750	3.150	Cum
						310.85	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.						
	<i>PCC Below Floor</i>	1	0.54	3.500	0.150	0.28	Cum
		1	1.01	3.500	0.150	0.53	Cum
		1	0.95	3.500	0.150	0.50	Cum
		1	0.49	3.500	0.150	0.26	Cum
		1	7.18	3.500	0.150	3.77	Cum
		1	0.64	3.500	0.150	0.33	Cum
		1	1.39	3.500	0.150	0.73	Cum
		1	0.14	3.500	0.150	0.07	Cum
		1	0.22	3.500	0.150	0.12	Cum
		1	1.84	3.500	0.150	0.97	Cum
		1	0.54	3.500	0.150	0.28	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.55	2.444	0.150	1.13	Cum
	<i>Section 2-2</i>	2	5.00	1.530	0.150	2.30	Cum
	<i>Section 3-3</i>	2	3.70	1.410	0.150	1.57	Cum
	<i>Section 5-5</i>	2	6.64	2.594	0.150	5.17	Cum
	<i>Section 6-6</i>	2	3.74	1.410	0.150	1.58	Cum
	<i>Toe Wall D/S Portion</i>	1	13.80	0.750	0.300	3.11	Cum
	<i>Toe Wall D/S Portion</i>	1	13.50	0.450	0.600	3.65	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	3.50	0.600	0.150	0.63	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	3.50	0.300	0.600	1.26	Cum
	TOTAL					28.23	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.40	0.450	0.450	0.57	Cum
		2	1.40	1.297	2.824	10.24	Cum
		2	1.40	2.294	0.950	6.09	Cum
	<i>Section 2-2</i>	2	5.00	0.450	0.450	2.03	Cum
		2	5.00	0.840	1.300	10.92	Cum
		2	5.00	1.380	0.950	13.11	Cum
	<i>Section 3-3</i>	2	3.22	0.450	0.450	1.30	Cum
		2	3.22	0.780	1.100	5.53	Cum
		2	3.22	1.260	0.700	5.68	Cum
	<i>Section 5-5</i>	2	6.60	0.450	0.450	2.67	Cum
		2	6.60	1.297	2.824	48.32	Cum
		2	6.60	2.294	0.600	18.16	Cum
	<i>Section 6-6</i>	2	4.45	0.450	0.450	1.80	Cum
		2	4.45	0.780	1.100	7.63	Cum
		2	4.45	1.260	0.600	6.72	Cum
	<i>Floor</i>	1	0.68	3.500	0.900	2.13	Cum
		1	2.20	3.500	0.600	4.62	Cum
		1	0.35	3.500	0.775	0.95	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	6.65	3.500	0.950	22.10	Cum
		1	0.45	3.500	0.632	1.00	Cum
		1	0.20	3.500	0.600	0.42	Cum
		1	2.05	3.500	0.700	5.02	Cum
		1	2.05	3.500	1.700	12.20	Cum
		1	0.10	3.500	0.650	0.23	Cum
		1	1.65	3.500	0.600	3.47	Cum
		1	0.86	3.500	1.650	4.98	Cum
	Crest	1	1.30	3.500	2.094	9.52	Cum
	TOTAL					207.38	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	3.500	0.150	0.50	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	22.08	0.450	0.050	0.50	Cum
	On Abutment Top (Right Side)	1	22.08	0.450	0.050	0.50	Cum
	TOTAL					1.49	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	207.38	0.002	0.415	7850.0	3255.87	Kg
	Total Weight in Metric Tonne					3.26	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	1.40		0.450	2.52	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.40		2.824	15.79	Sqm
		4		1.297	2.824	14.65	Sqm
		4	1.40		0.950	5.31	Sqm
		4		2.294	0.950	8.72	Sqm
	Section 2-2	4	5.00		0.450	9.00	Sqm
		4		0.450	0.450	0.81	Sqm
		4	5.00		1.300	26.00	Sqm
		4		0.840	1.300	4.37	Sqm
		4	5.00		0.950	19.00	Sqm
		4		1.380	0.950	5.24	Sqm
	Section 3-3	4	3.22		0.450	5.80	Sqm
		4		0.450	0.450	0.81	Sqm
		4	3.22		1.100	14.17	Sqm
		4		0.780	1.100	3.43	Sqm
		4	3.22		0.700	9.02	Sqm
		4		1.260	0.700	3.53	Sqm
	Section 5-5	4	6.60		0.450	11.87	Sqm
		4		0.450	0.450	0.81	Sqm
		4	6.60		2.824	74.50	Sqm
		4		1.297	2.824	14.65	Sqm
		4	6.60		0.600	15.83	Sqm
		4		2.294	0.600	5.51	Sqm
	Section 6-6	4	4.45		0.450	8.00	Sqm
		4		0.450	0.450	0.81	Sqm
		4	4.45		1.100	19.56	Sqm
		4		0.780	1.100	3.43	Sqm
		4	4.45		0.600	10.67	Sqm
		4		1.260	0.600	3.02	Sqm
	Floor	2	0.68		0.900	1.22	Sqm
		2		3.500	0.900	6.30	Sqm
		2	2.20		0.600	2.64	Sqm
		2		3.500	0.600	4.20	Sqm
		2	0.35		0.775	0.54	Sqm
		2		3.500	0.775	5.43	Sqm
		2	6.65		0.950	12.63	Sqm
		2		3.500	0.950	6.65	Sqm
		2	0.45		0.632	0.57	Sqm
		2		3.500	0.632	4.42	Sqm
		2	0.20		0.600	0.24	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		3.500	0.600	4.20	Sqm
		2	2.050		0.700	2.87	Sqm
		2		3.500	0.700	4.90	Sqm
		2	0.100		0.650	0.13	Sqm
		2		3.500	0.650	4.55	Sqm
		2	1.65		0.600	1.98	Sqm
		2		3.500	0.600	4.20	Sqm
		2	0.86		1.650	2.85	Sqm
		2		3.500	1.650	11.55	Sqm
	Crest	2	1.30		2.094	5.44	Sqm
		2		3.500	2.094	14.66	Sqm
	Toe Wall D/S Portion	2	13.80		0.300	8.28	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	13.50		0.600	16.20	Sqm
		2		0.450	0.600	0.54	Sqm
	Toe Wall for resting Brick Edging	4	3.50		0.150	2.10	Sqm
		4		0.600	0.150	0.36	Sqm
	Toe Wall for resting Brick Edging	4	3.50		0.600	8.40	Sqm
		4		0.300	0.600	0.72	Sqm
	TOTAL					456.84	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	5.332		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	2.900	0.300	3.05	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	3.50	2.900	0.150	3.05	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	22.08	0.450		9.94	Sqm
	On Abutment Top (Right Side)	1	22.08	0.450		9.94	Sqm
	TOTAL					19.87	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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		25.632		25.63	Cum
	Abutment						
	Section 1-1	2	1.55	1.291		3.996	Cum
	Section 2-2	2	5.00	1.277		12.770	Cum
	Section 3-3	2	3.70	1.230		9.102	Cum
	Section 5-5	2	6.64	1.291		17.143	Cum
	Section 6-6	2	3.74	1.230		9.200	Cum
	Toe wall	2	13.80	0.150	0.600	4.140	Cum
		2	3.50	0.150	0.600	0.630	Cum
	TOTAL					82.61	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR SAHOKARMA MINOR							
SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH.0.450 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.26	1.902	1.770	8.477	Cum
	<i>Section 2-2</i>	2	3.25	1.170	1.770	13.453	Cum
	<i>Section 3-3</i>	2	2.20	1.050	1.570	7.260	Cum
	<i>Section 5-5</i>	2	2.37	2.052	1.770	17.201	Cum
	<i>Section 6-6</i>	2	1.00	1.050	1.570	3.297	Cum
	<i>U/S Key Floor</i>	1	0.63	1.050	0.850	0.558	Cum
	<i>U/S Floor</i>	1	2.75	1.050	2.220	6.410	Cum
	<i>D/S Floor</i>	1	3.25	1.050	0.900	3.071	Cum
		1	2.80	1.050	0.700	2.058	Cum
	<i>D/S Key Floor</i>	1	0.75	1.050	1.350	1.063	Cum
	<i>Toe Wall D/S Portion</i>	1	5.15	0.750	0.900	3.476	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	1.75	0.600	0.750	1.575	Cum
						67.90	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.						
	<i>PCC Below Floor</i>	1	0.54	1.050	0.150	0.09	Cum
		1	0.73	1.050	0.150	0.11	Cum
		1	0.47	1.050	0.150	0.07	Cum
		1	0.14	1.050	0.150	0.02	Cum
		1	4.75	1.050	0.150	0.75	Cum
		1	0.42	1.050	0.150	0.07	Cum
		1	0.87	1.050	0.150	0.14	Cum
		1	1.34	1.050	0.150	0.21	Cum
		1	0.54	1.050	0.150	0.09	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.26	1.902	0.150	0.72	Cum
	<i>Section 2-2</i>	2	3.25	1.170	0.150	1.14	Cum
	<i>Section 3-3</i>	2	2.20	1.050	0.150	0.69	Cum
	<i>Section 5-5</i>	2	2.37	2.052	0.150	1.46	Cum
	<i>Section 6-6</i>	2	1.00	1.050	0.150	0.32	Cum
	<i>Toe Wall D/S Portion</i>	1	5.15	0.750	0.300	1.16	Cum
	<i>Toe Wall D/S Portion</i>	1	4.85	0.450	0.600	1.31	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.75	0.600	0.150	0.32	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.75	0.300	0.600	0.63	Cum
	TOTAL					9.28	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.26	0.450	0.450	0.51	Cum
		2	1.26	1.026	1.920	4.96	Cum
		2	1.26	1.752	0.650	2.87	Cum
	<i>Section 2-2</i>	2	3.25	0.450	0.450	1.32	Cum
		2	3.25	0.660	0.700	3.00	Cum
		2	3.25	1.020	0.650	4.31	Cum
	<i>Section 3-3</i>	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	0.550	1.88	Cum
	<i>Section 5-5</i>	2	2.32	0.450	0.450	0.94	Cum
		2	2.32	1.026	1.920	9.16	Cum
		2	2.32	1.752	0.550	4.48	Cum
	<i>Section 6-6</i>	2	1.53	0.450	0.450	0.62	Cum
		2	1.53	0.600	0.500	0.92	Cum
		2	1.53	0.900	0.550	1.51	Cum
	<i>Floor</i>	1	0.63	1.050	0.700	0.46	Cum
		1	1.40	1.050	0.550	0.81	Cum
		1	0.10	1.050	0.600	0.06	Cum
		1	4.50	1.050	0.650	3.07	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	0.30	1.050	0.277	0.09	Cum
		1	0.20	1.050	0.453	0.10	Cum
		1	2.30	1.050	0.550	1.33	Cum
		1	0.75	1.050	1.200	0.95	Cum
	Crest	1	1.00	1.050	1.490	1.56	Cum
	TOTAL					46.79	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 Crest	1	0.75	1.050	0.150	0.12	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	10.95	0.450	0.050	0.25	Cum
	On Abutment Top (Right Side)	1	10.95	0.450	0.050	0.25	Cum
	TOTAL					0.61	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	46.79	0.00	0.140	7850.0	1101.95	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	1.26		0.450	2.27	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.26		1.920	9.67	Sqm
		4		1.026	1.920	7.88	Sqm
		4	1.26		0.650	3.27	Sqm
		4		1.752	0.650	4.56	Sqm
	Section 2-2	4	3.25		0.450	5.85	Sqm
		4		0.450	0.450	0.81	Sqm
		4	3.25		0.700	9.09	Sqm
		4		0.660	0.700	1.85	Sqm
		4	3.25		0.650	8.44	Sqm
		4		1.020	0.650	2.65	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		0.550	4.18	Sqm
		4		0.900	0.550	1.98	Sqm
	Section 5-5	4	2.32		0.450	4.18	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.32		1.920	17.85	Sqm
		4		1.026	1.920	7.88	Sqm
		4	2.32		0.550	5.11	Sqm
		4		1.752	0.550	3.85	Sqm
	Section 6-6	4	1.53		0.450	2.75	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.53		0.500	3.05	Sqm
		4		0.600	0.500	1.20	Sqm
		4	1.53		0.550	3.36	Sqm
		4		0.900	0.550	1.98	Sqm
	Floor	2	0.63		0.700	0.88	Sqm
		2		1.050	0.700	1.47	Sqm
		2	1.40		0.550	1.54	Sqm
		2		1.050	0.550	1.16	Sqm
		2	4.50		0.650	5.85	Sqm
		2		1.050	0.650	1.37	Sqm
		2	0.30		0.277	0.17	Sqm
		2		1.050	0.277	0.58	Sqm
		2	0.20		0.453	0.18	Sqm
		2		1.050	0.453	0.95	Sqm
		2	2.300		0.550	2.53	Sqm
		2		1.050	0.550	1.16	Sqm
		2	0.75		1.200	1.80	Sqm
		2		1.050	1.200	2.52	Sqm
	Crest	2	1.00		1.490	2.98	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		1.050	1.490	3.13	Sqm
	Toe Wall D/S Portion	2	5.15		0.300	3.09	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	4.85		0.600	5.82	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					169.85	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	0.450	0.300	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	1.75	0.450	0.150	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	10.95	0.450		4.93	Sqm
	On Abutment Top (Right Side)	1	10.95	0.450		4.93	Sqm
	TOTAL					9.85	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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		5.872		5.87	Cum
	Abutment						
	Section 1-1	2	1.26	0.589		1.482	Cum
	Section 2-2	2	3.25	0.576		3.742	Cum
	Section 3-3	2	2.20	0.577		2.541	Cum
	Section 5-5	2	2.37	0.589		2.787	Cum
	Section 6-6	2	1.00	0.577		1.154	Cum
	Toe wall	2	5.15	0.150	0.600	1.545	Cum
		2	1.75	0.150	0.600	0.315	Cum
	TOTAL					19.44	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH.0.620 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.42	2.084	1.937	11.440	Cum
	<i>Section 2-2</i>	2	3.50	1.170	1.937	15.855	Cum
	<i>Section 3-3</i>	2	4.40	1.050	1.737	16.050	Cum
	<i>Section 5-5</i>	2	2.33	2.234	1.937	20.165	Cum
	<i>Section 6-6</i>	2	0.63	1.050	1.737	2.298	Cum
	<i>U/S Key Floor</i>	1	0.70	1.050	1.150	0.845	Cum
	<i>U/S Floor</i>	1	3.50	1.050	2.674	9.827	Cum
	<i>D/S Floor</i>	1	3.50	1.050	1.150	4.226	Cum
		1	5.30	1.050	0.950	5.287	Cum
	<i>D/S Key Floor</i>	1	2.60	1.050	0.700	1.911	Cum
	<i>Toe Wall D/S Portion</i>	1	5.15	0.750	0.900	3.476	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	1.75	0.600	0.750	1.575	Cum
						92.96	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.						
	<i>PCC Below Floor</i>	1	0.54	1.050	0.150	0.09	Cum
		1	1.06	1.050	0.150	0.17	Cum
		1	0.72	1.050	0.150	0.11	Cum
		1	0.35	1.050	0.150	0.06	Cum
		1	5.19	1.050	0.150	0.82	Cum
		1	0.49	1.050	0.150	0.08	Cum
		1	1.53	1.050	0.150	0.24	Cum
		1	0.14	1.050	0.150	0.02	Cum
		1	1.27	1.050	0.150	0.20	Cum
		1	1.62	1.050	0.150	0.26	Cum
		1	0.54	1.050	0.150	0.09	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.42	2.084	0.150	0.89	Cum
	<i>Section 2-2</i>	2	3.50	1.170	0.150	1.23	Cum
	<i>Section 3-3</i>	2	4.40	1.050	0.150	1.39	Cum
	<i>Section 5-5</i>	2	2.33	2.234	0.150	1.56	Cum
	<i>Section 6-6</i>	2	0.63	1.050	0.150	0.20	Cum
	<i>Toe Wall D/S Portion</i>	1	5.15	0.750	0.300	1.16	Cum
	<i>Toe Wall D/S Portion</i>	1	4.85	0.450	0.600	1.31	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.75	0.600	0.150	0.32	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.75	0.300	0.600	0.63	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.27	0.450	0.450	0.51	Cum
		2	1.27	1.117	2.224	6.31	Cum
		2	1.27	1.934	0.800	3.93	Cum
	<i>Section 2-2</i>	2	3.50	0.450	0.450	1.42	Cum
		2	3.50	0.660	0.700	3.23	Cum
		2	3.50	1.020	1.800	12.84	Cum
	<i>Section 3-3</i>	2	4.10	0.450	0.450	1.66	Cum
		2	4.10	0.600	0.500	2.46	Cum
		2	4.10	0.900	2.000	14.77	Cum
	<i>Section 5-5</i>	2	2.29	0.450	0.450	0.93	Cum
		2	2.29	1.117	2.224	11.36	Cum
		2	2.29	1.934	0.550	4.86	Cum
	<i>Section 6-6</i>	2	1.34	0.450	0.450	0.54	Cum
		2	1.34	0.600	0.500	0.80	Cum
		2	1.34	0.900	0.550	1.33	Cum
	<i>Floor</i>	1	0.70	1.050	1.000	0.74	Cum
		1	1.80	1.050	0.550	1.04	Cum
		1	0.25	1.050	0.675	0.18	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	4.95	1.050	0.800	4.15	Cum
		1	0.29	1.050	0.350	0.11	Cum
		1	0.20	1.050	0.550	0.12	Cum
		1	1.79	1.050	0.650	1.22	Cum
		1	0.10	1.050	0.600	0.06	Cum
		1	2.60	1.050	0.550	1.50	Cum
		1	0.81	1.050	1.450	1.24	Cum
	Crest	1	1.15	1.050	1.789	2.16	Cum
	TOTAL					79.47	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	0.85	1.050	0.150	0.13	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	18.73	0.450	0.050	0.42	Cum
	On Abutment Top (Right Side)	1	18.73	0.450	0.050	0.42	Cum
	TOTAL					0.98	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	79.47	0.00	0.238	7850.0	1871.45	Kg
	Total Weight in Metric Tonne					1.87	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	1.27		0.450	2.29	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.27		2.224	11.30	Sqm
		4		1.117	2.224	9.94	Sqm
		4	1.27		0.800	4.06	Sqm
		4		1.934	0.800	6.19	Sqm
	Section 2-2	4	3.50		0.450	6.30	Sqm
		4		0.450	0.450	0.81	Sqm
		4	3.50		0.700	9.79	Sqm
		4		0.660	0.700	1.85	Sqm
		4	3.50		1.800	25.19	Sqm
		4		1.020	1.800	7.34	Sqm
	Section 3-3	4	4.10		0.450	7.38	Sqm
		4		0.450	0.450	0.81	Sqm
		4	4.10		0.500	8.20	Sqm
		4		0.600	0.500	1.20	Sqm
		4	4.10		2.000	32.82	Sqm
		4		0.900	2.000	7.20	Sqm
	Section 5-5	4	2.29		0.450	4.11	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.29		2.224	20.34	Sqm
		4		1.117	2.224	9.94	Sqm
		4	2.29		0.550	5.03	Sqm
		4		1.934	0.550	4.25	Sqm
	Section 6-6	4	1.34		0.450	2.41	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.34		0.500	2.68	Sqm
		4		0.600	0.500	1.20	Sqm
		4	1.34		0.550	2.95	Sqm
		4		0.900	0.550	1.98	Sqm
	Floor	2	0.70		1.000	1.40	Sqm
		2		1.050	1.000	2.10	Sqm
		2	1.80		0.550	1.98	Sqm
		2		1.050	0.550	1.16	Sqm
		2	0.25		0.675	0.34	Sqm
		2		1.050	0.675	1.42	Sqm
		2	4.95		0.800	7.91	Sqm
		2		1.050	0.800	1.68	Sqm
		2	0.29		0.350	0.21	Sqm
		2		1.050	0.350	0.74	Sqm
		2	0.20		0.550	0.22	Sqm
		2		1.050	0.550	1.16	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	1.79		0.650	2.33	Sqm
		2		1.050	0.650	1.37	Sqm
		2	0.10		0.600	0.12	Sqm
		2		1.050	0.600	1.26	Sqm
		2	2.60		0.550	2.86	Sqm
		2		1.050	0.550	1.16	Sqm
		2	0.81		1.450	2.36	Sqm
		2		1.050	1.450	3.05	Sqm
	Crest	2	1.15		1.789	4.11	Sqm
		2		1.050	1.789	3.76	Sqm
	Toe Wall D/S Portion	2	5.15		0.300	3.09	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	4.85		0.600	5.82	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					258.87	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	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	0.450	0.300	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	1.75	0.450	0.150	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	18.73	0.450		8.43	Sqm
	On Abutment Top (Right Side)	1	18.73	0.450		8.43	Sqm
	TOTAL					16.86	Sqm
11	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.						
		1	4.00			4.00	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		11.417		11.42	Cum
	Abutment						
	Section 1-1	2	1.42	0.504		1.428	Cum
	Section 2-2	2	3.50	0.208		1.455	Cum
	Section 3-3	2	4.40	0.208		1.830	Cum
	Section 5-5	2	2.33	0.504		2.349	Cum
	Section 6-6	2	0.63	0.208		0.262	Cum
	Toe wall	2	5.15	0.150	0.600	1.545	Cum
		2	1.75	0.150	0.600	0.315	Cum
	TOTAL					20.60	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR DHAMNI MINOR							
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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.25	1.902	1.703	8.124	Cum
	<i>Section 2-2</i>	2	3.00	1.110	1.703	11.342	Cum
	<i>Section 3-3</i>	2	2.45	0.990	1.503	7.297	Cum
	<i>Section 5-5</i>	2	2.44	2.052	1.703	17.039	Cum
	<i>Section 6-6</i>	2	0.91	0.990	1.503	2.708	Cum
	<i>U/S Key Floor</i>	1	0.63	0.950	0.850	0.505	Cum
	<i>U/S Floor</i>	1	2.75	0.950	2.220	5.800	Cum
	<i>D/S Floor</i>	1	3.00	0.950	0.900	2.565	Cum
		1	3.05	0.950	0.700	2.028	Cum
	<i>D/S Key Floor</i>	1	0.75	0.950	1.350	0.962	Cum
	<i>Toe Wall D/S Portion</i>	1	4.75	0.750	0.900	3.206	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	1.50	0.600	0.750	1.350	Cum
						62.93	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.						
	<i>PCC Below Floor</i>	1	0.54	0.950	0.150	0.08	Cum
		1	0.73	0.950	0.150	0.10	Cum
		1	0.48	0.950	0.150	0.07	Cum
		1	0.14	0.950	0.150	0.02	Cum
		1	4.49	0.950	0.150	0.64	Cum
		1	0.42	0.950	0.150	0.06	Cum
		1	1.12	0.950	0.150	0.16	Cum
		1	1.34	0.950	0.150	0.19	Cum
		1	0.54	0.950	0.150	0.08	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.25	1.902	0.150	0.72	Cum
	<i>Section 2-2</i>	2	3.00	1.110	0.150	1.00	Cum
	<i>Section 3-3</i>	2	2.45	0.990	0.150	0.73	Cum
	<i>Section 5-5</i>	2	2.44	2.052	0.150	1.50	Cum
	<i>Section 6-6</i>	2	0.91	0.990	0.150	0.27	Cum
	<i>Toe Wall D/S Portion</i>	1	4.75	0.750	0.300	1.07	Cum
	<i>Toe Wall D/S Portion</i>	1	4.45	0.450	0.600	1.20	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.50	0.600	0.150	0.27	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.50	0.300	0.600	0.54	Cum
	TOTAL					8.69	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.25	0.450	0.450	0.51	Cum
		2	1.25	1.026	1.920	4.94	Cum
		2	1.25	1.752	0.650	2.86	Cum
	<i>Section 2-2</i>	2	3.00	0.450	0.450	1.22	Cum
		2	3.00	0.630	0.600	2.27	Cum
		2	3.00	0.960	0.650	3.74	Cum
	<i>Section 3-3</i>	2	2.18	0.450	0.450	0.88	Cum
		2	2.18	0.570	0.400	0.99	Cum
		2	2.18	0.840	0.550	2.02	Cum
	<i>Section 5-5</i>	2	2.39	0.450	0.450	0.97	Cum
		2	2.39	1.026	1.920	9.43	Cum
		2	2.39	1.752	0.550	4.61	Cum
	<i>Section 6-6</i>	2	1.41	0.450	0.450	0.57	Cum
		2	1.41	0.570	0.400	0.64	Cum
		2	1.41	0.840	0.550	1.30	Cum
	<i>Floor</i>	1	0.63	0.950	0.700	0.42	Cum
		1	1.40	0.950	0.550	0.73	Cum
		1	0.10	0.950	0.600	0.06	Cum
		1	4.24	0.950	0.650	2.62	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	0.30	0.950	0.277	0.08	Cum
		1	0.20	0.950	0.453	0.09	Cum
		1	2.55	0.950	0.550	1.33	Cum
		1	0.75	0.950	1.200	0.86	Cum
	Crest	1	1.00	0.950	1.475	1.40	Cum
	TOTAL					44.52	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	0.75	0.950	0.150	0.11	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	12.81	0.450	0.050	0.29	Cum
	On Abutment Top (Right Side)	1	12.81	0.450	0.050	0.29	Cum
	TOTAL					0.68	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	44.52	0.00	0.134	7850.0	1048.47	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	1.25		0.450	2.26	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.25		1.920	9.63	Sqm
		4		1.026	1.920	7.88	Sqm
		4	1.25		0.650	3.26	Sqm
		4		1.752	0.650	4.56	Sqm
	Section 2-2	4	3.00		0.450	5.40	Sqm
		4		0.450	0.450	0.81	Sqm
		4	3.00		0.600	7.20	Sqm
		4		0.630	0.600	1.51	Sqm
		4	3.00		0.650	7.80	Sqm
		4		0.960	0.650	2.50	Sqm
	Section 3-3	4	2.18		0.450	3.93	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.18		0.400	3.49	Sqm
		4		0.570	0.400	0.91	Sqm
		4	2.18		0.550	4.80	Sqm
		4		0.840	0.550	1.85	Sqm
	Section 5-5	4	2.39		0.450	4.31	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.39		1.920	18.39	Sqm
		4		1.026	1.920	7.88	Sqm
		4	2.39		0.550	5.27	Sqm
		4		1.752	0.550	3.85	Sqm
	Section 6-6	4	1.41		0.450	2.53	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.41		0.400	2.25	Sqm
		4		0.570	0.400	0.91	Sqm
		4	1.41		0.550	3.09	Sqm
		4		0.840	0.550	1.85	Sqm
	Floor	2	0.63		0.700	0.88	Sqm
		2		0.950	0.700	1.33	Sqm
		2	1.40		0.550	1.54	Sqm
		2		0.950	0.550	1.05	Sqm
		2	4.24		0.650	5.51	Sqm
		2		0.950	0.650	1.24	Sqm
		2	0.30		0.277	0.17	Sqm
		2		0.950	0.277	0.53	Sqm
		2	0.20		0.453	0.18	Sqm
		2		0.950	0.453	0.86	Sqm
		2	2.550		0.550	2.81	Sqm
		2		0.950	0.550	1.05	Sqm
		2	0.75		1.200	1.80	Sqm
		2		0.950	1.200	2.28	Sqm
	Crest	2	1.00		1.475	2.94	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		0.950	1.475	2.80	Sqm
	Toe Wall D/S Portion	2	4.75		0.300	2.85	Sqm
		2		0.750	0.300	0.45	Sqm
	Toe Wall D/S Portion	2	4.45		0.600	5.34	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					163.05	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	1.871		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	0.350	0.300	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	0.350	0.150	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	12.81	0.450		5.76	Sqm
	On Abutment Top (Right Side)	1	12.81	0.450		5.76	Sqm
	TOTAL					11.53	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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		5.678		5.68	Cum
	Abutment						
	Section 1-1	2	1.25	0.531		1.332	Cum
	Section 2-2	2	3.00	0.519		3.114	Cum
	Section 3-3	2	2.45	0.493		2.418	Cum
	Section 5-5	2	2.44	0.531		2.589	Cum
	Section 6-6	2	0.91	0.493		0.897	Cum
	Toe wall	2	4.75	0.150	0.600	1.425	Cum
		2	1.50	0.150	0.600	0.270	Cum
	TOTAL					17.72	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
SHARDA TYPE FALL OF HEIGHT 0.762 METER AT CH.4.800 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.04	1.507	1.610	5.023	Cum
	<i>Section 2-2</i>	2	2.50	1.050	1.610	8.453	Cum
	<i>Section 3-3</i>	2	2.20	0.930	1.410	5.770	Cum
	<i>Section 5-5</i>	2	0.63	1.657	1.610	3.361	Cum
	<i>Section 6-6</i>	2	0.15	0.930	1.410	0.393	Cum
	<i>U/S Key Floor</i>	1	0.63	0.800	0.850	0.425	Cum
	<i>U/S Floor</i>	1	2.00	0.800	1.612	2.579	Cum
	<i>D/S Floor</i>	1	2.50	0.800	0.850	1.700	Cum
		1	2.61	0.800	0.650	1.356	Cum
	<i>D/S Key Floor</i>	1	0.63	0.800	0.850	0.425	Cum
						29.48	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.						
	<i>PCC Below Floor</i>	1	0.54	0.800	0.150	0.07	Cum
		1	0.78	0.800	0.150	0.09	Cum
		1	3.88	0.800	0.150	0.47	Cum
		1	0.28	0.800	0.150	0.03	Cum
		1	1.14	0.800	0.150	0.14	Cum
		1	0.78	0.800	0.150	0.09	Cum
		1	0.54	0.800	0.150	0.07	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.04	1.507	0.150	0.47	Cum
	<i>Section 2-2</i>	2	2.50	1.050	0.150	0.79	Cum
	<i>Section 3-3</i>	2	2.20	0.930	0.150	0.61	Cum
	<i>Section 5-5</i>	2	0.63	1.657	0.150	0.31	Cum
	<i>Section 6-6</i>	2	0.15	0.930	0.150	0.04	Cum
	TOTAL					3.18	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	0.88	0.450	0.450	0.36	Cum
		2	0.88	0.829	1.262	1.84	Cum
		2	0.88	1.357	0.500	1.20	Cum
	<i>Section 2-2</i>	2	2.50	0.450	0.450	1.01	Cum
		2	2.50	0.600	0.500	1.50	Cum
		2	2.50	0.900	0.500	2.25	Cum
	<i>Section 3-3</i>	2	1.96	0.450	0.450	0.79	Cum
		2	1.96	0.540	0.300	0.64	Cum
		2	1.96	0.780	0.500	1.53	Cum
	<i>Section 5-5</i>	2	0.59	0.450	0.450	0.24	Cum
		2	0.59	0.829	1.262	1.23	Cum
		2	0.59	1.357	0.500	0.80	Cum
	<i>Section 6-6</i>	2	0.62	0.450	0.450	0.25	Cum
		2	0.62	0.540	0.300	0.20	Cum
		2	0.62	0.780	0.500	0.48	Cum
	<i>Floor</i>	1	0.63	0.800	0.700	0.35	Cum
		1	4.50	0.800	0.500	1.80	Cum
		1	0.40	0.800	0.200	0.06	Cum
		1	0.307	0.800	0.200	0.05	Cum
		1	2.30	0.800	0.500	0.92	Cum
		1	0.63	0.800	0.700	0.35	Cum
	<i>Crest</i>	1	0.76	0.800	0.997	0.61	Cum
	TOTAL					18.44	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 Crest	1	0.60	0.800	0.150	0.07	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	6.73	0.450	0.050	0.15	Cum
	On Abutment Top (Right Side)	1	6.73	0.450	0.050	0.15	Cum
	TOTAL					0.37	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	18.44	0.00	0.055	7850.0	434.34	Kg
	Total Weight in Metric Tonne					0.43	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	0.88		0.450	1.59	Sqm
		4		0.450	0.450	0.81	Sqm
		4	0.88		1.262	4.45	Sqm
		4		0.829	1.262	4.18	Sqm
		4	0.88		0.500	1.76	Sqm
		4		1.357	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		0.500	5.00	Sqm
		4		0.600	0.500	1.20	Sqm
		4	2.50		0.500	5.00	Sqm
		4		0.900	0.500	1.80	Sqm
	Section 3-3	4	1.96		0.450	3.53	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.96		0.300	2.35	Sqm
		4		0.540	0.300	0.65	Sqm
		4	1.96		0.500	3.92	Sqm
		4		0.780	0.500	1.56	Sqm
	Section 5-5	4	0.59		0.450	1.05	Sqm
		4		0.450	0.450	0.81	Sqm
		4	0.59		1.262	2.96	Sqm
		4		0.829	1.262	4.18	Sqm
		4	0.59		0.500	1.17	Sqm
		4		1.357	0.500	2.71	Sqm
	Section 6-6	4	0.62		0.450	1.11	Sqm
		4		0.450	0.450	0.81	Sqm
		4	0.62		0.300	0.74	Sqm
		4		0.540	0.300	0.65	Sqm
		4	0.62		0.500	1.23	Sqm
		4		0.780	0.500	1.56	Sqm
	Floor	2	0.63		0.700	0.88	Sqm
		2		0.800	0.700	1.12	Sqm
		2	4.50		0.500	4.50	Sqm
		2		0.800	0.500	0.80	Sqm
		2	0.40		0.200	0.16	Sqm
		2		0.800	0.200	0.32	Sqm
		2	0.31		0.200	0.12	Sqm
		2		0.800	0.200	0.32	Sqm
		2	2.30		0.500	2.30	Sqm
		2		0.800	0.500	0.80	Sqm
		2	0.63		0.700	0.88	Sqm
		2		0.800	0.700	1.12	Sqm
	Crest	2	0.76		0.997	1.51	Sqm
		2		0.800	0.997	1.60	Sqm
	TOTAL					82.04	Sqm
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	6.73	0.450		3.03	Sqm
	On Abutment Top (Right Side)	1	6.73	0.450		3.03	Sqm
	TOTAL					6.06	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
11	Providing Drainage Spouts complete as per drawings & technical 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		1.431		1.43	Cum
	Abutment						
	Section 1-1	2	1.04	0.606		1.254	Cum
	Section 2-2	2	2.50	0.570		2.850	Cum
	Section 3-3	2	2.20	0.408		1.795	Cum
	Section 5-5	2	0.63	0.606		0.764	Cum
	Section 6-6	2	0.15	0.408		0.122	Cum
	TOTAL					8.22	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR BHADWA MR.							
SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH. 0.450 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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.25	1.842	1.639	7.563	Cum
	<i>Section 2-2</i>	2	3.00	1.110	1.639	10.908	Cum
	<i>Section 3-3</i>	2	2.20	0.990	1.439	6.274	Cum
	<i>Section 5-5</i>	2	2.17	1.992	1.639	14.153	Cum
	<i>Section 6-6</i>	2	0.91	0.990	1.439	2.593	Cum
	<i>U/S Key Floor</i>	1	0.63	0.900	0.850	0.478	Cum
	<i>U/S Floor</i>	1	2.50	0.900	2.220	4.995	Cum
	<i>D/S Floor</i>	1	3.00	0.900	0.950	2.565	Cum
		1	2.50	0.900	0.700	1.575	Cum
	<i>D/S Key Floor</i>	1	0.76	0.900	0.800	0.549	Cum
	<i>Toe Wall D/S Portion</i>	1	4.70	0.750	0.900	3.173	Cum
	<i>Boulder Pitching (D/S Portion)</i>	2	1.50	0.600	0.750	1.350	Cum
						56.18	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.						
	<i>PCC Below Floor</i>	1	0.54	0.900	0.150	0.07	Cum
		1	0.78	0.900	0.150	0.11	Cum
		1	0.17	0.900	0.150	0.02	Cum
		1	0.21	0.900	0.150	0.03	Cum
		1	4.41	0.900	0.150	0.60	Cum
		1	0.50	0.900	0.150	0.07	Cum
		1	0.86	0.900	0.150	0.12	Cum
		1	1.40	0.900	0.150	0.19	Cum
		1	0.54	0.900	0.150	0.07	Cum
	<i>PCC Below Abutment</i>						
	<i>Section 1-1</i>	2	1.25	1.842	0.150	0.69	Cum
	<i>Section 2-2</i>	2	3.00	1.110	0.150	1.00	Cum
	<i>Section 3-3</i>	2	2.20	0.990	0.150	0.65	Cum
	<i>Section 5-5</i>	2	2.17	1.992	0.150	1.30	Cum
	<i>Section 6-6</i>	2	0.91	0.990	0.150	0.27	Cum
	<i>Toe Wall D/S Portion</i>	1	4.70	0.750	0.300	1.06	Cum
	<i>Toe Wall D/S Portion</i>	1	4.40	0.450	0.600	1.19	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.50	0.600	0.150	0.27	Cum
	<i>Toe Wall for resting Brick Edging</i>	2	1.50	0.300	0.600	0.54	Cum
	TOTAL					8.24	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.						
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.03	0.450	0.450	0.42	Cum
		2	1.03	0.996	1.820	3.72	Cum
		2	1.03	1.692	0.650	2.26	Cum
	<i>Section 2-2</i>	2	3.00	0.450	0.450	1.21	Cum
		2	3.00	0.630	0.600	2.27	Cum
		2	3.00	0.960	0.650	3.74	Cum
	<i>Section 3-3</i>	2	1.93	0.450	0.450	0.78	Cum
		2	1.93	0.570	0.400	0.88	Cum
		2	1.93	0.840	0.500	1.62	Cum
	<i>Section 5-5</i>	2	2.12	0.450	0.450	0.86	Cum
		2	2.12	0.996	1.820	7.70	Cum
		2	2.12	1.692	0.500	3.59	Cum
	<i>Section 6-6</i>	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
	<i>Floor</i>	1	0.63	0.900	0.700	0.39	Cum
		1	5.50	0.900	0.500	2.48	Cum
		1	4.30	0.900	0.150	0.58	Cum
		1	0.23	0.900	0.350	0.07	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	0.20	0.900	0.400	0.07	Cum
		1	2.30	0.900	0.900	1.86	Cum
		1	0.76	0.900	1.250	0.86	Cum
	Crest	1	0.99	0.900	1.435	1.28	Cum
	TOTAL					38.92	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	0.75	0.900	0.150	0.10	Cum
	Coping over Abutment Top						
	On Abutment Top (Left Side)	1	10.32	0.450	0.050	0.23	Cum
	On Abutment Top (Right Side)	1	10.32	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	38.92	0.00	0.117	7850.0	916.55	Kg
	Total Weight in Metric Tonne					0.92	MT
6	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	4	1.03		0.450	1.85	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.03		1.820	7.48	Sqm
		4		0.996	1.820	7.25	Sqm
		4	1.03		0.650	2.67	Sqm
		4		1.692	0.650	4.40	Sqm
	Section 2-2	4	3.00		0.450	5.40	Sqm
		4		0.450	0.450	0.81	Sqm
		4	3.00		0.600	7.20	Sqm
		4		0.630	0.600	1.51	Sqm
		4	3.00		0.650	7.79	Sqm
		4		0.960	0.650	2.50	Sqm
	Section 3-3	4	1.93		0.450	3.48	Sqm
		4		0.450	0.450	0.81	Sqm
		4	1.93		0.400	3.09	Sqm
		4		0.570	0.400	0.91	Sqm
		4	1.93		0.500	3.86	Sqm
		4		0.840	0.500	1.68	Sqm
	Section 5-5	4	2.12		0.450	3.82	Sqm
		4		0.450	0.450	0.81	Sqm
		4	2.12		1.820	15.47	Sqm
		4		0.996	1.820	7.25	Sqm
		4	2.12		0.500	4.25	Sqm
		4		1.692	0.500	3.38	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		0.900	0.700	1.26	Sqm
		2	5.50		0.500	5.50	Sqm
		2		0.900	0.500	0.90	Sqm
		2	0.23		0.350	0.16	Sqm
		2		0.900	0.350	0.63	Sqm
		2	0.20		0.400	0.16	Sqm
		2		0.900	0.400	0.72	Sqm
		2	2.30		0.900	4.14	Sqm
		2		0.900	0.900	1.62	Sqm
		2	0.76		1.250	1.91	Sqm
		2		0.900	1.250	2.25	Sqm
	Crest	2	0.99		1.435	2.84	Sqm
		2		0.900	1.435	2.58	Sqm
	Toe Wall D/S Portion	2	4.70		0.300	2.82	Sqm
		2		0.750	0.300	0.45	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	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		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					149.28	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.						
	<i>In D/S Portion On Slopes</i>	2	1.50	1.872		5.62	Sqm
	TOTAL					5.62	Sqm
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	<i>In D/S Portion</i>	1	1.50	0.300	0.300	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	0.300	0.150	0.14	Cum
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	<i>On Abutment Top (Left Side)</i>	1	10.32	0.450		4.64	Sqm
	<i>On Abutment Top (Right Side)</i>	1	10.32	0.450		4.64	Sqm
	TOTAL					9.28	Sqm
11	Providing Drainage Spouts complete as per drawings & technical 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						
	<i>Under U/S floor</i>	1		4.294		4.29	Cum
	<i>Abutment</i>						
	<i>Section 1-1</i>	2	1.25	0.550		1.378	Cum
	<i>Section 2-2</i>	2	3.00	0.543		3.256	Cum
	<i>Section 3-3</i>	2	2.20	0.375		1.652	Cum
	<i>Section 5-5</i>	2	2.17	0.550		2.384	Cum
	<i>Section 6-6</i>	2	0.91	0.375		0.683	Cum
	<i>D/S protection</i>	2					
	<i>Toe wall</i>	2	4.70	0.150	0.600	1.410	Cum
		2	1.50	0.150	0.600	0.270	Cum
	TOTAL					15.33	Cum

