

Sr.No.	Item	Rate	Unit
	Saharsa	2027.60	Per M <sup>2</sup>
	Purnea	2095.80	Per M <sup>2</sup>
	Gaya	1909.00	Per M <sup>2</sup>
	Saran	1920.30	Per M <sup>2</sup>
5.7.27	Providing brick block in designation 100 A bricks of size 600 x 600 x 300 mm duly pointed in cement mortar (1:3) with coarse sand of approved quality for staggered pitching over 150 mm dry khoa filter rammed to make the inter spaces closer, keeping the thickness intact. The inter spaces of blocks to be filled with coarse sand of approved quality including royalty and all taxes, complete job as per approved design, specifications and direction of E/I		
	Patna Urban	2314.40	Per M <sup>2</sup>
	Patna	2144.10	Per M <sup>2</sup>
	Muzaffarpur	2155.60	Per M <sup>2</sup>
	Darbhanga	2155.60	Per M <sup>2</sup>
	Bhagalpur	2150.40	Per M <sup>2</sup>
	Munger	2150.40	Per M <sup>2</sup>
	Saharsa	2178.80	Per M <sup>2</sup>
	Purnea	2225.50	Per M <sup>2</sup>
	Gaya	2092.70	Per M <sup>2</sup>
	Saran	2104.00	Per M <sup>2</sup>
5.7.28	Providing brick block in designation 100 A bricks of size 600 x 600 x 200 mm duly pointed in cement mortar (1:4) with coarse sand of approved quality for staggered pitching over 100 mm dry khoa filter rammed to make the inter spaces closer, keeping the thickness intact. The inter spaces of blocks to be filled with coarse sand of approved quality including royalty and all taxes, complete job as per approved design, specifications and direction of E/I		
	Patna Urban	1480.00	Per M <sup>2</sup>
	Patna	1313.80	Per M <sup>2</sup>
	Muzzaffarpur	1326.00	Per M <sup>2</sup>
	Darbhanga	1326.00	Per M <sup>2</sup>
	Bhagalpur	1323.00	Per M <sup>2</sup>
	Munger	1323.00	Per M <sup>2</sup>
	Saharsa	1348.80	Per M <sup>2</sup>
	Purnea	1394.20	Per M <sup>2</sup>
	Gaya	1271.10	Per M <sup>2</sup>
	Saran	1277.70	Per M <sup>2</sup>
5.7.29.1	Supplying fitting and packing jhawa bush wood Kans grass or local wood brush in bundle of 600 mm dia tied with coir string as per specification including loading, unloading, stacking and carriage upto 1 K.M. lead etc.all complete job as per approved design, specifications and direction of E/I	97.40	Per M <sup>3</sup>
5.7.29.2	Extra for carriage of jhankhi for subsequent K.M. beyond initial 1st K.M.by bullock cart.	11.50	Per K.M/ M <sup>3</sup>
5.7.30	Supplying palm leaves and fixing in position all complete job as per approved design, specifications and direction of E/I	257.60	Per % nos
5.7.31	Labour charge for making crates including cutting Taranga wire roll of suitable size from G.I. wire in 8 nos.including cutting the wire and tying the joints with binding wire and making square mesh of 100 mm to 150 mm double knotted with 6 to 10 S.W.G. wire as per approved design, specifications and direction of E/I	23.20	Per M <sup>2</sup>
5.7.32.A	(a).Labour charge for making crates box of size 3m x 1.5m x 0.6m including cutting of G.I wire or B.A wire, weaving of wire to make it Taranga wire having 150 mm square mesh with double knotte with 8 & 10 S.W.G. wire as per approved design, specifications and direction of E/I	129.60	Each

Sr.No.	Item	Rate	Unit
5.7.32.B	(a)Labour charge for making crates box size 3m x 1.5m x 0.6m including cutting of G.I wire or B.A.wire, weaving of wire to make it Taranga wire having 100 mm square mesh with double knotte with 8 & 10 S.W.G. wire as per approved design, specifications and direction of E/I	222.00	Each
5.7.32.C	(a).Labour charge for making crates box of size 3m x 1.5m x 0.75m including cutting of G.I wire or B.A wire, weaving of wire to make it Taranga wire having 150 mm square mesh with double knotte with 8 & 10 S.W.G. wire as per approved design, specifications and direction of E/I	142.60	Each
5.7.32.D	(a)Labour charge for making crates box size 3m x 1.5m x 0.75m including cutting of G.I wire or B.A.wire, weaving of wire to make it Taranga wire having 100 mm square mesh with double knotte with 8 & 10 S.W.G. wire as per approved design, specifications and direction of E/I	243.10	Each
5.7.33	(a)Labour charge for fitting and fixing empty coal tar drum sheets at piles in position with G.I. nails including cutting the coal tar drum and making it plain as per approved design, specifications and direction of E/I	119.30	Per M <sup>2</sup>
5.7.34	Supplying G.I wire crates of size 3 M x 1.5 M x 0.75 M and 100 mm square mesh made out of G.I wire 8 S.W.G. double knotte at each joints in box type etc. all complete as per approved design, specifications and direction of E/I	2603.00	Each
5.7.35.1	Supplying wire mesh crates of size 3 M x 1.5 M x 0.75 M and 100 mm square mesh made out of G.I wire 10 S.W.G. double knotte at each joints in box type etc. all complete as per approved design, specifications and direction of E/I	2252.20	Each
5.7.35.2	Supplying wire mesh crates of size 3 M x 1.5 M x 0.60 M and 100 mm square mesh made out of G.I wire 10 S.W.G. double knotte at each joints in box type etc. all complete as per approved design, specifications and direction of E/I	2035.00	Each
5.7.36.1	Supplying wire mesh crates of size 3M x 1.5 M x 0.75 M and 150 mm square mesh made out of G.I wire 10 S.W.G. double knotte at each joints in box type etc. all complete as per approved design, specifications and direction of E/I	1545.20	Each
5.7.36.2	Supplying wire mesh crates of size 3 M x 1.5 M x 0.60 M and 150 mm square mesh made out of G.I wire 10 S.W.G. double knotte at each joints in box type etc. all complete as per approved design, specifications and direction of E/I	1411.30	Each
5.7.37.1	Supplying wire mesh crates of size 3M x 1.5 M x 0.75 M and 100 mm square mesh made out of B.A.wire 10 S.W.G. double knotte at each joints in box type etc. all complete as per approved design, specifications and direction of E/I	2142.30	Each
5.7.37.2	Supplying wire mesh crates of size 3M x 1.5 M x 0.60 M and 100 mm square mesh made out of Black annealed wire 10 S.W.G. double knotte at each joints in box type etc. all complete as per approved design, specifications and direction of E/I	1935.90	Each
5.7.38.1	Supplying wire mesh crates of size 3 M x 1.5 M x 0.75 M and 150 mm square mesh made out of B.A.wire 10 S.W.G. double knotte at each joints in box type etc. all complete as per approved design, specifications and direction of E/I	1468.40	Each
5.7.38.2	Supplying wire mesh crates of size 3 M x 1.5 M x 0.60 M and 150 mm square mesh made out of Black annealed wire 10 S.W.G. double knotte at each joints in box type etc. all complete as per approved design, specifications and direction of E/I	1341.20	Each
5.7.39.1	Carriage of boulder and metals by boat including, loading, unloading and stacking with lead of 1 K.M.all complete as per approved design, specifications and direction of E/I	743.10	Per M <sup>3</sup>

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Sr.No.	Item	Rate	Unit
5.7.39.2	Extra for carriage of boulder and metals by boat including, loading, unloading and stacking beyond 1 K.M. but upto 4 K.M.all complete as per approved design, specifications and direction of E/I	38.60	Per K.M /M <sup>3</sup>
5.7.39.3	Carriage of Filled E.C Bags by boat including loading, unloading and stacking with lead of 1/2 K.M.all complete as per approved design, specifications and direction of E/I	990.80	Per % nos
5.7.40.1	Labour for filling empty cement bags with local sand, stitching the bags and placing including supply of sutli etc. all complete as per approved design, specifications and direction of E/I	1210.00	Per % nos
A.	Labour for filling empty cement bags with local sand, stitching the bags and stacking including supply of sutli etc. all complete as per, specifications and direction of E/I	492.20	Per % nos
B.	Labour for placing sand filled E.C . Bags all complete as per specifications and direction of E/I	717.80	Per % nos
5.7.40.2	Labour for filling empty cement bags with local sand, stitching the bags and placing in Nylon crate of size (1 m x 1 m x 1 m ) with a lead of 150 M including supply of sutli etc.in dry portion all complete as per approved design, specifications and direction of E/I	302.50	Each
5.7.40.3	Labour for filling empty cement bags with local sand, stitching the bags and placing in Nylon crate of size (1 m x 1 m x 1 m ) with a lead of 150 M including supply of sutli etc.and placing the filled crates in water portion within a lead 30 M , all complete as per approved design, specifications and direction of E/I	494.60	Each
5.7.41	Labour charge for taking out disturbed boulder from boulder pitching or riprap or rock toe etc. and cleaning the surface and stacking the same within a lead of 100 meter as per approved design, specifications and direction of E/I	253.50	Per M <sup>3</sup>
5.7.42	Labour charge for loading boulder and dumping etc. with all lead and lifts as per specifications and direction of E/I	253.50	Per M <sup>3</sup>
5.7.43	Labour rate for fitting and fixing sal bullah runner in vertical ballah in river bed or canal bed including cost of nails complete job as per specifications and direction of E/I	29.60	Per M
5.7.44	Earth work in cutting and making slope in all kinds of soil with all leads and lifts as per specifications and direction of E/I	60.30	Per M
5.7.45.1	Providing and Laying of a Geotextile filter between pitching and embankment slopes on which pitching is laid to prevent escape of the embankment materials through the voids of the stone pitching/cement concrete block as well as to allow free movement of water without creating any uplift head on the pitching as per specifications and direction of E/I	117.60	Per M
5.7.45.2	Laying of a Geotextile filter between pitching and embankment slopes on which pitching is laid to prevent escape of the embankment materials through the voids of the stone pitching/cement concrete block as well as to allow free movement of water without creating any uplift head on the pitching as per specifications and direction of E/I	10.70	Per M
5.7.46(a)	Supplying and Placing bamboo roll each roll of 4 nos uncleaned full bamboo 75 mm dia 6 m to 8 m long at site binding properly each other in bunch with Annealed wire 20 to 25 SWG at least at three places along its length, 3 nos loads filled with boulder in empty cement bags and tying it with B.A .Wire 8 to 10 SWG launching in river and placing in position and tying the bamboo roll at one end at least 15 M away from river bank to baboo post , including Piling of baboo post ,including all taxes and royalty etc and carriage of all materials at site all complete job as per specifications and direction of E/I	#VALUE!	Each

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



Sr.No.	Item	Rate	Unit
5.7.46(b)	Supplying and Placing bamboo roll each roll of 4 nos uncleaned full bamboo 75 mm dia 6 m to 8 m long at site binding properly each other in bunch with Annealed wire 20 to 25 at least at three places along its length, 3 nos loads filled with brick(100B) in empty cement bags and tying it with B.A .Wire 8 to 10 SWG launching in river and placing in position and tying the bamboo roll at one end at least 15 M away from river bank to baboo post , including Piling of baboo post ,including all taxes and royalty etc and carriage of all materials at site all complete job as per specifications and direction of E/I		
	Patna Urban	#VALUE!	Each
	Patna	Input	Each
	Muzzafferpur	Input	Each
	Darbhanga	Input	Each
	Bhagalpur	Input	Each
	Munger	Input	Each
	Saharsa	Input	Each
	Purnea	Input	Each
	Gaya	Input	Each
	Saran	Input	Each
5.7.46(c)	Supplying and Placing bamboo roll each roll of 4 nos uncleaned full bamboo 75 mm dia 6 m to 8 m long at site binding properly each other in bunch with Annealed wire 20 to 25 SWG at least at three places along its length, 3 nos loads filled with Local sand in empty cement bags and tying it with G.I .Wire 8 to 10 SWG launching in river and placing in position and tying the bamboo roll at one end at least 15 M away from river bank to baboo post , including Piling, including Piling of baboo post ,including all taxes and royalty etc and carriage of all materials at site all complete job as per specifications and direction of E/I	#VALUE!	Each
5.7.47(a)	Supplying making and Placing in position Tree branches and Jhankhi covering over all space of about of 2.832 M <sup>3</sup> providing 3 nos of loads by filling Boulder spall in E.C bags, tying with 20 to 25 SWG Annealed wire to the tree spur and anchoring the same with B.A .Wire 8 to 10 SWG to the bamboo post at least 15 M away from the river bank, including Piling of baboo post ,including all taxes and royalty etc and carriage of all materials at site all complete job as per specifications and direction of E/I	#VALUE!	Each
5.7.47(b)	Supplying making and Placing in position Tree branches and Jhankhi covering over all space of about of 2.832 M <sup>3</sup> providing 3 nos of loads by filling Bricks (100B) in E.C bags, tying with 20 to 25 SWG Annealed wire to the tree spur and anchoring the same with B.A .Wire 8 to 10 SWG to the bamboo post at least 15 M away from the river bank, including Piling of baboo post ,including all taxes and royalty etc and carriage of all materials at site all complete job as per specifications and direction of E/I		
	Patna Urban	#VALUE!	Each
	Patna	Input	Each
	Muzzafferpur	Input	Each
	Darbhanga	Input	Each
	Bhagalpur	Input	Each
	Munger	Input	Each
	Saharsa	Input	Each
	Purnea	Input	Each
	Gaya	Input	Each
	Saran	Input	Each

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Sr.No.	Item	Rate	Unit
5.7.47(c)	Supplying making and Placing in position Tree branches and Jhankhi covering over all space of about of 2.832 M <sup>3</sup> providing 3 nos of loads by filling Local sand in E.C bags, tying with 20 to 25 SWG Annealed wire to the tree spur and anchoring the same with B.A .Wire 8 to 10 SWG to the bamboo post at least 15 M away from the river bank, including Piling of baboo post ,including all taxes and royalty etc and carriage of all materials at site all complete job as per specifications and direction of E/I	#VALUE!	Each
5.7.48	Providing , laying and filling Geo bags of size 1mx0.7m (Type A 300 GSM nonwoven) weight of bag 420 gm,volume of filled bag 0.07 cum, weight of filled Geo bag 126 kg with local sand including stitching in four lines by approved nylon thred with stiching machine and generator, stacking and placing in gabion of size 1.8mx1.8mx0.5m (18nos. Geo bags per gabion) after loading,unloading and carriage with the help of trolley within 150m lead including cess all complete as per specification and direction of E/I	5188.00	Each
5.7.49	Supply of New bag and N.C with labour for filling New E.C bag with local sand (volume of filled bag 1.2 cft and weight 50kg),stiching on two lines by approved nylon thread with stiching machine & generator,Stacking the bags and placing in Nylon crate of size (1mx1mx1m) with a lead of 150m including supply of nylon threads etc , placing the filled crates in water portion within a lead of 30m,all complete as per approved design,specification and direction of E/I.	1054.70	Each
5.7.50	Providing,laying & filling Geo bags of size 1mX0.7m (Type A 300GSM nonwoven) Weight 420gm,volume of filled bag 0.07 cum,weight of filledf Geo bag 126kg with local sand including stitching in four lines by approved Nylon thread with stiching machine and generator,stacking and placing after loading,unloading and carriage with the help of Trolly within 150m lead and boat,including cess all complete as per specification and direction of E/I( where boat is used)	187.70	Each
5.7.51	Providing,laying & filling Geo bags of size 1mX0.7m (Type A 300GSM nonwoven) Weight 420gm,volume of filled bag 0.07 cum,weight of filledf Geo bag 126kg with local sand including stitching in four lines by approved Nylon thread with stiching machine and generator,stacking and placing in Nylon Crate of size 1.0mx1.0mx1.0m( 6 nos. geo bag per N.C) after loading,unloading and carriage with the help of Trolly within 150m lead ,including cess, all complete as per specification and direction of E/I( where boat is used)	1029.60	Each
5.7.52	Supply of New bag and N.C with labour for filling New E.C bag with local sand (volume of filled bag 1.2 cft and weight 50kg),stiching on two lines by approved nylon thread with stiching machine & generator,Stacking the bags and placing in Nylon crate of size (1mx1mx1m) with a lead of 150m including supply of nylon threads etc , placing the filled crates in dry portion within a lead of 30m,all complete as per approved design,specification and direction of E/I.	862.60	Each
5.7.53	Supply of New bag with labour for filling New E.C bag with local sand (volume of filled bag 1.2 cft and weight 50kg),stiching on two lines by approved nylon thread with stiching machine & generator,Stacking the bags and placing with a lead of 150m including supply of nylon threads etc ,all complete as per approved design,specification and direction of E/I.	32.80	Each
5.7.54	Providing,laying & filling Geo bags of size 1mX0.7m (Type A 300GSM nonwoven) Weight 420gm,volume of filled bag 0.07 cum,weight of filledf Geo bag 126kg with local sand including stitching in four lines by approved Nylon thread with stiching machine and generator,stacking and placing after loading,unloading and carriage with the help of Trolly within 150m lead ,including cess, all complete as per specification and direction of E/I.	164.40	Each

## 5.7 PITCHING AND PILING

Sl.no	Description	Quantity	Unit	Rate	Amount	
5.7.1	Labour for making 150 mm to 200 mm dia Sal ballah piles including cutting to size and dressing, making shoes for driving etc.all complete as per specification and direction of E/I.					
	Unit :-Per Pile					
	Taking Out put =10 Piles					
	<b>Labour</b>					
	Carpenter Gr II	0.5	nos	249.00	124.50	
					124.50	
	Add Overhead charge & C.P@15%				18.68	
					143.18	
	Add 1% Cess				1.43	
					144.61	14.46
	Say Rs			14.50	Per pile	
5.7.2	Providing two coats of coal tar painting over 150 mm to 200 mm dia Sal ballah piles and labour for driving it below ground level up to 5 metre including cost of all tools and plants required for the job all complete as per specification and direction of E / I.					
	Unit :-Per M					
	Taking Out put =30.5 M					
	<b>Materials</b>					
	Coal tar	9	Kg	37.01	333.11	
	<b>Labour</b>					
	Unskilled mazdoor	18	nos	206.00	3708.00	
	Mate	1	nos	225.00	225.00	
					4266.114	
	Add Overhead charge & C.P@15%				639.92	
					4906.03	
	Add 1% Cess				49.06	
					4955.09	162.46
	Say Rs			162.50	Per M	
5.7.3	Labour for fitting and fixing 100 mm to 150 mm dia sal ballah cross pieces 1350 mm length in position with 16 mm dia bolts, nuts and washers at each joints including the cost of bolts nuts and washers complete job as per specification and direction of E / I.					
	Unit :-Per M					
	Taking Out put =13.7 M					
	(Assuming 10 nos. of piles)					
	Total nos. of joints 2x10 =20 nos					
	Length of one cross pipe = 1.37 mtr					
	Hence total length 10 x 1.37 metre =13.7 mtr					
	<b>Materials</b>					
	Nuts and bolts 16 mm dia 375 mm long with washer etc.	20	nos	39.20	784.00	