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
ABSTRACT OF COST FOR CONSTRUCTION OF SLAB CULVERT FOR KOTWARA DY.								
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT KM 10.925								
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.	61.309	Cum	195.20	11967.60			
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.	10.48	Cum	6381.70	66890.43	3.40	4.72	9.43
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.	67.53	Cum	6914.20	466886.08	27.85	29.04	58.07
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.	63.98	Cum	8151.40	6323.69	36.27	24.95	50.54
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.	5.79	MT	73574.90	425924.23			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	307.54	Sqm	578.60	177939.95			
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	Rm	152.60	1229.60			
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	Cum	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			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.(RCD 14.09)	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	64.52	Cum	149.30	9632.76			

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)	58.704	Cum	1075.00	63106.38			
	Coarse Aggregates (100 Km lead)	118.047	Cum	1398.00	165029.69			
	Cement (30 km lead)	67.525	MT	742.00	50103.61			
	Boulder (60 Km lead)	4.40	Cum	1159.00	5099.60			
	Brick (15 km lead)	480.00	No.	3.18	1526.40			
	Steel (30 Km lead)	5.79	MT	742.00	4295.43			
	TOTAL (In Rs.)				1875174.86			
	TOTAL (In Rs.)				₹ 18,75,174.86			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	58.70	Cum	584.64	34320.48	3432.05		
	Coarse Aggregate	118.05	Cum	944.26	111467.05	11146.70		
	Boulders	4.40	Cum	694.61	3056.28	305.63		
	<i>Total</i>					14884.38		
	For 1 nos. fall, Total Seigniorage charges					14884.38		

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 11.730								
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.	69.969	Cum	195.20	13657.93			
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.	12.09	Cum	6381.70	77136.91	3.92	5.44	10.88
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.	113.38	Cum	6914.20	783920.74	46.77	48.75	97.51
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.	63.88	Cum	8151.40	6323.69	36.22	24.91	50.47
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.	6.69	MT	73574.90	492131.27			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	365.63	Sqm	578.60	211553.33			
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	Rm	152.60	1229.60			
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	Cum	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			
13	Providing Drainage Spouts complete as per drawings & technical specifications & as per clause 2705 of specifications.(RCD 14.09)	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	111.32	Cum	149.30	16619.98			

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)	79.106	Cum	1075.00	85038.68			
	Coarse Aggregates (100 Km lead)	158.850	Cum	1398.00	222072.75			
	Cement (30 km lead)	86.906	MT	742.00	64484.01			
	Boulder (60 Km lead)	4.40	Cum	1159.00	5099.60			
	Brick (15 km lead)	480.00	No.	3.18	1526.40			
	Steel (30 Km lead)	6.69	MT	742.00	4963.12			
	TOTAL (In Rs.)				2404977.44			
	TOTAL (In Rs.)				₹ 24,04,977.44			
	Seigniorage @10%			Rate	Amount in Rs.	10%		
	Coarse Sand	79.11	Cum	584.64	46248.39	4624.84		
	Coarse Aggregate	158.85	Cum	944.26	149996.00	14999.60		
	Boulders	4.40	Cum	694.61	3056.28	305.63		
	<i>Total</i>					19930.07		
	For 1 nos. fall, Total Seigniorage charges					19930.07		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR KOTWARA DY.							
BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 10.925							
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	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	2.10	1.88	1.20	9.49	Cum
		1	4.82	2.20	1.20	12.72	Cum
	Extra for Slope (0.5:1)	2	6.92	0.60	1.20	9.96	Cum
	Left abutment	2	2.10	1.88	1.20	9.49	Cum
		1	4.82	2.20	1.20	12.72	Cum
	Extra for Slope (0.5:1)	2	4.82	0.60	1.20	6.94	Cum
	TOTAL					61.31	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	2.10	1.88	0.20	1.58	Cum
		1	4.82	2.20	0.20	2.12	Cum
	Left abutment	2	2.10	1.88	0.20	1.58	Cum
		1	4.82	2.20	0.20	2.12	Cum
	Levelling course	2	5.50	3.50	0.08	3.08	Cum
	TOTAL					10.48	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	4.82	2.00	0.20	1.93	Cum
		1	4.82	1.80	0.80	6.94	Cum
		1	4.82	1.11	1.93	10.33	Cum
		1	4.82	0.82	0.20	0.79	Cum
		1	4.82	0.40	0.37	0.71	Cum
	Return wall	2	2.00	1.68	0.20	1.35	Cum
		2	2.00	1.48	0.80	4.74	Cum
		2	2.00	0.74	2.27	6.73	Cum
		2	2.00	0.40	0.15	0.24	Cum
	Left abutment	1	4.82	2.00	0.20	1.93	Cum
		1	4.82	1.80	0.80	6.94	Cum
		1	4.82	1.11	1.93	10.33	Cum
		1	4.82	0.82	0.20	0.79	Cum
		1	4.82	0.40	0.37	0.71	Cum
	Return wall	2	2.00	1.68	0.20	1.35	Cum
		2	2.00	1.48	0.80	4.74	Cum
		2	2.00	0.74	2.27	6.73	Cum
		2	2.00	0.40	0.15	0.24	Cum
	TOTAL					67.53	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	9.70	5.50	0.70	37.24	Cum
	Approch Slab	2	3.50	5.50	0.30	11.55	Cum
	Wearing coat	1	16.70	4.50	0.08	5.64	Cum
	Parapet	2	16.70	0.44	0.18	2.60	Cum
		2	16.70	0.35	0.25	2.93	Cum
		2	16.70	0.22	0.55	4.02	Cum
	TOTAL					63.98	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	42	10.74		1.578	711.9	Kg
a2	12	74	6.50		0.888	427.0	Kg
a3	10	2	5.40		0.616	6.7	Kg
a4	10	42	10.66		0.616	276.0	Kg
a5	10	74	6.35		0.616	289.7	Kg
	APPROACH SLAB						
c1	12	72	3.70		0.888	236.5	Kg
c2	12	46	5.65		0.888	230.7	Kg
c3	12	72	3.70		0.888	236.5	Kg
c4	12	46	5.70		0.888	232.8	Kg
	CRASH BARRIER FOR MAIN SLAB						
x1	12	160	2.72		0.888	386.5	Kg
x2	16	160	1.61		1.578	407.5	Kg
x3	10	24	9.58		0.616	141.7	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	9.58		0.888	408.2	Kg
	RCC M-20 (Providing Skin Reinforcement @0.25%)	67.5	0.0025	0.169	7850.00	1325.19	Kg
	Total Reinforcement Steel (in kg)					5789.0	Kg
	Total Weight in Metric Tonne					5.79	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	4.82		0.20	1.93	Sqm
		2		2.00	0.20	0.80	Sqm
		2	4.82		0.80	7.71	Sqm
		2		1.80	0.80	2.88	Sqm
		2	4.82		1.93	18.62	Sqm
		2		1.11	1.93	4.29	Sqm
		2	4.82		0.20	1.93	Sqm
		2		0.82	0.20	0.33	Sqm
	Return wall	2	2.00		0.20	0.80	Sqm
		2		1.68	0.20	0.67	Sqm
		2	2.00		0.80	3.20	Sqm
		2		1.48	0.80	2.37	Sqm
		2	2.00		2.27	9.09	Sqm
		2		0.74	2.27	3.37	Sqm
		2	2.00		0.15	0.60	Sqm
		2		0.40	0.15	0.12	Sqm
	Left abutment	2	4.82		0.20	1.93	Sqm
		2		2.00	0.20	0.80	Sqm
		2	4.82		0.80	7.71	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		1.80	0.80	2.88	Sqm
		2	4.82		1.93	18.62	Sqm
		2		1.11	1.93	4.29	Sqm
		2	4.82		0.20	1.93	Sqm
		2		0.82	0.20	0.33	Sqm
	Return wall	2	2.00		0.20	0.80	Sqm
		2		1.68	0.20	0.67	Sqm
		2	2.00		0.80	3.20	Sqm
		2		1.48	0.80	2.37	Sqm
		2	2.00		2.27	9.09	Sqm
		2		0.74	2.27	3.37	Sqm
		2	2.00		0.15	0.60	Sqm
		2		0.40	0.15	0.12	Sqm
	Slab	2	9.70		0.70	13.54	Sqm
		1	9.70	5.50		53.35	Sqm
		2		5.50	0.70	7.68	Sqm
	Approach Slab	4	3.50		0.30	4.20	Sqm
		2	3.50	5.50		38.50	Sqm
		4		5.50	0.30	6.60	Sqm
	Parapet	4	16.70		0.18	11.69	Sqm
		4		0.44	0.18	0.31	Sqm
		4	16.70		0.25	16.70	Sqm
		4		0.35	0.25	0.35	Sqm
		4	16.70		0.55	36.74	Sqm
		4		0.22	0.55	0.48	Sqm
	TOTAL					307.54	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 & technical 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	4.82		2.17	20.89	Cum
	Right and left Return wall	4	2.10		3.18	26.73	Cum
	Extra slope	2	6.918	0.6	1.2	9.96	Cum
		2	4.818	0.6	1.2	6.94	Cum
	TOTAL					64.52	Cum