	<b>Labour</b>					
	Carpenter Gr II	0.5	nos	249.00	124.50	
	Unskilled mazdoor	0.5	nos	206.00	103.00	
					1011.5	
	Add Overhead charge & C.P@15%				151.73	
					1163.23	
	Add 1% Cess				11.63	
					1174.86	85.76
		Say Rs		<b>85.80</b>	Per M	
5.7.4	Labour for fitting and fixing 150 mm dia sal ballah in position as back stay with 16 mm dia bolts, nuts and washers at each joints including the cost of bolts nuts and washers complete job as per specification and direction of E / I.					
	Unit :-Per M					
	Taking Out put =48.80 M					
	(Assuming 10 nos. of back stay each of 4.88 mt )					
	Total nos. of joints 3x10 =30 nos					
	Length of back stay including 2 % wastage =49.8 mtr					
	<b>Materials</b>					
	Nuts and bolts 16 mm dia 375 mm long with washer etc.	30	nos	39.20	1176	
	<b>Labour</b>					
	Carpenter Gr II	1	nos	249.00	249.00	
	Unskilled mazdoor	1	nos	206.00	206.00	
					1631	
	Add Overhead charge & C.P@15%				244.65	
					1875.65	
	Add 1% Cess				18.76	
					1894.41	38.82
		Say Rs		<b>38.80</b>	Per M	
5.7.5	Labour for fitting and fixing 100 mm to 150 mm dia sal ballah walling pieces with 16 mm dia bolts, nuts and washers at each joints including the cost of bolts nuts and washers complete job					
	Unit :-Per M					
	Taking Out put =6.10 M					
	(Assuming 6.10 mtr long walling pieces)					
	Total nos. of joints with vertical pile at 1.22 mtr = 6 nos.					
	<b>Materials</b>					
	Nuts and bolts 16 mm dia 375 mm long with washer etc.	6	nos	39.20	235.20	
	<b>Labour</b>					
	Carpenter Gr II	0.125	nos	249.00	31.13	
	Unskilled mazdoor	0.125	nos	206.00	25.75	
					292.075	
	Add Overhead charge & C.P@15%				43.81	
					335.89	
	Add 1% Cess				3.36	
					339.25	55.61
		Say Rs		<b>55.60</b>	Per M	





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

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5.7.6	Labour for fitting and fixing 150 mm to 200 mm dia sal ballah piles with two nos 16 mm dia 225 mm long nuts and washers including the cost of bolts nuts and washers complete job as per specification and direction of E / I.						
	Unit :-Per M						
	Taking Out put =10 Joints						
	(Assuming 10 joints )						
	<b>Materials</b>						
	Nuts and bolts 16 mm dia 225 mm long with washer etc.	20	nos	39.20	784.00		
	<b>Labour</b>						
	Carpenter Gr II	0.5	nos	249.00	124.50		
	Unskilled mazdoor	0.25	nos	206.00	51.50		
					960		
	Add Overhead charge & C.P@15%				144.00		
					1104.00		
	Add 1% Cess				11.04		
					1115.04	111.50	
	Say Rs			111.50	Per M		
5.7.7	Labour for cutting 62 mm to 75 mm dia bamboo piles to size and making shoes and driving etc. complete job as per specification and direction of E / I.						
	Unit :-Per M						
	Taking Out put =30.50M						
	(Assuming 20 nos. pile sunk 1.525 mtr deep )						
	Total depth sunk 30.50 meter						
	<b>Labour</b>						
	Carpenter Gr II	0.25	nos	249.00	62.25		
	Unskilled mazdoor for pilling	2.5	nos	206.00	515.00		
					577.25		
	Add Overhead charge & C.P@15%				86.59		
					663.84		
	Add 1% Cess				6.64		
					670.48	21.98	
	Say Rs			22.00	Per M		
5.7.8	Labour for fitting and fixing split bamboo woven chachari in position with 20 sg G.I. wire or 75 mm to 100 mm long nails alternatively including cost of G.I. wire or nails complete job as per specification and direction of E / I.						
	Unit :-Per Sqm						
	Taking Out put = 9.30 Sqm						
	(Assuming strip of 3.05x3.05 = 9.30 sqm )						
	<b>Materials</b>						
	75 mm to 100 mm long nails	0.25	Kg	64.41	16.10		
	<b>Labour</b>						
	Carpenter Gr II	1	nos	249.00	249.00		
	Unskilled mazdoor	1	nos	206.00	206.00		
					471.1025		
	Add Overhead charge & C.P@15%				70.67		
					541.77		
	Add 1% Cess				5.42		
					547.19	58.84	





		Say Rs		58.80	Per M <sup>2</sup>	
5.7.9	Labour for fitting and fixing 62mm to 75 mm dia bamboo runners in position at every vertical pile with 150 mm long nails or 38 swg G.I. wire including cost of G.I. wire or nails complete job as per specification and direction of E / I.					
		Unit :-Per M				
		Taking Out put =30.50M				
		<b>Materials</b>				
	Cost of 150 mm long nails	0.5	Kg	64.41	32.21	
		<b>Labour</b>				
	Carpenter Gr II	0.13	nos	249.00	32.37	
	Unskilled mazdoor	0.25	nos	206.00	51.5	
					116.075	
	Add Overhead charge & C.P@15%				17.41	
					133.49	
	Add 1% Cess				1.33	
					134.82	4.42
		Say Rs		4.40	Per M	
5.7.10	Providing two coats of coal tar painting over 150 mm to 200 mm dia Sal ballah piles and labour for driving it below ground level in running water upto complete job as per specification and direction of E/I. (Assuming 30.5 meter of piles)					
		Unit :-Per M				
		Taking Out put=30.50 M				
		<b>Materials</b>				
	Coal tar	9	Kg	37.01	333.11	
		<b>Labour</b>				
	Unskilled mazdoor	28	nos	206.00	5768.00	
	Mate	1	nos	225.00	225.00	
	Hire charge of 2 nos of boat of 40 quintal	2	nos	1616.00	3232.00	
					9558.11	
	Add Overhead charge & C.P@15%				1433.72	
					10991.83	
	Add 1% Cess				109.92	
					11101.75	363.99
		Say Rs		364.00	Per M	
5.7.11	Labour for fitting and fixing 75 mm dia sal ballah runners on sal ballah verticals including cost of nails or spikes for fixing the same complete job as per specification and direction of E / I.					
		Unit :-Per M				
		Taking Out put =30.50M				
		<b>Materials</b>				
	Cost of nails or spikes	2	Kg	64.41	128.82	
		<b>Labour</b>				
	Carpenter Gr II	0.75	nos	249.00	186.75	
	Unskilled mazdoor	0.75	nos	206.00	154.50	
					470.07	
	Add Overhead charge & C.P@15%				70.51	
					540.58	

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	Add 1% Cess				5.41	
					545.99	17.90
				Say Rs	17.90	Per M
5.7.12	Labour for fitting and fixing 75 mm but upto 150 mm dia sal ballah runners on sal ballah verticals including cost of nails or spikes for fixing the same complete job as per specification and direction of E / I.					
	Unit :-Per M					
	Taking Out put =30.50M					
	<b>Materials</b>					
	Cost of nails or spikes	4	Kg	64.41	257.64	
	<b>Labour</b>					
	Carpenter Gr II	1	nos	249.00	249.00	
	Unskilled mazdoor	1	nos	206.00	206.00	
					712.64	
	Add Overhead charge & C.P@15%				106.90	
					819.54	
	Add 1% Cess				8.20	
					827.73	27.14
				Say Rs	27.10	Per M
5.7.13	Labour for laying fine filter (Sand) or coarse dry graded filter either of jhama khoa or stone metal or stone chips under brick pitching or boulder pitching in slope and apron including light ramming etc.all complete job as per specification and direction of E / I.					
	Unit :-Per Cum					
	Taking Out put = 2.832 Cum					
	Unskilled mazdoor	3	nos	206.00	618.00	
					618.00	
	Add Overhead charge & C.P@15%				92.70	
					710.70	
	Add 1% Cess				7.11	
					717.81	253.46
				Say Rs	253.50	Per M <sup>3</sup>
5.7.13(b)	Labour for laying River bed Material (30 % sand and 70% Quarry spall) including light ramming etc.all complete job as per specification and direction of E / I.					
	Unit :-Per Cum					
	Taking Out put =1 Cum					
	Unskilled mazdoor	0.75	nos	206.00	154.50	
					154.5	
	Add Overhead charge & C.P@15%				23.18	
					177.68	
	Add 1% Cess				1.78	
					179.45	179.45
				Say Rs	179.50	Per M <sup>3</sup>
5.7.14	Providing brick flat soling with designation 100A bricks joints filled with coarse sand of approved quality including royalty and all taxes, all complete as per approved design, specifications and direction of E/I					
	Unit :-Per Sqm					

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Taking Out put =9.30 Sqm					
<b>Materials</b>					
Bricks	300	per%0nos	7084.00	2125.20	
Local Sand	0.142	M <sup>3</sup>	122.70	17.42	
<b>Labours</b>					
Mason Gr II	0.50	nos	249.00	124.50	
Unskilled mazdoor	1.00	nos	206.00	206.00	
				2473.12	
Add Overhead charge & C.P15%				370.97	
				2844.09	
Add 1% Cess				28.44	
				2872.53	308.87
Say Rs			308.90	Per M <sup>2</sup>	
5.7.15	Providing brick on edge soling with designation 100A bricks joints filled with coarse sand of approved quality including royalty and all taxes, all complete as per approved design, specifications and direction of E/I				
Unit :-Per Sqm					
Taking Out put = 9.30 Sqm					
<b>Materials</b>					
Bricks	500	per%0nos	7084.00	3542.00	
Local Sand	0.283	M <sup>3</sup>	122.70	34.72	
<b>Labours</b>					
Mason Gr II	0.625	nos	249.00	155.63	
Unskilled mazdoor	1.25	nos	206.00	257.50	
				3989.85	
Add Overhead charge & C.P@15%				598.48	
				4588.33	
Add 1% Cess				45.88	
				4634.21	498.30
Say Rs			498.30	Per M <sup>2</sup>	
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 and all taxes, all complete as per approved design, specifications and direction of E/I				
Unit :-Per Sqm					
Taking Out put =9.30 Sqm					
<b>Materials</b>					
Bricks	800	per%0nos	7084.00	5667.20	
Local Sand	0.425	M <sup>3</sup>	122.70	52.15	
<b>Labours</b>					
Mason Gr II	1.125	nos	249.00	280.13	
Unskilled mazdoor	2.25	nos	206.00	463.50	
				6462.97	
Add Overhead charge & C.P@15%				969.45	
				7432.42	
Add 1% Cess				74.32	
				7506.74	807.18
Say Rs			807.20	Per M <sup>2</sup>	

5.7.17	Providing pitching work with designation 100A Bricks in panel two brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty and all taxes, all complete as per approved design, specifications and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	<b>Materials</b>					
	Bricks	1300	per%0nos	7084.00	9209.20	
	Local Sand	0.556	M <sup>3</sup>	122.70	68.22	
	<b>Labours</b>					
	Mason Gr II	2.000	nos	249.00	498.00	
	Unskilled mazdoor	4.50	nos	206.00	927.00	
					10702.42	
	Add Overhead charge & C.P@15%				1605.36	
					12307.78	
	Add 1% Cess				123.08	
					12430.86	1336.65
	Say Rs			<b>1336.70</b>	Per M <sup>2</sup>	
5.7.18.1	Labour charge for pitching work on apron slope of bank with stone boulder duly packed (Uncreated complete job ) materials within 150 m lead with all lifts, all complete as per approved design, specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Unskilled mazdoor for carrying and laying boulder	6	nos	206.00	1236.00	
	Mason Gr II	0.50	nos	249.00	124.50	
	Mate	0.25	nos	225.00	56.25	
	Stone dresser	0.25	nos	265.00	66.25	
					1483.00	
	Add Overhead charge & C.P@15%				222.45	
					1705.45	
	Add 1% Cess				17.05	
					1722.50	608.23
	Say Rs			<b>608.20</b>	Per M <sup>3</sup>	
5.7.18.2	Labour charge for pitching work on apron slope of bank with stone boulder duly packed (Uncreated complete job ) materials within 50 m lead with all lifts, all complete as per approved design, specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put = 2.832 Cum					
	Unskilled mazdoor for carrying and laying boulder	2	nos	206.00	412.00	
	Mason Gr II	0.50	nos	249.00	124.50	
	Mate	0.25	nos	225.00	56.25	
	Stone dresser	0.25	nos	265.00	66.25	
					659.00	
	Add Overhead charge & C.P@15%				98.85	
					757.85	

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





				2095.13	739.80
			Say Rs	739.80	Per M <sup>3</sup>
5.7.21.2	Labour charge for pitching above water in apron and slope of bank with boulder in crates of specified size ( material within 50 mtr lead and all lifts ) including boxing and tying the crates with 12 to 14 gauge G.I wire including cost of G.I wire all complete as per approved design, specifications and direction of E/I				
	Unit :-Per Sqm				
	Taking Out put = 2.832 Cum				
	Skilled mazdoor	1.00	nos	262.00	262.00
	Unskilled mazdoor	2.00	nos	206.00	412.00
	Black smith Gr II	0.25	nos	249.00	62.25
	Stone dresser	0.25	nos	265.00	66.25
	Mate	0.25	nos	225.00	56.25
	Cost of 12 to 14 gauge binding wire for binding crate	0.30	Kg	60.20	18.06
				876.81	
	Add Overhead charge & C.P@15%			131.52	
				1008.33	
	Add 1% Cess			10.08	
				1018.41	359.61
	Say Rs			359.60	Per M <sup>3</sup>
5.7.22	Labour charge for pitching under water in apron and slope of bank with boulder in crates of specified size ( material within 150 M lead and all lifts ) including boxing and tying the crates with 12 to 14 gauge G.I wire including cost of G.I wire all complete as per approved design, specifications and direction of E/I				
	Unit :-Per Cum				
	Taking Out put = 2.832 Cum				
	Skilled mazdoor	1	nos	262.00	262.00
	Unskilled mazdoor	6.50	nos	206.00	1339.00
	Black smith Gr II	0.25	nos	249.00	62.25
	Mate	0.25	nos	225.00	56.25
	Cost of 12 to 14 gauge binding wire for binding crate	0.30	Kg	60.20	18.06
	Hire charge of boat of 40 quintal capacity	2	hrs	1616.00	3232.00
				4969.56	
	Add Overhead charge & C.P@15%			745.43	
				5714.99	
	Add 1% Cess			57.15	
				5772.14	2038.19
	Say Rs			2038.20	Per M <sup>3</sup>
5.7.23	Labour charge for pitching under water in apron and slope with rubble having 600 mm to 300 mm size with all leads and lifts complete as per approved design, specifications and direction of E/I				
	Unit :-Per Cum				
	Taking Out put = 2.832 Cum				
	Skilled mazdoor	1	nos	262.00	262.00
	Unskilled mazdoor	8	nos	206.00	1648.00

	Stone dresser	0.25	nos	265.00	66.25	
	Mate	0.25	nos	225.00	56.25	
					2032.50	
	Add Overhead charge & C.P@15%				304.88	
					2337.38	
	Add 1% Cess				23.37	
					2360.75	833.60
				Say Rs	833.60	Per M <sup>3</sup>
5.7.24.1	Labour charge for pitching above water in apron and slope of bank with bricks packed in crates of specified size ( material within 150 mtr lead and all lifts ) including boxing and tying the crates with 12					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Skilled mazdoor	1	nos	262.00	262.00	
	Unskilled mazdoor	6.5	nos	206.00	1339.00	
	Black smith Gr II	0.25	nos	249.00	62.25	
	Mate	0.25	nos	225.00	56.25	
	Cost of 12 to 14 gauge binding wire for binding crate	0.30	Kg	60.20	18.06	
					1737.56	
	Add Overhead charge & C.P@15%				260.63	
					1998.19	
	Add 1% Cess				19.98	
					2018.18	712.63
				Say Rs	712.60	Per M <sup>3</sup>
5.7.24.2	Labour charge for pitching above water in apron and slope of bank with bricks packed in crates of specified size ( material within 50 M lead and all lifts ) including boxing and tying the crates with 12 to 14 gauge G.I wire including cost of G.I wire all complete as per approved design, specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Skilled mazdoor	1	nos	262.00	262.00	
	Unskilled mazdoor	2	nos	206.00	412.00	
	Black smith Gr II	0.25	nos	249.00	62.25	
	Mate	0.25	nos	225.00	56.25	
	Cost of 12 to 14 gauge binding wire for binding crate	0.30	Kg	60.20	18.06	
					810.56	
	Add Overhead charge & C.P@15%				121.58	
					932.14	
	Add 1% Cess				9.32	
					941.47	332.44
				Say Rs	332.40	Per M <sup>3</sup>
5.7.24.3	Extra for each lead of 30 M over the initial lead of 50 M (Boulder or Brick)as per approved design, specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					

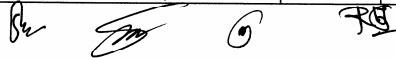
	Skilled mazdoor	1	nos	206.00	231.75	
	Add Overhead charge & C.P@15%				34.76	
					266.51	
	Add 1% Cess				2.67	
					269.18	95.05
				Say Rs	95.00	Per M <sup>3</sup>
5.7.25	Labour charge for pitching under water in apron and slope of bank with bricks packed in crates of specified size ( material within 150 mtr lead and all lifts ) including boxing and tying the crates with 12 to 14 gauge G.I wire including cost of G.I wire all complete as per approved design, specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Skilled mazdoor	1	nos	262.00	262.00	
	Unskilled mazdoor	7	nos	206.00	1442.00	
	Black smith Gr II	0.25	nos	249.00	62.25	
	Mate	0.25	nos	225.00	56.25	
	Cost of 12 to 14 gauge binding wire for binding crate	0.30	Kg	60.20	18.06	
	Hire charge of boat of 40 quintal capacity	2	hrs	1616.00	3232.00	
					5072.56	
	Add Overhead charge & C.P@15%				760.88	
					5833.44	
	Add 1% Cess				58.33	
					5891.78	2080.43
				Say Rs	2080.40	Per M <sup>3</sup>
5.7.26	Providing brick block in designation 100 A bricks of size 600 x 600 x 300 mm for pitching in cement mortar ( 1:3 ) with approved quality of sand of requisite F.M. over 150 mm dry khoa rammed to make the inter spaces closer, keeping the thickness intact including royalty and all taxes complete job as per approved design, specifications and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put = 9.30 Sqm					
	i. Rammed khoa					
	ii. Cost of rammed khoa before ramming (1.415+0.472) 40 mm to 50 mm size	1.887	M <sup>3</sup>	2075.56	3916.58	
	Unskilled mazdoor	2	nos	206.00	412.00	
	iii. 9.3 Sqm of block is equivalent to 2.832 cum of brick work in C.M (1:3 ). Cost of 2.832 cum of B.W. in C.M. ( 1:3 ) vide item no 5.4.1 (without O.H & C.P)	2.832	M <sup>3</sup>	4469.71	12658.22	
	Unskilled mazdoor for placing	4	nos	206.00	824.00	
					17810.80	
	Add Overhead charge & C.P@15%				2671.62	
					20482.42	
	Add 1% Cess				204.82	
					20687.25	2224.43
				Say Rs	2224.40	Per M <sup>2</sup>