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 11.730							
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.						
	<i>Right abutment</i>	2	2.33	2.65	1.20	14.80	Cum
		1	4.37	2.33	1.20	12.23	Cum
	<i>Extra for Slope (0.5:1)</i>	2	6.69	0.60	1.20	9.64	Cum
	<i>Left abutment</i>	2	2.33	2.65	1.20	14.80	Cum
		1	4.37	2.33	1.20	12.23	Cum
	<i>Extra for Slope (0.5:1)</i>	2	4.37	0.60	1.20	6.29	Cum
	TOTAL					69.97	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.						
	<i>Right abutment</i>	2	2.33	2.65	0.20	2.47	Cum
		1	4.37	2.33	0.20	2.04	Cum
	<i>Left abutment</i>	2	2.33	2.65	0.20	2.47	Cum
		1	4.37	2.33	0.20	2.04	Cum
	<i>Levelling course</i>	2	5.50	3.50	0.08	3.08	Cum
	TOTAL					12.09	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.						
	<i>Right abutment</i>	1	4.37	2.45	0.20	2.14	Cum
		1	4.37	2.25	0.80	7.86	Cum
		1	4.37	1.34	3.44	20.03	Cum
		1	4.37	0.82	0.20	0.72	Cum
		1	4.37	0.40	0.37	0.65	Cum
	<i>Return wall</i>	2	2.23	2.13	0.20	1.90	Cum
		2	2.23	1.93	0.80	6.88	Cum
		2	2.23	0.97	3.78	16.24	Cum
		2	2.23	0.40	0.15	0.27	Cum
	<i>Left abutment</i>	1	4.37	2.45	0.20	2.14	Cum
		1	4.37	2.25	0.80	7.86	Cum
		1	4.37	1.34	3.44	20.03	Cum
		1	4.37	0.82	0.20	0.72	Cum
		1	4.37	0.40	0.37	0.65	Cum
	<i>Return wall</i>	2	2.23	2.13	0.20	1.90	Cum
		2	2.23	1.93	0.80	6.88	Cum
		2	2.23	0.97	3.78	16.24	Cum
		2	2.23	0.40	0.15	0.27	Cum
	TOTAL					113.38	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	9.68	5.50	0.70	37.16	Cum
	Approch Slab	2	3.50	5.50	0.30	11.55	Cum
	Wearing coat	1	16.68	4.50	0.08	5.63	Cum
	Parapet	2	16.68	0.44	0.18	2.59	Cum
		2	16.68	0.35	0.25	2.93	Cum
		2	16.68	0.22	0.55	4.02	Cum
	TOTAL					63.88	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	42	10.74		1.578	711.9	Kg
a2	12	74	6.50		0.888	427.0	Kg
a3	10	2	5.40		0.616	6.7	Kg
a4	10	42	10.66		0.616	276.0	Kg
a5	10	74	6.35		0.616	289.7	Kg
	APPROACH SLAB						
c1	12	72	3.70		0.888	236.5	Kg
c2	12	46	5.65		0.888	230.7	Kg
c3	12	72	3.70		0.888	236.5	Kg
c4	12	46	5.70		0.888	232.8	Kg
	CRASH BARRIER FOR MAIN SLAB						
x1	12	160	2.72		0.888	386.5	Kg
x2	16	160	1.61		1.578	407.5	Kg
x3	10	24	9.58		0.616	141.7	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	9.58		0.888	408.2	Kg
	RCC M-20 (Providing Skin Reinforcement @0.25%)	####	0.0025	0.283	7850.00	#####	Kg
	Total Reinforcement Steel (in kg)					6688.8	Kg
	Total Weight in Metric Tonne					6.69	MT
7	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	2	4.37		0.20	1.75	Sqm
		2		2.45	0.20	0.98	Sqm
		2	4.37		0.80	6.99	Sqm
		2		2.25	0.80	3.60	Sqm
		2	4.37		3.44	30.00	Sqm
		2		1.34	3.44	9.17	Sqm
		2	4.37		0.20	1.75	Sqm
		2		0.82	0.20	0.33	Sqm
	Return wall	2	2.23		0.20	0.89	Sqm
		2		2.13	0.20	0.85	Sqm
		2	2.23		0.80	3.56	Sqm
		2		1.93	0.80	3.09	Sqm
		2	2.23		3.78	16.80	Sqm
		2		0.97	3.78	7.30	Sqm
		2	2.23		0.15	0.67	Sqm
		2		0.40	0.15	0.12	Sqm
	Left abutment	2	4.37		0.20	1.75	Sqm
		2		2.45	0.20	0.98	Sqm
		2	4.37		0.80	6.99	Sqm
		2		2.25	0.80	3.60	Sqm
		2	4.37		3.44	30.00	Sqm
		2		1.34	3.44	9.17	Sqm
		2	4.37		0.20	1.75	Sqm
		2		0.82	0.20	0.33	Sqm
	Return wall	2	2.23		0.20	0.89	Sqm
		2		2.13	0.20	0.85	Sqm
		2	2.23		0.80	3.56	Sqm
		2		1.93	0.80	3.09	Sqm

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	2.23		3.78	16.80	Sqm
		2		0.97	3.78	7.30	Sqm
		2	2.23		0.15	0.67	Sqm
		2		0.40	0.15	0.12	Sqm
	Slab	2	9.68		0.70	13.51	Sqm
		1	9.68	5.50		53.24	Sqm
		2		5.50	0.70	7.68	Sqm
	Approach Slab	4	3.50		0.30	4.20	Sqm
		2	3.50	5.50		38.50	Sqm
		4		5.50	0.30	6.60	Sqm
	Parapet	4	16.68		0.18	11.68	Sqm
		4		0.44	0.18	0.31	Sqm
		4	16.68		0.25	16.68	Sqm
		4		0.35	0.25	0.35	Sqm
		4	16.68		0.55	36.70	Sqm
		4		0.22	0.55	0.48	Sqm
	TOTAL					365.63	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 & technical 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	4.37		4.73	41.31	Cum
	Right and left Return wall	4	2.33		5.81	54.08	Cum
	Extra slope	2	6.69	0.6	1.2	9.64	Cum
		2	4.37	0.6	1.2	6.29	Cum
	TOTAL					111.32	Cum

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND

DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF KOTWARA DISTRIBUTARY

Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
1	BRIDGE	0.005	₹ 39,105.18
2	HR FOR GAMHARI MR.	0.005	₹ 21,399.73
3	BRIDGE	0.345	₹ 1,69,166.05
4	CROSS DRAINAGE	0.640	₹ 54,912.41
5	BRIDGE	0.875	₹ 0.00
6	HR FOR NAGWA MR.	1.140	₹ 20,110.88
7	CULVERT	1.840	₹ 39,472.08
8	BRIDGE	3.450	₹ 0.00
9	BRIDGE	3.775	₹ 1,35,332.84
10	BRIDGE	4.405	₹ 1,39,085.10
11	CROSS DRAINAGE	4.670	₹ 0.00
12	CROSS DRAINAGE	5.025	₹ 0.00
13	HR FOR PAWAI MR.	5.120	₹ 22,598.29
14	BRIDGE	5.225	₹ 52,394.92
15	CROSS DRAINAGE	5.475	₹ 21,074.52
16	FALL (0.457 M) (NEW)	5.500	₹ 0.00
17	CROSS DRAINAGE	5.610	₹ 1,03,508.40
18	FALL (2.0 M)	5.950	₹ 2,87,402.04
19	CROSS DRAINAGE	6.100	₹ 1,80,568.16
20	CROSS DRAINAGE	6.270	₹ 1,64,152.88
21	BRIDGE	6.330	₹ 72,003.08
22	FALL (1.520 M)	6.500	₹ 81,787.67
23	FALL (1.520 M)	6.750	₹ 1,46,434.09
24	FALL (1.830 M)	6.940	₹ 1,58,587.91
25	CROSS DRAINAGE	7.390	₹ 0.00
26	CROSS DRAINAGE	8.025	₹ 1,43,633.77
27	FALL (1.220 M)	8.345	₹ 57,593.65
28	CROSS DRAINAGE	8.605	₹ 3,05,855.70
29	CROSS DRAINAGE	8.850	₹ 3,52,976.43
30	CROSS DRAINAGE	9.045	₹ 0.00
31	CROSS DRAINAGE	9.160	₹ 2,04,519.09
32	CROSS DRAINAGE	9.460	₹ 0.00
33	FALL (2.135 M)	9.795	₹ 2,47,743.24
34	HR FOR BHUTAILI MR.	9.875	₹ 48,420.39
35	FALL (NEW)	10.300	₹ 0.00
36	CROSS DRAINAGE	10.440	₹ 0.00
37	FALL (1.220 M)	10.500	₹ 0.00
38	HR FOR SALOPURA MR.	10.660	₹ 8,707.32
39	CROSS DRAINAGE	10.860	₹ 1,12,750.92
40	BRIDGE	10.925	₹ 50,474.75
41	BRIDGE	11.730	₹ 58,326.37
42	CROSS DRAINAGE	11.860	₹ 1,36,838.57
43	BRIDGE	12.020	₹ 1,12,777.37
44	CROSS DRAINAGE	12.440	₹ 1,36,307.37
45	CR / HR FOR SINGHI SUB DY.	13.020	₹ 47,262.33
46	CROSS DRAINAGE	13.480	₹ 0.00

Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
47	BRIDGE	13.605	₹ 0.00
48	CROSS DRAINAGE	14.240	₹ 1,49,272.16
49	BRIDGE	14.370	₹ 90,221.89
50	BRIDGE	15.150	₹ 0.00
51	BRIDGE	15.860	₹ 78,944.16
52	BRIDGE	16.130	₹ 90,221.89
53	HR FOR SAHOKARMA MR.	16.200	₹ 23,233.19
54	FALL (2.380 M)	16.500	₹ 0.00
55	HR FOR DHAMNI MR.	17.300	₹ 24,534.50
56	FALL (1.220 M)	17.350	₹ 2,89,745.65
57	BRIDGE/FALL(0.914)	17.665	₹ 0.00
58	BRIDGE	18.400	₹ 70,936.77
59	FALL (0.914 M) / BRIDGE	19.100	₹ 1,19,250.39
60	FALL (1.220 M)	20.660	₹ 0.00
61	FALL (1.220 M) / BRIDGE	21.450	₹ 0.00
62	BRIDGE	21.980	₹ 0.00
63	FALL (1.070)	22.350	₹ 47,335.59
64	FALL (1.220 M) / BRIDGE	22.750	₹ 0.00
65	BRIDGE	23.025	₹ 0.00
66	BRIDGE	23.150	₹ 72,516.10
67	CROSS DRAINAGE	23.520	₹ 0.00
68	HR FOR NAWAKHAP MINOR	23.830	₹ 0.00
69	FALL (0.915 M) / BRIDGE	24.200	₹ 0.00
70	BRIDGE	24.430	₹ 36,258.05
71	FALL (0.610 M)	25.150	₹ 0.00
72	FALL (0.610 M) / BRIDGE	25.950	₹ 99,984.85
73	BRIDGE	26.365	₹ 0.00
74	FALL (0.915 M) / BRIDGE	26.730	₹ 50,761.27
75	HR FOR BHADWA MR.	27.075	₹ 25,955.27
76	FALL (1.520)	27.250	₹ 0.00
77	FALL (1.520)	27.595	₹ 47,335.59
78	PIPE CULVERT	28.740	₹ 0.00
79	PIPE CULVERT	28.830	₹ 0.00
80	RAILWAY LINE	28.910	₹ 0.00
81	FALL (1.670 M)	29.325	₹ 31,225.44
82	FALL (1.070 M)/ BRIDGE	29.690	₹ 69,348.64
83	FALL (0.762 M)	29.875	₹ 21,652.52
84	FALL (0.762 M)	30.000	₹ 0.00
85	FALL (1.220 M)	30.275	₹ 21,652.52
86	FALL (1.220M)	30.510	₹ 2,10,194.84
87	ROAD CROSSING	30.585	₹ 0.00
Total In Rs.			₹ 56,03,864.79
Total In Lakhs.			₹ 56.04

Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF GAMHARIA MR. (KOTWARA DY)			
Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
1	BRIDGE	0.175	₹ 0.00
2	BRIDGE	0.950	₹ 1,08,774.15
3	CROSS DRAINAGE	1.050	₹ 0.00
4	BRIDGE	2.100	₹ 1,08,774.15
5	CROSS DRAINAGE	2.455	₹ 0.00
Total In Rs.			₹ 2,17,548.29
Total In Lakhs.			₹ 2.18

Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF NAGWA MINOR (KOTWARA DY)			
Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
1	CULVERT	0.730	₹ 32,103.60
Total In Rs.			₹ 32,103.60
Total In Lakhs.			₹ 0.32

DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF PAWAI MINOR (KOTWARA DY)			
Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
1	BRIDGE	0.175	₹ 1,34,900.21
2	FALL (1.067 M)	0.200	₹ 0.00
3	FALL (0.914 M)	0.375	₹ 0.00
4	FALL (0.61 M)	0.640	₹ 1,23,474.45
5	CROSS DRAINAGE	1.050	₹ 0.00
6	FALL (1.829M)	1.100	₹ 74,459.05
7	BRIDGE	1.260	₹ 1,13,841.14
8	FALL (1.829M)	1.400	₹ 92,717.25
9	FALL (1.829 M)	1.720	₹ 54,961.39
Total In Rs.			₹ 5,94,353.48
Total In Lakhs.			₹ 5.94

DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF BHUTAILI MINOR (KOTWARA DY)			
Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
1	CROSS DRAINAGE	0.300	₹ 1,65,687.45
2	FALL (1.524 M)	0.370	₹ 1,62,332.07
3	CROSS DRAINAGE	0.530	₹ 1,41,064.52
4	FALL (1.524 M)	0.580	₹ 36,341.82
5	CULVERT	0.650	₹ 0.00
6	FALL (1.067 M)	0.740	₹ 18,320.08
7	CROSS DRAINAGE	0.855	₹ 1,47,525.55
8	FALL (1.220 M)	0.930	₹ 47,335.59
9	FALL (1.220 M)	1.120	₹ 0.00
10	FALL (0.614 M)	1.350	₹ 36,341.82
11	FALL (0.457 M)/ CULVERT	1.480	₹ 1,19,793.05
12	FALL (0.915 M)	1.625	₹ 63,044.22
13	FALL (0.915 M)	1.840	₹ 0.00
Total In Rs.			₹ 9,37,786.15
Total In Lakhs.			₹ 9.38

Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF SALOPURA MINOR (KOTWARA DY)			
Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
1	FALL (1.829 M)	0.000	₹ 9,937.51
2	FALL (0.914 M)	0.070	₹ 2,228.37
3	CROSS DRAINAGE	0.250	₹ 96,397.06
4	CULVERT/FALL(1.524)	0.300	₹ 26,620.47
5	FALL (1.220 M) (NEW)	0.487	₹ 0.00
6	CROSS DRAINAGE	0.685	₹ 1,37,251.51
7	FALL (1.067 M)	0.710	₹ 52,178.35
8	FALL (1.829 M)	0.890	₹ 8,783.80
9	FALL (2.134 M)	1.185	₹ 54,958.90
10	CROSS DRAINAGE	1.230	₹ 77,974.18
11	ROAD CROSSING	1.260	₹ 0.00
12	FALL (1.520 M)	1.450	₹ 32,437.84
13	CROSS DRAINAGE	1.630	₹ 1,38,687.30
14	FALL (1.520 M)	1.765	₹ 0.00
15	CULVERT	1.790	₹ 37,806.76
16	CROSS DRAINAGE	2.155	₹ 1,38,687.30
17	FALL (0.915 M) / CULVERT	2.170	₹ 21,754.83
18	CROSS DRAINAGE	2.610	₹ 0.00
19	FALL (1.220 M) (NEW)	2.800	₹ 0.00
Total In Rs.			₹ 8,35,704.16
Total In Lakhs.			₹ 8.36

DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF SINGHI SUB-DY (KOTWARA DY)			
Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
1	FALL (0.914 M)	0.000	₹ 1,01,491.60
2	BRIDGE	0.010	₹ 50,761.27
3	FALL (1.524 M)	0.120	₹ 5,541.04
4	FALL (1.829 M)	0.490	₹ 0.00
5	BRIDGE	0.580	₹ 70,212.55
6	FALL (1.220 M) (NEW)	0.650	₹ 0.00
7	FALL (1.220 M)	1.040	₹ 1,10,162.43
8	CROSS DRAINAGE	1.265	₹ 0.00
9	BRIDGE/FALL(1.220)	1.300	₹ 15,921.45
10	FALL (1.220 M) (NEW)	1.350	₹ 0.00
11	FALL (2.134 M) / BRIDGE	1.840	₹ 48,608.69
12	CROSS DRAINAGE	2.180	₹ 0.00
13	BRIDGE	2.200	₹ 0.00
14	FALL (1.220 M) / BRIDGE	2.640	₹ 74,737.75
15	FALL (0.305 M) (NEW)	2.740	₹ 0.00
16	CROSS DRAINAGE	2.960	₹ 1,56,129.71
17	CULVERT	3.120	₹ 0.00
18	BRIDGE	3.230	₹ 32,843.70
19	FALL (0.614 M)	3.565	₹ 56,405.95
20	BRIDGE	3.765	₹ 0.00
21	FALL (0.762 M) (NEW)	3.850	₹ 0.00
22	CROSS DRAINAGE	3.935	₹ 1,27,768.77

Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
23	BRIDGE	4.060	₹ 36,949.16
24	FALL (1.830 M)	4.190	₹ 0.00
25	CROSS DRAINAGE	4.440	₹ 76,657.94
26	FALL (1.524 M)	4.455	₹ 48,468.72
27	HR FOR PROP MR -1	4.584	₹ 0.00
28	SUPER PASSAGE	5.050	₹ 0.00
29	CROSS DRAINAGE	5.250	₹ 70,528.17
30	BRIDGE	5.380	₹ 0.00
31	SUPER PASSAGE	5.660	₹ 5,09,194.91
32	SUPER PASSAGE	6.040	₹ 6,06,801.78
33	BRIDGE	6.470	₹ 18,819.11
34	SUPER PASSAGE	6.630	₹ 0.00
35	SUPER PASSAGE	6.925	₹ 0.00
36	SUPER PASSAGE	7.370	₹ 0.00
37	BRIDGE	7.445	₹ 0.00
38	SUPER PASSAGE	7.590	₹ 1,652.61
39	SUPER PASSAGE	7.755	₹ 1,652.61
40	BRIDGE	7.950	₹ 0.00
41	SUPER PASSAGE	8.290	₹ 4,07,566.54
42	SUPER PASSAGE	8.825	₹ 0.00
43	SUPER PASSAGE	9.660	₹ 5,57,200.39
44	BRIDGE	9.715	₹ 16,939.68
45	BRIDGE	10.520	₹ 0.00
46	SUPER PASSAGE	10.895	₹ 1,70,433.67
47	SUPER PASSAGE	11.230	₹ 0.00
48	BRIDGE	11.740	₹ 0.00
49	BRIDGE	13.040	₹ 98,531.10
50	HR FOR PROP MR -2	13.380	₹ 0.00
51	RAILWAY LINE	13.460	₹ 0.00
52	CULVERT	14.330	₹ 0.00
53	CULVERT	14.860	₹ 0.00
54	CULVERT	15.740	₹ 44,494.58
55	ROAD CROSSING	15.930	₹ 0.00
56	FALL (0.914 M)	16.235	₹ 18,210.58
57	FALL (1.830 M)	16.885	₹ 0.00
58	FALL (1.830 M)/ CULVERT	17.520	₹ 27,809.11
59	FALL (1.220 M)	17.800	₹ 0.00
Total In Rs.			₹ 35,62,495.60
Total In Lakhs.			₹ 35.62

Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF SAHOKARMA MINOR			
Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
1	WELL TYPE FALL(2.438)	0.305	₹ 1,09,662.26
2	PIPE LINE	0.330	₹ 0.00
3	FALL (1.220 M) (NEW)	0.450	₹ 0.00
4	FALL (1.524M) / PIPE LINE	0.620	₹ 43,183.95
5	FALL (2.440 M) / PIPE LINE	0.930	₹ 1,51,413.28
6	BRIDGE	1.090	₹ 0.00
7	FALL (1.524 M)	1.400	₹ 0.00
Total In Rs.			₹ 3,04,259.50
Total In Lakhs.			₹ 3.04

DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF DHAMNI MINOR (KOTWARA DY)			
Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
1	FALL (1.067 M)	1.850	₹ 30,765.54
2	FALL (1.220 M)	2.150	₹ 20,049.78
3	FALL (1.676 M)	2.650	₹ 98,563.07
4	FALL (1.830 M)	3.050	₹ 7,405.68
5	FALL (1.220 M) (NEW)	3.300	₹ 0.00
6	FALL (0.762 M) (NEW)	4.800	₹ 0.00
Total In Rs.			₹ 1,56,784.07
Total In Lakhs.			₹ 1.57

DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF BHADWA MINOR (KOTWARA			
Sl. No.	Structure Type	Chainage In Km	Amount (In Rs.)
1	BRIDGE	0.315	₹ 0.00
2	FALL (1.220 M) (NEW)	0.450	₹ 0.00
3	BRIDGE	0.935	₹ 15,523.15
4	FALL (2.440 M)	1.460	₹ 82,303.45
5	BRIDGE	1.555	₹ 28,623.27
6	FALL (2.440 M)	1.910	₹ 1,42,907.35
7	FALL (2.440 M)	2.170	₹ 0.00
8	BRIDGE	2.305	₹ 0.00
9	BRIDGE	2.440	₹ 27,809.11
10	FALL (2.135 M)	2.690	₹ 12,880.86
Total In Rs.			₹ 3,10,047.21
Total In Lakhs.			₹ 3.10

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND									
ABSTRACT OF COST OF REPAIRED STRUCTURES OF KOTWARA 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.-0.005 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.	3.79	Cum	5021.30	19008.71	0.44	1.21	
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.	10.470	Sqm	340.20	3561.85	10.855	0.153	
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.	10.470	Sqm	63.20	661.70	0.02		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.364	Cum	1075.00	1466.58			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	11.307	MT	742.00	8389.78			
		Brick (15 km lead)	1892.00	No.	3.18	6016.56			
TOTAL (In Rs.)						39105.18			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.36	Cum	584.64	797.60	79.76		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					79.76		
AOC FOR HR OF GAMHARI MR (Ch.-0.005 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	150.00	Cum	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.	7.875	Sqm	2492.58	19629.07			
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.)						21399.73			
		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.-0.345 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.	12.42	Cum	5021.30	62364.55	1.43	3.97	
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.	68.700	Sqm	340.20	23371.74	71.228	1.003	
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.	68.700	Sqm	63.20	4341.84	0.10		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	4.977	Cum	1075.00	5350.73			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	72.762	MT	742.00	53989.40			
		Brick (15 km lead)	6210.00	No.	3.18	19747.80			
TOTAL (In Rs.)						169166.05			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	4.98	Cum	584.64	2910.00	291.00		
		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					291.00		
		AOC FOR CD WORK (Ch.-0.640 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.	4.725	Cum	6914.20	32669.60	1.95	2.03	4.06
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	22.350	Sqm	578.60	12931.71			
3		Carriage of materials							
		Coarse Sand (60 Km lead)	2.032	Cum	1075.00	2184.13			
		Coarse Aggregates (100 Km lead)	4.064	Cum	1398.00	5680.77			
		Cement (30 km lead)	1.949	MT	742.00	1446.20			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
		TOTAL (In Rs.)				54912.41			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	2.03	Cum	584.64	1187.84	118.78		
		Coarse Aggregate	4.06	Cum	944.26	3837.00	383.70		
		Total					502.48		
		AOC FOR BRIDGE (Ch.-0.875 Km)							
1		Structure is in good condition and does not require any repair works.							
		AOC FOR HR OF NAGWA MINOR (Ch.-1.140 Km)							
1	5.1.3	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.	7.500	Sqm	2492.58	18694.35			
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.)				20110.88			
		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 CULVERT (Ch.-1.840 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.	2.90	Cum	5021.30	14551.73	0.33	0.93	
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.	16.030	Sqm	340.20	5453.41	16.620	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.	16.030	Sqm	63.20	1013.10	0.02		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.161	Cum	1075.00	1248.50			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	16.978	MT	742.00	12597.53			
		Brick (15 km lead)	1449.00	No.	3.18	4607.82			
		TOTAL (In Rs.)				39472.08			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.16	Cum	584.64	679.00	67.90		
		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					67.90		
		AOC FOR BRIDGE (Ch.-3.450 Km)							
1		Structure is in good condition and does not require any repair works.							
		AOC FOR BRIDGE (Ch.-3.775 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.	9.94	Cum	5021.30	49891.64	1.14	3.18	
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.	54.960	Sqm	340.20	18697.39	56.983	0.802	
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.	54.960	Sqm	63.20	3473.47	0.08		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	3.982	Cum	1075.00	4280.58			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	58.210	MT	742.00	43191.52			
		Brick (15 km lead)	4968.00	No.	3.18	15798.24			
		TOTAL (In Rs.)				135332.84			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	3.98	Cum	584.64	2328.00	232.80		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					232.80		
		AOC FOR BRIDGE (Ch.-4.405 Km)							
1	5.1.3	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.	0.795	Cum	2492.58	1981.60			
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 royalty as per specification and direction of E/I.	9.94	Cum	5021.30	49891.64	1.14	3.18	
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.	54.960	Sqm	340.20	18697.39	56.983	0.802	
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.	54.960	Sqm	63.20	3473.47	0.08		
6		Carriage of materials							
		Coarse Sand (60 Km lead)	3.982	Cum	1075.00	4280.58			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	58.210	MT	742.00	43191.52			
		Brick (15 km lead)	4968.00	No.	3.18	15798.24			
		TOTAL (In Rs.)				139085.10			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	3.98	Cum	584.64	2328.00	232.80		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					232.80		
		AOC FOR CD WORK (Ch.-4.670 Km)							
1		Structure is in good condition and does not require any repair works.							
		AOC FOR CD WORK (Ch.-5.025 Km)							
1		Structure is in good condition and does not require 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 HR OF PAWAI MR (Ch.-5.120 Km)									
1	5.1.3	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	5.8.9	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.	8.640	Sqm	2492.58	21535.89			
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 (15 km lead)	0.00	No.	3.18	0.00			
TOTAL (In Rs.)						22598.29			
		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 BRIDGE (Ch.-5.225 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.	0.660	Cum	2492.58	1645.10			
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.	3.73	Cum	5021.30	18709.36	0.43	1.19	
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.	20.610	Sqm	340.20	7011.52	21.368	0.301	
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.	20.610	Sqm	63.20	1302.55	0.03		
5		Carriage of materials							
		Coarse Sand (60 Km lead)	1.493	Cum	1075.00	1605.22			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	21.829	MT	742.00	16196.82			
		Brick (15 km lead)	1863.00	No.	3.18	5924.34			
TOTAL (In Rs.)						52394.92			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.49	Cum	584.64	873.00	87.30		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					87.30		
AOC FOR CD WORK (Ch.-5.475 Km)									
1	5.1.3	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.	2.70	Cum	6381.70	17230.59	0.87	1.22	2.43
3		Carriage of materials							
		Coarse Sand (60 Km lead)	1.215	Cum	1075.00	1306.13			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	0.875	MT	742.00	649.10			
TOTAL (In Rs.)						21074.52			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.22	Cum	584.64	710.34	71.03		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					71.03		

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 CD WORK (Ch.-5.610 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.	0.270	Sqm	11.80	3.19			
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.	12.38	Cum	6381.70	78973.54	4.01	5.57	11.14
3		Carriage of materials							
		Coarse Sand (60 Km lead)	5.569	Cum	1075.00	5986.41			
		Coarse Aggregates (100 Km lead)	11.138	Cum	1398.00	15570.23			
		Cement (30 km lead)	4.010	MT	742.00	2975.05			
TOTAL (In Rs.)						103508.40			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	5.57	Cum	584.64	3255.71	325.57		
		Coarse Aggregate	11.14	Cum	944.26	10516.70	1051.67		
		Total					1377.24		
AOC FOR FALL (Ch.-5.950 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.	26.820	Cum	6914.20	185438.84	11.06	11.53	23.07
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.	84.880	Sqm	578.60	49111.57			
3		Carriage of materials							
		Coarse Sand (60 Km lead)	11.533	Cum	1075.00	12397.55			
		Coarse Aggregates (100 Km lead)	23.065	Cum	1398.00	32245.15			
		Cement (30 km lead)	11.063	MT	742.00	8208.93			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
TOTAL (In Rs.)						287402.04			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	11.53	Cum	584.64	6742.42	674.24		
		Coarse Aggregate	23.07	Cum	944.26	21779.55	2177.95		
		Total					2852.20		

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)
AOC FOR CD WORKS (Ch.-6.100 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.	151.800	Sqm	340.20	51642.36	157.386	2.216	
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.	151.800	Sqm	63.20	9593.76	0.23		
3		Carriage of materials							
		Coarse Sand (60 Km lead)	2.216	Cum	1075.00	2382.50			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	157.614	MT	742.00	116949.54			
TOTAL (In Rs.)						180568.16			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	2.22	Cum	584.64	1295.73	129.57		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total				129.57			
AOC FOR CD WORKS (Ch.-6.270 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.	138.000	Sqm	340.20	46947.60	143.078	2.015	
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.	138.000	Sqm	63.20	8721.60	0.21		
3		Carriage of materials							
		Coarse Sand (60 Km lead)	2.015	Cum	1075.00	2165.91			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	143.285	MT	742.00	106317.77			
TOTAL (In Rs.)						164152.88			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	2.01	Cum	584.64	1177.93	117.79		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total				117.79			
AOC FOR BRIDGE (Ch.-6.330 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.	2.295	Cum	6914.20	15868.09	0.95	0.99	1.97
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.	11.730	Sqm	578.60	6786.98			
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 royalty as per specification and direction of E/I.	3.73	Cum	5021.30	18709.36	0.43	1.19	
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.	20.610	Sqm	340.20	7011.52	21.368	0.301	
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.	20.610	Sqm	63.20	1302.55	0.03		
6		Carriage of materials							
		Coarse Sand (60 Km lead)	2.480	Cum	1075.00	2666.08			
		Coarse Aggregates (100 Km lead)	1.974	Cum	1398.00	2759.23			
		Cement (30 km lead)	22.775	MT	742.00	16899.26			
TOTAL (In Rs.)						72003.08			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	2.48	Cum	584.64	1449.95	145.00		
		Coarse Aggregate	1.97	Cum	944.26	1863.69	186.37		
		Total				331.36			

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)
AOC FOR FALL (Ch.-6.500 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.	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.	7.800	Cum	6914.20	53930.76	3.22	3.35	6.71
3	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	21.580	Sqm	578.60	12486.19			
4		Carriage of materials							
		Coarse Sand (60 Km lead)	3.354	Cum	1075.00	3605.55			
		Coarse Aggregates (100 Km lead)	6.708	Cum	1398.00	9377.78			
		Cement (30 km lead)	3.218	MT	742.00	2387.39			
TOTAL (In Rs.)						81787.67			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	3.35	Cum	584.64	1960.88	196.09		
		Coarse Aggregate	6.71	Cum	944.26	6334.10	633.41		
		Total					829.50		
AOC FOR FALL (Ch.-6.750 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.	58.748	Cum	2492.58	146434.09			
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.)						146434.09			
		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.-6.940 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.	63.624	Cum	2492.58	158587.91			
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.)						158587.91			
		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 CD WORKS (Ch.-7.390 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR CD WORKS (Ch.-8.025 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.	120.750	Sqm	340.20	41079.15	125.194	1.763	
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.	120.750	Sqm	63.20	7631.40	0.18		
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)	1.763	Cum	1075.00	1895.17			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	125.375	MT	742.00	93028.05			
TOTAL (In Rs.)						143633.77			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.76	Cum	584.64	1030.69	103.07		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					103.07		

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.-8.345 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.	23.106	Cum	2492.58	57593.65			
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.)						57593.65			
		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		
The fall has been eliminated as per regime section.									
AOC FOR CD WORKS (Ch.-8.605 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.	1.620	Cum	6914.20	11201.00	0.67	0.70	1.39
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	8.820	Sqm	578.60	5103.25			
3	5.1.3	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			
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.	238.950	Sqm	340.20	81290.79	247.743	3.489	
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.	238.950	Sqm	63.20	15101.64	0.36		
6		Carriage of materials							
		Coarse Sand (60 Km lead)	4.185	Cum	1075.00	4499.17			
		Coarse Aggregates (100 Km lead)	1.393	Cum	1398.00	1947.69			
		Cement (30 km lead)	248.770	MT	742.00	184587.37			
TOTAL (In Rs.)						305855.70			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	4.19	Cum	584.64	2446.88	244.69		
		Coarse Aggregate	1.39	Cum	944.26	1315.54	131.55		
Total							376.24		
AOC FOR CD WORKS (Ch.-8.850 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.	9.900	Cum	6914.20	68450.58	4.08	4.26	8.51
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	47.600	Sqm	578.60	27541.36			
3	5.1.3	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			
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.	198.450	Sqm	340.20	67512.69	205.753	2.897	
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.	198.450	Sqm	63.20	12542.04	0.30		
6		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)	7.154	Cum	1075.00	7690.95			
		Coarse Aggregates (100 Km lead)	8.514	Cum	1398.00	11902.57			
		Cement (30 km lead)	210.134	MT	742.00	155919.71			
TOTAL (In Rs.)						352976.43			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	7.15	Cum	584.64	4182.73	418.27		
		Coarse Aggregate	8.51	Cum	944.26	8039.43	803.94		
		Total					1222.22		
AOC FOR CD WORKS (Ch.-9.045 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR CD WORKS (Ch.-9.160 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.	8.550	Cum	6914.20	59116.41	3.53	3.68	7.35
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	41.600	Sqm	578.60	24069.76			
3	5.1.3	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			
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.	86.250	Sqm	340.20	29342.25	89.424	1.259	
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.	86.250	Sqm	63.20	5451.00	0.13		
6		Carriage of materials							
		Coarse Sand (60 Km lead)	4.936	Cum	1075.00	5305.93			
		Coarse Aggregates (100 Km lead)	7.353	Cum	1398.00	10279.49			
		Cement (30 km lead)	93.080	MT	742.00	69065.55			
TOTAL (In Rs.)						204519.09			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	4.94	Cum	584.64	2885.64	288.56		
		Coarse Aggregate	7.35	Cum	944.26	6943.14	694.31		
		Total					982.88		
AOC FOR CD WORKS (Ch.-9.460 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR CD WORKS (Ch.-9.795 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.	10.800	Cum	6914.20	74673.36	4.46	4.64	9.29
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	43.600	Sqm	578.60	25226.96			
3	5.1.3	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	0.01	0.00	
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.	105.300	Sqm	340.20	35823.06	109.175	1.537	
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.	105.300	Sqm	63.20	6654.96	0.16		
6		Carriage of materials							
		Coarse Sand (60 Km lead)	6.181	Cum	1075.00	6644.98			

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)	9.288	Cum	1398.00	12984.62			
		Cement (30 km lead)	113.796	MT	742.00	84436.81			
TOTAL (In Rs.)						247743.24			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	6.18	Cum	584.64	3613.88	361.39		
		Coarse Aggregate	9.29	Cum	944.26	8770.29	877.03		
Total							1238.42		
AOC FOR HR OF BHUTAILI MINOR (Ch.-9.875 Km)									
1	5.1.3	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	0.01	0.00	
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.	18.950	Sqm	2492.58	47234.39			
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)	0.008	MT	742.00	5.57			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
TOTAL (In Rs.)						48420.39			
		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 CD WORK (Ch.-10.440 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR FALL(Ch.-10.500 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR HR OF SALOPURA MINOR (Ch.-10.660 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.	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.	2.925	Sqm	2492.58	7290.80			
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.)						8707.32			
		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 WORKS (Ch.-10.860 Km)									
1	5.1.3	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	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	93.150	Sqm	340.20	31689.63	96.578	1.360	
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.	93.150	Sqm	63.20	5887.08	0.14		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.360	Cum	1075.00	1461.99			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	96.718	MT	742.00	71764.49			
TOTAL (In Rs.)						112750.92			
		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	1.36	Cum	584.64	795.10	79.51		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					79.51		
AOC FOR BRIDGE (Ch.-10.925 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.	20.250	Cum	2492.58	50474.75			
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.)				50474.75			
		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		
		New Bridge has been proposed.							
AOC FOR BRIDGE (Ch.-11.730 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.	23.400	Cum	2492.58	58326.37			
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.)				58326.37			
		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		
		New Bridge 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 CD WORKS (Ch.-11.860 Km)									
1	5.1.3	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	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	113.400	Sqm	340.20	38578.68	117.573	1.656	
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.	113.400	Sqm	63.20	7166.88	0.17		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.656	Cum	1075.00	1779.81			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	117.743	MT	742.00	87365.47			
TOTAL (In Rs.)						136838.57			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.66	Cum	584.64	967.95	96.80		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
Total							96.80		
AOC FOR BRIDGE (Ch.-12.020 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.	8.28	Cum	5021.30	41576.36	0.95	2.65	
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.	45.800	Sqm	340.20	15581.16	47.485	0.669	
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.	45.800	Sqm	63.20	2894.56	0.07		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	3.318	Cum	1075.00	3567.15			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	48.508	MT	742.00	35992.93			
		Brick (15 km lead)	4140.00	No.	3.18	13165.20			
TOTAL (In Rs.)						112777.37			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	3.32	Cum	584.64	1940.00	194.00		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
Total							194.00		
AOC FOR CD WORKS (Ch.-12.440 Km)									
1	5.1.3	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.	113.400	Sqm	340.20	38578.68	117.573	1.656	
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.	113.400	Sqm	63.20	7166.88	0.17		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.656	Cum	1075.00	1779.81			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	117.743	MT	742.00	87365.47			
TOTAL (In Rs.)						136307.37			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.66	Cum	584.64	967.95	96.80		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
Total							96.80		

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)
AOC FOR HR+CR OF SINGHI SUB DY (Ch.-13.020 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.	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.	12.600	Sqm	91.70	1155.42			
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.	14.625	Sqm	340.20	4975.43	15.163	0.214	
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.	14.625	Sqm	63.20	924.30	0.02		
5	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.	10.950	Sqm	2492.58	27293.75			
6		Carriage of materials							
		Coarse Sand (60 Km lead)	0.214	Cum	1075.00	229.54			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	15.185	MT	742.00	11267.37			
TOTAL (In Rs.)						47262.33			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.21	Cum	584.64	124.84	12.48		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					12.48		
AOC FOR CD WORK (Ch.-13.480 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR BRIDGE (Ch.-13.605 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.	0.000	Cum	2492.58	0.00			
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.)						0.00			
		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		
		The structure requires no repair as it is not under Irrigation department.							
AOC FOR CD WORKS (Ch.-14.240 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.	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.	124.200	Sqm	340.20	42252.84	128.771	1.813	
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.	124.200	Sqm	63.20	7849.44	0.19		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.813	Cum	1075.00	1949.32			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	128.957	MT	742.00	95685.99			
TOTAL (In Rs.)						149272.16			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.81	Cum	584.64	1060.14	106.01		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					106.01		

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)
AOC FOR BRIDGE (Ch.-14.370 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.	6.62	Cum	5021.30	33261.09	0.76	2.12	
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.	36.640	Sqm	340.20	12464.93	37.988	0.535	
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.	36.640	Sqm	63.20	2315.65	0.05		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	2.655	Cum	1075.00	2853.72			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	38.806	MT	742.00	28794.35			
		Brick (15 km lead)	3312.00	No.	3.18	10532.16			
		TOTAL (In Rs.)				90221.89			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	2.65	Cum	584.64	1552.00	155.20		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					155.20		
AOC FOR BRIDGE (Ch.-15.150 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR BRIDGE (Ch.-15.860 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.	5.80	Cum	5021.30	29103.45	0.67	1.85	
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.	32.060	Sqm	340.20	10906.81	33.240	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.	32.060	Sqm	63.20	2026.19	0.05		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	2.323	Cum	1075.00	2497.01			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	33.956	MT	742.00	25195.05			
		Brick (15 km lead)	2898.00	No.	3.18	9215.64			
		TOTAL (In Rs.)				78944.16			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	2.32	Cum	584.64	1358.00	135.80		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					135.80		
AOC FOR BRIDGE (Ch.-16.130 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.	6.62	Cum	5021.30	33261.09	0.76	2.12	
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.	36.640	Sqm	340.20	12464.93	37.988	0.535	
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.	36.640	Sqm	63.20	2315.65	0.05		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	2.655	Cum	1075.00	2853.72			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	38.806	MT	742.00	28794.35			

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)
		Brick (15 km lead)	3312.00	No.	3.18	10532.16			
TOTAL (In Rs.)						90221.89			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	2.65	Cum	584.64	1552.00	155.20		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					155.20		
AOC FOR HR OF SAHOKARMA MR (Ch.-16.200 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.	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.	8.800	Sqm	2492.58	21934.70			
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.)						23233.19			
		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.-16.500 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR HR OF DHAMNI MR (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.	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.	9.180	Sqm	2492.58	22881.88			
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.)						24534.50			
		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.-17.350 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.	25.500	Cum	6914.20	176312.10	10.52	10.97	21.93
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	109.200	Sqm	578.60	63183.12			
3		Carriage of materials							
		Coarse Sand (60 Km lead)	10.965	Cum	1075.00	11787.38			
		Coarse Aggregates (100 Km lead)	21.930	Cum	1398.00	30658.14			
		Cement (30 km lead)	10.519	MT	742.00	7804.91			
TOTAL (In Rs.)						289745.65			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	10.97	Cum	584.64	6410.58	641.06		
		Coarse Aggregate	21.93	Cum	944.26	20707.62	2070.76		
		Total					2711.82		
AOC FOR FALL/BRIDGE (Ch.-17.665 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		Structure is in good condition and does not require any repair works.							
AOC FOR BRIDGE (Ch.-18.400 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 royalty as per specification and direction of E/I.	5.21	Cum	5021.30	26151.53	0.60	1.67	
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.	28.808	Sqm	340.20	9800.55	29.868	0.421	
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.	28.808	Sqm	63.20	1820.68	0.04		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	2.087	Cum	1075.00	2243.74			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	30.512	MT	742.00	22639.55			
		Brick (15 km lead)	2604.00	No.	3.18	8280.72			
TOTAL (In Rs.)						70936.77			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	2.09	Cum	584.64	1220.26	122.03		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					122.03		
AOC FOR FALL/BRIDGE (Ch.-19.100 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.	9.000	Cum	6914.20	62227.80	3.71	3.87	7.74
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.	6.600	Sqm	578.60	3818.76			
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 royalty as per specification and direction of E/I.	2.60	Cum	5021.30	13075.77	0.30	0.83	
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.	14.404	Sqm	340.20	4900.27	14.934	0.210	
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.	14.404	Sqm	63.20	910.34	0.02		
6		Carriage of materials							
		Coarse Sand (60 Km lead)	4.914	Cum	1075.00	5282.12			
		Coarse Aggregates (100 Km lead)	7.740	Cum	1398.00	10820.52			
		Cement (30 km lead)	18.968	MT	742.00	14074.45			
		Brick (15 km lead)	1302.00	No.	3.18	4140.36			
TOTAL (In Rs.)						119250.39			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	4.91	Cum	584.64	2872.69	287.27		
		Coarse Aggregate	7.74	Cum	944.26	7308.57	730.86		
		Total					1018.13		
AOC FOR FALL (Ch.-20.660 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR FALL/BRIDGE (Ch.-21.450Km)									
1		Structure is in good condition and does not require 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 FALL (Ch.-22.350 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.	4.050	Cum	6914.20	28002.51	1.67	1.74	3.48
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	19.620	Sqm	578.60	11352.13			
3		Carriage of materials							
		Coarse Sand (60 Km lead)	1.742	Cum	1075.00	1872.11			
		Coarse Aggregates (100 Km lead)	3.483	Cum	1398.00	4869.23			
		Cement (30 km lead)	1.671	MT	742.00	1239.60			
TOTAL (In Rs.)						47335.59			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.74	Cum	584.64	1018.15	101.82		
		Coarse Aggregate	3.48	Cum	944.26	3288.86	328.89		
		Total					430.70		
AOC FOR FALL/BRIDGE (Ch.-22.750 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR BRIDGE (Ch.-23.025 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR BRIDGE (Ch.-23.150 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 royalty as per specification and direction of E/I.	5.40	Cum	5021.30	27115.02	0.62	1.73	
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.	29.000	Sqm	340.20	9865.80	30.067	0.423	

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.	29.000	Sqm	63.20	1832.80	0.04		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	2.151	Cum	1075.00	2312.76			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	30.733	MT	742.00	22803.72			
		Brick (15 km lead)	2700.00	No.	3.18	8586.00			
TOTAL (In Rs.)						72516.10			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	2.15	Cum	584.64	1257.79	125.78		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					125.78		
AOC FOR CD WORK(Ch.-23.520 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR BRIDGE/FALL (Ch.-24.200 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR BRIDGE/FALL (Ch.-24.430 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.	2.70	Cum	5021.30	13557.51	0.31	0.86	
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.	14.500	Sqm	340.20	4932.90	15.034	0.212	
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.	14.500	Sqm	63.20	916.40	0.02		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.076	Cum	1075.00	1156.38			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	15.366	MT	742.00	11401.86			
		Brick (15 km lead)	1350.00	No.	3.18	4293.00			
TOTAL (In Rs.)						36258.05			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.08	Cum	584.64	628.90	62.89		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					62.89		
AOC FOR FALL (Ch.-25.150 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR BRIDGE/FALL (Ch.-25.950 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.	4.050	Cum	6914.20	28002.51	1.67	1.74	3.48
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	10.350	Sqm	578.60	5988.51			
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 royalty as per specification and direction of E/I.	4.32	Cum	5021.30	21692.02	0.50	1.38	
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.	23.200	Sqm	340.20	7892.64	24.054	0.339	

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	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	23.200	Sqm	63.20	1466.24	0.03		
6		Carriage of materials							
		Coarse Sand (60 Km lead)	3.463	Cum	1075.00	3722.32			
		Coarse Aggregates (100 Km lead)	3.483	Cum	1398.00	4869.23			
		Cement (30 km lead)	26.257	MT	742.00	19482.58			
		Brick (15 km lead)	2160.00	No.	3.18	6868.80			
TOTAL (In Rs.)						99984.85			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	3.46	Cum	584.64	2024.39	202.44		
		Coarse Aggregate	3.48	Cum	944.26	3288.86	328.89		
		Total					531.32		
AOC FOR BRIDGE (Ch.-26.365Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR BRIDGE/FALL (Ch.-26.730 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 royalty as per specification and direction of E/I.	3.78	Cum	5021.30	18980.51	0.44	1.21	
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.	20.300	Sqm	340.20	6906.06	21.047	0.296	
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.	20.300	Sqm	63.20	1282.96	0.03		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.506	Cum	1075.00	1618.93			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	21.513	MT	742.00	15962.61			
		Brick (15 km lead)	1890.00	No.	3.18	6010.20			
TOTAL (In Rs.)						50761.27			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.51	Cum	584.64	880.46	88.05		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					88.05		
AOC FOR HR OF BHADWA MINOR (Ch.-27.075 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.	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.	9.750	Sqm	2492.58	24302.66			
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.)						25955.27			
		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.-27.250 Km)									
1		Structure is in good condition and does not require 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 FALL (Ch.-27.595 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.	4.050	Cum	6914.20	28002.51	1.67	1.74	3.48
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	19.620	Sqm	578.60	11352.13			
3		Carriage of materials							
		Coarse Sand (60 Km lead)	1.742	Cum	1075.00	1872.11			
		Coarse Aggregates (100 Km lead)	3.483	Cum	1398.00	4869.23			
		Cement (30 km lead)	1.671	MT	742.00	1239.60			
TOTAL (In Rs.)						47335.59			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.74	Cum	584.64	1018.15	101.82		
		Coarse Aggregate	3.48	Cum	944.26	3288.86	328.89		
		Total					430.70		
AOC FOR PIPE CULVERT (Ch.-28.740 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR PIPE CULVERT (Ch.-28.830 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR RAILWAY LINE (Ch.-28.910 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR WELL TYPE FALL (Ch.-29.325 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.	2.410	Cum	6914.20	16663.22	0.99	1.04	2.07
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	16.960	Sqm	578.60	9813.06			
3		Carriage of materials							
		Coarse Sand (60 Km lead)	1.036	Cum	1075.00	1114.02			
		Coarse Aggregates (100 Km lead)	2.073	Cum	1398.00	2897.49			
		Cement (30 km lead)	0.994	MT	742.00	737.64			
TOTAL (In Rs.)						31225.44			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.04	Cum	584.64	605.86	60.59		
		Coarse Aggregate	2.07	Cum	944.26	1957.07	195.71		
		Total					256.29		
AOC FOR BRIDGE/FALL (Ch.-29.690 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.	58.300	Sqm	340.20	19833.66	60.445	0.851	
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.	58.300	Sqm	63.20	3684.56	0.09		
3		Carriage of materials							
		Coarse Sand (60 Km lead)	0.851	Cum	1075.00	915.02			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	60.533	MT	742.00	44915.40			
TOTAL (In Rs.)						69348.64			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.85	Cum	584.64	497.63	49.76		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					49.76		

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 WELL TYPE FALL (Ch.-30.275 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.	1.890	Cum	6914.20	13067.84	0.78	0.81	1.63
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	8.400	Sqm	578.60	4860.24			
3		Carriage of materials							
		Coarse Sand (60 Km lead)	0.813	Cum	1075.00	873.65			
		Coarse Aggregates (100 Km lead)	1.625	Cum	1398.00	2272.31			
		Cement (30 km lead)	0.780	MT	742.00	578.48			
TOTAL (In Rs.)						21652.52			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.81	Cum	584.64	475.14	47.51		
		Coarse Aggregate	1.63	Cum	944.26	1534.80	153.48		
		Total					200.99		
AOC FOR FALL (Ch.-30.510 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.	22.440	Cum	6914.20	155154.65	9.26	9.65	19.30
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	18.700	Sqm	578.60	10819.82			
3		Carriage of materials							
		Coarse Sand (60 Km lead)	9.649	Cum	1075.00	10372.89			
		Coarse Aggregates (100 Km lead)	19.298	Cum	1398.00	26979.16			
		Cement (30 km lead)	9.257	MT	742.00	6868.32			
TOTAL (In Rs.)						210194.84			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	9.65	Cum	584.64	5641.31	564.13		
		Coarse Aggregate	19.30	Cum	944.26	18222.71	1822.27		
		Total					2386.40		
AOC FOR ROAD CROSSING (Ch.-30.585 Km)									
1		Structure is in good condition and does not require 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 GAMHARIYA MR									
AOC FOR BRIDGE (Ch.-0.175 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR BRIDGE (Ch.-0.950 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.	8.10	Cum	5021.30	40672.53	0.93	2.59	
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.	43.500	Sqm	340.20	14798.70	45.101	0.635	
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.	43.500	Sqm	63.20	2749.20	0.07		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	3.227	Cum	1075.00	3469.13			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	46.099	MT	742.00	34205.58			
		Brick (15 km lead)	4050.00	No.	3.18	12879.00			
TOTAL (In Rs.)						108774.15			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	3.23	Cum	584.64	1886.69	188.67		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					188.67		
AOC FOR CD WORKS (Ch.-1.050 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR BRIDGE (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 royalty as per specification and direction of E/I.	8.10	Cum	5021.30	40672.53	0.93	2.59	
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.	43.500	Sqm	340.20	14798.70	45.101	0.635	
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.	43.500	Sqm	63.20	2749.20	0.07		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	3.227	Cum	1075.00	3469.13			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	46.099	MT	742.00	34205.58			
		Brick (15 km lead)	4050.00	No.	3.18	12879.00			
TOTAL (In Rs.)						108774.15			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	3.23	Cum	584.64	1886.69	188.67		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					188.67		
AOC FOR CD WORKS (Ch.-2.455 Km)									
1		Structure is in good condition and does not require 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 NAGWA MINOR									
AOC FOR CULVERT (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 royalty as per specification and direction of E/I.	1.62	Cum	5021.30	8134.51	0.19	0.52	
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.	17.400	Sqm	340.20	5919.48	18.040	0.254	
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.	17.400	Sqm	63.20	1099.68	0.03		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	0.772	Cum	1075.00	830.37			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	18.253	MT	742.00	13543.76			
		Brick (15 km lead)	810.00	No.	3.18	2575.80			
TOTAL (In Rs.)						32103.60			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.77	Cum	584.64	451.60	45.16		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					45.16		