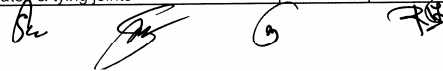
5.7.27	Providing brick block in designation 100 A bricks of size 600 x 600 x 300 mm duly pointed in cement mortar ( 1:3 ) with coarse sand of approved quality for staggered pitching over 150 mm dry khoa filter rammed to make the inter spaces closer, keeping the thickness intact. The inter spaces of blocks to be filled with coarse sand of approved quality including royalty and all taxes, complete job as per approved design, specifications and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	A. Cost of 2.832 cum brick block in C.M. ( 1:3 ) as item no.5.4.1 (without O.H & C.P)	2.832	M <sup>3</sup>	4469.71	12658.22	A
	B. Unskilled mazdoor carrying and placing in position	4	nos	206.00	824.00	B
	C. Cost of 150 mm graded jam filter sand packing					
	i. Jhama metal 20mm to 40mm	2.832	M <sup>3</sup>	1652.00	4678.46	
	ii. Sand	0.425	M <sup>3</sup>	145.10	61.67	
	iii. Unskilled mazdoor for packing	1.5	nos	206.00	309.00	
					5049.13	C
	Total (A+ B+C )				18531.35	
	Add Overhead charge & C.P @15% on (A+B+C)				2779.70	
					21311.05	
	Add 1% Cess				213.11	
					21524.16	2314.426
	Say Rs			2314.40	Per M <sup>2</sup>	
5.7.28	Providing brick block in designation 100 A bricks of size 600 x 600 x 200 mm duly pointed in cement mortar ( 1:4 ) with coarse sand of approved quality for staggered pitching over 100 mm dry khoa filter rammed to make the inter spaces closer, keeping the thickness intact. The inter spaces of blocks to be filled with coarse sand of approved quality including royalty and all taxes, complete job as per approved design, specifications and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	A. 9.3 sqm of block is equivalent to 1.887 cum of brick work in C.M (1:4). Cost of 1.887 cum of B.W. in C.M. ( 1:4 ) vide item no 5.4.2	1.887	M <sup>3</sup>	5013.60	9460.66	A
	B. Unskilled mazdoor for carrying and placing	3	M <sup>3</sup>	206.00	618.00	B
	C. Cost of khoa	1.258	M <sup>3</sup>	2075.56	2611.05	
	Unskilled mazdoor for carrying and ramming	1.5	nos	206.00	309.00	
					2920.05	C
	D. Extra materials for setting the block in position					
	Cement	0.011	M <sup>3</sup>	8912.00	98.03	
	Sand	0.045	M <sup>3</sup>	145.10	6.53	
	Mason Gr II	0.25	nos	249.00	62.25	

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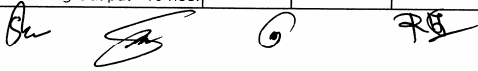
				166.81	D
	Sub-Total ( B+C+D )			3704.87	
	Add Overhead charge & C.P on (B+C+D)@15%			555.73	
				4260.60	
	Add 1% Cess			42.61	
				4303.20	E
	Grand Total (A+E)			13763.87	1479.99
		Say Rs		1480.00	Per M <sup>2</sup>
5.7.29.1	Supplying fitting and packing jaw bush wood ,Kans grass or local wood brush in bundle of 600 mm die tied with coir string as per specification including loading, unloading, stacking and carriage up to 1 K.M. lead etc.all complete job as per approved design, specifications and direction of E/I				
	Unit :-Per Cum				
	Taking Out put =2.832 Cum				
	<b>Materials</b>				
	1. Cost of 2.832 cum of Jhankhi				
	Carriage for 1 K .M lead				
	<b>Hire charge of bullock cart per day</b>	136.60	Rs		
	Taking lead of 1 km and speed 2 km per hour				
	Nos. of trips per day = $8/(2/S(L+3/4))$ =	4.56	trip		
	Cost per trip= Hire charges/4.56=136.6/4.56=	29.96	Rs		
	Assuming bullock cart capacity as jhawa bush wood	1.70	cum		
	Carriage cost per 2.832 cum				
	=Cost per trip x 2.832 /1.70			49.90	
	2. Cost of coir string	0.5	Kg	33.40	16.70
	<b>Labour</b>				
	Unskilled mazdoor for loading, unloading and placing	0.5	nos	206.00	103.00
	Unskilled mazdoor for cutting jhankhi	0.33	nos	206.00	67.98
					237.58
	Add Overhead charge & C.P.@15%				35.64
					273.22
	Add 1% Cess				2.73
					275.95
					97.44
		Say Rs		97.40	Per M <sup>3</sup>
5.7.29.2	Extra for carriage of jhankhi for subsequent K.M. beyond initial 1st K.M.by bullock cart.				
	Unit :-Per Km per Cum				
	Taking Out put =2.832 Cum				
	Assuming 5 K.M lead				
	Nos of trips per day= $8/(2/S(L+3/4))$ =	1.4	trip		
	<b>Hire charge of bullock cart per day</b>	136.60	Rs		
	Cost per trip= Hire charges/1.4=136.6/1.4=	97.57	Rs		
	Assuming bullock cart capacity as jhawa bush wood	1.7	cum		
	Carriage cost for 5 K.M lead = Cost per trip x 2.832 /1.70			162.54	162.54
	Hence rate for each subsequent K.M. beyond 1 k.m				
	(Carriage cost for 5 k.m-Carriage cost for 1 k.m)/4*2.832				9.94







	Add Overhead charge & C.P@15%				1.49	
					11.43	
	Add 1% Cess				0.11	
					11.55	11.55
	Say Rs			11.50		r K.M Per M <sup>3</sup>
5.7.30	Supplying palm leaves and fixing in position all complete job as per approved design, specifications and direction of E/I					
	Unit :-Per 100 Nos					
	<b>Materials</b>					
	Supplying palm leaves 100 nos				15.78	
	<b>Labour</b>					
	Unskilled mazdoor for fixing	1	nos	206.00	206.00	
					221.78	
	Add Overhead charge & C.P@15%				33.27	
					255.05	
	Add 1% Cess				2.55	
					257.60	257.60
	Say Rs			257.60		Per % nos
5.7.31	Labour charge for making crates including cutting taranga wire roll of suitable size from G.I. wire in 8 nos.including cutting the wire and tying the joints with binding wire and making square mesh of 100 mm to 150 mm double knotted with 8 to 10 S.W.G. wire as per approved design, specifications and direction of E/I					
	<b>Vide T.E.C No 67 dated 26.6.90</b>					
	Unit :-Per Sqm					
	Taking Out put =55.76 Sqm					
	<b>Labour</b>					
	Black smith Gr II	2	nos	249.00	498.00	
	Unskilled mazdoor as Helper	2	nos	206.00	412.00	
	Unskilled mazdoor for tying joints	1	nos	206.00	206.00	
					1116.00	
	Add Overhead charge & C.P@15%				167.40	
					1283.40	
	Add 1% Cess				12.83	
					1296.23	23.25
	Say Rs			23.20		Per M <sup>2</sup>
5.7.32.A	(a).Labour charge for making crates box of size 3m x 1.5m x 0.6m including cutting of G.I wire or B.A wire, weaving of wire to make it taranga wire having 150 mm square mesh with double knot with 8 & 10 S.W.G. wire as per approved design, specifications and direction of E/I					
	<b>As per T.E.C.letter no 33 dated 8.4.06 )</b>					
	Unit :-Each					
	Taking Out put =10 nos.					
	<b>Labour</b>					
	Black smith Gr II for weaving the wire roll for cutting the taragana wire to size	2	nos	249.00	498.00	
	Unskilled mazdoor for weaving the wire, as helper in making crates & tying joints	3	nos	206.00	618.00	







				1116.00	111.60
	Add Overhead charge & C.P@15%			167.40	
				1283.40	
	Add 1% Cess			12.83	
				1296.23	129.62
	Say Rs		129.60		Each
5.7.32.B	(a) Labour charge for making crates box size 3m x 1.5m x 0.6m including cutting of G.I wire or B.A.wire, weaving of wire to make it taranga wire having 100 mm square mesh with double knot with 8 & 10 S.W.G. wire as per approved design, specifications and direction of E/I				
	<b>As per T.E.C.letter no 33 dated 8.4.06 )</b>				
	Unit :-Each				
	Taking Out put =10 nos.				
	<b>Labour</b>				
	Black smith Gr II for weaving the wire roll for cutting the taragana wire to size	4.2	nos	249.00	1045.80
	Unskilled mazdoor for weaving the wire,as helper in making creates & tying joints	4.2	nos	206.00	865.20
				1911.00	191.1
	Add Overhead charge & C.P@15%			286.65	
				2197.65	
	Add 1% Cess			21.98	
				2219.63	221.96
	Say Rs		222.00		Each
5.7.32.C	(a) Labour charge for making crates box of size 3m x 1.5m x 0.75m including cutting of G.I wire or B.A wire, weaving of wire to make it taranga wire having 150 mm square mesh with double knot with 8 & 10 S.W.G. wire as per approved design, specifications and direction of E/I				
	<b>As per T.E.C.letter no 33 dated 8.4.06 )</b>				
	Unit :-each				
	Taking Out put =10 nos.				
	<b>Labour</b>				
	Black smith Gr II for weaving the wire roll for cutting the taragana wire to size	2.2	nos	249.00	547.80
	Unskilled mazdoor for weaving the wire, as helper in making creates & tying joints	3.3	nos	206.00	679.80
				1227.60	122.76
	Add Overhead charge & C.P@15%			184.14	
				1411.74	
	Add 1% Cess			14.12	
				1425.86	142.59
	Say Rs		142.60		Each
5.7.32.D	(a) Labour charge for making crates box size 3m x 1.5m x 0.75m including cutting of G.I wire or B.A.wire, weaving of wire to make it taranga wire having 100 mm square mesh with double knot with 8 & 10 S.W.G. wire as per approved design, specifications and direction of E/I				
	<b>As per T.E.C.letter no 33 dated 8.4.06 )</b>				
	Unit :-Each				
	Taking Out put =10 nos.				







	<b>Labour</b>					
	Black smith Gr II for weaving the wire roll for cutting the taragana wire to size	4.6	nos	249.00	1145.40	
	Unskilled mazdoor for weaving the wire, as helper in making crates & tying joints	4.6	nos	206.00	947.60	
					2093.00	209.3
	Add Overhead charge & C.P@15%				313.95	
					2406.95	
	Add 1% Cess				24.07	
					2431.02	243.10
	Say Rs			243.10	Each	
5.7.33	Supplying and Labour charge for fitting and fixing empty coal tar drum sheets at piles in position with G.I. nails including cutting the coal tar drum and making it plain as per approved design, specifications and direction of E/I					
	<b>As per T.E.C.letter no 11 dated 7.3.94 and 1(E) dt 3.2.93</b>					
	Unit :-Per Sqm					
	Taking Out put =10.76 Sqm					
	<b>Material</b>					
	Cola tar drum	6	nos	132.30	793.80	
	Nail and spike	0.4	Kg	64.41	25.76	
	<b>Labour</b>					
	Black smith Gr II	0.5	nos	249.00	124.50	
	Helper for cutting 12 drum and making plain	0.5	nos	220.00	110.00	
	Unskilled mazdoor for fitting and fixing drums	0.25	nos	206.00	51.50	
					1105.56	
	Add Overhead charge & C.P@15%				165.83	
					1271.40	
	Add 1% Cess				12.71	
					1284.11	119.34
				119.30	Per M <sup>2</sup>	
5.7.34	Supplying B.A wire crates of size 3 M x 1.5 M x 0.75M and 100 mm square mesh made out of G.I wire 8 S.W.G. double knot at each joints in box type etc. all complete as per approved design, specifications and direction of E/I					
	Unit :-Each					
	<b>Materials</b>					
	Cost of one M.T. of B.A. Wire of 8 S.W.G including carriage	1	M.T	64000.00		
	Av nos of crate manufactured (30+33)/2=31.5 nos	31.5	nos			
	Materials cost of one box=Cost of 1 M.T G.I wire/31.5				2031.75	
	<b>Labour</b>					
	Labour charge as item 5.7.32.D				209.30	
					2241.05	
	Add Overhead charge & C.P@15%				336.16	
					2577.20	
	Add 1% Cess				25.77	
					2602.97	2602.97
	Say Rs			2603.00	Each	

5.7.35.1	Supplying wire mesh crates of size 3 mtr x 1.5 mtr x 0.75 mtr and 100 mm square mesh made out of G.I wire 10 S.W.G. double knot at each joints in box type etc. all complete as per approved design, specifications and direction of E/I					
	<b>As per T.E.C.letter no 37 dated 30.4.06 )</b>					
	Unit :-Each					
	<b>Materials</b>					
	Cost of one M.T. of G.I Wire of 10 S.W.G					
	including carriage	1	M.T	64000.00		
	Av nos of crate manufactured 37 nos	37	nos			
	Materials cost of one box=Cost of 1 M.T G.I wire/37				1729.73	
	<b>Labour</b>					
	Labour charge as item 5.7.32.D				209.30	
					1939.03	
	Add Overhead charge & C.P@15%				290.85	
					2229.88	
	Add 1% Cess				22.30	
					2252.18	2252.18
	Say Rs			2252.20	Each	
5.7.35.2	Supplying wire mesh crates of size 3 M x 1.5 M x 0.60 M and 100 mm square mesh made out of G.I wire 10 S.W.G. double knot at each joints in box type etc. all complete as per approved design, specifications and direction of E/I					
	<b>As per T.E.C.letter no 37 dated 30.4.06 )</b>					
	Unit :-Each					
	<b>Materials</b>					
	Cost of one M.T. of G.I Wire of 10 S.W.G					
	including carriage	1	M.T	64000.00		
	Av nos of crate manufactured 41 nos	41	nos			
	Materials cost of one box=Cost of 1 M.T G.I wire/41				1560.98	
	<b>Labour</b>					
	Labour charge as item 5.7.32.B				191.10	
					1752.08	
	Add Overhead charge & C.P@15%				262.81	
					2014.89	
	Add 1% Cess				20.15	
					2035.04	2035.04
	Say Rs			2035.00	Each	
5.7.36.1	Supplying wire mesh crates of size 3 M x 1.5 M x 0.75 M and 150 mm square mesh made out of G.I wire 10 S.W.G. double knot at each joints in box type etc. all complete as per approved design, specifications and direction of E/I					
	<b>As per T.E.C.letter no 37 dated 30.4.06 )</b>					
	Unit :-Each					
	<b>Materials</b>					
	Cost of one M.T. of G.I Wire of 10 S.W.G					
	including carriage	1	M.T	64000.00		
	Av nos of crate manufactured 53nos	53	nos			
	Materials cost of one box=Cost of 1 M.T G.I wire/53				1207.55	
	<b>Labour</b>					
	Labour charge as item 5.7.32.C				122.76	

					1330.31	
	Add Overhead charge & C.P@15%				199.55	
					1529.85	
	Add 1% Cess				15.30	
					1545.15	1545.15
	Say Rs			1545.20	Each	
5.7.36.2	Supplying wire mesh crates of size 3 M x 1.5 M x 0.60 M and 150 mm square mesh made out of G.I wire 10 S.W.G. double knot at each joints in box type etc. all complete as per approved design, specifications and direction of E/I					
	<b>As per T.E.C.letter no 37 dated 30.4.06 )</b>					
	Unit :-Each					
	<b>Materials</b>					
	Cost of one M.T. of G.I Wire of 10 S.W.G					
	including carriage	1	M.T	64000.00		
	Av nos of crate manufactured 58 nos	58	nos			
	Materials cost of one box=Cost of 1 M.T G.I wire/58				1103.45	
	<b>Labour</b>					
	Labour charge as item 5.7.32.A				111.60	
					1215.05	
	Add Overhead charge & C.P@15%				182.26	
					1397.31	
	Add 1% Cess				13.97	
					1411.28	1411.28
	Say Rs			1411.30	Each	
5.7.37.1	Supplying wire mesh crates of size 3 M x 1.5 M x 0.75 M and 100 mm square mesh made out of B.A.wire 10 S.W.G. double knot at each joints in box type etc. all complete as per approved design, specifications and direction of E/I					
	<b>As per T.E.C.letter no 37 dated 30.4.06 )</b>					
	Unit :-Each					
	<b>Materials</b>					
	Cost of one M.T. of B.A Wire of 10 S.W.G					
	including carriage	1	M.T	60500.00		
	Av nos of crate manufactured 37nos	37	nos			
	Materials cost of one box=Cost of 1 M.T G.I wire/37				1635.14	
	<b>Labour</b>					
	Labour charge as item 5.7.32.D				209.30	
					1844.44	
	Add Overhead charge & C.P@15%				276.67	
					2121.10	
	Add 1% Cess				21.21	
					2142.31	2142.31
	Say Rs			2142.30	Each	
5.7.37.2	Supplying wire mesh crates of size 3 M x 1.5 M x 0.60 M and 100 mm square mesh made out of Black annealed wire 10 S.W.G. double knot at each joints in box type etc. all complete as per approved design, specifications and direction of					
	<b>As per T.E.C.letter no 37 dated 30.4.06 )</b>					
	Unit :-Each					
	<b>Materials</b>					