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)
ABSTRACT OF COST OF REPAIRED STRUCTURES OF PAWAI MINOR									
AOC FOR BRIDGE (Ch.-0.175 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.	3.24	Cum	5021.30	16269.01	0.37	1.04	
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.	95.400	Sqm	340.20	32455.08	98.911	1.393	
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.	95.400	Sqm	63.20	6029.28	0.14		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.393	Cum	1075.00	1497.30			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	99.054	MT	742.00	73497.93			
		Brick (15 km lead)	1620.00	No.	3.18	5151.60			
TOTAL (In Rs.)						134900.21			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.39	Cum	584.64	814.31	81.43		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					81.43		
AOC FOR FALL (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.	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.	12.796	Cum	6914.20	88474.10	5.28	5.50	11.00
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.	14.258	Sqm	578.60	8249.91			
4		Carriage of materials							
		Coarse Sand (60 Km lead)	5.502	Cum	1075.00	5914.95			
		Coarse Aggregates (100 Km lead)	11.005	Cum	1398.00	15384.37			
		Cement (30 km lead)	5.278	MT	742.00	3916.54			
TOTAL (In Rs.)						123474.45			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	5.50	Cum	584.64	3216.85	321.69		
		Coarse Aggregate	11.00	Cum	944.26	10391.17	1039.12		
		Total					1360.80		
AOC FOR CD WORKS (Ch.-1.050 Km)									
1	Structure is in good condition and does not require any repair works.								
AOC FOR FALL (Ch.-1.100 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.	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.	7.638	Cum	6914.20	52807.20	3.15	3.28	6.57
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.	9.165	Sqm	578.60	5302.87			
4		Carriage of materials							
		Coarse Sand (60 Km lead)	3.284	Cum	1075.00	3530.43			

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)
		Coarse Aggregates (100 Km lead)	6.568	Cum	1398.00	9182.41			
		Cement (30 km lead)	3.150	MT	742.00	2337.65			
TOTAL (In Rs.)						74459.05			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	3.28	Cum	584.64	1920.03	192.00		
		Coarse Aggregate	6.57	Cum	944.26	6202.14	620.21		
Total							812.22		
AOC FOR BRIDGE (Ch.-1.260Km)									
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.	1.62	Cum	5021.30	8134.51	0.19	0.52	
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.	86.700	Sqm	340.20	29495.34	89.891	1.266	
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.	86.700	Sqm	63.20	5479.44	0.13		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.266	Cum	1075.00	1360.76			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	90.021	MT	742.00	66795.29			
		Brick (15 km lead)	810.00	No.	3.18	2575.80			
TOTAL (In Rs.)						113841.14			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.27	Cum	584.64	740.05	74.00		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
Total							74.00		
AOC FOR FALL (Ch.-1.400 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.	7.638	Cum	6914.20	52807.20	3.15	3.28	6.57
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	42.965	Sqm	578.60	24859.55			
3		Carriage of materials							
		Coarse Sand (60 Km lead)	3.284	Cum	1075.00	3530.43			
		Coarse Aggregates (100 Km lead)	6.568	Cum	1398.00	9182.41			
		Cement (30 km lead)	3.150	MT	742.00	2337.65			
TOTAL (In Rs.)						92717.25			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	3.28	Cum	584.64	1920.03	192.00		
		Coarse Aggregate	6.57	Cum	944.26	6202.14	620.21		
Total							812.22		
AOC FOR FALL (Ch.-1.720Km)									
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.	22.050	Sqm	2492.58	54961.39			
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			
TOTAL (In Rs.)						54961.39			
		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		

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 BHUTAILI MINOR									
AOC FOR CD WORK (Ch.-0.300 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.	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.	138.000	Sqm	340.20	46947.60	143.078	2.015	
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.	138.000	Sqm	63.20	8721.60	0.21		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	2.015	Cum	1075.00	2165.91			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	143.285	MT	742.00	106317.77			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
TOTAL (In Rs.)						165687.45			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	2.01	Cum	584.64	1177.93	117.79		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					117.79		
AOC FOR FALL (Ch.-0.370 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.	14.613	Cum	6914.20	101033.75	6.03	6.28	12.57
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.	56.175	Sqm	578.60	32502.86			
3		Carriage of materials							
		Coarse Sand (60 Km lead)	6.283	Cum	1075.00	6754.63			
		Coarse Aggregates (100 Km lead)	12.567	Cum	1398.00	17568.32			
		Cement (30 km lead)	6.028	MT	742.00	4472.52			
TOTAL (In Rs.)						162332.07			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	6.28	Cum	584.64	3673.51	367.35		
		Coarse Aggregate	12.57	Cum	944.26	11866.28	1186.63		
		Total					1553.98		
AOC FOR CD WORK (Ch.-0.530 Km)									
1	5.1.3	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.	117.300	Sqm	340.20	39905.46	121.617	1.713	
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.	117.300	Sqm	63.20	7413.36	0.18		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.713	Cum	1075.00	1841.02			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	121.793	MT	742.00	90370.10			
TOTAL (In Rs.)						141064.52			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.71	Cum	584.64	1001.24	100.12		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					100.12		
AOC FOR FALL (Ch.-0.580 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.	14.580	Cum	2492.58	36341.82			
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.)						36341.82			
		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.-0.650 Km)									
1	Structure is in good condition and does not require any repair works.								
AOC FOR FALL (Ch.-0.740 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.	1.913	Cum	6914.20	13223.41	0.79	0.82	1.64
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	2.295	Sqm	578.60	1327.89			
3		Carriage of materials							
		Coarse Sand (60 Km lead)	0.822	Cum	1075.00	884.05			
		Coarse Aggregates (100 Km lead)	1.645	Cum	1398.00	2299.36			
		Cement (30 km lead)	0.789	MT	742.00	585.37			
TOTAL (In Rs.)						18320.08			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.82	Cum	584.64	480.79	48.08		
		Coarse Aggregate	1.64	Cum	944.26	1553.07	155.31		
		Total					203.39		
AOC FOR CD WORK (Ch.-0.855 Km)									
1	5.1.3	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.	112.125	Sqm	340.20	38144.93	116.251	1.637	
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.	112.125	Sqm	63.20	7086.30	0.17		
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.	1.013	Cum	6914.20	7000.63	0.42	0.44	0.87
5	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	5.850	Sqm	578.60	3384.81			
6		Carriage of materials							
		Coarse Sand (60 Km lead)	2.072	Cum	1075.00	2227.83			
		Coarse Aggregates (100 Km lead)	0.871	Cum	1398.00	1217.31			
		Cement (30 km lead)	116.837	MT	742.00	86693.09			
TOTAL (In Rs.)						147525.55			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	2.07	Cum	584.64	1211.61	121.16		
		Coarse Aggregate	0.87	Cum	944.26	822.21	82.22		
		Total					203.38		

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)
AOC FOR FALL (Ch.-0.930 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.	4.050	Cum	6914.20	28002.51	1.67	1.74	3.48
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	19.620	Sqm	578.60	11352.13			
3		Carriage of materials							
		Coarse Sand (60 Km lead)	1.742	Cum	1075.00	1872.11			
		Coarse Aggregates (100 Km lead)	3.483	Cum	1398.00	4869.23			
		Cement (30 km lead)	1.671	MT	742.00	1239.60			
TOTAL (In Rs.)						47335.59			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.74	Cum	584.64	1018.15	101.82		
		Coarse Aggregate	3.48	Cum	944.26	3288.86	328.89		
		Total					430.70		
AOC FOR FALL (Ch.-1.120 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR FALL (Ch.-1.350 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.	14.580	Cum	2492.58	36341.82			
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.)						36341.82			
		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.-1.480 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.	74.200	Sqm	340.20	25242.84	76.931	1.083	
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.	74.200	Sqm	63.20	4689.44	0.11		
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.	3.052	Cum	6914.20	21102.14	1.26	1.31	2.62
4	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	7.630	Sqm	578.60	4414.72			
5		Carriage of materials							
		Coarse Sand (60 Km lead)	2.396	Cum	1075.00	2575.36			
		Coarse Aggregates (100 Km lead)	2.625	Cum	1398.00	3669.36			
		Cement (30 km lead)	78.301	MT	742.00	58099.20			
TOTAL (In Rs.)						119793.05			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	2.40	Cum	584.64	1400.61	140.06		
		Coarse Aggregate	2.62	Cum	944.26	2478.42	247.84		
		Total					387.90		

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.-1.625 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.	53.000	Sqm	340.20	18030.60	54.950	0.774	
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.	53.000	Sqm	63.20	3349.60	0.08		
3		Carriage of materials							
		Coarse Sand (60 Km lead)	0.774	Cum	1075.00	831.84			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	55.030	MT	742.00	40832.19			
TOTAL (In Rs.)						63044.22			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.77	Cum	584.64	452.39	45.24		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					45.24		
AOC FOR FALL (Ch.-1.840 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 SALOPURA MINOR									
AOC FOR FALL (Ch.-0.000 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.	1.231	Cum	6914.20	8512.76	0.51	0.53	1.06
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	2.462	Sqm	578.60	1424.74			
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.)						9937.51			
		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.-0.070 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.	0.894	Cum	2492.58	2228.37			
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.)						2228.37			
		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.-0.250 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.	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.	79.625	Sqm	340.20	27088.43	82.555	1.163	
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.	79.625	Sqm	63.20	5032.30	0.12		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.163	Cum	1075.00	1249.71			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	82.555	MT	742.00	61255.96			
TOTAL (In Rs.)						96397.06			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.16	Cum	584.64	679.66	67.97		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					67.97		
AOC FOR CULVERT/FALL (Ch.-0.300 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.	2.618	Cum	6914.20	18101.38	1.08	1.13	2.25

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, propping etc. and its removal after use in foundation as per specification and direction of E/I.	5.807	Sqm	578.60	3360.05			
3		Carriage of materials							
		Coarse Sand (60 Km lead)	1.126	Cum	1075.00	1210.17			
		Coarse Aggregates (100 Km lead)	2.251	Cum	1398.00	3147.57			
		Cement (30 km lead)	1.080	MT	742.00	801.30			
TOTAL (In Rs.)						26620.47			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.13	Cum	584.64	658.15	65.82		
		Coarse Aggregate	2.25	Cum	944.26	2125.98	212.60		
		Total					278.41		
AOC FOR CD WORK (Ch.-0.685 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.	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.	114.400	Sqm	340.20	38918.88	118.610	1.670	
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.	114.400	Sqm	63.20	7230.08	0.17		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.670	Cum	1075.00	1795.51			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	118.610	MT	742.00	88008.56			
TOTAL (In Rs.)						137251.51			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.67	Cum	584.64	976.49	97.65		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					97.65		
AOC FOR FALL (Ch.-0.710 Km)									
1	5.1.3	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.	5.132	Cum	6914.20	35480.22	2.12	2.21	4.41
3	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	11.383	Sqm	578.60	6585.97			
4		Carriage of materials							
		Coarse Sand (60 Km lead)	2.207	Cum	1075.00	2372.04			
		Coarse Aggregates (100 Km lead)	4.413	Cum	1398.00	6169.50			
		Cement (30 km lead)	2.117	MT	742.00	1570.62			
TOTAL (In Rs.)						52178.35			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	2.21	Cum	584.64	1290.03	129.00		
		Coarse Aggregate	4.41	Cum	944.26	4167.10	416.71		
		Total					545.71		
AOC FOR FALL (Ch.-0.890 Km)									
1	5.1.3	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	5.3.5	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.	0.855	Cum	6914.20	5911.64	0.35	0.37	0.74
3	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	2.052	Sqm	578.60	1187.29			
4		Carriage of materials							
		Coarse Sand (60 Km lead)	0.368	Cum	1075.00	395.22			
		Coarse Aggregates (100 Km lead)	0.735	Cum	1398.00	1027.95			
		Cement (30 km lead)	0.353	MT	742.00	261.69			
TOTAL (In Rs.)						8783.80			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.37	Cum	584.64	214.94	21.49		
		Coarse Aggregate	0.74	Cum	944.26	694.31	69.43		
		Total					90.93		
AOC FOR FALL (Ch.-1.185 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.	22.049	Cum	2492.58	54958.90			
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.)						54958.90			
		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.-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.	145.000	Sqm	11.80	1711.64			
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.	119.600	Sqm	340.20	40687.92	1.794	2.392	
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.	119.600	Sqm	63.20	7558.72	0.18		
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.	2.025	Cum	6914.20	14001.26	0.84	0.87	1.74
4	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	10.350	Sqm	578.60	5988.51			
5		Carriage of materials							
		Coarse Sand (60 Km lead)	3.263	Cum	1075.00	3507.46			
		Coarse Aggregates (100 Km lead)	1.742	Cum	1398.00	2434.62			
		Cement (30 km lead)	2.809	MT	742.00	2084.06			
TOTAL (In Rs.)						77974.18			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	3.26	Cum	584.64	1907.53	190.75		
		Coarse Aggregate	1.74	Cum	944.26	1644.43	164.44		
		Total					355.20		
AOC FOR ROAD CROSSING (Ch.-1.260 Km)									
1	Structure is in good condition and does not require 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 FALL (Ch.-1.450 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	5.3.5	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.	2.756	Cum	6914.20	19058.30	1.14	1.19	2.37
3	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	11.288	Sqm	578.60	6531.24			
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.185	Cum	1075.00	1274.15			
		Coarse Aggregates (100 Km lead)	2.371	Cum	1398.00	3313.96			
		Cement (30 km lead)	1.137	MT	742.00	843.67			
TOTAL (In Rs.)						32437.84			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.19	Cum	584.64	692.95	69.29		
		Coarse Aggregate	2.37	Cum	944.26	2238.37	223.84		
		Total					293.13		
AOC FOR CD WORK (Ch.-1.630 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.	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.	115.500	Sqm	340.20	39293.10	119.750	1.686	
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.	115.500	Sqm	63.20	7299.60	0.17		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.686	Cum	1075.00	1812.77			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	119.924	MT	742.00	88983.35			
TOTAL (In Rs.)						138687.30			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.69	Cum	584.64	985.88	98.59		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					98.59		
AOC FOR FALL (Ch.-1.765 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR CULVERT (Ch.-1.790 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.	2.90	Cum	5021.30	14551.73	0.33	0.93	
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.	14.630	Sqm	340.20	4977.13	15.168	0.214	
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.	14.630	Sqm	63.20	924.62	0.02		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.141	Cum	1075.00	1226.53			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	15.524	MT	742.00	11518.94			
		Brick (15 km lead)	1449.00	No.	3.18	4607.82			
TOTAL (In Rs.)						37806.76			

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	1.14	Cum	584.64	667.05	66.70		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					66.70		
AOC FOR CD WORK (Ch.-2.155 Km)									
1	5.1.3	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.	115.500	Sqm	340.20	39293.10	119.750	1.686	
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.	115.500	Sqm	63.20	7299.60	0.17		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.686	Cum	1075.00	1812.77			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	119.924	MT	742.00	88983.35			
		TOTAL (In Rs.)				138687.30			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.69	Cum	584.64	985.88	98.59		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					98.59		
AOC FOR CULVERT/FALL (Ch.-2.170 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 royalty as per specification and direction of E/I.	1.62	Cum	5021.30	8134.51	0.19	0.52	
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.	8.700	Sqm	340.20	2959.74	9.020	0.127	
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.	8.700	Sqm	63.20	549.84	0.01		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	0.645	Cum	1075.00	693.83			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	9.220	MT	742.00	6841.12			
		Brick (15 km lead)	810.00	No.	3.18	2575.80			
		TOTAL (In Rs.)				21754.83			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.65	Cum	584.64	377.34	37.73		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					37.73		
AOC FOR CD WORK (Ch.-2.610 Km)									
1		Structure is in good condition and does not require 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 SINGHI SUB DY									
AOC FOR FALL (Ch.-0.000 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.	9.150	Cum	6914.20	63264.93	3.77	3.93	7.87
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	9.760	Sqm	578.60	5647.14			
3		Carriage of materials							
		Coarse Sand (60 Km lead)	3.935	Cum	1075.00	4229.59			
		Coarse Aggregates (100 Km lead)	7.869	Cum	1398.00	11000.86			
		Cement (30 km lead)	3.774	MT	742.00	2800.59			
		Brick (15 km lead)	4575.00	No.	3.18	14548.50			
TOTAL (In Rs.)						101491.60			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	3.93	Cum	584.64	2300.27	230.03		
		Coarse Aggregate	7.87	Cum	944.26	7430.38	743.04		
		Total					973.06		
AOC FOR BRIDGE (Ch.-0.010 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.	3.78	Cum	5021.30	18980.51	0.44	1.21	
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.	20.300	Sqm	340.20	6906.06	21.047	0.296	
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.	20.300	Sqm	63.20	1282.96	0.03		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.506	Cum	1075.00	1618.93			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	21.513	MT	742.00	15962.61			
		Brick (15 km lead)	1890.00	No.	3.18	6010.20			
TOTAL (In Rs.)						50761.27			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.51	Cum	584.64	880.46	88.05		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					88.05		
AOC FOR FALL (Ch.-0.120 Km)									
1	5.1.3	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.	1.560	Cum	2492.58	3888.42			
4		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.)						5541.04			
		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.-0.490 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 BRIDGE (Ch.-0.580 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.	5.38	Cum	5021.30	27024.64	0.62	1.72	
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.	27.170	Sqm	340.20	9243.23	28.170	0.397	
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.	27.170	Sqm	63.20	1717.14	0.04		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	2.119	Cum	1075.00	2277.84			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	28.831	MT	742.00	21392.32			
		Brick (15 km lead)	2691.00	No.	3.18	8557.38			
		TOTAL (In Rs.)				70212.55			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	2.12	Cum	584.64	1238.81	123.88		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					123.88		
AOC FOR OF FALL (Ch.-1.040 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.	11.529	Cum	6914.20	79713.81	4.76	4.96	9.91
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	13.359	Sqm	578.60	7729.52			
3		Carriage of materials							
		Coarse Sand (60 Km lead)	4.957	Cum	1075.00	5329.28			
		Coarse Aggregates (100 Km lead)	9.915	Cum	1398.00	13861.09			
		Cement (30 km lead)	4.756	MT	742.00	3528.74			
		TOTAL (In Rs.)				110162.43			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	4.96	Cum	584.64	2898.34	289.83		
		Coarse Aggregate	9.91	Cum	944.26	9362.28	936.23		
		Total					1226.06		
AOC FOR CD WORK (Ch.-1.265 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC 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.	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 royalty as per specification and direction of E/I.	0.54	Cum	5021.30	2711.50	0.06	0.17	
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.	8.700	Sqm	340.20	2959.74	9.020	0.127	
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.	8.700	Sqm	63.20	549.84	0.01		
5		Carriage of materials							
		Coarse Sand (60 Km lead)	0.300	Cum	1075.00	322.31			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	9.095	MT	742.00	6748.80			

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)
		Brick (15 km lead)	270.00	No.	3.18	858.60			
		TOTAL (In Rs.)				15921.45			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.30	Cum	584.64	175.29	17.53		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					17.53		
		AOC FOR BRIDGE /FALL (Ch.-1.840 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.	3.73	Cum	5021.30	18709.36	0.43	1.19	
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.	18.810	Sqm	340.20	6399.16	19.502	0.275	
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.	18.810	Sqm	63.20	1188.79	0.03		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.467	Cum	1075.00	1576.97			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	19.960	MT	742.00	14810.07			
		Brick (15 km lead)	1863.00	No.	3.18	5924.34			
		TOTAL (In Rs.)				48608.69			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.47	Cum	584.64	857.64	85.76		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					85.76		
		AOC FOR CD WORK (Ch.-2.180 Km)							
1		Structure is in good condition and does not require any repair works.							
		AOC FOR BRIDGE (Ch.-2.200 Km)							
1		Structure is in good condition and does not require any repair works.							
		AOC FOR BRIDGE (Ch.-2.640 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.	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.	7.673	Cum	6914.20	53055.42	3.17	3.30	6.60
3	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	8.891	Sqm	578.60	5144.56			
4		Carriage of materials							
		Coarse Sand (60 Km lead)	3.300	Cum	1075.00	3547.03			
		Coarse Aggregates (100 Km lead)	6.599	Cum	1398.00	9225.58			
		Cement (30 km lead)	3.165	MT	742.00	2348.64			
		TOTAL (In Rs.)				74737.75			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	3.30	Cum	584.64	1929.06	192.91		
		Coarse Aggregate	6.60	Cum	944.26	6231.29	623.13		
		Total					816.03		
		AOC FOR CD WORKS (Ch.-2.960 Km)							
1	5.1.3	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	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	129.965	Sqm	340.20	44214.09	134.748	1.897	
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.	129.965	Sqm	63.20	8213.79	0.19		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.897	Cum	1075.00	2039.80			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	134.943	MT	742.00	100127.45			
TOTAL (In Rs.)						156129.71			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.90	Cum	584.64	1109.35	110.93		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					110.93		
AOC FOR CULVERT (Ch.-3.120 Km)									
1	Structure is in good condition and does not require any repair works.								
AOC FOR BRIDGE (Ch.-3.230 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.	1.84	Cum	5021.30	9239.19	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.	16.720	Sqm	340.20	5688.14	17.335	0.244	
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.	16.720	Sqm	63.20	1056.70	0.03		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	0.833	Cum	1075.00	895.38			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	17.572	MT	742.00	13038.68			
		Brick (15 km lead)	920.00	No.	3.18	2925.60			
TOTAL (In Rs.)						32843.70			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.83	Cum	584.64	486.95	48.70		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					48.70		
AOC FOR FALL (Ch.-3.565 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.	5.856	Cum	6914.20	40489.56	2.42	2.52	5.04
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	7.564	Sqm	578.60	4376.53			
3		Carriage of materials							
		Coarse Sand (60 Km lead)	2.518	Cum	1075.00	2706.94			
		Coarse Aggregates (100 Km lead)	5.036	Cum	1398.00	7040.55			
		Cement (30 km lead)	2.416	MT	742.00	1792.38			
TOTAL (In Rs.)						56405.95			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	2.52	Cum	584.64	1472.17	147.22		
		Coarse Aggregate	5.04	Cum	944.26	4755.44	475.54		
		Total					622.76		
AOC FOR BRIDGE (Ch.-3.765 Km)									
1	Structure is in good condition and does not require 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 CD WORKS (Ch.-3.935 Km)									
1	5.1.3	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.	103.150	Sqm	340.20	35091.63	106.946	1.506	
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.	161.800	Sqm	63.20	10225.76	0.24		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.506	Cum	1075.00	1618.94			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	107.189	MT	742.00	79533.96			
TOTAL (In Rs.)						127768.77			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.51	Cum	584.64	880.46	88.05		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					88.05		
AOC FOR BRIDGE (Ch.-4.060 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.	2.07	Cum	5021.30	10394.09	0.24	0.66	
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.	18.810	Sqm	340.20	6399.16	19.502	0.275	
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.	18.810	Sqm	63.20	1188.79	0.03		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	0.937	Cum	1075.00	1007.30			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	19.769	MT	742.00	14668.51			
		Brick (15 km lead)	1035.00	No.	3.18	3291.30			
TOTAL (In Rs.)						36949.16			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.94	Cum	584.64	547.82	54.78		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					54.78		
AOC FOR FALL (Ch.-4.190Km)									
1	Structure is in good condition and does not require any repair works.								
AOC FOR CD WORKS (Ch.-4.440 Km)									
1	5.1.3	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.	61.350	Sqm	340.20	20871.27	63.608	0.896	
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.	98.400	Sqm	63.20	6218.88	0.15		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	0.896	Cum	1075.00	962.89			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	63.755	MT	742.00	47306.42			
TOTAL (In Rs.)						76657.94			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.90	Cum	584.64	523.67	52.37		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					52.37		