5.7.39.1	Carriage of boulder and metals by boat including, loading, unloading and stacking with lead of 1 K.M.all complete as per approved design, specifications and direction of E/I					
	Unit :- Per Cum					
	Taking Out put =8.0 Cum					
	Assuming three trips per day by 40 quintal capacity boat boulder carried in each trip					
	100x40/42=95.2 cft					
	Total carried per day=3x95.2=285.6 cft=8.08cum					
	Say 8.00 cum					
	<b>Hire charge of 40 Qt Boat</b>	1	Day	<b>1616.00</b>	1616.00	
	Unskilled mazdoor for loading and unloading	17	nos	206.00	3502.00	
					5118.00	
	Add Overhead charge & C.P@15%				767.70	
					5885.70	
	Add 1% Cess				58.86	
					5944.56	743.07
	Say Rs			<b>743.10</b>	PerM <sup>3</sup>	
5.7.39.2	Extra for carriage of boulder and metals by boat including, loading, unloading and stacking beyond 1 K.M. but up to 4 K.M.,all complete as per approved design, specifications and direction of E/I					
	Unit :-Per Km per Cum					
	Taking Out put =5.39 Cum					
	Assuming 4 K.M lead two trips per day by 40 quintal capacity boat boulder carried in each trip					
	100x40/42=95.2 cft					
	Total carried per day=2x95.2=190.4 cft=5.39cum					
	Say 5.39 cum					
	<b>Hire charge of 40 Qt Boat</b>	1	Day	<b>1616.00</b>	1616.00	
	Unskilled mazdoor for loading and unloading	11.5	nos	206.00	2369.00	
					3985.00	
	Add Overhead charge & C.P@15%				597.75	
					4582.75	
	Add 1% Cess				45.83	
					4628.58	858.73
	Hence Rate per K.M per M <sup>3</sup> =					38.55
	(Rate vide item no 5.7.39.2 - Rate vide item no 5.7.39.1)/3	say,Rs.		<b>38.60</b>	Per K.M Per M3	
5.7.39.3	Carriage of Filled E.C Bags by boat including loading, unloading and stacking with lead of 1/2 K.M.all complete as per approved design, specifications and direction of E/I					
	Unit :- Per % nos.					
	Taking Out put =600 nos.					
	Assuming Six trips per day by 40 quintal Capacity of boat Filled E.C Bags carried in each trip					
	100 nos filled E.C Bags					
	Total carried per day=6 x100=600 nos					
	<b>Hire charge of 40 Qt Boat</b>	1	Day	<b>1616.00</b>	1616	
	Unskilled mazdoor for loading and unloading	17	nos	206.00	3502.00	
					5118.00	

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	Add Overhead charge & C.P@15%				767.70	
					5885.70	
	Add 1% Cess				58.86	
					5944.56	990.76
		Say Rs			990.80	Per % nos
5.7.40.1	Labour for filling empty cement bags with local sand, stitching the bags and placing including supply of sutli etc. all complete as per approved design, specifications and direction of E/I					
	Unit :-Per % nos					
	Taking Out put =100 nos					
	<b>(a)For filling &amp; stitching &amp; stacking</b>					
	Unskilled mazdoor for filling sand into bags and sewing	2	nos	206.00	412.00	
	Sutali	0.5	Kg	23.60	11.80	
					423.80	
	Add Overhead charge & C.P@15%				63.57	
					487.37	
	Add 1% Cess				4.87	
					492.24	
		say Rs.		492.20	Per % nos	(a)
	<b>(b)Labour rate for carrying &amp; placing filled E.C.Bags</b>					
	Unskilled mazdoor for carrying filled bags and placing to work site	3	nos	206.00	618.00	
	Add Overhead charge & C.P@15%				92.70	
					710.70	
	Add 1% Cess				7.11	
					717.81	
		say,Rs		717.80	Per % nos	(b)
	<b>Total (a+b)</b>			<b>1210.00</b>	Per % nos	
5.7.40.2	Labour for filling empty cement bags with local sand, stitching the bags and placing in Nylon crate of size (1 m x 1 m x 1 m ) with a lead of 150 M including supply of sutli etc. at site in dry portion all complete as per approved design, specifications and direction of E/I					
	Unit :-Each N.C					
	Taking Out put =25 nos filled E.C Bags in each N/C					
	Cost of 25 nos of filled E.C.Bag (vide item no 5.7.40.1)	25	nos	1210.00	302.5	302.5
		Say Rs		302.50	Each N.C	
5.7.40.3	Labour for filling empty cement bags with local sand, stitching the bags and placing in Nylon crate of size (1 m x 1 m x 1 m ) with a lead of 150 M including supply of sutli etc.and placing the filled crates in water portion within a lead 30 M , all complete as per approved design, specifications and direction of E/I					
	Unit :- Each N.C					
	(i) Labour Cost for filling bags in one Nylon crate in dry portion (vide item no 5.7.40.2)	1	nos	302.50	302.50	(i)
	(ii).Placing of filled N/C with 30 m lead in water Portion					

	a. Skilled mazdoor	1	No	262.00	262.00	
	b. Unskilled mazdoor	1	No	206.00	206.00	
	c. Mate	0.37	No	225.00	83.25	
					551.25	
	Add Overhead charge & C.P@15%				82.69	
					633.94	
	Add 1% Cess				6.34	
	Hence, Total Labour for 100cft				640.28	
	Taking one E.C.bags to contain 1.20 cft of Sand					
	Hence, labour rate for placing one filled N.C	192.08			192.08	(ii)
	Hence rate Per Nylon crate in water Portion( i+ii)				494.58	494.58
		Say	Rs	494.60	Each	
5.7.41	Labour charge for taking out disturbed boulder from boulder pitching or riprap or rock toe etc. and cleaning the surface and stacking the same within a lead of 100 metre as per approved design, specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	<b>Labour</b>					
	Unskilled mazdoor for picking and carrying	2.5	nos	206.00	515.00	
	Unskilled mazdoor for making stacking	0.5	nos	206.00	103.00	
					618.00	
	Add Overhead charge & C.P@15%				92.70	
					710.70	
	Add 1% Cess				7.11	
					717.81	253.46
		Say Rs		253.50	Per M <sup>3</sup>	
5.7.42	Labour charge for loading boulder and dumping etc. with all lead and lifts as per specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	<b>Labour</b>					
	Unskilled mazdoor for carriage and dumping boulder	3	nos	206.00	618.00	
	Add Overhead charge & C.P@15%				92.70	
					710.70	
	Add 1% Cess				7.11	
					717.81	253.46
		Say Rs		253.50	Per M <sup>3</sup>	
5.7.43	Labour rate for fitting and fixing sal ballah runner in vertical ballah in river bed or canal bed including cost of nails complete job as per specifications and direction of E/I					
	Unit :-Per M					
	Taking Out put =30.48 M					
	<b>Materials</b>					
	Cost of nails or spikes	5	Kg	64.41	322.05	
	<b>Labour</b>					
	Carpenter Gr II	1	nos	249.00	249.00	

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	Unskilled mazdoor	1	nos	206.00	206.00	
					777.05	
	Add Overhead charge & C.P@15%				116.56	
					893.61	
	Add 1% Cess				8.94	
					902.54	29.61
				Say Rs	29.60	Per M
5.7.44	Earth work in cutting and making slope in all kinds of soil with all leads and lifts as per specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put =28.32 Cum					
	<b>Labour</b>					
	Unskilled mazdoor for cutting earth	4	nos	206.00	824.00	
	Unskilled mazdoor for carrying earth and clod breaking and rough dressing of slope	3	nos	206.00	618.00	
	Mate	0.125	nos	225.00	28.13	
					1470.13	
	Add Overhead charge & C.P@15%				220.52	
					1690.64	
	Add 1% Cess				16.91	
					1707.55	60.29
				Say Rs	60.30	Per M <sup>3</sup>
5.7.45.1	Providing and Laying of a Geo-textile filter between pitching and embankment slopes on which pitching is laid to prevent escape of the embankment materials through the voids of the stone pitching/cement concrete block as well as to allow free movement of water without creating any uplift head on the pitching as per specifications and direction of E/I					
	Vide T.E.C. letter no 48 (e) dated 10.05.04					
	Unit :-Per Sqm					
	Taking Out put =10.0 Sqm					
	<b>Material</b>					
	Permeable synthetic Geotextile including 5 % for overlap and wastage	10.50	Sqm	87.00	919.80	
	<b>Labour</b>					
	Mate	0.02	nos	225.00	4.50	
	Unskilled mazdoor	0.30	nos	206.00	61.80	
	Skilled mazdoor	0.10	nos	262.00	26.20	
					1012.30	
	Add Overhead charge & C.P@15%				151.85	
					1164.15	
	Add 1% Cess				11.64	
					1175.79	117.58
				Say Rs	117.60	Per M <sup>2</sup>

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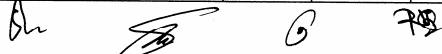
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5.7.45.2	Laying of a Geo-textile filter between pitching and embankment slopes on which pitching is laid to prevent escape of the embankment materials through the voids of the stone pitching/cement concrete block as well as to allow free movement of water without creating any uplift head on the pitching as per specifications and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put =10.0 Sqm					
	Mate	0.02	nos	225.00	4.50	
	Unskilled mazdoor	0.30	nos	206.00	61.80	
	Skilled mazdoor	0.10	nos	262.00	26.20	
					92.50	
	Add Overhead charge & C.P@15%				13.88	
					106.38	
	Add 1% Cess				1.06	
					107.44	10.74
	Say Rs			10.70	Per M <sup>2</sup>	
.7.46(a)	Supplying and Placing bamboo roll each roll of 4 nos uncleaned full bamboo 75 mm dia 6 m to 8 m long at site binding properly each other in bunch with Annealed wire 20 to 25 SWG at least at three places along its length, 3 nos loads filled with boulder in empty cement bags and tying it with B.A.Wire 8 to 10 SWG launching in river and placing in position and tying the bamboo roll at one end at least 15 M away from river bank to bamboo post, including Piling of bamboo post, including all taxes and royalty etc and carriage of all materials at site all complete job as per specifications and direction of E/I					
	Unit :- Each					
	<b>Materials</b>					
	Bamboo 75 mm dia 6 m to 8 m long	4.25	Nos	150.00	637.50	
	Annealed wire 20 to 25 SWG	0.5	Kg	60.50	30.25	
	B.A.Wire 8 to 10 SWG	1.13	Kg	#VALUE!	#VALUE!	Departmental
	E.C.bags	3	Nos	2.70	8.10	
	Boulder spall Taking compact volume 0.75 cft per bags	0.064	Cum	222.25	14.22	
	<b>Labour</b>					
	Unskilled labour for Tying and Placing etc.	0.5		206.00	103.00	
	Unskilled Laour for filling E.C.Bags	0.06		206.00	12.36	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
	Add 1% Cess				#VALUE!	
					#VALUE!	#VALUE!
	Say Rs			#VALUE!	Each	

.7.46(b)	Supplying and Placing bamboo roll each roll of 4 nos uncleaned full bamboo 75 mm dia 6 m to 8 m long at site binding properly each other in bunch with Annealed wire 20 to 25 at least at three places along its length, 3 nos loads filled with brick(100B) in empty cement bags and tying it with B.A. Wire 8 to 10 SWG launching in river and placing in position and tying the bamboo roll at one end at least 15 M away from river bank to bamboo post , including Piling of bamboo post ,including all taxes and royalty etc and carriage of all materials at site all complete job as per specifications and direction of E/I					
		Unit :- Each				
<b>Materials</b>						
	Bamboo 75 mm dia 6 m to 8 m long	4.25	Nos	150.00	637.50	
	Annealed wire 20 to 25 SWG	0.5	Kg	60.50	30.25	
	B.A.Wire 8 to 10 SWG	1.13	Kg	#VALUE!	#VALUE!	Departmental
	E.C.bags	3	Nos	2.7	8.10	
	Brick (100 B)	30	Nos	6.58	197.40	
<b>Labour</b>						
	Unskilled labour for Tying and Placing etc.	0.5	Cum	206.00	103.00	
	Unskilled Labour for filling E.C.Bags	0.06	Cum	206.00	12.36	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
	Add 1% Cess				#VALUE!	
					#VALUE!	#VALUE!
		Say Rs		#VALUE!	Each	
.7.46(c)	Supplying and Placing bamboo roll each roll of 4 nos uncleaned full bamboo 75 mm dia 6 m to 8 m long at site binding properly each other in bunch with Annealed wire 20 to 25 SWG at least at three places along its length, 3 nos loads filled with Local sand in empty cement bags and tying it with G.I. Wire 8 to 10 SWG launching in river and placing in position and tying the bamboo roll at one end at least 15 M away from river bank to bamboo post , including Piling, including Piling of bamboo post ,including all taxes and royalty etc and carriage of all materials at site all complete job as per specifications and direction of E/I					
		Unit :-Each				
Assuming one nos of bamboo roll						
<b>Materials</b>						
	Bamboo 75 mm dia 6 m to 8 m long	4.25	Nos	150.00	637.50	
	Annealed wire 20 to 25 SWG	0.5	Kg	60.50	30.25	
	B.A.Wire 8 to 10 SWG	1.13	Kg	INPUT	#VALUE!	Departmental
	E.C.bags	3	Nos	2.70	8.10	
	Local sand					
	Taking compact volume 0.75 cft per bags	0.064	Cum	122.70	7.85	
<b>Labour</b>						
	Unskilled labour for Tying and Placing etc.	0.5	Nos	206.00	103.00	



2.07





	Unskilled Labour for filling E.C.Bags	0.06	Nos	206.00	12.36	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
	Add 1% Cess				#VALUE!	
					#VALUE!	#VALUE!
	Say Rs			#VALUE!	Each	
7.47(a)	Supplying making and Placing in position Tree branches and Jhankhi covering over all space of about of 2.832 M <sup>3</sup> providing 3 nos of loads by filling Boulder spall in E.C bags, tying with 20 to 25 SWG Annealed wire to the tree spur and anchoring the same with B.A .Wire 8 to 10 SWG to the bamboo post at least 15 M away from the river bank, including Piling of bamboo post ,including all taxes and royalty etc and carriage of all materials at site all complete job as per specifications and direction of E/I					
	Unit :- Each					
	Assuming 10 nos. Tree branches					
	<b>Materials</b>					
	Cost of Tree branches of dia150 mm to 200 mm and 3 M to 4.5 M long with jhankhi covering the space of 100 cft in volume	10	Nos	#VALUE!	#VALUE!	
	Bamboo 75 mm dia 6 m to 8 m long	3.25	Nos	150.00	487.50	
	Annealed wire 20 to 25 SWG	1.5	Kg	60.50	90.75	
	B.A.Wire 8 to 10 SWG	11.30	Kg	INPUT	#VALUE!	Departmental
	E.C.bags	30	Nos	2.70	81.00	
	Boulder spall (compact volume)	0.64	Cum	222.25	142.24	
	<b>Labour</b>					
	Unskilled labour for Tying and Placing etc.	5		206.00	1030.00	
	Unskilled Labour for filling E.C.Bags	0.6		206.00	123.60	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
	Add 1% Cess				#VALUE!	
					#VALUE!	#VALUE!
	Say Rs			#VALUE!	Each	
7.47(b)	Supplying making and Placing in position Tree branches and Jhankhi covering over all space of about of 2.832 M <sup>3</sup> providing 3 nos of loads by filling Bricks (100B)in E.C bags, tying with 20 to 25 SWG Annealed wire to the tree spur and anchoring the same with B.A .Wire 8 to 10 SWG to the bamboo post at least 15 M away from the river bank, including Piling of bamboo post ,including all taxes and royalty etc and carriage of all materials at site all complete job as per specifications and direction of E/I					
	Unit :- Each					
	Assuming 10 nos Tree branches					
	<b>Materials</b>					
	Cost of Tree branches of dia150 mm to 200 mm and 3 M to 4.5 M long with jhankhi covering the space of 100 cft in volume	10	Nos	INPUT	#VALUE!	

*[Handwritten signatures and initials]*





	Bamboo 75 mm dia 6 m to 8 m long	3.25	Nos	150.00	487.50	
	Annealed wire 20 to 25 SWG	1.5	Kg	60.50	90.75	
	B.A.Wire 8 to 10 SWG	11.3	Kg	INPUT	#VALUE!	Departmental
	E.C.bags	30	Nos	2.70	81.00	
	Bricks(100B)	300	Nos	6.58	1974.00	
	<b>Labour</b>					
	Unskilled labour for Tying and Placing etc.	5		206.00	1030.00	
	Unskilled Labour for filling E.C.Bags	0.6		206.00	123.60	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
	Add 1% Cess				#VALUE!	
					#VALUE!	#VALUE!
				#VALUE!	Each	
.7.47(c)	Supplying making and Placing in position Tree branches and Jhankhi covering over all space of about of 2.832 M <sup>3</sup> providing 3 nos of loads by filling Local sand in E.C bags, tying with 20 to 25 SWG Annealed wire to the tree spur and anchoring the same with B.A .Wire 8 to 10 SWG to the bamboo post at least 15 M away from the river bank, including Piling of bamboo post ,including all taxes and royalty etc and carriage of all materials at site all complete job as per specifications and direction of E/I					
	Unit :- Each					
	Assuming 10 nos Tree branches					
	<b>Materials</b>					
	Cost of Tree branches of dia150 mm to 200 mm and 3 M to 4.5 M long with jhankhi covering the space of 100 cft in volume	10	Nos	INPUT	#VALUE!	
	Bamboo 75 mm dia 6 m to 8 m long	3.25	Nos	150.00	487.50	
	Annealed wire 20 to 25 SWG	1.5	Kg	60.50	90.75	
	B.A.Wire 8 to 10 SWG	11.3	Kg	INPUT	#VALUE!	Departmental
	E.C.bags	30	Nos	2.70	81.00	
	Local sand					
	Taking compact volume 0.75 cft per bags	0.64	Cum	122.70	78.53	
	<b>Labour</b>					
	Unskilled labour for Tying and Placing etc.	5		206.00	1030.00	
	Unskilled Labour for filling E.C.Bags	0.6		206.00	123.60	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
	Add 1% Cess				#VALUE!	
					#VALUE!	#VALUE!
				#VALUE!	Each	

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



5.7.48	Providing , laying and filling Geo bags of size 1mx0.7m (Type A 300 GSM nonwoven) weight of bag 420 gm,volume of filled bag 0.07 cum, weight of filled Geo bag 126 kg with local sand including stitching in four lines by approved nylon thred with stitching machine and generator, stacking and placing in gabion of size 1.8mx1.8mx0.5m (18nos. Geo bags per gabion) after loading,unloading and carriage with the help of trolley within 150m lead including cess all complete as per specification and direction of E/I					
	Unit Each bag					
	<b>A . Assuming out put of filling and stiching of 40 nos. of Geo Bags per day</b>					
	<b>Materials</b>					
	Stiching Roll(Nylon)	2	nos	30.00	60.00	
	<b>Labour</b>					
	Unskilled labour for filling,stacking	2	nos	206.00	412.00	
	Skilled labour for stacking	0.33	nos	262.00	86.46	
	Unskilled labour for carrying and placing	4	nos	206.00	824.00	
	Mate	0.25	nos	225.00	56.25	
	<b>Machine</b>					
	Hire charge of Stiching Machine	0.33	day	50.00	16.50	
	Hire Charge of manual Trolley	1	day	50.00	50.00	
	Hire charge of 3 KVA Generator	2.67	hrs	74.00	197.58	
	Total				1702.79	
	Add Overhead charge & C.P@15%				255.42	
					1958.21	
	Add 1% Cess				19.58	
					1977.79	
	Rate per bag=Total/40				49.44	
	Cost of filling & stiching of 18 nos of Geo bags	18	nos	49.44	890.01	<b>A</b>
	<b>B. Materials</b>					
	Geo Bag	18	nos	99.00	1782.00	
	Gabion	1	nos	1918.00	1918.00	
	Total				3700.00	
	Add Overhead charge & C.P@15%				555.00	
					4255.00	
	Add 1% cess				42.55	
					4297.55	<b>B</b>
	Total(A+B)				5187.56	
	Rate			Say,Rs	5188.00	Each
5.7.49	Supply of New bag and N.C with labour for filling New E.C bag with local sand (volume of filled bag 1.2 cft and weight 50kg),stiching on two lines by approved nylon thread with stitching machine & generator,Stacking the bags and placing in Nylon crate of size (1mx1mx1m) with a lead of 150m including supply of nylon threads etc , placing the filled crates in water portion within a lead of 30m,all complete as per approved design,specification and direction of E/I.					
	Unit- Each Bag					





	Taking output 100 nos. filled New bags in 4 nos N.C.								
	<b>Material</b>								
	New bag (volume of filled bag 1.2 cft)				100	each	15.00	1500.00	
	Nylon Crate(N.C)				4	each	37.00	148.00	
								1648.00	
	Add Overhead charge &C.P @15%							247.20	
								1895.20	
	Add 1% cess							18.95	
								1914.15	
	Rate of material per N.C.(25 bags per N.C)							478.54	<b>A</b>
	<b>Labour</b>								
	Unskilled mazdoor for filling sand,stiching&				1.67	nos	206.00	344.02	
	Unskilled labour for carrying and placing				3	nos	206.00	618.00	
	Skilled labour for stiching				0.33	nos	262.00	86.46	
	<b>Material for stiching</b>								
	Stiching Roll(Nylon)				2	nos	30.00	60.00	
	<b>Hire charge of Machine</b>								
	Hire charge of Stiching Machine				0.33	day	50.00	16.50	
	Hire charge of generator 3KVA				2.67	hrs	74.00	197.58	
								1322.56	
	Add Overhead charge &C.P @15%							198.38	
								1520.94	
	Add 1% cess							15.21	
								1536.15	
	Rate per Each N.C							384.04	<b>(i)</b>
	Placing of filled N.C. with 30m lead in water portion								
	Skilled Labour				1	nos	262.00	262.00	
	Unskilled labour				1	nos	206.00	206.00	
	Mate				0.37	nos	225.00	83.25	
								551.25	
	Add Overhead charge &C.P @15%							82.69	
								633.94	
	Add 1% cess							6.34	
								640.28	<b>V</b>
	Taking one E.C.bag to contain 1.2 cft of sand,hence rate for 100 nos. of bags( $V \times 120 / 100 \times 4$ )							192.08	<b>(ii)</b>
	Rate for N.C in water Portion (i+ii)							576.12	<b>B</b>
	Hence, finish rate of N.C in water portion(A+B)							1054.66	
							Say,Rs	1054.70	





5.7.50	Providing,laying & filling Geo bags of size 1mX0.7m (Type A 300GSM nonwoven) Weight 420gm,volume of filled bag 0.07 cum,weight of filledf Geo bag 126kg with local sand including stitching in four lines by approved Nylon thread with stitching machine and generator,stacking and placing after loading,unloading and carriage with the help of Trolly within 150m lead and boat,including cess all complete as per specification and direction of E/I( where boat is used)					
	Unit Each bag					
	out put 40 nos bags					
	<b>Labour</b>					
	Unskilled labour for filling,stacking	2	nos	206.00	412.00	
	Skilled labour for Stacking	0.33	nos	262.00	86.46	
	Unskilled labour for carrying and placing	4	nos	206.00	824.00	
	Mate	0.25	nos	225.00	56.25	
	Stiching Roll(Nylon)	2	each	30.00	60.00	
	Hire charge of Stiching Machine	0.33	day	50.00	16.50	
	Hire Charge of manual Trolley	1	day	50.00	50.00	
	Hire charge of generator 3KVA	2.67	hrs	74.00	197.58	
	Total				1702.79	
	Add Overhead charge &C.P @15%				255.42	
					1958.21	
	Add 1% cess				19.58	
					1977.79	
	Rate per bag (total/40)				49.44	<b>A</b>
	Charge for placing & dumping with the help of Powe boat of 40 Quintal					
	Out put per day - 256 nos bags carriage by Boat					
	Hire charge of 40 quintal Boat	1	day	1400.00	1400.00	
	Unskilled labour for loading,unloading & dumping	16	nos	206.00	3296.00	
	Mate	1	nos	225.00	225.00	
	Hire charge of Trolley	4	each	50.00	200.00	
					5121.00	
	Add Overhead charge &C.P @15%				768.15	
					5889.15	
	Add 1% cess				58.89	
					5948.04	
	Rate per bag (Total/256)				23.23	<b>B</b>
	<b>Materials</b>					
	Cost of Geo bag	1	each	99.00	99.00	
	Add Overhead charge &C.P @15%				14.85	
					113.85	
	Add 1% cess				1.14	
					114.99	<b>C</b>
	Total Cost (A+B+C)				187.67	

				Say, Rs	187.70	
5.7.51	Providing, laying & filling Geo bags of size 1mX0.7m (Type A 300GSM nonwoven) Weight 420gm, volume of filled bag 0.07 cum, weight of filled Geo bag 126kg with local sand including stitching in four lines by approved Nylon thread with stitching machine and generator, stacking and placing in Nylon Crate of size 1.0mx1.0mx1.0m( 6 nos. geo bag per N.C) after loading, unloading and carriage with the help of Trolley within 150m lead ,including cess, all complete as per specification and direction of E/I( where boat is used)					
	Out put - 40 nos bags					
	<b>Labour</b>					
	Unskilled labour for filling, stacking	2	nos	206.00	412.00	
	Skilled labour for stacking	0.33	nos	262.00	86.46	
	Unskilled labour for carrying and placing	4	nos	206.00	824.00	
	Mate	0.25	nos	225.00	56.25	
	Stiching roll( nylon)	2	each	30.00	60.00	
	Hire Charge of Stiching Machine	0.33	each	50.00	16.50	
	Hire Charge of manual Trolley	1	day	50.00	50.00	
	Hire charge of Generator 3KVA	2.67	hrs	74.00	197.58	
	Total				1702.79	
	Add Overhead charge & C.P @15%				255.42	
					1958.21	
	Add 1% cess				19.58	
					1977.79	
	Rate per bag (Total/40)				49.44	<b>A</b>
	<b>Material</b>					
	Cost of Geo bag	1	each	99.00	99.00	
	Add Overhead charge & C.P @15%				14.85	
					113.85	
	Add 1% cess				1.14	
					114.99	<b>B</b>
	Rate of Geo bag including filling ,stiching placing (A+B)				164.43	
	Rate of Geo bag including filling ,stiching placing per Nylon Crate	6	Each	164.43	986.60	<b>C</b>
	<b>Material</b>					
	Cost of Nylon Crate	1	Each	37.00	37.00	
	Add Overhead charge & C.P @15%				5.55	
					42.55	
	Add 1% cess				0.43	
					42.98	<b>D</b>
	Rate of N.C with Geo Bag(A+B+C)				1029.58	
				say, Rs	1029.60	

5.7.52	Supply of New bag and N.C with labour for filling New E.C bag with local sand (volume of filled bag 1.2 cft and weight 50kg),stiching on two lines by approved nylon thread with stiching machine & generator,Stacking the bags and placing in Nylon crate of size (1mx1mx1m) with a lead of 150m including supply of nylon threads etc , placing the filled crates in dry portion within a lead of 30m,all complete as per approved design,specification and direction of E/I.					
	Unit - Each bag					
	Taking output of 100 nos filled new bags in 4 nos N.C					
	<b>Material</b>					
	New E.C bag	100	nos	15.00	1500.00	
	Nylon Crate(N.C)	4	nos	37.00	148.00	
					1648.00	
	Add Overhead charge &C.P @15%				247.20	
					1895.20	
	Add 1% cess				18.95	
	Total				1914.15	
	Rate of material for each N.C(Totalx25/100)				478.54	<b>A</b>
	<b>Labour</b>					
	Unskilled labour for filling,stiching & stacking	1.67	nos	206.00	344.02	
	Unskilled labour for crrying &placing at work site	3	nos	206.00	618.00	
	Skilled labour for stiching	0.33	nos	262.00	86.46	
	Stiching Roll(Nylon)	2	nos	30.00	60.00	
	Hire Charge of Stiching Machine	0.33	day	50.00	16.50	
	Hire charge of Generator 3KVA	2.67	hrs	74.00	197.58	
					1322.56	
	Add Overhead charge &C.P @15%				198.38	
					1520.94	
	Add 1% cess				15.21	
	Total				1536.15	
	Rate for each N.C(Totalx25/100)				384.04	<b>B</b>
	Rate for each N.C in dry portion (A+B)				862.58	
				say,Rs	862.60	
5.7.53	Supply of New bag with labour for filling New E.C bag with local sand (volume of filled bag 1.2 cft and weight 50kg),stiching on two lines by approved nylon thread with stiching machine & generator,Stacking the bags and placing with a lead of 150m including supply of nylon threads etc ,all complete as per approved design,specification and direction of E/I.					
	Unit- Each bag					
	Taking output 100nos filled new bags					
	<b>Material</b>					
	New E.C.Bag	100	nos	15.00	1500.00	
	Stiching Roll(Nylon)	2	nos	30.00	60.00	

					1560.00	<b>A</b>
	<b>Labour</b>					
	Unskilled labour for filling,stacking	1.67	nos	206.00	344.02	
	Unskilled labour for crying & placing at work site	3	nos	206.00	618.00	
	Skilled labour for stitching	0.33	nos	262.00	86.46	
					1048.48	<b>B</b>
	<b>Hire Charge of Machine</b>					
	Hire Charge of Stiching Machine	0.33	day	50.00	16.50	
	Hire charge of Generator 3KVA	2.67	hrs	74.00	197.58	
					214.08	<b>C</b>
	<b>Total (A+B+C)</b>				2822.56	
	Add Overhead charge & C.P @15%				423.38	
					3245.94	
	Add 1% cess				32.46	
	Rate for 100 nos. N.C (A+B+C)				3278.40	
	Rate per N.C				32.78	
				say,Rs	32.80	
5.7.54	Providing,laying & filling Geo bags of size 1mX0.7m (Type A 300GSM nonwoven) Weight 420gm,volume of filled bag 0.07 cum,weight of filledf Geo bag 126kg with local sand including stitching in four lines by approved Nylon thread with stitching machine and generator,stacking and placing after loading,unloading and carriage with the help of Trolley within 150m lead ,including cess, all complete as per specification and direction of E/I.					
	Unit- Each Bag					
	Taking output of 40 nos Geo bags					
	<b>Material</b>					
	Geo bag	40	nos	99.00	3960.00	
	Stiching roll(nylon)	2	nos	30.00	60.00	
	<b>Labour</b>					
	Unskilled labour for filling,stacking	2	nos	206.00	412.00	
	Unskilled labour for crying & placing at work site	4	nos	206.00	824.00	
	Skilled labour for stitching	0.33	nos	262.00	86.46	
	Mate	0.25	nos	225.00	56.25	
	<b>Hire Charge of Machine</b>					
	Hire Charge of Stiching Machine	0.33	nos	50.00	16.50	
	Hire Charge of manual Trolley	1	day	50.00	50.00	
	Hire charge of Generator 3KVA	2.67	hrs	74.00	197.58	
	<b>Total</b>				5662.79	
	Add Overhead charge & C.P @15%				849.42	
					6512.21	
	Add 1% cess				65.12	
					6577.33	
	Rate per geo Bag				164.43	
				say,Rs	164.40	

Sr.No.	Item	Rate	Unit
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### 5.8 MISCELLANEOUS

Sr.No.	Item	Rate	Unit
5.8.1	Supplying, fitting and fixing copper strip of 16 gauge of approved quality (with 90 % purity ) in expansion joints all complete as per approved design, specifications and direction of E/I	904.70	Per KG
5.8.2	Supplying, fitting and fixing rubber seal of ( water stop ) of approved quality for construction joints all complete as per approved design, specifications and direction of E/I	#VALUE!	Per Mtr
5.8.3	Supplying, and fixing in position 25 mm thick Bituminous board ( Shalitex or equivalent ) in expansion or construction joint all complete as per approved design, specifications and direction of E/I	744.80	Per M <sup>2</sup>
5.8.4	Supplying, and fixing (Bitumen, cement and sand ) in construction joints all complete as per approved design, specifications and direction of E/I		
	Patna Urban	170.00	cm width/ cm depth/ 100 M length
	Patna	170.00	
	Muzaffarpur	170.00	
	Darbhanga	170.00	
	Bhagalpur	169.80	
	Munger	169.80	
	Saharsa	170.00	
	Purnea	170.00	
	Gaya	169.50	
	Saran	169.80	
5.8.5.1	Providing and driving steel sheet piles on specified alignment and up to designed level including painting the sheet piles with two coats of anti corrosive bitumen paint ( portion of sheet pile inside concrete shall not be painted ) including cost of sheet piles and hire charge of sheet pile, driving plant etc as per approved design, specifications and direction of E/I ( For the purpose of payment of sheet pile driving measurement of sheet pile dully driven shall be taken only)	#VALUE!	Per M.T
5.8.5.2	Labour rate for extracting steel sheet piles on specified alignment with hire charges of sheet pile driving plant etc. all complete as per specifications and direction of E/I .( For the purpose of payment of sheet pile extracting, measurement of sheet pile duly extracted shall be taken only )	#VALUE!	Per M.T
5.8.6(a)	Providing weep holes with dry graded stone single filter of 20 mm to 40 mm size in abutment and wing wall as per specification and direction of E/I	69.40	Each
5.8.6(b)	Providing weep holes with dry graded Jhama metal filter of 20 mm to 40 mm size in abutment and wing wall as per specification and direction of E/I		
	Patna Urban	260.20	Each
	Patna	252.30	Each
	Muzaffarpur	242.10	Each
	Darbhanga	249.50	Each
	Bhagalpur	249.50	Each
	Munger	249.50	Each
	Saharsa	249.50	Each
	Purnea	249.50	Each
	Gaya	242.10	Each
	Saran	242.10	Each
5.8.7	Dismantling pucca brick or lime work including stacking serviceable materials in countable stacks within 15 Meter lead and disposal of unserviceable materials with all leads. as per building specifications and direction of E/I.	341.60	Per M <sup>3</sup>

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



Sr.No.	Item	Rate	Unit
5.8.8	Dismantling plain cement or lime concrete 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.	602.50	Per M <sup>3</sup>
5.8.9	Dismantling R.C.C 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.	1230.60	Per M <sup>3</sup>
5.8.10	Dismantling old plaster and pointing in cement or lime and raking out joints to 15 mm. depth, watering and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	13.50	Per M <sup>2</sup>

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

## 5.8 MISCELLANEOUS

Sl.No	Description	Quantity	Unit	Rate	Amount	Ref.
5.8.1	Supplying, fitting and fixing copper strip of 16 gauge of approved quality ( with 99 % purity ) in expansion joints complete job as per drawing, specifications and direction of E/I.					
	Unit:-Per Kg					
	Furnishing and installing seal					
	<b>A. Cost of copper seal and accessories</b>					
	Size of copper seal 250 mm x 1.6 mm					
	weight per sq metre= 14.70 kg	14.7	kg			
	Weight of strips per linear metre Allowing 2.5 % for wastage and incidental to work )=0.25 x14.70 x1.025=3.77 kg.					
	i. Cost per linear metre. Including furnishing, storing, handling and cutting etc.	3.77	kg	751.20	2829.68	
	ii. Cost of bracing, washers and nails etc. per running metre @ 3 % of item (i)				84.89	
	Sub-Total				2914.57	
	<b>B. Labour charge</b>					
	Taking that 1/4 mason and 1 helper can place seal in one lift of 15 mtr in one shift.					
	Head mason.	0.25	nos	279.00	69.75	
	Helper	1	nos	220.00	220.00	
	Total labour charge				289.75	
	Total charge per mtr= total labour charge / 15				19.32	
	Total A+B				2933.88	
	Hence rate per kg =Total (A+B)/ wt. Of seal per mtr				778.86	
	Add Overhead charge & C.P@15%				116.83	
					895.69	
	Add 1% Cess				8.96	
					904.65	904.65
	Hence rate per kg of copper seal			904.70	Per kg	
5.8.2	Supplying, fitting and fixing rubber seal of ( water stop ) of approved quality for construction joints expansion joints complete job as per drawing, specifications and direction of E/I.					
	Unit:-Per M					
	Taking Out put =1 M					
	Cost of rubber seal	1	mtr	#VALUE!	#VALUE!	
	Add for overlapping and valcanizing 10 % of the materials cost				#VALUE!	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
	Add 1% Cess				#VALUE!	