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.-4.455 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.	19.445	Cum	2492.58	48468.72			
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			
TOTAL (In Rs.)						48468.72			
		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 SUPER PASAGE(Ch.-5.050 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR CD WORKS (Ch.-5.250 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.	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.	58.200	Sqm	340.20	19799.64	60.342	0.850	
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.	58.200	Sqm	63.20	3678.24	0.09		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	0.850	Cum	1075.00	913.45			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	60.429	MT	742.00	44838.36			
TOTAL (In Rs.)						70528.17			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.85	Cum	584.64	496.78	49.68		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					49.68		
AOC BRIDGE(Ch.-5.380Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR SUPER PASSAGE (Ch.-5.660Km)									
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.	27.300	Cum	6914.20	188757.66	11.26	11.74	23.48
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.	52.070	Sqm	578.60	30127.70			
3	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.	3.21	MT	73574.90	236512.03			
4		Carriage of materials							
		Coarse Sand (60 Km lead)	11.739	Cum	1075.00	12619.43			
		Coarse Aggregates (100 Km lead)	23.478	Cum	1398.00	32822.24			
		Cement (30 km lead)	11.261	MT	742.00	8355.85			
TOTAL (In Rs.)						509194.91			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	11.74	Cum	584.64	6863.09	686.31		
		Coarse Aggregate	23.48	Cum	944.26	22169.34	2216.93		
		Total					2903.24		
AOC FOR SUPER PASSAGE (Ch.-6.040 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	5.3.5	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.	32.850	Cum	6914.20	227131.47	13.55	14.13	28.25
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	52.440	Sqm	578.60	30341.78			
3	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.	3.87	MT	73574.90	284594.15			
4		Carriage of materials							
		Coarse Sand (60 Km lead)	14.126	Cum	1075.00	15184.91			
		Coarse Aggregates (100 Km lead)	28.251	Cum	1398.00	39494.90			
		Cement (30 km lead)	13.551	MT	742.00	10054.56			
TOTAL (In Rs.)						606801.78			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	14.13	Cum	584.64	8258.33	825.83		
		Coarse Aggregate	28.25	Cum	944.26	26676.29	2667.63		
		Total					3493.46		
AOC FOR CD WORKS (Ch.-6.470 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.	14.630	Sqm	340.20	4977.13	15.168	0.214	
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.	14.630	Sqm	63.20	924.62	0.02		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	0.214	Cum	1075.00	229.62			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	15.190	MT	742.00	11271.22			
TOTAL (In Rs.)						18819.11			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.21	Cum	584.64	124.88	12.49		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					12.49		
AOC SUPER PASSAGE (Ch.-6.630Km)									
1		Structure is in good condition and does not require any repair works.							
AOC SUPER PASSAGE (Ch.-6.925Km)									
1		Structure is in good condition and does not require any repair works.							
AOC SUPER PASSAGE (Ch.-7.370Km)									
1		Structure is in good condition and does not require any repair works.							
AOC BRIDGE (Ch.-7.445Km)									
1		Structure is in good condition and does not require any repair works.							
AOC SUPER PASSAGE (Ch.-7.590Km)									
1	5.1.3	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			
TOTAL (In Rs.)						1652.61			
AOC SUPER PASSAGE (Ch.-7.755 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.	140.000	Sqm	11.80	1652.61			
TOTAL (In Rs.)						1652.61			
AOC BRIDGE (Ch.-7.950 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		Structure is in good condition and does not require any repair works.							
AOC FOR SUPER PASSAGE (Ch.-8.290Km)									
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.	21.840	Cum	6914.20	151006.13	9.01	9.39	18.78
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	42.020	Sqm	578.60	24312.77			
3	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.	2.57	MT	73574.90	189209.63			
4		Carriage of materials							
		Coarse Sand (60 Km lead)	9.391	Cum	1075.00	10095.54			
		Coarse Aggregates (100 Km lead)	18.782	Cum	1398.00	26257.80			
		Cement (30 km lead)	9.009	MT	742.00	6684.68			
TOTAL (In Rs.)						407566.54			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	9.39	Cum	584.64	5490.47	549.05		
		Coarse Aggregate	18.78	Cum	944.26	17735.47	1773.55		
		Total					2322.59		
AOC SUPER PASSAGE (Ch.-8.825 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR SUPER PASSAGE (Ch.-9.660 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.	29.880	Cum	6914.20	206596.30	12.33	12.85	25.70
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	56.790	Sqm	578.60	32858.69			
3	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.	3.52	MT	73574.90	258863.72			
4		Carriage of materials							
		Coarse Sand (60 Km lead)	12.848	Cum	1075.00	13812.03			
		Coarse Aggregates (100 Km lead)	25.697	Cum	1398.00	35924.13			
		Cement (30 km lead)	12.326	MT	742.00	9145.52			
TOTAL (In Rs.)						557200.39			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	12.85	Cum	584.64	7511.69	751.17		
		Coarse Aggregate	25.70	Cum	944.26	24264.46	2426.45		
		Total					3177.61		
AOC FOR BRIDGE (Ch.-9.715 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.	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.	13.050	Sqm	340.20	4439.61	13.530	0.191	
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.	13.050	Sqm	63.20	824.76	0.02		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	0.191	Cum	1075.00	204.82			
		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)	13.550	MT	742.00	10053.96			
		TOTAL (In Rs.)				16939.68			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.19	Cum	584.64	111.39	11.14		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					11.14		
		AOC BRIDGE (Ch.-10.520 Km)							
1		Structure is in good condition and does not require any repair works.							
		AOC FOR SUPER PASSAGE (Ch.-10.895 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.	9.100	Cum	6914.20	62919.22	3.75	3.91	7.83
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	18.570	Sqm	578.60	10744.60			
3	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.	1.07	MT	73574.90	78837.34			
4		Carriage of materials							
		Coarse Sand (60 Km lead)	3.913	Cum	1075.00	4206.48			
		Coarse Aggregates (100 Km lead)	7.826	Cum	1398.00	10940.75			
		Cement (30 km lead)	3.754	MT	742.00	2785.28			
		TOTAL (In Rs.)				170433.67			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	3.91	Cum	584.64	2287.70	228.77		
		Coarse Aggregate	7.83	Cum	944.26	7389.78	738.98		
		Total					967.75		
		AOC SUPER PASSAGE (Ch.-11.230Km)							
1		Structure is in good condition and does not require any repair works.							
		AOC BRIDGE (Ch.-11.740 Km)							
1		Structure is in good condition and does not require any repair works.							
		AOC FOR BRIDGE (Ch.-13.040 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.	5.52	Cum	5021.30	27717.58	0.64	1.77	
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.	50.160	Sqm	340.20	17064.43	52.006	0.732	
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.	50.160	Sqm	63.20	3170.11	0.08		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	2.499	Cum	1075.00	2686.14			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	52.717	MT	742.00	39116.04			
		Brick (15 km lead)	2760.00	No.	3.18	8776.80			
		TOTAL (In Rs.)				98531.10			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	2.50	Cum	584.64	1460.86	146.09		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					146.09		
		AOC RAILWAY LINE (Ch.-13.460 Km)							
1		Structure is in good condition and does not require 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 BRIDGE (Ch.-15.740 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 royalty as per specification and direction of E/I.	2.40	Cum	5021.30	12051.12	0.28	0.77	
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.	23.200	Sqm	340.20	7892.64	24.054	0.339	
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.	23.200	Sqm	63.20	1466.24	0.03		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.107	Cum	1075.00	1189.72			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	24.365	MT	742.00	18078.86			
		Brick (15 km lead)	1200.00	No.	3.18	3816.00			
TOTAL (In Rs.)						44494.58			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.11	Cum	584.64	647.03	64.70		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					64.70		
AOC ROAD CROSSING (Ch.-15.930 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR FALL (Ch.-16.235 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.	1.708	Cum	6914.20	11809.45	0.70	0.73	1.47
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.	5.246	Sqm	578.60	3035.34			
3		Carriage of materials							
		Coarse Sand (60 Km lead)	0.734	Cum	1075.00	789.52			
		Coarse Aggregates (100 Km lead)	1.469	Cum	1398.00	2053.49			
		Cement (30 km lead)	0.705	MT	742.00	522.78			
TOTAL (In Rs.)						18210.58			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.73	Cum	584.64	429.38	42.94		
		Coarse Aggregate	1.47	Cum	944.26	1387.00	138.70		
		Total					181.64		
AOC FALL (Ch.-16.885 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR CULVERT (Ch.-17.520 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.	1.50	Cum	5021.30	7531.95	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.	14.500	Sqm	340.20	4932.90	15.034	0.212	
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.	14.500	Sqm	63.20	916.40	0.02		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	0.692	Cum	1075.00	743.58			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	15.228	MT	742.00	11299.29			

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)
		Brick (15 km lead)	750.00	No.	3.18	2385.00			
		TOTAL (In Rs.)				27809.11			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.69	Cum	584.64	404.40	40.44		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					40.44		
		AOC FALL (Ch.-17.800 Km)							
1		Structure is in good condition and does not require 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 SAHOKARMA MINOR									
AOC FOR FALL (Ch.-0.305 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.	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.	91.000	Sqm	340.20	30958.20	94.349	1.329	
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.	91.000	Sqm	63.20	5751.20	0.14		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.329	Cum	1075.00	1428.25			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	94.485	MT	742.00	70108.09			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
TOTAL (In Rs.)						109662.26			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.33	Cum	584.64	776.75	77.68		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					77.68		
AOC PIPE CULVERT(Ch.-0.330 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR WELL TYPE FALL (Ch.-0.620 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.	17.325	Cum	2492.58	43183.95			
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.)						43183.95			
		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.-0.930Km)									
1	5.1.3	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.	126.000	Sqm	340.20	42865.20	130.637	1.840	
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.	126.000	Sqm	63.20	7963.20	0.19		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.840	Cum	1075.00	1977.57			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	130.826	MT	742.00	97072.74			
		Brick (15 km lead)	0.00	No.	3.18	0.00			
TOTAL (In Rs.)						151413.28			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.84	Cum	584.64	1075.50	107.55		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					107.55		
AOC BRIDGE (Ch.-1.090Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FALL(Ch.-1.400Km)									
1		Structure is in good condition and does not require 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 DHAMINI MINOR									
AOC FOR FALL (Ch.-1.850Km)									
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.	3.085	Cum	6914.20	21328.58	1.27	1.33	2.65
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.	5.804	Sqm	578.60	3358.14			
3		Carriage of materials							
		Coarse Sand (60 Km lead)	1.326	Cum	1075.00	1425.93			
		Coarse Aggregates (100 Km lead)	2.653	Cum	1398.00	3708.73			
		Cement (30 km lead)	1.272	MT	742.00	944.16			
TOTAL (In Rs.)						30765.54			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.33	Cum	584.64	775.49	77.55		
		Coarse Aggregate	2.65	Cum	944.26	2505.01	250.50		
		Total					328.05		

AOC FOR FALL (Ch.-2.150Km)									
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.	2.006	Cum	6914.20	13872.65	0.83	0.86	1.73
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.	3.843	Sqm	578.60	2223.31			
3		Carriage of materials							
		Coarse Sand (60 Km lead)	0.863	Cum	1075.00	927.46			
		Coarse Aggregates (100 Km lead)	1.726	Cum	1398.00	2412.25			
		Cement (30 km lead)	0.828	MT	742.00	614.11			
TOTAL (In Rs.)						20049.78			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.86	Cum	584.64	504.40	50.44		
		Coarse Aggregate	1.73	Cum	944.26	1629.32	162.93		
		Total					213.37		

AOC FOR FALL (Ch.-2.650 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.	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.	80.750	Sqm	340.20	27471.15	83.722	1.179	
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.	97.750	Sqm	63.20	6177.80	0.15		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.179	Cum	1075.00	1267.37			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	83.868	MT	742.00	62230.22			
TOTAL (In Rs.)						98563.07			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.18	Cum	584.64	689.26	68.93		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					68.93		

AOC FOR FALL (Ch.-3.050 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	5.3.5	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.	0.723	Cum	6914.20	4998.45	0.30	0.31	0.62
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	1.698	Sqm	578.60	982.64			
3		Carriage of materials							
		Coarse Sand (60 Km lead)	0.311	Cum	1075.00	334.17			
		Coarse Aggregates (100 Km lead)	0.622	Cum	1398.00	869.16			
		Cement (30 km lead)	0.298	MT	742.00	221.27			
TOTAL (In Rs.)						7405.68			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.31	Cum	584.64	181.74	18.17		
		Coarse Aggregate	0.62	Cum	944.26	587.06	58.71		
		Total					76.88		

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 BHADWA MINOR									
AOC FOR BRIDGE (Ch.-0.315 Km)									
1		Structure is in good condition and does not require any repair works.							
AOC FOR BRIDGE (Ch.-0.935 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.	13.050	Sqm	340.20	4439.61	13.530	0.191	
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.	13.050	Sqm	63.20	824.76	0.02		
3		Carriage of materials							
		Coarse Sand (60 Km lead)	0.191	Cum	1075.00	204.82			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	13.550	MT	742.00	10053.96			
TOTAL (In Rs.)						15523.15			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.19	Cum	584.64	111.39	11.14		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					11.14		
AOC FOR FALL (Ch.-1.460 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.	120.000	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.	68.000	Sqm	340.20	23133.60	70.502	0.993	
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.	68.000	Sqm	63.20	4297.60	0.10		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	0.993	Cum	1075.00	1067.26			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	70.604	MT	742.00	52388.46			
TOTAL (In Rs.)						82303.45			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.99	Cum	584.64	580.43	58.04		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					58.04		
AOC FOR BRIDGE(Ch.-1.550 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.	25.080	Sqm	340.20	8532.22	26.003	0.366	
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.	6.270	Sqm	63.20	396.26	0.01		
3		Carriage of materials							
		Coarse Sand (60 Km lead)	0.366	Cum	1075.00	393.63			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	26.012	MT	742.00	19301.16			
TOTAL (In Rs.)						28623.27			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.37	Cum	584.64	214.08	21.41		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					21.41		
AOC FOR FALL (Ch.-1.910Km)									
1	5.1.3	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.	118.750	Sqm	340.20	40398.75	123.120	1.734	

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.	118.750	Sqm	63.20	7505.00	0.18		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	1.734	Cum	1075.00	1863.78			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	123.298	MT	742.00	91487.21			
TOTAL (In Rs.)						142907.35			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	1.73	Cum	584.64	1013.62	101.36		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					101.36		

AOC FOR FALL (Ch.-2.170 Km)									
1	Structure is in good condition and does not require any repair works.								

AOC FOR BRIDGE (Ch.-2.305Km)									
1	Structure is in good condition and does not require any repair works.								

AOC FOR BRIDGE (Ch.-2.440Km)									
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.	1.50	Cum	5021.30	7531.95	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.	14.500	Sqm	340.20	4932.90	15.034	0.212	
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.	14.500	Sqm	63.20	916.40	0.02		
4		Carriage of materials							
		Coarse Sand (60 Km lead)	0.692	Cum	1075.00	743.58			
		Coarse Aggregates (100 Km lead)	0.000	Cum	1398.00	0.00			
		Cement (30 km lead)	15.228	MT	742.00	11299.29			
		Brick (15 km lead)	750.00	No.	3.18	2385.00			
TOTAL (In Rs.)						27809.11			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.69	Cum	584.64	404.40	40.44		
		Coarse Aggregate	0.00	Cum	944.26	0.00	0.00		
		Total					40.44		

AOC FOR FALL (Ch.-2.690 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.	1.235	Cum	6914.20	8540.77	0.51	0.53	1.06
2	5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specification and direction of E/I.	3.294	Sqm	578.60	1905.91			
3		Carriage of materials							
		Coarse Sand (60 Km lead)	0.531	Cum	1075.00	570.99			
		Coarse Aggregates (100 Km lead)	1.062	Cum	1398.00	1485.12			
		Cement (30 km lead)	0.510	MT	742.00	378.08			
TOTAL (In Rs.)						12880.86			
		Seigniorage @10%			Rate	Amount in Rs.	10%		
		Coarse Sand	0.53	Cum	584.64	310.54	31.05		
		Coarse Aggregate	1.06	Cum	944.26	1003.10	100.31		
		Total					131.36		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF KOTWARA DISTRIBUTARY								
S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR BRIDGE(Ch.-0.005 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.						
		Parapet Wall	2	4.572	0.45	0.92	3.79	Cum
		TOTAL					3.79	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	1	4.57		2.29	10.47	Sqm
		TOTAL					10.47	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	4.57		2.29	10.47	Sqm
		TOTAL					10.47	Sqm
QUANTITIES OF REPAIRING WORK FOR HR OF GAMHARI MR (Ch.-0.005 Km)								
1	5.1.3	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
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.						
		Side wall	2	1.50	0.50	1.50	2.25	Cum
		HR Gate Top	1	3.00	1.25	1.50	5.63	Cum
		TOTAL					7.88	Cum
		New HR to be constructed, the estimate of HR's of distributary will be provided seperately.						
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-0.345 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.						
		Parapet Wall	2	15	0.45	0.92	12.42	Cum
		TOTAL					12.42	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	15.00		2.29	68.70	Sqm
		TOTAL					68.70	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	15.00		2.29	68.70	Sqm
		TOTAL					68.70	Sqm
QUANTITIES OF REPAIRING WORK FOR CD WORK (Ch.-0.640 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.						
		Abutment D/S	1	7.00	0.45	1.5	4.73	Cum
		TOTAL					4.73	Cum
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.						
		Abutment D/S	2	7.00		1.5	21.00	Sqm
			2		0.45	1.5	1.35	Sqm
		TOTAL					22.35	Sqm
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-0.875 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR HR OF NAGWA MINOR (Ch.-1.140 Km)								
1	5.1.3	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 lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.						
		Side wall	2	2.00	0.50	1.50	3.00	Cum
		HR Gate Top	1	3.00	1.00	1.50	4.50	Cum
		TOTAL					7.50	Cum
		New HR to be constructed, the estimate of HR's of distributary will be provided seperately.						
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-1.840 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.						
		Parapet Wall	1	7	0.45	0.92	2.90	Cum
		TOTAL					2.90	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	1	7.00		2.29	16.03	Sqm
		TOTAL					16.03	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	1	7.00		2.29	16.03	Sqm
		TOTAL					16.03	Sqm
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-3.450 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-3.775 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.						
		Parapet Wall	2	12	0.45	0.92	9.94	Cum
		TOTAL					9.94	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	2	12.00		2.29	54.96	Sqm
		TOTAL					54.96	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	12.00		2.29	54.96	Sqm
		TOTAL					54.96	Sqm
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-4.405 Km)								
1	5.1.3	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
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.						
		Hand Rail	8	2.00	0.20	0.15	0.48	Cum
		Post	7	0.30	0.30	0.50	0.32	Cum
		TOTAL					0.80	Cum
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 royalty as per specification and direction of E/I.						
		Parapet Wall	2	12	0.45	0.92	9.94	Cum
		TOTAL					9.94	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.						
		Parapet Wall	2	12.00		2.29	54.96	Sqm
		TOTAL					54.96	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.						
		Parapet Wall	2	12.00		2.29	54.96	Sqm
		TOTAL					54.96	Sqm
QUANTITIES OF REPAIRING WORK FOR CD WORK (Ch.-4.670 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR CD WORK (Ch.-5.025 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR HR OF PAWAI MR (Ch.-5.120 Km)								
1	5.1.3	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	5.8.9	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.						
		Side wall	2	1.80	0.50	1.80	3.24	Cum
		HR Gate Top	1	3.00	1.00	1.80	5.40	Cum
		TOTAL					8.64	Cum
		New HR to be constructed, the estimate of HR's of distributary will be provided seperately.						
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-5.225 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	0.20	0.15	0.48	Cum
		Post	4	0.30	0.30	0.50	0.18	Cum
		TOTAL					0.66	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 royalty as per specification and direction of E/I.						
		Parapet Wall	1	9	0.45	0.92	3.73	Cum
		TOTAL					3.73	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	9.00		2.29	20.61	Sqm
		TOTAL					20.61	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	9.00		2.29	20.61	Sqm
		TOTAL					20.61	Sqm

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR CD WORK (Ch.-5.475 Km)								
1	5.1.3	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
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 Top	4	2.00	0.45	0.15	0.54	Cum
		Abutment Side wall Top	4	7.00	0.45	0.15	1.89	Cum
		Abutment Side wall Top	2	2.00	0.45	0.15	0.27	Cum
		TOTAL					2.70	Cum
QUANTITIES OF REPAIRING WORK FOR CD WORK (Ch.-5.610 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				140.00	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 Top	4	2.00	0.45	0.15	0.54	Cum
		Abutment Side wall Top	4	7.00	0.45	0.15	1.89	Cum
		Abutment Side wall Top	2	2.00	0.45	0.15	0.27	Cum
		TOTAL					2.70	Cum
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-5.950 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.						
		Abutment D/S	1	11.00	0.45	2.5	12.38	Cum
		Wing wall U/S	1	3.00	0.45	2.5	3.38	Cum
		D/S Floor	1	3.00	7.38	0.5	11.07	Cum
		TOTAL					26.82	Cum
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.						
		Abutment D/S	2	11.00		2.5	55.00	Sqm
			2		0.45	2.5	2.25	Sqm
		Wing wall U/S	2	3.00		2.5	15.00	Sqm
			2		0.45	2.5	2.25	Sqm

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		D/S Floor	2	3.00		0.5	3.00	Sqm
			2		7.38	0.5	7.38	Sqm
		TOTAL					84.88	Sqm
QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-6.100 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	3.00		3.45	41.40	Sqm
		Abutment Side wall	4	7.00		3.45	96.60	Sqm
		Abutment	2	2.00		3.45	13.80	Sqm
		TOTAL					151.80	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	4	3.00		3.45	41.40	Sqm
		Abutment Side wall	4	7.00		3.45	96.60	Sqm
		Abutment	2	2.00		3.45	13.80	Sqm
		TOTAL					151.80	Sqm
QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-6.270 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	3.00		3.45	41.40	Sqm
		Abutment Side wall	4	6.00		3.45	82.80	Sqm
		Abutment	2	2.00		3.45	13.80	Sqm
		TOTAL					138.00	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	4	3.00		3.45	41.40	Sqm
		Abutment Side wall	4	6.00		3.45	82.80	Sqm
		Abutment	2	2.00		3.45	13.80	Sqm
		TOTAL					138.00	Sqm
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-6.330 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.						
		Parapet Wall	1	9	0.45	0.92	3.73	Cum
		TOTAL					3.73	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	1	9.00		2.29	20.61	Sqm
		TOTAL					20.61	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	1	9.00		2.29	20.61	Sqm		
		TOTAL						20.61	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.								
		U/S Wing wall	1	3.00	0.45	1.7	2.30	Cum		
		TOTAL						2.30	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.								
		U/S Wing wall	2	3.00		1.7	10.20	Sqm		
			2		0.45	1.7	1.53	Sqm		
		TOTAL						11.73	Sqm	
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-6.500 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				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	7.50	0.80	1.3	7.80	Cum		
		TOTAL						7.80	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.								
		Crest	2	7.50		1.3	19.50	Sqm		
			2		0.80	1.3	2.08	Sqm		
		TOTAL						21.58	Sqm	
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-6.750 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	4	3.00	0.30	2.00	7.20	Cum		
		Abutment	2	18.00	0.30	2.00	21.60	Cum		
		Crest	1	7.00	0.70	1.52	7.45	Cum		
		Floor	1	7.50	6.00	0.50	22.50	Cum		
		TOTAL						58.75	Cum	
		New Fall has been Proposed.								

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit	
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-6.940 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	4	3.00	0.30	2.00	7.20	Cum	
		Abutment	2	16.00	0.30	2.00	19.20	Cum	
		Crest	1	7.50	0.80	1.83	10.97	Cum	
		Floor	1	7.00	7.50	0.50	26.25	Cum	
		TOTAL						63.62	Cum
		New Fall has been Proposed.							
QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-7.390 Km)									
1		Structure requires no repair work.							
QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-8.025 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	2.00		3.45	27.60	Sqm	
		Abutment Side wall	4	4.50		3.45	62.10	Sqm	
		Abutment	2	4.50		3.45	31.05	Sqm	
		TOTAL						120.75	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	2.00		3.45	27.60	Sqm	
		Abutment Side wall	4	4.50		3.45	62.10	Sqm	
		Abutment	2	4.50		3.45	31.05	Sqm	
		TOTAL						120.75	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-8.345 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	12.00	0.30	2.00	14.40	Cum	
		Crest	1	6.80	0.70	1.83	8.71	Cum	
		TOTAL						23.11	Cum
		The fall has been eliminated as per regime section.							
QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-8.605 Km)									
1	5.1.3	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	
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
		Wing wall	4	2.00		4.05	32.40	Sqm
		Abutment Side wall	4	10.50		4.05	170.10	Sqm
		Abutment	2	4.50		4.05	36.45	Sqm
		TOTAL					238.95	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	4	2.00		4.05	32.40	Sqm
		Abutment Side wall	4	10.50		4.05	170.10	Sqm
		Abutment	2	4.50		4.05	36.45	Sqm
		TOTAL					238.95	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.						
		Wing Wall D/S	1	2.00	0.45	1.8	1.62	Cum
		TOTAL					1.62	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 D/S	2	2.00		1.8	7.20	Sqm
			2		0.45	1.8	1.62	Sqm
		TOTAL					8.82	Sqm
QUANTITIES OF REPAIRING WORK FOR CD WORKS (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				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.						
		Wing wall	4	2.00		4.05	32.40	Sqm
		Abutment Side wall	4	9.00		4.05	145.80	Sqm
		Abutment	2	2.50		4.05	20.25	Sqm
		TOTAL					198.45	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	4	2.00		4.05	32.40	Sqm
		Abutment Side wall	4	9.00		4.05	145.80	Sqm
		Abutment	2	2.50		4.05	20.25	Sqm
		TOTAL					198.45	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.						
		Wing Wall D/S	1	2.00	0.45	2	1.80	Cum
		Abutment Wall D/S	1	9.00	0.45	2	8.10	Cum
		TOTAL					9.90	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 D/S	2	2.00		2	8.00	Sqm
			2		0.45	2	1.80	Sqm
		Abutment Wall D/S	2	9.00		2	36.00	Sqm
			2		0.45	2	1.80	Sqm
		TOTAL					47.60	Sqm
QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-9.045 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-9.160 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				160.00	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.						
		Wing wall	2	2.00		3.45	13.80	Sqm
		Abutment Side wall	2	7.50		3.45	51.75	Sqm
		Abutment	2	3.00		3.45	20.70	Sqm
		TOTAL					86.25	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	2	2.00		3.45	13.80	Sqm
		Abutment Side wall	2	7.50		3.45	51.75	Sqm
		Abutment	2	3.00		3.45	20.70	Sqm
		TOTAL					86.25	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.						
		Wing Wall D/S	1	2.00	0.45	2	1.80	Cum
		Abutment Wall D/S	1	7.50	0.45	2	6.75	Cum
		TOTAL					8.55	Cum

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
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 D/S	2	2.00		2	8.00	Sqm
			2		0.45	2	1.80	Sqm
		Abutment Wall D/S	2	7.50		2	30.00	Sqm
			2		0.45	2	1.80	Sqm
		TOTAL					41.60	Sqm
QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-9.460 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-9.795 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				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.						
		Wing wall	2	2.00		4.05	16.20	Sqm
		Abutment Side wall	2	8.00		4.05	64.80	Sqm
		Abutment	2	3.00		4.05	24.30	Sqm
		TOTAL					105.30	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.						
		Wing wall	2	2.00		4.05	16.20	Sqm
		Abutment Side wall	2	8.00		4.05	64.80	Sqm
		Abutment	2	3.00		4.05	24.30	Sqm
		TOTAL					105.30	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.						
		Wing Wall	2	2.00	0.45	2	3.60	Cum
		Abutment Wall D/S	1	8.00	0.45	2	7.20	Cum
		TOTAL					10.80	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	2.00		2	8.00	Sqm
			2		0.45	2	1.80	Sqm
		Abutment Wall D/S	2	8.00		2	32.00	Sqm
			2		0.45	2	1.80	Sqm
		TOTAL					43.60	Sqm