				#VALUE!	#VALUE!
	Hence rate per mtr of rubber seal			#VALUE!	Per mtr
5.8.3	Supplying, and fixing in position 25 mm thick Bituminous board ( Shalitek or equivalent ) in expansion or construction joint in dam and its allied works all complete as per approved design, specifications and direction of E/I				
	Unit:-Per Sqm				
	Taking Out put =9.30 Sqm				
	<b>Material</b>				
	Bituminastic board	9.3	M <sup>2</sup>	618.70	5753.91
	Shalitek primer	2.25	Kg	42.60	95.85
	<b>Labour</b>				
	Mason Gr II	0.25	nos	249.00	62.25
	Unskilled mazdoor	0.25	nos	206.00	51.50
					5963.51
	Add Overhead charge & C.P@15%				894.53
					6858.04
	Add 1% Cess				68.58
					6926.62
					744.80
	Say		Rs	744.80	Per M <sup>2</sup>
5.8.4	Supplying, and fixing Bitumen filter (Bitumen, cement and sand ) in construction joints in dam and its allied works all complete as per approved design, specifications and direction of E/I				
	Unit:- Per cm width per cm depth per 100M				
	Consider a joint =2.5 cm wide 15 cm deep and 292.75 metre in length				
	Hence cubical contents of a joint 292.75 x 0.15 x 0.025 =1.1 cum				
	<b>Material</b>				
	Bitumen	0.282	M.T	43079.37	12148.38
	Cement	0.088	Cum	8912.00	784.26
	Coarse sand	0.0283	Cum	145.10	4.11
	Steam coal @ 2 quintal / M.T( including carriage charge)	0.564	Qnt	416.22	234.75
	<b>Labour</b>				
	Mason Gr II	5	nos	249.00	1245.00
	Unskilled mazdoor	8	nos	206.00	1648.00
					16064.49
	Add Overhead charge & C.P@15%				2409.67
					18474.17
	Add 1% Cess				184.74
					18658.91
					169.96
	Rate per cm width per cm depth per 100M			170.00	





5.8.5.1	Providing and driving steel sheet piles on specified alignment and upto designed levels including painting the sheet piles with two coats of anti-corrosive bitumen paint ( portion of sheet pile inside concrete shell not be painted ) including cost of sheet piles and hire charges of sheet pile driving plant etc. all complete as per specifications and direction of E/I . ( For the purpose of payment of sheet pile driving, measurement of sheet pile duly driven shall be taken only )					
	Unit:-Per M					
	Assuming pilling that can be expected to be driven per hour= 65.37 x 6.70= 437.98 Kg (Assuming I.S.P.S. 1625 U& pilling section vide I.S. 2314, 1963 )					
	Hourly use rate of sheet pile					
A.	<b>Material</b>					
	Cost of Sheet Pile with 10 % wastage	1.1	M.T	#VALUE!	#VALUE!	
	<b>Sheet pile Driving plant</b>					
B.	(i). Cost of driving pile per M.T =(x)x1000 / 437.98	#VALUE!		Rs	#VALUE!	
	(ii). Shifting of 3 to 4 nos of pile per M.T at the place ready for driving @ 1.5 % of Sub item (i)			Rs	#VALUE!	
	(iii). Erecting pilling machines and dismantling @ 0.5 % of sub item (i)			Rs	#VALUE!	
	(iv). Depreciation charges for track fand wooden sleeper, fish plates, bolts dog spikcs @ 0.5 % of sub item (i)			Rs	#VALUE!	
	(v). Depreciation charges for supply of rails @ 1 % of sub item (i)			Rs	#VALUE!	
	(vi). Welding piles 3 to 4 nos @ 8 % of sub item b(i)			Rs	#VALUE!	
	(vii). Cutting piles 2 to 4 nos @ 2 % of sub item (i)			Rs	#VALUE!	
	(viii). Driving hole 3 to 4 nos @ 0.5 % of sub item (i)			Rs	#VALUE!	
	(ix). Carriage of sheet piles 1 M.T. @ 2 % of sub item (i)			Rs	#VALUE!	
C.	Surface area of 1 M.T. sheet piles to be painted both side with anti-corrosive bitumen, paint					
	Length of sheet pile per M.T=1 x 1000 / 65.37 = 15.29 mtr					
	Area of both side of sheet piles=15.29 x 1.71 =24.62 sqm					
	Surface of sheet piles to be painted with two coats of bitumen ( Assuming 0.5 Kg / M <sup>2</sup> =24.62 x 0.5 =	12.31	Kg	43.08	530.31	
D.	Unskilled mazdoor	2	nos	206.00	412.00	
	Total (A+B+C+D)				#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
	Add 1% Cess				#VALUE!	
					#VALUE!	#VALUE!
	Say		Rs	#VALUE!	Per M.T	

5.8.5.2	Labour rate for extracting steel sheet piles on specified alignment with hire charges of sheet pile driving plant etc. all complete as per specifications and direction of E/I. ( For the purpose of payment of sheet pile extracting, measurement of sheet pile duly extracted shall be taken only )					
	Unit:-Per M					
	Assuming piling that can be expected to be extracting					
	per hour= 65.37 x 6.70= 437.98 Kg					
	(Assuming I.S.P.S. 1625 U& piling section vide I.S. 2314, 1963 )					
	Hourly use rate of sheet pile					
	<b>Sheet pile Driving plant</b>	#VALUE!				
A.	(i). Cost of Extracting pile per M.T =(x)x1000 / 437.98			Rs	#VALUE!	
	(ii). Shifting of 3 to 4 nos of pile per M.T at the place ready for driving @ 1.5 % of Sub item (i)			Rs	#VALUE!	
	(iii). Erecting piling machines and dismantling @ 0.5 % of sub item (i)			Rs	#VALUE!	
	(iv). Depreciation charges for track and wooden sleeper, fish plates, bolts dog spikes @ 0.5% of sub item (i)			Rs	#VALUE!	
	(v). Depreciation charges for supply of rails @ 1 % of sub item (i)			Rs	#VALUE!	
	(vi). Welding piles 3 to 4 nos @ 8 % of sub item b(i)			Rs	#VALUE!	
	(vii). Cutting piles 2 to 4 nos @ 2 % of sub item (i)			Rs	#VALUE!	
	(viii). Driving hole 3 to 4 nos @ 0.5 % of sub item (i)			Rs	#VALUE!	
	(ix). Carriage of sheet piles 1 M.T. @ 2 % of sub item (i)			Rs	#VALUE!	
B.	Unskilled mazdoor	2	nos	206.00	412.00	
	Total (A+B)				#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
	Add 1% Cess				#VALUE!	
	Say			Rs	#VALUE!	Per M
5.8.6(a)	Providing weep holes with dry graded Stone metal filter of 20 mm to 40 mm siz in abutment and wing wall as per specification and direction of E/I					
	Unit :-Each					
	Stone metal filter 20 mm to 40 mm	0.113	M <sup>3</sup>	440.40	49.77	
	Fitting and cost of Wire netting @ 20% of above				9.95	
	Add Overhead charge & C.P@15%				59.72	
	Add 1% Cess				8.96	
	Say			Rs	68.68	
					0.69	
					69.36	69.36
5.8.6(b)	Providing weep holes with dry graded Jhama metal filter of 20 mm to 40 mm siz in abutment and wing wall as per specification and direction of E/I					
	Unit :-Each					
	Jhama metal filter 20 mm to 40 mm	0.113	M <sup>3</sup>	1652.00	186.68	

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	Fitting and cost of Wire netting @ 20% of above				37.34	
					224.01	
	Add Overhead charge & C.P@15%				33.60	
					257.61	
	Add 1% Cess				2.58	
					260.19	
	Say		Rs	260.20		Each
5.8.7	Dismantling pucca brick or lime work including stacking serviceable materials in countable stacks within 15 Metre lead and disposal of unserviceable materials with all leads. as per building specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Semi skilled mazdoor	1	nos	215.00	215.00	
	Unskilled mazdoor	3	nos	206.00	618.00	
					833.00	
	Add Overhead charge & C.P@15%				124.95	
					957.95	
	Add 1% Cess				9.58	
					967.53	341.64
	Say Rs			341.60		Per M <sup>3</sup>
5.8.8	Dismantling plain cement or lime concrete work including stacking serviceable materials in stacks within 15 Metre lead and disposal of unserviceable materials with all leads. as per building specifications and direction of E/I.					
	Unit :-Per Cum	Per M <sup>3</sup>				
	Taking Out put =2.832 Cum	2.832	Cum			
	Semi skilled mazdoor	3	nos	215.00	645.00	
	Unskilled mazdoor	4	nos	206.00	824.00	
					1469.00	
	Add Overhead charge & C.P@15%				220.35	
					1689.35	
	Add 1% Cess				16.89	
					1706.24	602.49
	Say Rs			602.50		Per M <sup>3</sup>
5.8.9	Dismantling R.C.C work including stacking serviceable materials in stacks within 15 Metre lead and disposal of unserviceable materials with all leads. as per building specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Hammer man	2.25	nos	220.00	495.00	
	Skilled mazdoor	2.25	nos	262.00	589.50	
	Unskilled mazdoor	7	nos	206.00	1442.00	
	Blacksmith Gr II	1	nos	249.00	249.00	
	Mate	1	nos	225.00	225.00	
					3000.50	
	Add Overhead charge & C.P@15%				450.08	
					3450.58	
	Add 1% Cess				34.51	
					3485.08	1,230.61

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		Say Rs		1230.60	Per M <sup>3</sup>	
5.8.10	Dismantling old plaster and pointing in cement or lime and raking out joints to 15 mm. depth, watering and disposal of unserviceable materials with all leads. as per building specifications and direction of E/I.					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	Semi skilled mazdoor	0.35	nos	215.00	75.25	
	Unskilled mazdoor	0.10	nos	206.00	20.60	
	Bhisti	0.06	nos	207.00	12.42	
					108.27	
	Add Overhead charge & C.P@15%				16.24	
					124.51	
	Add 1% Cess				1.25	
					125.76	13.52
		Say Rs		13.50	Per M <sup>2</sup>	

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Sr.No.	Item	Rate	Unit
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## CHAPTER VI

## BARRAGE AND WEIR

## 6.1 EARTH WORK

Sr.No.	Item	Rate	Unit
6.1.1	Cutting of trees along with branches and their removal away from the work site and stacking the same as per specifications and direction of E/I.(Measurement of girth at a height of one meter above the ground level )		
	(a) Girth above 0.50 meter but up to 0.75 meter	191.90	Each
	(b) Girth above 0.75 meter but upto 1.50 meter	383.90	Each
	(c) Girth above 1.5 meter but upto2.50 meter	695.40	Each
	(d) Girth above 2.50 meter but up to 4.00 meter	1126.70	Each
	(e) Girth above 4.00 meter	1630.20	Each
6.1.2	Uprooting of stumps and their removal ,away from the work site as per specifications and direction of E/I.		
	(a) Girth above 0.50 meter but up to 0.75 meter	119.60	Each
	(b) Girth above 0.75 meter but up to 1.50 meter	119.60	Each
	(c) Girth above 1.5 meter but upto2.50 meter	159.50	Each
	(d) Girth above 2.50 meter but up to 4.00 meter	239.30	Each
	(e) Girth above 4.00 meter	299.10	Each
6.1.3.1	Preparation of borrow areas by removing the grass and the jungle, bushes from the top before excavation as per specifications and direction of E/I.	1.90	Per M <sup>2</sup>
6.1.3.2	Jungle clearance and weeding out shrubs including small tree up to 0.50 mtr girth and removal as per specifications and direction of E/I.	5.80	Per M <sup>2</sup>
6.1.4	Removal of stone boulder of more than 300 mm size from alignment of the dam and stacking the same ( beyond 50 M away from Toe of the dam base in the country side ) within initial lead of 150 M as per specifications and direction of E/I.	76.00	Per M <sup>3</sup>
6.1.5	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder up to 300 mm size and disposal of the same along with all organic materials (beyond 50 M away from Toe of the dam base in the country side) with initial lead of 150 M and all lifts as per specifications and direction of E/I.	141.70	Per M <sup>3</sup>
6.1.6	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder up to 300 mm size and disposal of the same along with all organic materials in country side beyond initial lead of 150 mtr but within 1.00 K.M and all lifts by Tipper including loading, unloading and maintenance of haul roads as per specifications and direction of E/I.	284.90	Per M <sup>3</sup>
6.1.7	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder up to 300 mm size and disposal of the same along with all organic materials in country side beyond 1.00 K.M but up to 2 K.M away with all lifts by Tipper including loading, unloading and maintenance of haul roads as per specifications and direction of E/I.	306.30	Per M <sup>3</sup>
6.1.8	Earth work in excavation of foundation trenches in ordinary soil (vide classification of soil item A ) and disposal of excavated earth so obtained ( 50 m away from the edge of the trench ) with initial lead of 150 M and initial lifts of 1.5 M all complete as per specifications and direction of E/I.	112.70	Per M <sup>3</sup>
6.1.9	Extra for earth work in hard soil ( vide classification of soil item-B ) as per specification and direction of E/I.	16.90	Per M <sup>3</sup>

Sr.No.	Item	Rate	Unit
6.1.10	Extra for earth work in marshy soil , slushy and daldal ( vide classification of soil item-F )	25.30	Per M <sup>3</sup>
6.1.11.1	Earth work in excavation of foundation trenches as per designed section in soft rock or ordinary rock ( vide classification of soil item C ) disposal of excavated materials so obtained ( beyond 50 mtr away from the edge of the trench ) with initial lead of 150 m and initial lifts of 1.5 mtr all complete as per specifications and direction of E/I. ( Soft rock where blasting is required and approved by concerned Chief Engineer )	548.30	Per M <sup>3</sup>
6.1.11.2	Earth work in excavation of foundation trenches as per designed section in soft rock or ordinary rock( Where blasting is not required ) ( vide classification of soil item C ) disposal of excavated materials so obtained ( beyond 50 mtr away from the edge of the trench ) with initial lead of 150 m and initial lifts of 1.5 mtr all complete as per specifications and direction of E/I.	361.60	Per M <sup>3</sup>
6.1.12	Earth work in excavation of foundation trenches as per designed section in hard rock where blasting is required and stacking properly in approved stack size in approved stack yard ( beyond 50 M away from the edge of the trench in country side ) with initial lead of 150M and initial lifts of 1.5 mtr all complete as per specifications and direction of E/I.	935.50	Per M <sup>3</sup>
6.1.13	Earth work in excavation of foundation trenches in ordinary soil (vide classification of soil item A ) and disposal of same in country side by Truck ( 50M away from the edge of the trench )beyond initial lead of 150 m but up to 1 k.m with all lifts including loading, unloading, constructing and maintenance of haul roads etc.all complete as per specifications and direction of E/I.	281.20	Per M <sup>3</sup>
6.1.14.1	Earth work in excavation of foundation trenches as per designed section in soft rock or ordinary rock ( vide classification of soil item C )and disposal of soil by truck ( 50M away from the edge of the trench beyond initial lead of 150 mtr but up to 1 k.m away with all lifts including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I. ( Soft rock where blasting is required and approved by concerned Chief Engineer )	678.50	Per M <sup>3</sup>
6.1.14.2	Earth work in excavation of foundation trenches as per designed section in soft rock or ordinary rock (where blasting is not required ) ( vide classification of soil item C ) and disposal of soil by truck ( 50 M away from the edge of the trench beyond initial lead of 150 M but upto 1 k.m away with all lifts including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I.	438.40	Per M <sup>3</sup>
6.1.15	Earth work in excavation of foundation trenches as per designed section in hard rock where blasting is needed and disposal of soil by truck ( 50M away from the edge of the trench beyond initial lead of 150M but up to 1 k.m away with all lifts including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I.	678.50	Per M <sup>3</sup>
6.1.16	Earth work in filling in foundation trenches and back filling of masonry structures with suitable earth in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finally dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30 mtr and lift of 1.5M complete job as per specifications and direction of E/I.	73.20	Per M <sup>3</sup>
6.1.17	Earth work in filling in foundation trenches and back filling of masonry structures with semi pervious or suitable earth in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finally dressed with earth obtained after cutting from borrow pits with initial lead of 30 mtr and initial lift of 1.5 mtr. complete job as per specifications and direction of E/I.	61.70	Per M <sup>3</sup>

Sr.No.	Item	Rate	Unit
6.1.18	Extra for each subsequent lift upto 1 M over the initial lift of 1.5 M (for ordinary or hard soil) as per specification and direction of E/I.	8.40	Per M <sup>3</sup>
6.1.19	Extra for each subsequent lead upto 25 M beyond the initial lead of 30 M (for ordinary or hard soil) as per specification and direction of E/I.	8.40	Per M <sup>3</sup>
6.1.20	Extra for each subsequent lift upto 1 M over the initial lift of 1.5 M (for ordinary soft or hard rock) as per specification and direction of E/I.	12.70	Per M <sup>3</sup>
6.1.21	Extra for each subsequent lead upto 25 Mtr beyond the initial lead of 30 M (for ordinary soft or hard rock) as per specification and direction of E/I.	12.70	Per M <sup>3</sup>
6.1.22	Deleted		
6.1.23	deleted		
6.1.24.1	Fine dressing of the canals banks or embankment and turfing with 75 mm thick grass sod obtained within a lead of 150 M including the cost of watering the grass surface till it acquires greenness as per specifications and direction of E/I.	1695.80	Per % M <sup>2</sup>
6.1.24.2	Extra for each lead of 150 M over initial lead of 150 M including the cost of watering the grass surface till it acquires greenness as per specifications and direction of E/I.	358.90	Per % M <sup>2</sup>
6.1.25	Close timbering in trenches including strutting, shoring and packing cavities(whenever required)depth not exceeding 1.5M, complete as per specifications and direction of E/I.	134.40	Per M <sup>2</sup>
6.1.26	Close timbering in trenches including strutting, shoring and packing cavities(whenever required)depth not exceeding 1.5 M, but upto 3.0M complete as per specifications and direction of E/I.	137.90	Per M <sup>2</sup>
6.1.27	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same along with all organic materials in country side beyond initial lead of 150 mtr but within 1.00 K.M and all lifts by Tipper including loading, unloading and maintenance of haul roads as per specifications and direction of E/I.	273.20	Per M <sup>3</sup>
6.1.28	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same along with all organic materials in country side beyond 1.00 K.M but up to 2 K.M away with all lifts by Tipper including loading, unloading and maintenance of haul roads as per specifications and direction of E/I.	304.10	Per M <sup>3</sup>
6.1.29	Earth work in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of same in country side by Tipper ( 50M away from the edge of the trench )beyond initial lead of 150M but upto 1 k.m with all lifts including loading, unloading, constructing and maintenance of haul roads etc.all complete as per specifications and direction of E/I.	269.60	Per M <sup>3</sup>
6.1.30.1	Earth work in excavation of foundation trenches as per designed section in soft rock or ordinary rock ( vide classification of soil item C )and disposal of soil by Tipper ( 50 M away from the edge of the trench beyond initial lead of 150M but upto 1 k.m away with all lifts including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I. ( Soft rock where blasting is required and approved by concerned Chief Engineer )	624.30	Per M <sup>3</sup>
6.1.30.2	Earth work in excavation of foundation trenches as per designed section in soft rock or ordinary rock (where blasting is not required ) ( vide classification of soil item C )and disposal of soil by Tipper ( 50 M away from the edge of the trench beyond initial lead of 150 mtr but up to 1 k.m away with all lifts including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I.	384.20	Per M <sup>3</sup>

*Be* *no* *o* *RB*

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Sr.No.	Item	Rate	Unit
6.1.31	Earth work in excavation of foundation trenches as per designed section in hard rock where blasting is needed and disposal of soil by Tipper ( 50 mtr away from the edge of the trench beyond initial lead of 150 M but up to 1 k.m away with all lifts including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I.	624.30	Per M <sup>3</sup>
6.1.32	Earth work in filling in foundation trenches or back filling of masonry structures with pervious soil in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finally dressed with earth obtained after cutting from borrow pits beyond 150 M lead but up to 1/2 K.M. with all lift and carriage by Tipper complete job as per specifications and direction of E/I.	345.10	Per M <sup>3</sup>
6.1.33	Earth work in filling in foundation trenches or back filling of masonry structures with pervious soil in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finally dressed with earth obtained after cutting from borrow pits beyond 1/2 K.M lead but up to 1 K.M. with all lift and carriage by Tipper complete job as per specifications and direction of E/I.	357.40	Per M <sup>3</sup>

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CHAPTER VI

BARRAGE AND WEIR

**6.1 EARTH WORK**





Sl.no.	Description	Quantity	Unit	Rate	Amount	Ref.	
6.1.1	Cutting of trees along with branches and their removal away from the work site and stacking the same as per specifications and direction of E/I.(Measurement of girth at a height of one metre above the ground level )	Analysis same as Item 5.1.4					
6.1.2	Uprooting of stumps and their removal, away from the work site as per specifications and direction of E/I.	Analysis same as Item 5.1.5					
6.1.3.1	Preparation of borrow areas by removing the grass and the jungles, bushes from the top before excavation as per specifications and direction of E/I.	Analysis same as Item 5.1.2					
6.1.3.2	Jungle clearance and weeding out shrubs including small tree up to 0.50 meter girth and their removal as per specifications and direction of E/I.	Analysis same as Item 5.1.3					
6.1.4	Removal of stone boulder of more than 300 mm size from alignment of the Barrage / Weir and stacking the same ( beyond 50 M away from the edge of the foundation trenches in the country side ) within initial lead of 150 M as per specifications and direction of E/I.	Analysis same as Item 5.1.3					
Unit:- Per Cum							
Assuming out put =28.32 Cum		28.32	Cum				
	Unskilled mazdoor for removal and stacking	9	nos	206.00	1854.00		
					1854.00		
	Add Overhead charge & C.P@15%				278.1		
					2132.10		
	Add 1% Cess				21.32		
					2153.42	76.04	
Say Rs				76.00	Per M <sup>3</sup>		
6.1.5	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder up to 300 mm size and disposal of the same along with all organic materials ( beyond 50M away from the edge of the foundation trenches in the country side ) with initial lead of 150M and all lifts as per specifications and direction of E/I.						
Unit:- Per Cum							
Assuming out put =28.32 Cum							
	Unskilled mazdoor for dagbelling	0.50	nos	206.00	103.00		
	Unskilled mazdoor for for cutting earth as well as removing organic materials etc.	6	nos	206.00	1236.00		
	Unskilled mazdoor for preparation of sheet	1	nos	206.00	206.00		
	Unskilled mazdoor for disposal of earth and organic materials	9	nos	206.00	1854.00		
	Mate	0.25	nos	225.00	56.25		
					3455.25		
	Add Overhead charge & C.P@15%				518.2875		
					3973.54		
	Add 1% Cess				39.74		
					4013.27	141.71	
Say Rs				141.70	Per M <sup>3</sup>		





	Hourly use rate of truck	805.00	hr				
	Rate per 28.32 cum for carriage only=						
	Use rate of truck x 28.32 / material carried			Rs	5587.65		
	© Construction and maintenance of haul road @ 5 % of Item ( B )			Rs	279.38		
					7468.28		
	Add Overhead charge & C.P@15%				1120.24		
					8588.52		
	Add1% Cess				85.89		
					8674.41	306.30	
	Say Rs			306.30	Per M <sup>3</sup>		
6.1.8	Earth work in excavation of foundation trenches in ordinary soil (vide classification of soil Item A ) and disposal of the excavated earth so obtained ( 50 mtr. away from the edge of the trench) with initial lead of 150 m and initial lifts of 1.5 mtr. all complete as per specifications and direction of E/I.						
	Unit:- Per Cum						
	Assuming out put= 28.32 Cum						
	Unskilled mazdoor for cutting earth	6	nos	206.00	1236.00		
	Unskilled mazdoor for carrying	7	nos	206.00	1442.00		
	Head Mason	0.25	nos	279.00	69.75		
					2747.75		
	Add Overhead charge & C.P@15%				412.1625		
					3159.91		
	Add1% Cess				31.60		
					3191.51	112.69	
	Say Rs			112.70	Per M <sup>3</sup>		
6.1.9	Extra for earth work in hard soil ( vide classification of soil item-B ) all complete as per specification and direction of E/I.						
	Unit:-Per Cum						
	Assuming out put =28.32 Cum						
	Unskilled mazdoor	2	nos	206.00	412.00		
					412.00		
	Add Overhead charge & C.P@15%				61.80		
					473.80		
	Add1% Cess				4.74		
					478.54	16.90	
	Say Rs			16.90	Per M <sup>3</sup>		
6.1.10	Extra for earth work in marshy soil , slush and daldal ( vide classification of soil item-F ) all complete as per specification and direction of E/I.						
	Unit:- Per Cum						
	Assuming out put= 28.32 Cum						
	Unskilled mazdoor for cutting	1.50	nos	206.00	309.00		
	Unskilled mazdoor for carrying	1.50	nos	206.00	309.00		
					618.00		
	Add Overhead charge & C.P@15%				92.70		
					710.70		
	Add1% Cess				7.11		
					717.81	25.35	
	Say Rs			25.30	Per M <sup>3</sup>		
6.1.11.1	Earth work in excavation of foundation trenches as per designed section in soft rock or ordinary rock ( vide classification of soil item C ) disposal of excavated materials so obtained ( beyond 50 mtr away from the edge of the trench ) with initial lead of 150 m and initial lifts of 1.5 mtr all complete as per specifications and direction of E/I. ( Soft rock where blasting is required and approved by concerned Chief Engineer )						
	Unit:- Per Cum						
	Assuming out put =10.00 Cum						
	Labour						
	Hammer man	2.75	nos	220.00	605.00		
	Unskilled mazdoor for all work	9.50	nos	206.00	1957.00		
	Mason Gr I	0.33	nos	279.00	92.07		
	Plaster	0.33	nos	347.00	114.51		

	<b>Blasting material including excise, sales tax, carriage from Gomia to work site, storage etc.</b>					
	Special Gelatin	2.00	Kg	928.10	1856.20	
	Detonator	10	nos	6.52	65.19	
	Fuse coil	1	nos	15.61	15.61	
	<b>Tools and Plants</b>					
	Cost of hire charge of compressor, drilling equipment and other accessories				15.00	
					4720.58	
	Add Overhead charge & C.P.@15%				708.09	
					5428.67	
	Add1% Cess				54.29	
					5482.95	548.30
	Say Rs			548.30	Per M <sup>3</sup>	
6.1.11.2	Earth work in excavation of foundation trenches as per designed section in soft rock or ordinary rock( Where blasting is not required ) ( vide classification of soil item C ) disposal of excavated materials so obtained ( beyond 50 mtr away from the edge of the trench ) with initial lead of 150 m and initial lifts of 1.5 mtr all complete as per specifications and direction of E/I.					
	Unit:- Per Cum					
	Assuming out put=10.00 Cum					
	<b>Labour</b>					
	Hammer man	2.75	nos	220.00	605.00	
	Unskilled mazdoor for all work	11.50	nos	206.00	2369.00	
	Mason Gr I	0.50	nos	279.00	139.50	
					3113.50	
	Add Overhead charge & C.P.@15%				467.025	
					3580.53	
	Add1% Cess				35.81	
					3616.33	361.63
	Say Rs			361.60	Per M <sup>3</sup>	
6.1.12	Earth work in excavation of foundation trenches as per designed section in hard rock where blasting is required and stacking properly in approved stack size in approved stack yard ( beyond 50 mtr away from the edge of the trench in country side ) with initial lead of 150 m and initial lifts of 1.5 mtr all complete as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=10.00 Cum					
	<b>A. Labour</b>					
	Hammer man	10.50	nos	220.00	2310.00	
	Unskilled mazdoor for all work	13.00	nos	206.00	2678.00	
	Mason Gr I	0.33	nos	279.00	92.07	
	Blaster	0.67	nos	347.00	231.33	
	<b>B. Blasting material including excise, sales tax, carriage from Gomia to work site, storage etc.</b>					
	Special Gelatin	2.75	Kg	928.10	2552.28	
	Detonator	18	nos	6.52	117.34	
	Fuse coil	3	nos	15.61	46.83	
	<b>C. Tools and Plants</b>					
	Cost of hire charge of compressor, drilling equipment and other accessories				26.50	
					8054.35	
	Add Overhead charge & C.P.@15%				1208.15	
					9262.50	
	Add1% Cess				92.63	
					9355.13	935.51
	Say Rs			935.50	Per M <sup>3</sup>	
















	(b) Loading unloading turning and spolling time=	60	minutes				
	Total hauling cycle time=	64.31	minutes				
	No of trip per working hour =						
	Loading unloading turning and spolling time / Total hauling time	0.93	trips				
	Material carried=trips X net capacity	3.75	M <sup>3</sup>				
	<b>Hourly use rate of truck</b>	<b>805.00</b>	hr				
	Rate per 10 cum for carriage only=Use rate of truckx10/material carried				Rs	2146.42	
	© Construction and maintenance of haul road @ 5 % of Item ( B )				Rs	107.32	
<b>C.</b>	<b>Blasting material including excise, sales tax, carriage from Gomia to work site, storage etc.</b>						
	Special Gelatin	2.00	Kg	928.10		1856.20	
	Delonator	10	nos	6.52		65.19	
	Fuse coil	1	nos	15.61		15.61	
	<b>Tools and Plants</b>						
	Cost of hire charge of compressor, drilling equipment and other accessories					15.00	
						5841.32	
	Add Overhead charge & C.P@15%					876.20	
						6717.51	
	Add1% Cess					67.18	
						6784.69	678.47
	Say Rs			<b>678.50</b>		Per M <sup>3</sup>	
6.1.14.2	Earth work in excavation of foundation trenches as per designed section in soft rock or ordinary rock(where blasting is not required ) ( vide classification of soil item .C )and disposal of soil by Truck ( 50 mtr away from the edge of the trench ) beyond initial lead of 150 mtr but upto 1 k.m away with all lifts including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I.						
	Unit:- Per Cum						
	Assuming out put =10.00 Com-						
<b>A.</b>	<b>Labour</b>						
	Hammer man	2.75	nos	220.00		605.00	
	Unskilled mazdoor for all work	4.00	nos	206.00		824.00	
	Mason Gr I	0.33	nos	279.00		92.07	
<b>B.</b>	Cost of carriage of 10 cum earth by Truck including loading and unloading						
	Carriage cost of earth for 1 k.m lead						
	Average lead=	575	M				
	Truck capacity @ MT	6	cum				
	Swell factor	0.67					
	Net capacity=Truck capacity X swell factor	4.02	Cum				
	Cycle time---- Average speed	16	km/hr				
	(a) Hauling time =						
	Average lead X 60 X 2/1000 X Average speed	4.31	minutes				
	(b) Loading unloading turning and spolling time=	60	minutes				
	Total hauling cycle time=	64.31	minutes				
	No of trip per working hour =						
	Loading unloading turning and spolling time / Total hauling time	0.93	trips				
	Material carried=tripsXnet capacity	3.75	M <sup>3</sup>				
	<b>Hourly use rate of truck</b>	<b>805.00</b>	hr				
	Rate per 10 cum for carriage only=Use rate of truckx10/material carried				Rs	2146.42	
	© Construction and maintenance of haul road @ 5 % of Item ( B )				Rs	107.32	
						3774.81	
	Add Overhead charge & C.P@15%					566.22	
						4341.03	
	Add1% Cess					43.41	
						4384.44	438.44

		Say Rs		438.40	Per M <sup>3</sup>
6.1.15	Earth work in excavation of foundation trenches as per designed section in hard rock where blasting is needed and disposal of soil by Truck ( 50 mtr away from the edge of the trench beyond initial lead of 150 mtr but up to 1 k.m away with all lifts including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I.				
		Unit:-Per Cum			
		Assuming out put=10.0 Cum			
<b>A. Labour</b>					
	Hammer man	2.75	nos	220.00	605.00
	Unskilled mazdoor for all work	4.00	nos	206.00	824.00
	Mason Gr I	0.33	nos	279.00	92.07
	Blaster	0.33	nos	347.00	114.51
<b>B.</b>					
Cost of carriage of 10 cum earth by Truck including loading and unloading					
Carriage cost of earth for 1 k.m lead					
	Average lead=	575	M		
	Truck capacity 8 MT	6	cum		
	Swell factor	0.67			
	Net capacity=Truck capacity X swell factor	4.02	Cum		
	Cycle time---- Average speed	16	km/hr		
	(a) Hauling time =Average leadx60x2/1000xAverage speed	4.31	minutes		
	(b) Loading unloading turning and spollting time=	60	minutes		
	Total hauling cycle time=	64.31	minutes		
	No of trip per working hour = Loading unloading turning and spollting time / Total hauling time	0.93	trips		
	Material carried=trips X net capacity	3.75	M <sup>3</sup>		
	Hourly use rate of truck	805.00	hr		
	Rate per 10 cum for carriage only=Use rate of truck X 10/material carried			Rs	2146.42
	@ Construction and maintenance of haul road @ 5 % of Item ( B )			Rs	107.32
<b>C.</b>					
Blasting material including excise, sales tax, carriage from Gomia to work site, storage etc.					
	Special Gelatin	2.00	Kg	928.10	1856.20
	Detonator	10	nos	6.52	65.19
	Fuse coil	1	nos	15.61	15.61
<b>D. Tools and Plants</b>					
Cost of hire charge of compressor, drilling equipment and other accessories					
					15.00
					5841.32
Add Overhead charge & C.P@15%					
					876.20
					6717.51
Add 1% Cess					
					67.18
					6784.69
		Say Rs		678.50	Per M <sup>3</sup>
6.1.16	Earth work in filling in foundation trenches and back filling of masonry structures with suitable earth in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finally dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30 mtr and lift of 1.5 mtr. complete job as per specifications and direction of E/I.				
		Unit:-Per Cum			
		Assuming out put=28.32 Cum			
	Unskilled mazdoor for cutting .	4.5	nos	206.00	927.00
	Unskilled mazdoor for carrying .	4	nos	206.00	824.00
	Head mason	0.125	nos	279.00	34.88
					1785.88
Add Overhead charge & C.P@15%					
					267.88
					2053.76
Add 1% Cess					
					20.54
					2074.29
					73.24





		Say	Rs	73.20	Per M <sup>3</sup>	
6.1.17	Earth work in filling in foundation trenches and back filling of masonry structures with semi pervious or suitable earth in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finally dressed with earth obtained after cutting from borrow pits with initial lead of 30 M and initial lift of 1.5 M complete job as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
	Unskilled mazdoor for cutting .	5.5	nos	206.00	1133.00	
	Unskilled mazdoor for carrying .	4	nos	206.00	824.00	
	Head mason	0.125	nos	279.00	34.88	
	Add Overhead charge & C.P@15%				1991.88	
					298.78	
	Add1% Cess				2290.66	
					22.91	
					2313.56	81.69
		Say	Rs	81.70	Per M <sup>3</sup>	
6.1.18	Extra for each subsequent lift up to 1 M over the initial lift of 1.5 M ( for ordinary or hard soil ) as per specification and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
	Unskilled mazdoor for cutting	1	nos	206.00	206.00	
	Add Overhead charge & C.P@15%				206.00	
					30.90	
	Add1% Cess				236.90	
					2.37	
					239.27	8.45
		Say	Rs	8.40	Per M <sup>3</sup>	
6.1.19	Extra for each subsequent lead up to 25 M beyond the initial lead of 30 M ( for ordinary or hard soil ) as per specification and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
	Unskilled mazdoor	1	nos	206.00	206.00	
	Add Overhead charge & C.P@15%				30.90	
					236.90	
	Add1% Cess				2.37	
					239.27	8.45
		Say	Rs	8.40	Per M <sup>3</sup>	
6.1.20	Extra for each subsequent lift up to 1 M over the initial lift of 1.5 M ( for ordinary soft or hard rock) as per specification and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
	Unskilled mazdoor for cutting	1.5	nos	206.00	309.00	
	Add Overhead charge & C.P@15%				46.35	
					355.35	
	Add1% Cess				3.55	
					358.90	12.67
		Say	Rs	12.70	Per M <sup>3</sup>	
6.1.21	Extra for each subsequent lead up to 25 M beyond the initial lead of 30 M ( for ordinary soft or hard rock) as per specification and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
	Unskilled mazdoor	1.5	nos	206.00	309.00	
	Add Overhead charge & C.P@15%				46.35	
					355.35	
	Add1% Cess				3.55	
					358.90	12.67
		Say	Rs	12.70	Per M <sup>3</sup>	
6.1.22	Deleted					
6.1.23	Deleted					

6.1.24.1	Fine dressing of the canals banks or embankment and turfing with 75 mm thick grass sode obtained within a lead of 150 M including the cost of watering the grass surface till it acquires greenness as per specifications and direction of E/I.						
	Unit:-Per % Sqm						
	Assuming out put=100Sqm						
	Unskilled mazdoor for cutting	1.5	nos	206.00	309.00		
	Unskilled mazdoor for caring	1.5	nos	206.00	309.00		
	Unskilled mazdoor for dressing, placing turf and ramming	1	nos	206.00	206.00		
	Bhisti for carriage of water and sprinkling	3	nos	207.00	621.00		
	Cost of watering till the growth				15.00		
					1460.00		
	Add Overhead charge & C.P@15%				219.00		
					1679.00		
	Add1% Cess				16.79		
					1695.79	1695.79	
	Say	Rs		1695.80	Per % M <sup>2</sup>		
6.1.24.2	Extra for each lead of 150 M over initial lead of 150 M including the cost of watering the grass surface till it acquires greenness as per specifications and direction of E/I.						
	Unit:-Per % Sqm						
	Assuming out put=100Sqm						
	Unskilled mazdoor for carrying	1.50	nos	206.00	309.00		
					309.00		
	Add Overhead charge & C.P@15%				46.35		
					355.35		
	Add1% Cess				3.55		
					358.90	358.90	
	Say	Rs		358.90	Per % M <sup>2</sup>		
6.1.25	Close timbering in trenches including strutting, shoring and packing cavaties (whereve required) depth not exceding 1.5 M, complete as per specifications and direction of E/I. (Measurement to be taken of the face area timbered)						
	Unit:-Per Sqm						
	Assuming out put=90 Sqm						
	Assuming 30 mtr long 1.5 mtr deep						
	Area= 2 x 30 x 1.5 = 90 sqm.						
	Poling Boards						
	Local wood/kail planks 90 x 0.38= 3.42 cum	3.42	cum	33253.00	113725.26		
	100 mm x100 mm						
	Local wood planks 4 x30x 0.1 x0.1 = 1.2 cum	1.2	Cum	33253.00	39903.60		
	Balli struts						
	Sal ballah 120 mm dia 1.5 m long 2 x17x1.5=51 mtr	51	mtr	30.30	1545.30		
	Total Cost of material				155174.16		
	Carriage						
	Cost of carriage of material including loading, unloading and stacking @ 1% of total of cost materials				1551.74		
	Total cost of material with carriage cost				156725.90		
	Deduct credit for materials 75 % of the cost of material				116380.62		
					40345.28	(A)	
	This (A) can be used four times Therefore cost per use A/4				10086.32		
	Labour						
	Carpenter Gr II	0.5	nos	249.00	124.50		
	Unskilled mazdoor	1	nos	206.00	206.00		
	Total				10416.82		
	Add Overhead charge & C.P@15%				1562.52		
					11979.34		
	Add1% Cess				119.79		
					12099.14	134.43	
	Say	Rs		134.40	Per M <sup>2</sup>		