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR HR OF BHUTAILI MINOR (Ch.-9.875 Km)								
1	5.1.3	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	5.8.9	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.						
		Side wall	1	2.00	0.50	2.00	2.00	Cum
		HR Gate Top	1	3.00	1.20	2.00	7.20	Cum
		D/S abutment	1	5.00	0.50	1.50	3.75	Cum
		Rectangular well Walls	4	2.00	0.50	1.50	6.00	Cum
		TOTAL					18.95	Cum
New HR to be constructed, the estimate of HR's of distributary will be provided seperately.								
QUANTITIES OF REPAIRING WORK FOR CD WORK (Ch.-10.440 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR FALL(Ch.-10.500 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR HR OF SALOPURA MINOR (Ch.-10.660 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				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.						
		Side wall	1	1.50	0.30	1.50	0.68	Cum
		HR Gate Top	1	2.00	0.75	1.50	2.25	Cum
		TOTAL					2.93	Cum
New HR to be constructed, the estimate of HR's of distributary will be provided seperately.								
QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-10.860 Km)								
1	5.1.3	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
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	2	2.50		4.05	20.25	Sqm
		Abutment Side wall	2	5.50		4.05	44.55	Sqm
		Abutment	2	3.50		4.05	28.35	Sqm
		TOTAL					93.15	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	2	2.50		4.05	20.25	Sqm

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		Abutment Side wall	2	5.50		4.05	44.55	Sqm
		Abutment	2	3.50		4.05	28.35	Sqm
		TOTAL					93.15	Sqm
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-10.925 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	10.00	0.45	2.50	11.25	Cum
		Wing Wall	2	4.00	0.45	2.50	9.00	Cum
		TOTAL					20.25	Cum
		New Bridge has been Proposed.						
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-11.730 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	6.00	0.45	2.00	10.80	Cum
		Wing Wall	4	3.50	0.45	2.00	12.60	Cum
		TOTAL					23.40	Cum
		New Bridge has been Proposed.						
QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-11.860 Km)								
1	5.1.3	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
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	2	2.00		4.05	16.20	Sqm
		Abutment Side wall	2	8.00		4.05	64.80	Sqm
		Abutment	2	4.00		4.05	32.40	Sqm
		TOTAL					113.40	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.						
		Wing wall	2	2.00		4.05	16.20	Sqm
		Abutment Side wall	2	8.00		4.05	64.80	Sqm
		Abutment	2	4.00		4.05	32.40	Sqm
		TOTAL					113.40	Sqm
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-12.020 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.						
		Parapet Wall	2	10	0.45	0.92	8.28	Cum
		TOTAL					8.28	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	2	10.00		2.29	45.80	Sqm
		TOTAL					45.80	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	10.00		2.29	45.80	Sqm
		TOTAL					45.80	Sqm
QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-12.440 Km)								
1	5.1.3	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
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	2	2.00		4.05	16.20	Sqm
		Abutment Side wall	2	8.00		4.05	64.80	Sqm
		Abutment	2	4.00		4.05	32.40	Sqm
		TOTAL					113.40	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.						
		Wing wall	2	2.00		4.05	16.20	Sqm
		Abutment Side wall	2	8.00		4.05	64.80	Sqm
		Abutment	2	4.00		4.05	32.40	Sqm
		TOTAL					113.40	Sqm
QUANTITIES OF REPAIRING WORK FOR HR+CR OF SINGHI SUB DY (Ch.-13.020 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				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	1.50		1.20	3.60	Sqm
		CR GATE-1	2	3.00		1.50	9.00	Sqm

		TOTAL					12.60	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 Top CR	1	4.50	2.45	11.03	Sqm	
		Side Face	1	1.20	3	3.60	Sqm	
		TOTAL					14.63	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.						
		Gate Abutment Top	1	4.50	2.45	11.03	Sqm	
		Side Face	1	1.20	3	3.60	Sqm	
		TOTAL					14.63	Sqm
5	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.						
		Side wall	1	1.50	0.50	1.80	1.35	Cum
		HR Gate Top	1	2.00	1.00	1.80	3.60	Cum
		Abutment D/S Portion	2	3.50	0.50	1.50	5.25	Cum
		Wing Wall D/S Portion	2	0.50	0.50	1.50	0.75	Cum
		TOTAL					10.95	Cum
New HR to be constructed, the estimate of HR's of distributary will be provided seperately.								

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit	
QUANTITIES OF REPAIRING WORK FOR CD WORK (Ch.-13.480 Km)									
1		Structure requires no repair work.							
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-13.605 Km)									
		The structure requires no repair as it is not under Irrigation department.							
QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-14.240 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				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.							
		Wing wall	2	2.50	3.45	17.25	Sqm		
		Abutment Side wall	2	6.50	3.45	44.85	Sqm		
		Abutment	2	9.00	3.45	62.10	Sqm		
		TOTAL					124.20	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.							
		Wing wall	2	2.50	3.45	17.25	Sqm		
		Abutment Side wall	2	6.50	3.45	44.85	Sqm		
		Abutment	2	9.00	3.45	62.10	Sqm		
		TOTAL					124.20	Sqm	

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-14.370 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.						
		Parapet Wall	2	8	0.45	0.92	6.62	Cum
		TOTAL					6.62	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	8.00		2.29	36.64	Sqm
		TOTAL					36.64	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		2.29	36.64	Sqm
		TOTAL					36.64	Sqm
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-15.150 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-15.860 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.						
		Parapet Wall	2	7	0.45	0.92	5.80	Cum
		TOTAL					5.80	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	7.00		2.29	32.06	Sqm
		TOTAL					32.06	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	7.00		2.29	32.06	Sqm
		TOTAL					32.06	Sqm
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-16.130 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.						
		Parapet Wall	2	8	0.45	0.92	6.62	Cum
		TOTAL					6.62	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	2	8.00		2.29	36.64	Sqm
		TOTAL						36.64 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		2.29	36.64	Sqm
		TOTAL						36.64 Sqm
QUANTITIES OF REPAIRING WORK FOR HR OF SAHOKARMA MR (Ch.-16.200 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				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.						
		Side wall	2	1.50	0.50	1.80	2.70	Cum
		HR Gate Top	1	2.00	1.00	1.80	3.60	Cum
		Abutment D/S Portion	2	2.00	0.50	1.00	2.00	Cum
		Wing wall D/S Portion	2	0.50	0.50	1.00	0.50	Cum
		TOTAL						8.80 Cum
		New HR to be constructed, the estimate of HR's of distributary will be provided seperately.						
QUANTITIES OF REPAIRING WORK FOR FALL(Ch.-16.500 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR HR OF DHAMNI MR (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				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.						
		Side wall	2	1.50	0.50	1.80	2.70	Cum
		HR Gate Top	1	3.00	1.20	1.80	6.48	Cum
		TOTAL						9.18 Cum
		New HR to be constructed, the estimate of HR's of distributary will be provided seperately.						
QUANTITIES OF REPAIRING WORK FOR FALL(Ch.-17.350 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 specification & direction of E/I.						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit	
		D/S Abutment Wall	2	7.00	0.45	2	12.60	Cum	
		Wing Wall	2	3.00	0.45	2	5.40	Cum	
		D/S Floor	1	5.00	5.00	0.3	7.50	Cum	
		TOTAL						25.50	Cum
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.							
		D/S Abutment Wall	4	7.00		2.00	56.00	Sqm	
			4		0.45	2.00	3.60	Sqm	
		Wing Wall	4	5.00		2.00	40.00	Sqm	
			4		0.45	2.00	3.60	Sqm	
		D/S Floor	2	5.00		0.30	3.00	Sqm	
			2		5.00	0.30	3.00	Sqm	
		TOTAL						109.20	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL/BRIDGE (Ch.-17.665 Km)									
1		Structure requires no repair work.							
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-18.400 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 royalty as per specification and direction of E/I.							
		Parapet Wall	2	6.29	0.45	0.92	5.21	Cum	
		TOTAL						5.21	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	6.29		2.29	28.81	Sqm	
		TOTAL						28.81	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	6.29		2.29	28.81	Sqm	
		TOTAL						28.81	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL/BRIDGE (Ch.-19.100 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 royalty as per specification and direction of E/I.							
		Parapet Wall	1	6.29	0.45	0.92	2.60	Cum	
		TOTAL						2.60	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.							

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		Parapet Wall	1	6.29		2.29	14.40	Sqm
		TOTAL					14.40	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	6.29		2.29	14.40	Sqm
		TOTAL					14.40	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	5.00	6.00	0.3	9.00	Cum
		TOTAL					9.00	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.						
		D/S Abutment Wall	2	5.00		0.30	3.00	Sqm
			2		6.00	0.30	3.60	Sqm
		TOTAL					6.60	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-20.660 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR FALL/BRIDGE (Ch.-21.450Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-22.350 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 specification & direction of E/I.						
		D/S Abutment	1	5.00	0.45	1.8	4.05	Cum
		TOTAL					4.05	Cum
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.						
		D/S Abutment Wall	2	5.00		1.80	18.00	Sqm
			2		0.45	1.80	1.62	Sqm
		TOTAL					19.62	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL/BRIDGE (Ch.-22.750 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-23.025 Km)								

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit	
1		Structure requires no repair work.							
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-23.150 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 royalty as per specification and direction of E/I.							
		Parapet Wall	2	10	0.45	0.6	5.40	Cum	
		TOTAL						5.40	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	2	10.00		1.45	29.00	Sqm	
		TOTAL						29.00	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	10.00		1.45	29.00	Sqm	
		TOTAL						29.00	Sqm
QUANTITIES OF REPAIRING WORK FOR CD WORK(Ch.-23.520 Km)									
1		Structure requires no repair work.							
QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.-24.200 Km)									
1		Structure requires no repair work.							
QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.-24.430 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.							
		Parapet Wall	2	5	0.45	0.6	2.70	Cum	
		TOTAL						2.70	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	
		TOTAL						14.50	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		1.45	14.50	Sqm	
		TOTAL						14.50	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-25.150 Km)									
1		Structure requires no repair work.							

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit	
QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.-25.950 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.							
		Parapet Wall	2	8	0.45	0.6	4.32	Cum	
		TOTAL						4.32	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	8.00		1.45	23.20	Sqm	
		TOTAL						23.20	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.							
		Parapet Wall	2	8.00		1.45	23.20	Sqm	
		TOTAL						23.20	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.							
		Wing wall D/S	2	3.00	0.45	1.5	4.05	Cum	
		TOTAL						4.05	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 D/S	2	3.00		1.50	9.00	Sqm	
			2		0.45	1.50	1.35	Sqm	
		TOTAL						10.35	Sqm
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-26.365Km)									
1		Structure requires no repair work.							
QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.-26.730 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 royalty as per specification and direction of E/I.							
		Parapet Wall	2	7	0.45	0.6	3.78	Cum	
		TOTAL						3.78	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	7.00		1.45	20.30	Sqm	
		TOTAL						20.30	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	2	7.00		1.45	20.30	Sqm
		TOTAL					20.30	Sqm
QUANTITIES OF REPAIRING WORK FOR HR OF BHADWA MINOR (Ch.-27.075 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				140.00	Sqm
5	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter						
		Side wall	1	1.50	0.50	1.80	1.35	Cum
		HR Gate Top	1	2.00	1.00	1.80	3.60	Cum
		Abutment D/S Portion	2	3.50	0.50	1.20	4.20	Cum
		Wing wall D/S Portion	2	0.50	0.50	1.20	0.60	Cum
		TOTAL					9.75	Cum
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-27.250 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-27.595 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 Abutment	1	5.00	0.45	1.8	4.05	Cum
		TOTAL					4.05	Cum
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.						
		D/S Abutment Wall	2	5.00		1.80	18.00	Sqm
			2		0.45	1.80	1.62	Sqm
		TOTAL					19.62	Sqm
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-28.740 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT (Ch.-28.830 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR RAILWAY LINE (Ch.-28.910 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR WELL TYPE FALL (Ch.-29.325 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 Abutment	1	4.00	0.45	1.2	2.16	Cum
		Well portion	1	6.28		0.5	0.25	Cum
		TOTAL					2.41	Cum
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.						
		D/S Abutment	2	4.00		1.20	9.60	Sqm
			2		0.45	1.20	1.08	Sqm
		Well portion	2	6.28		0.50	6.28	Sqm
		TOTAL					16.96	Sqm
QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.-29.690 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 wall	2	8.00		2.65	42.40	Sqm
		Wing wall	2	3.00		2.65	15.90	Sqm
		TOTAL					58.30	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 wall	2	8.00		2.65	42.40	Sqm
		Wing wall	2	3.00		2.65	15.90	Sqm
		TOTAL					58.30	Sqm
QUANTITIES OF REPAIRING WORK FOR WELL TYPE FALL (Ch.-30.275 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.						
		U/S Abutment	1	3.50	0.45	1.2	1.89	Cum
		TOTAL					1.89	Cum
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.						
		D/S Abutment	2	3.50		1.20	8.40	Sqm
		TOTAL					8.40	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-30.510 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	6.00	4.00	0.935	22.44	Cum
		TOTAL					22.44	Cum
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.						
		D/S Floor	2	6.00		0.94	11.22	Sqm
			2		4.00	0.94	7.48	Sqm
		TOTAL					18.70	Sqm
QUANTITIES OF REPAIRING WORK FOR ROAD CROSSING (Ch.-30.585 Km)								
1		Structure requires no repair work.						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit	
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF GAMHARIA MR.									
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-0.175 Km)									
1		Structure requires no repair work.							
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-0.950 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.							
		Parapet Wall	2	15	0.45	0.6	8.10	Cum	
		TOTAL						8.10	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	2	15.00		1.45	43.50	Sqm	
		TOTAL						43.50	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	15.00		1.45	43.50	Sqm	
		TOTAL						43.50	Sqm
QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-1.050 Km)									
1		Structure requires no repair work.							
QUANTITIES OF REPAIRING WORK FOR BRIDGE (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 royalty as per specification and direction of E/I.							
		Parapet Wall	2	15	0.45	0.6	8.10	Cum	
		TOTAL						8.10	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	2	15.00		1.45	43.50	Sqm	
		TOTAL						43.50	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	15.00		1.45	43.50	Sqm	
		TOTAL						43.50	Sqm
QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-2.455 Km)									
1		Structure requires no repair work.							

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF NAGWA MR.								
QUANTITIES OF REPAIRING WORK FOR CULVERT (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 royalty as per specification and direction of E/I.						
		<i>Parapet Wall</i>	1	6	0.45	0.6	1.62	<i>Cum</i>
		TOTAL					1.62	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.						
		<i>Parapet Wall</i>	2	6.00		1.45	17.40	<i>Sqm</i>
		TOTAL					17.40	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.						
		<i>Parapet Wall</i>	2	6.00		1.45	17.40	<i>Sqm</i>
		TOTAL					17.40	Sqm

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF PAWAI MR.								
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-0.175 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.						
		Parapet Wall	2	6	0.45	0.6	3.24	Cum
		TOTAL					3.24	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.						
		Parapet Wall	2	6.00		1.45	17.40	Sqm
		Wing wall	4	1.50		3.25	19.50	Sqm
		Abutment	4	4.50		3.25	58.50	Sqm
		TOTAL					95.40	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	6.00		1.45	17.40	Sqm
		Wing wall	4	1.50		3.25	19.50	Sqm
		Abutment	4	4.50		3.25	58.50	Sqm
		TOTAL					95.40	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (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				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	2.80	0.914	12.80	Cum
		TOTAL					12.80	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.						
		D/S Floor	2	5.00		0.91	9.14	Sqm
			2		2.80	0.91	5.12	Sqm
		TOTAL					14.26	Sqm
QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-1.050 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-1.100 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				110.00	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.						
		D/S Floor	1	5.00	2.50	0.611	7.64	Cum
		TOTAL					7.64	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.						
		D/S Floor	2	5.00		0.61	6.11	Sqm
			2		2.50	0.61	3.06	Sqm
		TOTAL					9.17	Sqm
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-1.260Km)								
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.						
		Parapet Wall	2	3	0.45	0.6	1.62	Cum
		TOTAL					1.62	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	3.00		1.45	8.70	Sqm
		Wing wall	4	1.50		3.25	19.50	Sqm
		Abutment	4	4.50		3.25	58.50	Sqm
		TOTAL					86.70	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		1.45	8.70	Sqm
		Wing wall	4	1.50		3.25	19.50	Sqm
		Abutment	4	4.50		3.25	58.50	Sqm
		TOTAL					86.70	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-1.400 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	5.00	2.50	0.611	7.64	Cum
		Left Side Abutment wall	1	8.00	0.45	2	7.20	Cum
		TOTAL					7.64	Cum

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
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.						
		D/S Floor	2	5.00		0.61	6.11	Sqm
			2		2.50	0.61	3.06	Sqm
		Left Side Abutment wall	2	8.00		2.00	32.00	Sqm
			2		0.45	2.00	1.80	Sqm
		TOTAL					42.97	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-1.720Km)								
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	4	3.00	0.50	1.50	9.00	Cum
		Side wall	2	9.00	0.50	1.20	10.80	Cum
		Crest	1	2.50	0.60	1.50	2.25	Cum
		TOTAL					22.05	Cum
New Fall to be constructed, the estimate of Fall of distributary will be provided seperately.								

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF BHUTAILI MR.								
QUANTITIES OF REPAIRING WORK FOR CD WORK (Ch.-0.300 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				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.						
		<i>Wing wall</i>	4	2.50		3.45	34.50	<i>Sqm</i>
		<i>Abutment Side wall</i>	4	4.50		3.45	62.10	<i>Sqm</i>
		<i>Abutment</i>	2	6.00		3.45	41.40	<i>Sqm</i>
		TOTAL					138.00	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.						
		<i>Wing wall</i>	4	2.50		3.45	34.50	<i>Sqm</i>
		<i>Abutment Side wall</i>	4	4.50		3.45	62.10	<i>Sqm</i>
		<i>Abutment</i>	2	6.00		3.45	41.40	<i>Sqm</i>
		TOTAL					138.00	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.370 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.						
		<i>D/S Floor</i>	1	5.00	2.50	0.305	3.81	<i>Cum</i>
		<i>Right Side Abutment wall</i>	1	9.00	0.45	2	8.10	<i>Cum</i>
		<i>Right Side wing wall</i>	1	3.00	0.45	2	2.70	<i>Cum</i>
		TOTAL					14.61	Cum
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.						
		<i>D/S Floor</i>	2	5.00		0.31	3.05	<i>Sqm</i>
			2		2.50	0.31	1.53	<i>Sqm</i>
		<i>Right Side Abutment wall</i>	2	9.00		2.00	36.00	<i>Sqm</i>
			2		0.45	2.00	1.80	<i>Sqm</i>
		<i>Right Side wing wall</i>	2	3.00		2.00	12.00	<i>Sqm</i>
			2		0.45	2.00	1.80	<i>Sqm</i>
		TOTAL					56.18	Sqm
QUANTITIES OF REPAIRING WORK FOR CD WORK (Ch.-0.530 Km)								
1	5.1.3	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

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.						
		Wing wall	4	1.50		3.45	20.70	Sqm
		Abutment Side wall	4	4.00		3.45	55.20	Sqm
		Abutment	2	6.00		3.45	41.40	Sqm
		TOTAL					117.30	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.						
		Wing wall	4	1.50		3.45	20.70	Sqm
		Abutment Side wall	4	4.00		3.45	55.20	Sqm
		Abutment	2	6.00		3.45	41.40	Sqm
		TOTAL					117.30	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.580 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	6.00	0.45	1.80	9.72	Cum
		Wing Wall	2	3.00	0.45	1.80	4.86	Cum
		TOTAL					14.58	Cum
		New Fall has been Proposed.						
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-0.650 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.740 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	5.00	2.50	0.153	1.91	Cum
		TOTAL					1.91	Cum
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.						
		D/S Floor	2	5.00		0.15	1.53	Sqm
			2		2.50	0.15	0.77	Sqm
		TOTAL					2.30	Sqm
QUANTITIES OF REPAIRING WORK FOR CD WORK (Ch.-0.855 Km)								
1	5.1.3	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	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite 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	3	1.50		3.45	15.53	Sqm
		Abutment Side wall	4	4.00		3.45	55.20	Sqm
		Abutment	2	6.00		3.45	41.40	Sqm
		TOTAL					112.13	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	3	1.50		3.45	15.53	Sqm
		Abutment Side wall	4	4.00		3.45	55.20	Sqm
		Abutment	2	6.00		3.45	41.40	Sqm
		TOTAL					112.13	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 Wing wall	1	1.50	0.45	1.5	1.01	Cum
		TOTAL					1.01	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.						
		D/S Wing wall	2	1.50		1.50	4.50	Sqm
			2		0.45	1.50	1.35	Sqm
		TOTAL					5.85	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.930 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.						
		Left Side Abutment wall	1	5.00	0.45	1.8	4.05	Cum
		TOTAL					4.05	Cum
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.						
		Left Side Abutment wall	2	5.00		1.80	18.00	Sqm
			2		0.45	1.80	1.62	Sqm
		TOTAL					19.62	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-1.120 Km)								

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-1.350 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.						
		Abutment	2	6.00	0.45	1.80	9.72	Cum
		Wing Wall	2	3.00	0.45	1.80	4.86	Cum
		TOTAL					14.58	Cum
		New Fall has been Proposed.						
QUANTITIES OF REPAIRING WORK FOR BRIDGE/FALL (Ch.-1.480 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 wall	2	8.00		2.65	42.40	Sqm
		Wing wall	4	3.00		2.65	31.80	Sqm
		TOTAL					74.20	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 wall	2	8.00		2.65	42.40	Sqm
		Wing wall	4	3.00		2.65	31.80	Sqm
		TOTAL					74.20	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	4.00	1.00	0.763	3.05	Cum
		TOTAL					3.05	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.						
		D/S Floor	2	4.00		0.76	6.10	Sqm
			2		1.00	0.76	1.53	Sqm
		TOTAL					7.63	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-1.625 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 wall	2	6.00		2.65	31.80	Sqm
		Wing wall	4	2.00		2.65	21.20	Sqm
		TOTAL					53.00	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 and lifts as per building specification & direction of E/I.						
		Abutment wall	2	6.00		2.65	31.80	Sqm
		Wing wall	4	2.00		2.65	21.20	Sqm
		TOTAL					53.00	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-1.840 Km)								
1		Structure requires no repair work.						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF SALOPURA MINOR								
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.000 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	6.00	1.20	0.171	1.23	Cum
		TOTAL					1.23	Cum
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.						
		D/S Floor	2	6.00		0.17	2.05	Sqm
			2		1.20	0.17	0.41	Sqm
		TOTAL					2.46	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.070 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	1.20	0.15	0.89	Cum
		TOTAL					0.89	Cum
QUANTITIES OF REPAIRING WORK FOR CD WORK (Ch.-0.250 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				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.						
		Wing wall	3	1.50		3.25	14.63	Sqm
		Abutment Side wall	4	4.00		3.25	52.00	Sqm
		Abutment	2	2.00		3.25	13.00	Sqm
		TOTAL					79.63	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	3	1.50		3.25	14.63	Sqm
		Abutment Side wall	4	4.00		3.25	52.00	Sqm
		Abutment	2	2.00		3.25	13.00	Sqm
		TOTAL					79.63	Sqm
QUANTITIES OF REPAIRING WORK FOR CULVERT/FALL (Ch.-0.300 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	5.00	1.10	0.476	2.62	Cum
		TOTAL					2.62	Cum
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.						
		D/S Floor	2	5.00		0.48	4.76	Sqm
			2		1.10	0.48	1.05	Sqm
		TOTAL					5.81	Sqm
QUANTITIES OF REPAIRING WORK FOR CD WORK (Ch.-0.685 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				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.						
		Wing wall	3	1.00		3.25	9.75	Sqm
		Abutment Side wall	4	5.30		3.25	68.90	Sqm
		Abutment	2	5.50		3.25	35.75	Sqm
		TOTAL					114.40	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.						
		Wing wall	3	1.00		3.25	9.75	Sqm
		Abutment Side wall	4	5.30		3.25	68.90	Sqm
		Abutment	2	5.50		3.25	35.75	Sqm
		TOTAL					114.40	Sqm

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.710Km)								
1	5.1.3	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	5.3.5	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.						
		<i>D/S Floor</i>	1	5.00	1.10	0.933	5.13	Cum
		TOTAL					5.13	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.						
		<i>D/S Floor</i>	2	5.00		0.93	9.33	Sqm
			2		1.10	0.93	2.05	Sqm
		TOTAL					11.38	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.890 Km)								
1	5.1.3	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	5.3.5	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.						
		<i>D/S Floor</i>	1	5.00	1.00	0.171	0.86	Cum
		TOTAL					0.86	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.						
		<i>D/S Floor</i>	2	5.00		0.17	1.71	Sqm
			2		1.00	0.17	0.34	Sqm
		TOTAL					2.05	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-1.185 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.						
		<i>Abutment</i>	2	6.00	0.45	1.80	9.72	Cum
		<i>Wing Wall</i>	2	3.00	0.45	1.80	4.86	Cum
		<i>Crest</i>	1	5.00	0.70	2.13	7.47	Cum
		TOTAL					22.05	Cum
		New Fall has been Proposed.						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR CD WORK (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				145.00	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.						
		Wing wall	4	1.00		3.25	13.00	Sqm
		Abutment Side wall	4	5.30		3.25	68.90	Sqm
		Abutment	2	5.80		3.25	37.70	Sqm
		TOTAL					119.60	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	4	1.00		3.25	13.00	Sqm
		Abutment Side wall	4	5.30		3.25	68.90	Sqm
		Abutment	2	5.80		3.25	37.70	Sqm
		TOTAL					119.60	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 Abutment	1	3.00	0.45	1.5	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.						
		D/S Abutment	2	3.00		1.50	9.00	Sqm
			2		0.45	1.50	1.35	Sqm
		TOTAL					10.35	Sqm
QUANTITIES OF REPAIRING WORK FOR ROAD CROSSING (Ch.-1.260 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-1.450 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

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.						
		U/S Abutment	1	3.50	0.45	1.2	1.89	Cum
		Crest	1	0.95	0.60	1.52	0.87	Cum
		TOTAL					2.76	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.						
		D/S Abutment	2	3.50		1.20	8.40	Sqm
		D/S Abutment	2	0.95		1.52	2.89	Sqm
		TOTAL					11.29	Sqm
QUANTITIES OF REPAIRING WORK FOR CD WORK (Ch.-1.630 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				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.						
		Wing wall	3	1.00		3.85	11.55	Sqm
		Abutment Side wall	4	5.00		3.85	77.00	Sqm
		Abutment	2	3.50		3.85	26.95	Sqm
		TOTAL					115.50	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.						
		Wing wall	3	1.00		3.85	11.55	Sqm
		Abutment Side wall	4	5.00		3.85	77.00	Sqm
		Abutment	2	3.50		3.85	26.95	Sqm
		TOTAL					115.50	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-1.765 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-1.790 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.						
		Parapet Wall	2	3.5	0.45	0.92	2.90	Cum
		TOTAL					2.90	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.						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		Parapet Wall	2	3.50		2.09	14.63	Sqm
		TOTAL					14.63	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	3.50		2.09	14.63	Sqm
		TOTAL					14.63	Sqm
QUANTITIES OF REPAIRING WORK FOR CD WORK (Ch.-2.155 Km)								
1	5.1.3	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	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite 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	3	1.00		3.85	11.55	Sqm
		Abutment Side wall	4	5.00		3.85	77.00	Sqm
		Abutment	2	3.50		3.85	26.95	Sqm
		TOTAL					115.50	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.						
		Wing wall	3	1.00		3.85	11.55	Sqm
		Abutment Side wall	4	5.00		3.85	77.00	Sqm
		Abutment	2	3.50		3.85	26.95	Sqm
		TOTAL					115.50	Sqm
QUANTITIES OF REPAIRING WORK FOR CULVERT/FALL (Ch.-2.170 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 royalty as per specification and direction of E/I.						
		Parapet Wall	2	3	0.45	0.6	1.62	Cum
		TOTAL					1.62	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	3.00		1.45	8.70	Sqm
		TOTAL					8.70	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		1.45	8.70	Sqm
		TOTAL					8.70	Sqm
QUANTITIES OF REPAIRING WORK FOR CD WORK (Ch.-2.610 Km)								
1		Structure requires no repair work.						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF SINGHI SUB DY								
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.000 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	5.00	3.00	0.61	9.15	Cum
		TOTAL					9.15	Cum
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.						
		D/S Floor	2	5.00		0.61	6.10	Sqm
			2		3.00	0.61	3.66	Sqm
		TOTAL					9.76	Sqm
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-0.010 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.						
		Parapet Wall	2	7	0.45	0.6	3.78	Cum
		TOTAL					3.78	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	7.00		1.45	20.30	Sqm
		TOTAL					20.30	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	2	7.00		1.45	20.30	Sqm
		TOTAL					20.30	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.120 Km)								
1	5.1.3	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.						
		D/S Floor	1	5.00	3.00	0.10	1.56	Cum
		TOTAL					1.56	Cum
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.490 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.-0.580 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.							
		Parapet Wall	2	6.5	0.45	0.92	5.38	Cum	
		TOTAL						5.38	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	6.50		2.09	27.17	Sqm	
		TOTAL						27.17	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	6.50		2.09	27.17	Sqm	
		TOTAL						27.17	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-1.040 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	4.50	2.80	0.915	11.53	Cum	
		TOTAL						11.53	Cum
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.							
		D/S Floor	2	4.50		0.92	8.24	Sqm	
			2		2.80	0.92	5.12	Sqm	
		TOTAL						13.36	Sqm
QUANTITIES OF REPAIRING WORK FOR CD WORK (Ch.-1.265 Km)									
1		Structure requires no repair work.							
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				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 royalty as per specification and direction of E/I.							
		Parapet Wall	1	3	0.3	0.6	0.54	Cum	
		TOTAL						0.54	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	3.00		1.45	8.70	Sqm
		TOTAL					8.70	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	3.00		1.45	8.70	Sqm
		TOTAL					8.70	Sqm
QUANTITIES OF REPAIRING WORK FOR BRIDGE /FALL (Ch.-1.840 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.						
		Parapet Wall	2	4.5	0.45	0.92	3.73	Cum
		TOTAL					3.73	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	4.50		2.09	18.81	Sqm
		TOTAL					18.81	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	4.50		2.09	18.81	Sqm
		TOTAL					18.81	Sqm
QUANTITIES OF REPAIRING WORK FOR CD WORK (Ch.-2.180 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-2.200 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-2.640 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				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.						
		D/S Floor	1	4.50	2.80	0.609	7.67	Cum
		TOTAL					7.67	Cum

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
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.						
		D/S Floor	2	4.50		0.61	5.48	Sqm
			2		2.80	0.61	3.41	Sqm
		TOTAL					8.89	Sqm

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-2.960 Km)								
1	5.1.3	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	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite 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	1.50		3.45	10.35	Sqm
		Abutment Side wall	2	8.50		3.45	58.65	Sqm
		Abutment	2	6.85		4.45	60.97	Sqm
		TOTAL					129.97	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	2	1.50		3.45	10.35	Sqm
		Abutment Side wall	2	8.50		3.45	58.65	Sqm
		Abutment	2	6.85		4.45	60.97	Sqm
		TOTAL					129.97	Sqm
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-3.120 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-3.230 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.						
		Parapet Wall	2	4	0.25	0.92	1.84	Cum
		TOTAL					1.84	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	4.00		2.09	16.72	Sqm
		TOTAL					16.72	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	4.00		2.09	16.72	Sqm
		TOTAL					16.72	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-3.565 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	3.00	3.20	0.61	5.86	Cum

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		TOTAL					5.86	Cum
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.						
		D/S Floor	2	3.00		0.61	3.66	Sqm
			2		3.20	0.61	3.90	Sqm
		TOTAL					7.56	Sqm
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-3.765 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-3.935 Km)								
1	5.1.3	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	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite 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	1.50		3.45	10.35	Sqm
		Abutment Side wall	2	7.00		3.45	48.30	Sqm
		Abutment	2	5.00		4.45	44.50	Sqm
		TOTAL					103.15	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	4	1.50		3.45	20.70	Sqm
		Abutment Side wall	4	7.00		3.45	96.60	Sqm
		Abutment	2	5.00		4.45	44.50	Sqm
		TOTAL					161.80	Sqm
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-4.060 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.						
		Parapet Wall	2	4.5	0.25	0.92	2.07	Cum
		TOTAL					2.07	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	2	4.50		2.09	18.81	Sqm
		TOTAL					18.81	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	4.50		2.09	18.81	Sqm
		TOTAL					18.81	Sqm

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-4.190Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-4.440 Km)								
1	5.1.3	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	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite 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	1.50		2.85	8.55	Sqm
		Abutment Side wall	2	5.00		2.85	28.50	Sqm
		Abutment	2	3.00		4.05	24.30	Sqm
		TOTAL					61.35	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	4	1.50		2.85	17.10	Sqm
		Abutment Side wall	4	5.00		2.85	57.00	Sqm
		Abutment	2	3.00		4.05	24.30	Sqm
		TOTAL					98.40	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-4.455 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	7.00	0.45	1.80	11.34	Cum
		Wing Wall	2	3.00	0.45	1.80	4.86	Cum
		Crest	1	3.80	0.70	1.22	3.25	Cum
		TOTAL					19.45	Cum
		New Fall has been Proposed.						
QUANTITIES OF REPAIRING WORK FOR SUPER PASAGE(Ch.-5.050 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-5.250 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				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.						
		Wing wall	2	2.50		3.45	17.25	Sqm
		Abutment Side wall	2	3.00		3.45	20.70	Sqm
		Abutment	2	2.50		4.05	20.25	Sqm
		TOTAL					58.20	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.						
		Wing wall	2	2.50		3.45	17.25	Sqm
		Abutment Side wall	2	3.00		3.45	20.70	Sqm
		Abutment	2	2.50		4.05	20.25	Sqm
		TOTAL					58.20	Sqm
QUANTITIES OF REPAIRING WORK FOR BRIDGE(Ch.-5.380Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR SUPER PASSAGE (Ch.-5.660Km)								
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.						
		Trough Side wall	2	15.00	0.35	1.5	15.75	Cum
		Trough Base Slab	1	15.00	2.20	0.35	11.55	Cum
		TOTAL					27.30	Cum
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.						
		Trough Side wall	2	15.00		1.50	45.00	Sqm
			2		0.35	1.50	1.05	Sqm
		Trough Base Slab	1	15.00		0.35	5.25	Sqm
			1		2.20	0.35	0.77	Sqm
		TOTAL					52.07	Sqm
3	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.						
		Quantity	Percent		Density			
		1.5 % Skin Reinforcement for Transition walls	27.30	1.50%	0.41	7850	3214.58	Kg
		TOTAL Weight of steel (in kg)					3214.58	Kg
		TOTAL Weight of Steel (in Tonne)					3.21	MT
QUANTITIES OF REPAIRING WORK FOR SUPER PASSAGE (Ch.-6.040 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.						
		Trough Side wall	2	15.00	0.45	1.5	20.25	Cum
		Trough Base Slab	1	15.00	2.40	0.35	12.60	Cum
		TOTAL					32.85	Cum

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
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.						
		Trough Side wall	2	15.00		1.50	45.00	Sqm
			2		0.45	1.50	1.35	Sqm
		Trough Base Slab	1	15.00		0.35	5.25	Sqm
			1		2.40	0.35	0.84	Sqm
		TOTAL					52.44	Sqm
3	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.						
			Quantity	Percent		Density		
		1.5 % Skin Reinforcement for Transition walls	32.85	1.50%	0.49	7850	3868.09	Kg
		TOTAL Weight of steel (in kg)					3868.09	Kg
		TOTAL Weight of Steel (in Tonne)					3.87	MT
QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-6.470 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.						
			1				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	3.50		2.09	14.63	Sqm
		TOTAL					14.63	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	3.50		2.09	14.63	Sqm
		TOTAL					14.63	Sqm
QUANTITIES OF REPAIRING WORK FOR SUPER PASSAGE (Ch.-6.630Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR SUPER PASSAGE (Ch.-6.925Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR SUPER PASSAGE (Ch.-7.370Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-7.445Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR SUPER PASSAGE (Ch.-7.590Km)								
1	5.1.3	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

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
QUANTITIES OF REPAIRING WORK FOR SUPER PASSAGE (Ch.-7.755 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				140.00	Sqm
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-7.950 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR SUPER PASSAGE (Ch.-8.290Km)								
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.						
		Trough Side wall	2	12.00	0.35	1.5	12.60	Cum
		Trough Base Slab	1	12.00	2.20	0.35	9.24	Cum
		TOTAL					21.84	Cum
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.						
		Trough Side wall	2	12.00		1.50	36.00	Sqm
			2		0.35	1.50	1.05	Sqm
		Trough Base Slab	1	12.00		0.35	4.20	Sqm
			1		2.20	0.35	0.77	Sqm
		TOTAL					42.02	Sqm
3	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.						
			Quantity	Percent		Density		
		1.5 % Skin Reinforcement for Transition walls	21.84	1.50%	0.33	7850	2571.66	Kg
		TOTAL Weight of steel (in kg)					2571.66	Kg
		TOTAL Weight of Steel (in Tonne)					2.57	MT
QUANTITIES OF REPAIRING WORK FOR SUPER PASSAGE (Ch.-8.825Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR SUPER PASSAGE (Ch.-9.660 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.						
		Trough Side wall	2	12.00	0.45	1.5	16.20	Cum
		Trough Base Slab	1	12.00	2.40	0.35	10.08	Cum
		Abutment	1	3.00	0.60	2	3.60	Cum

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		TOTAL					29.88	Cum
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.						
		Trough Side wall	2	12.00		1.50	36.00	Sqm
			2		0.45	1.50	1.35	Sqm
		Trough Base Slab	1	12.00		0.35	4.20	Sqm
			1		2.40	0.35	0.84	Sqm
		Abutment	2	3.00		2.00	12.00	Sqm
			2		0.60	2.00	2.40	Sqm
		TOTAL					56.79	Sqm
3	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.						
		Quantity	Percent		Density			
		1.5 % Skin Reinforcement for Transition walls	29.88	1.50%	0.45	7850	3518.37	Kg
		TOTAL Weight of steel (in kg)					3518.37	Kg
		TOTAL Weight of Steel (in Tonne)					3.52	MT
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-9.715 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.						
			1				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	4.50		1.45	13.05	Sqm
		TOTAL					13.05	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	2	4.50		1.45	13.05	Sqm
		TOTAL					13.05	Sqm
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-10.520 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR SUPER PASSAGE (Ch.-10.895 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.						
		Trough Side wall	2	5.00	0.35	1.5	5.25	Cum
		Trough Base Slab	1	5.00	2.20	0.35	3.85	Cum
		TOTAL					9.10	Cum

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
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.						
		Trough Side wall	2	5.00		1.50	15.00	Sqm
			2		0.35	1.50	1.05	Sqm
		Trough Base Slab	1	5.00		0.35	1.75	Sqm
			1		2.20	0.35	0.77	Sqm
		TOTAL					18.57	Sqm
3	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.						
			Quantity	Percent		Density		
		1.5 % Skin Reinforcement for Transition walls	9.10	1.50%	0.14	7850	1071.53	Kg
		TOTAL Weight of steel (in kg)					1071.53	Kg
		TOTAL Weight of Steel (in Tonne)					1.07	MT
QUANTITIES OF REPAIRING WORK FOR SUPER PASAGE (Ch.-11.230Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-11.740 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-13.040 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.						
		Parapet Wall	2	12	0.25	0.92	5.52	Cum
		TOTAL					5.52	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	12.00		2.09	50.16	Sqm
		TOTAL					50.16	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	12.00		2.09	50.16	Sqm
		TOTAL					50.16	Sqm
QUANTITIES OF REPAIRING WORK FOR RAILWAY LINE (Ch.-13.460 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-15.740 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 royalty as per specification and direction of E/I.						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		Parapet Wall	2	8	0.25	0.6	2.40	Cum
		TOTAL					2.40	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	2	8.00		1.45	23.20	Sqm
		TOTAL					23.20	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.						
		Parapet Wall	2	8.00		1.45	23.20	Sqm
		TOTAL					23.20	Sqm
QUANTITIES OF REPAIRING WORK FOR ROAD CROSSING (Ch.-15.930 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-16.235 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	3.50	0.80	0.61	1.71	Cum
		TOTAL					1.71	Cum
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.						
		D/S Floor	2	3.50		0.61	4.27	Sqm
			2		0.80	0.61	0.98	Sqm
		TOTAL					5.25	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-16.885 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR CULVERT (Ch.-17.520 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.						
		Parapet Wall	2	5	0.25	0.6	1.50	Cum
		TOTAL					1.50	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	5.00		1.45	14.50	Sqm
		TOTAL					14.50	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	2	5.00		1.45	14.50	Sqm
		TOTAL					14.50	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-17.800 Km)								
1		Structure requires no repair work.						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit	
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF SAHOKARMA MINOR									
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.305 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				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.							
		Wing wall U/S	2	1.50		3.25	9.75	Sqm	
		Abutment Side wall	2	6.00		3.25	39.00	Sqm	
		Abutment Side wall	1	2.00		3.25	6.50	Sqm	
		D/S abutment	1	5.00		3.25	16.25	Sqm	
		Wing wall D/S	2	3.00		3.25	19.50	Sqm	
		TOTAL						91.00	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.							
		Wing wall U/S	2	1.50		3.25	9.75	Sqm	
		Abutment Side wall	2	6.00		3.25	39.00	Sqm	
		Abutment Side wall	1	2.00		3.25	6.50	Sqm	
		D/S abutment	1	5.00		3.25	16.25	Sqm	
		Wing wall D/S	2	3.00		3.25	19.50	Sqm	
		TOTAL						91.00	Sqm
QUANTITIES OF REPAIRING WORK FOR PIPE CULVERT(Ch.-0.330 Km)									
1		Structure requires no repair work.							
QUANTITIES OF REPAIRING WORK FOR WELL TYPE FALL (Ch.-0.620 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	1	1.50	0.45	2.2	1.49	Cum	
		Abutment Side wall	1	6.00	0.45	2.2	5.94	Cum	
		Abutment Side wall	1	2.00	0.45	2.2	1.98	Cum	
		D/S abutment	1	5.00	0.45	2.2	4.95	Cum	
		Wing wall D/S	1	3.00	0.45	2.2	2.97	Cum	
		TOTAL						17.33	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-0.930Km)									
1	5.1.3	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	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite 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	2	1.50		5.25	15.75	Sqm	
		Abutment Side wall	2	5.00		5.25	52.50	Sqm	
		Abutment Side wall	1	2.00		5.25	10.50	Sqm	
		D/S abutment	1	4.00		5.25	21.00	Sqm	
		Wing wall D/S	2	2.50		5.25	26.25	Sqm	

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		TOTAL					126.00	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.						
		Wing wall U/S	2	1.50		5.25	15.75	Sqm
		Abutment Side wall	2	5.00		5.25	52.50	Sqm
		Abutment Side wall	1	2.00		5.25	10.50	Sqm
		D/S abutmnet	1	4.00		5.25	21.00	Sqm
		Wing wall D/S	2	2.50		5.25	26.25	Sqm
		TOTAL					126.00	Sqm
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-1.090Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR FALL(Ch.-1.400Km)								
1		Structure requires no repair work.						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF DHAMNI MINOR								
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-1.850Km)								
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	5.00	1.35	0.457	3.08	Cum
		TOTAL					3.08	Cum
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.						
		D/S Floor	2	5.00		0.46	4.57	Sqm
			2		1.35	0.46	1.23	Sqm
		TOTAL					5.80	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-2.150Km)								
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	5.00	1.32	0.304	2.01	Cum
		TOTAL					2.01	Cum
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.						
		D/S Floor	2	5.00		0.30	3.04	Sqm
			2		1.32	0.30	0.80	Sqm
		TOTAL					3.84	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-2.650 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				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.						
		Wing wall U/S	2	1.50		4.25	12.75	Sqm
		Abutment Side wall	2	5.00		4.25	42.50	Sqm
		Abutment Side wall	1	2.00		4.25	8.50	Sqm
		Wing wall D/S	2	2.00		4.25	17.00	Sqm
		TOTAL					80.75	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
		Wing wall U/S	2	1.50		4.25	12.75	Sqm
		Abutment Side wall	2	7.00		4.25	59.50	Sqm
		Abutment Side wall d/s	1	2.00		4.25	8.50	Sqm
		Wing wall D/S	2	2.00		4.25	17.00	Sqm
		TOTAL					97.75	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-3.050 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	4.50	1.05	0.153	0.72	Cum
		TOTAL					0.72	Cum
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.						
		D/S Floor	2	4.50		0.15	1.38	Sqm
			2		1.05	0.15	0.32	Sqm
		TOTAL					1.70	Sqm

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF BHADWA MINOR								
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-0.315 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-0.935 Km)								
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	4.50		1.45	13.05	Sqm
		TOTAL					13.05	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	2	4.50		1.45	13.05	Sqm
		TOTAL					13.05	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-1.460 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
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	2	1.50		4.25	12.75	Sqm
		Abutment Side wall U/S	2	4.00		4.25	34.00	Sqm
		Abutment Side wall D/S	1	2.00		4.25	8.50	Sqm
		Wing wall D/S	2	1.50		4.25	12.75	Sqm
		TOTAL					68.00	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.						
		Wing wall U/S	2	1.50		4.25	12.75	Sqm
		Abutment Side wall U/S	2	4.00		4.25	34.00	Sqm
		Abutment Side wall D/S	1	2.00		4.25	8.50	Sqm
		Wing wall D/S	2	1.50		4.25	12.75	Sqm
		TOTAL					68.00	Sqm
QUANTITIES OF REPAIRING WORK FOR BRIDGE(Ch.-1.550 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	6.00		2.09	25.08	Sqm
		TOTAL					25.08	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	2	1.50		2.09	6.27	Sqm
		TOTAL					6.27	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-1.910Km)								

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				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.						
		Wing wall U/S	2	1.50		6.25	18.75	Sqm
		Abutment Side wall U/S	2	5.00		6.25	62.50	Sqm
		Abutment Side wall D/S	1	2.00		6.25	12.50	Sqm
		Wing wall D/S	2	2.00		6.25	25.00	Sqm
		TOTAL					118.75	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	2	1.50		6.25	18.75	Sqm
		Abutment Side wall U/S	2	5.00		6.25	62.50	Sqm
		Abutment Side wall D/S	1	2.00		6.25	12.50	Sqm
		Wing wall D/S	2	2.00		6.25	25.00	Sqm
		TOTAL					118.75	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-2.170 Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-2.305Km)								
1		Structure requires no repair work.						
QUANTITIES OF REPAIRING WORK FOR BRIDGE (Ch.-2.440Km)								
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.						
		Parapet Wall	2	5	0.25	0.6	1.50	Cum
		TOTAL					1.50	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	5.00		1.45	14.50	Sqm
		TOTAL					14.50	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		1.45	14.50	Sqm
		TOTAL					14.50	Sqm
QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-2.690 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.						
		<i>D/S Floor</i>	1	4.50	0.90	0.305	1.24	Cum
		TOTAL					1.24	Cum
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.						
		<i>D/S Floor</i>	2	4.50		0.31	2.75	Sqm
			2		0.90	0.31	0.55	Sqm
		TOTAL					3.29	Sqm

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.	2755.8335
3	Cost of miscellaneous material like electrodes,oxygen, acetylene nut bolt, rope as per site conditions, etc 65 % of (A)	Rs.	35825.8355
	<i>Total 1+2+3= (B) =</i>	Rs.	93698.339
4	Labour charge 30%(B) =	Rs.	28109.5017
5	Overhead charge + Contractor profit @15% A	Rs.	8267.5005
6	Workshop and energy charge , 12 % of (B)	Rs.	11243.80068
7	Transportation and erection charge , 15 % of B	Rs.	14054.75085
	<i>Total = B+4+5+6+7 = C</i>	Rs.	155373.8927
8	Other incidental charge , 3 % = of C	Rs.	4661.216782
	<i>Total C+8 = D</i>	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 & 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, scaffolding and its removal wherever 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. reinforcements 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.								
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			
		<i>Total</i>					1100.17			
		For 154 nos. outlet, Total Seigniorage charges					169426.65			

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, scaffolding and its removal wherever 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.	References 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 M²
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	SI-1
					Total	₹ 3,854.16	
		Add Overhead charge &c.P @ 15 %				₹ 578.12	
						₹ 4,432.28	
		Rate per Cum			Say, Rs	₹ 156.50	Per M³
	NOTE:-	Add royalty of earth Rs. 33.00 where needed without overhead charges & C.P.					

Sl. No.	References 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 M³
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 including 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 M³
5	5.1.22	Extra for wet earth all complete as per specifications and direction of E/I.					

Sl. No.	References 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	SI-1
		Add Overhead charge &C.P @ 15 %				₹ 63.60	
						₹ 487.60	
		Rate per Cum			Say, Rs	₹ 17.22	Per M³
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	SI-1
		Add extra wages of 1/2 no. unskilled labour per 28.32 m3	0.50	nos	424.00	₹ 212.00	SI-1
						₹ 4,066.16	
		Add Overhead charge &C.P @ 15 %				₹ 609.92	
						₹ 4,676.08	
					Say, Rs	₹ 165.12	Per M³
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.	References 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 M³
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.	References 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.	References 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.	References 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.	References 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 M³

Sl. No.	References 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.	References 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 M³
					Say, Rs	₹ 6,003.37	Per M³
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.	References 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.	References 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 m ³ 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.	References 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.	References 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.	References 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.	References 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, propping 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.	References 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, propping 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.	References 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	

Sl. No.	References SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		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
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

Sl. No.	References SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
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 M³
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 M³
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

Sl. No.	References SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		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	
		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

Sl. No.	References SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
	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
	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					

Sl. No.	References SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
		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	5.6	Providing 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 .					
	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

Sl. No.	References SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
23	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, scaffolding and its removal wherever 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 M³

Sl. No.	References SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
24	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 M³
25	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 M³

Sl. No.	References SOR No.	Description	Quantity	Unit	Rate	Amount	Ref
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 royalty 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 M³

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, unloading, 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 & technical specifications & as per clause 2705 of specifications.	NO.	5588.70
18	WRD SOR 2025 & PL 2025	WRD 5.3.22	Providing M.S. reinforcements 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.		
			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 foundation 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	<u>220.00</u>
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.	<u>6002.82</u>
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.	<u>7015.86</u>
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, scaffolding and its removal wherever 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	<u>499.80</u>
37	RCD 2025	RCD M-151	Providing RCC Pipe NP 4 heavy duty non pressure pipe 600 mm dia with spigot	RM	<u>2532.61</u>

38	WRD SOR 2025 & PL 2025	5.6.2.2	Providing 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 .	RM	711.27
39	WRD SOR 2025	M-126	Modular Strip/box seal expansion joint	RM	<u>36993.21</u>
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	<u>66.00</u>
41	RCD 2025	RCD M-148	Providing RCC Pipe NP 4 heavy duty non pressure pipe 900 mm dia with spigot	R.M.	<u>4849.67</u>
42	RCD 2025	13.08	Weepholes	No.	<u>152.60</u>
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 transporting to the embankment location within all lifts and lead upto 1000 m	Cum	<u>78.40</u>
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	<u>1044.90</u>
45	RCD 2025	14.01 C	RCC Grade M-30 using Batching plant, Transit Mixer and Concrete Pump	Cum	<u>6217.20</u>
46	RCD 2025	8.14	Kilometer Stone M-15	Nos.	<u>3853.40</u>

MATERIAL RATE:

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