6.1.26	Close timbering in trenches including strutting, shoring and packing cavities (whereve required) depth exceding 1.5M ,but upto 3.0 M complete as per specifications and direction of E/I. (Meassurement to be taken of the face area timbered)					
	Unit:-Per Sqm					
	Assuming out put=90 Sqm					
	Assuming 30 mtr long 1.5 mtr deep					
	Area= 2 x 30 x 1.5 = 90 sqm.					
	Poling Boards					
	Local wood planks 90 x 0.38= 3.42 cum	3.42	cum	33253.00	113725.26	
	100 mm x100 mm					
	Local wood planks 4 x30x 0.1 x0.1 = 1.2 cum	1.2	Cum	33253.00	39903.60	
	Balli struts					
	Sal ballah 120 mm dia 1.5 m long 2 x17x1.5=51 mtr	51	mtr	30.30	1545.30	
	Total Cost of material				155174.16	
	Cost of carriage of material including loading, unloading and stacking @ 1 % of total of cost materials				1551.74	
	Total cost of material with carriage cost				156725.90	
	Deduct credit for materials 75 % of the cost of material				116380.62	
	This (A) can be used four times Therefore, cost per use A/4				40345.28	(A)
	Labour					
	Carpenter Gr II	0.75	nos	249.00	186.75	
	Unskilled mazdoor	2	nos	206.00	412.00	
	Total				10685.07	
	Add Overhead charge & C.P.@15%				1602.76	
					12287.83	
	Add 1% Cess				122.88	
					12410.71	137.90
	Say		Rs	137.90	Per Sqm	
6.1.27	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same along with all organic materials in country side beyond initial lead of 150 M but within 1.00 K.M and all lifts by Tipper including loading, unloading and maintenance of haul roads as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
A.	Unskilled mazdoor for dagbelling	0.50	nos	206.00	103.00	
	Unskilled mazdoor for for cutting earth as well as removing organic materials etc.	6	nos	206.00	1236.00	
	Unskilled mazdoor for preparation of sheet	1	nos	206.00	206.00	
	Mate	0.25	nos	225.00	56.25	
	Add Overhead charge & C.P.@15%				1601.25	
					240.19	
					1841.44	65.02
B.	Carriage of earth by 5.5 cum capacity Tipper					
	Taking output = 1 cum.km					
	Loading and Unloading of Earth By manual means Vide item no 4.2	1	cum	174.90	174.90	
	Cost of Haulage vide item no 4.4 (c)	1	cum.km	30.60	30.60	Lead x H <sub>ka</sub>
					205.50	205.5
	Add 1% cess					270.52
						2.71
						273.23
	Say Rs			273.20	Per M <sup>3</sup>	





6.1.28	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same along with all organic materials in country side beyond 1.00 K.M but up to 2 K.M away with all lifts by Tipper including loading, unloading and maintenance of haul roads as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
A.	Unskilled mazdoor for dagbelling	0.50	nos	206.00	103.00	
	Unskilled mazdoor for cutting earth as well as removing organic materials etc.	6	nos	206.00	1236.00	
	Unskilled mazdoor for preparation of sheet	1	nos	206.00	206.00	
	Mate	0.25	nos	225.00	56.25	
	Add Overhead charge & C.P@15%				1601.25	
					240.1875	
					1841.44	65.02
B.	Carriage of earth by 5.5 cum capacity Tipper					
	Taking output = 1 cum.km					
	Loading and Unloading of Earth By manuals means Vide item no 4.2	1	cum	174.90	174.90	
	Cost of Haulage vide item no 4.4( c)	1	cum.km	61.20	61.20	Lead x H <sub>ka</sub>
					236.10	236.1
						301.12
	Add 1% cess					3.01
						304.13
	Say Rs			304.10	Per M <sup>3</sup>	
6.1.29	Earth work in excavation of foundation trenches in ordinary soil ( vide classification of soil item A ) and disposal of same in country side by Tipper ( 50 mtr. away from the edge of the trench ) beyond initial lead of 150 m but upto 1 k.m with all lifts including loading, unloading, constructing and maintenance of haul roads etc.all complete as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
A.	Unskilled mazdoor for cutting earth	6	nos	206.00	1236.00	
	Unskilled mazdoor for carrying	1	nos	206.00	206.00	
	Head Mason	0.25	nos	279.00	69.75	
					1511.75	
	Add Overhead charge & C.P@15%				226.7625	
					1738.51	61.39
B.	Carriage of earth by 5.5 cum capacity Tipper					
	Taking output = 1 cum.km					
	Loading and Unloading of Earth By manuals means Vide item no 4.2	1	cum	174.90	174.90	
	Cost of Haulage vide item no 4.4( c)	1	cum.km	30.60	30.60	Lead x H <sub>ka</sub>
					205.50	205.5
						266.89
	Add 1% cess					2.67
						269.56
	Say Rs			269.60	Per M <sup>3</sup>	
6.1.30.1	Earth work in excavation of foundation trenches as per designed section in soft rock or ordinary rock (vide classification of soil item C) and disposal of soil by Tipper ( 50 M away from the edge of the trench beyond initial lead of 150 M but upto 1 k.m away with all lifts including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I. ( Soft rock where blasting is required and approved by concerned Chief Engineer )					
	Unit:-Per Cum					
	Assuming out put=10.00 Cum					
A.	Labour					
	Hammer man	2.75	nos	220.00	605.00	

	Unskilled mazdoor for all work	4.00	nos	206.00	824.00	
	Mason Gr I	0.33	nos	279.00	92.07	
	Blaster	0.33	nos	347.00	114.51	
					1635.58	
	Add Overhead charges & C.P@15%				245.34	
					1880.92	188.09
B.	<b>Blasting material including excise, sales tax, carriage from Gomia to work site, storage etc.</b>					
	Special Gelatin	2.00	Kg	928.10	1856.20	
	Detonator	10	nos	6.52	65.19	
	Fuse coil	1	nos	15.61	15.61	
	<b>Tools and Plants</b>					
	Cost of hire charge of compressor, drilling equipment and other accessories				15.00	
					1952.00	
	Add Overhead charge & C.P@15%				292.80	
					2244.80	224.48
C.	<b>Carriage of earth by 5.5 cum capacity Tipper</b>					
	Taking output = 1 cum.km					
	Loading and Unloading of Earth By manuals means Vide item no 4.2	1	cum	174.90	174.90	
	Cost of Haulage vide item no 4.4(c)	1	cum.km	30.60	30.60	Lead x H <sub>k</sub>
					205.50	205.50
						618.07
	Add 1% cess					6.18
						624.25
	Say Rs			624.30		Per M <sup>3</sup>
6.1.30.2	Earth work in excavation of foundation trenches as per designed section in soft rock or ordinary rock (where blasting is not required) ( vide classification of soil item C ) and disposal of soil by Tipper ( 50 M away from the edge of the trench beyond initial lead of 150 M but up to 1 k.m away with all lifts including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I.					
	Assuming 10cum					
	<b>Labour</b>					
	Hammer man	2.75	nos	220.00	605.00	
	Unskilled mazdoor for all work	4.00	nos	206.00	824.00	
	Mason Gr I	0.33	nos	279.00	92.07	
					1521.07	
	Add Overhead charge & C.P@15%				228.16	
					1749.23	174.92
	<b>Carriage of earth by 5.5 cum capacity Tipper</b>					
	Taking output = 1 cum.km					
	Loading and Unloading of Earth By manuals means Vide item no 4.2	1	cum	174.90	174.90	
	Cost of Haulage vide item no 4.4(c)	1	cum.km	30.60	30.60	Lead x H <sub>ka</sub>
					205.50	205.5
						380.42
	Add 1% cess					3.80
						384.23
	Say Rs			384.20		Per M <sup>3</sup>
6.1.31	Earth work in excavation of foundation trenches as per designed section in hard rock where blasting is needed and disposal of soil by Tipper ( 50M away from the edge of the trench beyond initial lead of 150 M but upto 1 k.m away with all lifts, including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=10.00 Cum					
A.	<b>Labour</b>					
	Hammer man	2.75	nos	220.00	605.00	
	Unskilled mazdoor for all work	4.00	nos	206.00	824.00	
	Mason Gr I	0.33	nos	279.00	92.07	
	Blaster	0.33	nos	347.00	114.51	

	<b>Blasting material including excise, sales tax, carriage from Gomia to work site, storage etc.</b>				
B.	Special Gelatin	2.00	Kg	928.10	1856.20
	Detonator	10	nos	6.52	65.19
	Fuse coil	1	nos	15.61	15.61
	<b>Tools and Plants</b>				
	Cost of hire charge of compressor, drilling equipment and other accessories				15.00
					3587.58
	Add Overhead charge & C.P@15%				538.14
					4125.72
					412.57
C.	Carriage of earth by 5.5 cum capacity Tipper				
	Taking output = 1 cum.km				
	Loading and Unloading of Earth By manuals means Vide item no 4.2	1	cum	174.90	174.90
	Cost of Haulage vide item no 4.4( c)	1	cum.km	30.60	30.60
					Lead x H <sub>k</sub>
					205.50
					618.07
	Add 1% cess				6.18
					624.25
					Say Rs
				624.30	Per M <sup>3</sup>
6.1.32	Earth work in filling in foundation trenches or back filling of masonry structures with pervious soil in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finally dressed with earth obtained after cutting from borrow pits beyond 150 M lead but upto 1/2 K.M. with all lift and carriage by Tipper complete job as per specifications and direction of E/I.				
	Unit:-Per Cum				
	Assuming out put=28.32 Cum				
A.	<b>Labour</b>				
	Unskilled mazdoor for stripping the borrow area	0.75	nos	206.00	154.50
	Unskilled mazdoor for throwing the stripped earth from borrow area	0.75	nos	206.00	154.50
	Unskilled mazdoor for cutting earth	9.50	nos	206.00	1957.00
	Mate	1.00	nos	225.00	225.00
B.	<b>Cost of compaction( vide itm no 6.1.38)</b>				
	Unskilled mazdoor	3	nos	206.00	618.00
	Bhisti for carriage of water and sprinkling	3	nos	207.00	621.00
	Total (A+B)				3730.00
	Add Overhead charge & C.P	20	%		559.50
					4289.50
					151.47
C.	Carriage of earth by 5.5 cum capacity Tipper				
	Taking output = 1 cum.km				
	Loading and Unloading of Earth By manuals means Vide item no 4.2	1	cum	174.90	174.90
	Cost of Haulage vide item no 4.4( c)	1	cum.km	15.30	15.30
					Lead x H <sub>k</sub>
					190.20
					341.67
	Add 1% cess				3.42
					345.08
					Say Rs
				345.10	Per M <sup>3</sup>
6.1.33	Earth work in filling in foundation trenches or back filling of masonry structures with pervious soil in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finally dressed with earth obtained after cutting from borrow pits beyond 1/2 K.M lead but up to 1 K.M. with all lift and carriage by Tipper complete job as per specifications and direction of E/I.				
	Unit:-Per Cum				
	Assuming out put=28.32 Cum				
A.	<b>Labour</b>				
	Unskilled mazdoor for stripping the borrow area	0.75	nos	206.00	154.50
	Unskilled mazdoor for throwing the stripped earth from borrow area	0.75	nos	206.00	154.50
	Unskilled mazdoor for cutting earth	9.50	nos	206.00	1957.00
	Mate	1.00	nos	225.00	225.00
B.	<b>Cost of compaction( vide item no 6.1.38)</b>				

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	Unskilled mazdoor	3	nos	206.00	618.00	
	Bhisti for carriage of water and sprinkling	3	nos	207.00	621.00	
	Total (A+B)				3730.00	
	Add Overhead charge & C.P@15%				559.50	
					4289.50	151.47
C.	Carriage of earth by 5.5 cum capacity Tipper					
	Taking output = 1 cum.km					
	Loading and Unloading of Earth By manuals means Vide item no 4.2	1	cum	171.80	171.80	
	Cost of Haulage vide item no 4.4( c)	1	cum.km	30.60	30.60	Lead x H <sub>k</sub>
					202.40	202.4
						353.87
	Add 1% cess					3.54
						357.40
		Say	Rs	357.40	Per M <sup>3</sup>	

Sr.No.	Item	Rate	Unit
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## 6.2 DRILLING WORK

Sr.No.	Item	Rate	Unit
6.2.1.1	Core drilling of N x ( 53 mm To 75 mm ) (Internal dia To External dia) size by Rotary core drilling machine up to 20 meters depth in all kinds of hard rock including finishing and maintenance of core ( minimum 80 % core recovery in hard rock is essential ) and sludge etc. for foundation exploration only complete as per specifications and direction of E/I.	#VALUE!	Per M
6.2.1.2	Core drilling of N x (Internal dia To External dia) (53 mm To 75 mm ) (Internal dia To External dia) size by Rotary core drilling machine up to 20 meters depth and up to 30 meters depth in all kinds of hard rock including finishing and maintenance of core ( minimum 80 % core recovery in hard rock is essential ) and sludge etc. for foundation exploration only complete as per specifications and direction of E/I.	#VALUE!	Per M
6.2.2	Core drilling of 41mm To 75 mm (Internal dia To External dia) size by Rotary core drilling machine with T.C drill bit in all kinds of soil mixed with boulder, pebbles, shingles etc. including reaming ( to facilitate smooth lowering of casing pipe ) lowering of casing pipes and its extraction maintenance of core and sludge for foundation exploration only complete as per specifications and direction of E/I.	#VALUE!	Per M
6.2.3.1	Core drilling of B x (41 mm To 59 mm ) (Internal dia To External dia) size by Rotary core drilling machine up to 20 meters depth and up to 30 meters depth in all kinds of hard rock including finishing and maintenance of core ( minimum 80 % core recovery in hard rock is essential ) and sludge etc. for foundation exploration only complete as per specifications and direction of E/I.	#VALUE!	Per M
6.2.3.2	Core drilling of B x (Internal dia To External dia) (41 mm To 59 mm ) size by Rotary core drilling machine up to 20 meters depth in all kinds of hard rock including finishing and maintenance of core ( minimum 80 % core recovery in hard rock is essential ) and sludge etc. for foundation exploration only complete as per specifications and direction of E/I.	#VALUE!	Per M
6.2.4.	Drilling by Rotary core drilling machine of size 41 mm To 75 mm dia (Internal dia To External dia) with T.C drill bit for grout and test holes in all kinds of soil including moorum, hard soil mixed with pebbles, shingles and compacted soil up to 20 meter depth including reaming ( to facilitate smooth lowering of casing pipe ) lowering of casing pipes and its extraction finishing etc. till operation is completed as per specifications and direction of E/I.	#VALUE!	Per M
6.2.5	Drilling by Rotary drill machine of size 41 mm To 75 mm dia (Internal dia To External dia) with T.C drill BUT for grout and test holes in clay soft and decomposed rock upto 20 meter depth including reaming ( to facilitate smooth lowering of casing pipe ) lowering of casing pipes and its extraction finishing etc. till grouting, complete as per specifications and direction of E/I.	#VALUE!	Per M
6.2.6	Drilling B x (41 mm To 59 mm ) (Internal dia To External dia) size dia test and grout holes in all kinds of hard rock including finishing etc. till grouting operation is completed as per specifications and direction of E/I.	#VALUE!	Per M
6.2.7	Drilling N x (53 mm To 75 mm ) size dia test and grout holes in all kinds of hard rock including finishing etc. till grouting operation is completed as per specifications and direction of E/I.	#VALUE!	Per M
6.2.8.	Drilling Jack Hammer in hard of all kinds for grout holes up to 5 meter depth ( for contact grouting ) all complete including washing of holes for period not exceeding 10 minutes per hole as per specifications and direction of E/I.	#RFF!	Per M

Sr.No.	Item	Rate	Unit
6.2.9	Drilling by wagon drill machine in hard of all kinds for grout holes up to 5 meter depth ( for consolidation grouting ) all complete including washing of holes for period not exceeding 10 minutes per hole as per specifications and direction of E/I.	#VALUE!	Per M

*[Handwritten marks]*

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6.2 DRILLING WORK

Sl.no	Description	Quantity	Unit	Rate	Amount	Ref.
6.2.1.1	Core drilling of N x ( 53 mm To 75 mm ) (Internal dia To External dia) size by Rotary core drilling machine up to 20 metres depth in all kinds of hard rock including finishing and maintenance of core ( minimum 80 % core recovery in hard rock is essential ) and sludge etc. for foundation exploration only complete as per specifications and direction of E/I.					
	(I) Hourly use rate of rotary core drilling machine and diesel pump (Vide item no 3.4)	#VALUE!				
	(ii).Average progress of core drilling has been found to be 1.5 metre in 3 hrs. Therefore cost of drilling /m= R/0.5	0.5	mtr		#VALUE!	
	(iii). Cost of Diamond bit for N x size at site Rs 'D'	IINPUT				
	Life of the bit = 10 metres	10	Mtr			
	Cost of bit per metre = D/10				#VALUE!	
	(iv). Cost of (N x Size ) Reaming shell at site = 'S'	IINPUT				
	Life of Reaming shell = 50 metres / shell	50	mtr/shell			
	Cost of shell per metre = S / 50				#VALUE!	
	(v). Shifting cost of the machine from one hole to another @ 40 % of item no (ii). Above	40	%		#VALUE!	
	(vi). Cost of core box, indexing marking placing in the core box and storing it properly. Cost of good quality wooden core box 3 metres long x 0.85 metre wide x 0.15 metre deep with longitudinal compartment to accommodate 5 row of 3 metres long cores i.e. total 15 metres.	15	mtr			
	Cost of core box = 'X'	IINPUT				
	Cost per meter= X/15				#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
	Add 1% cess				#VALUE!	
					#VALUE!	
			Say Rs	#VALUE!	Per M	
6.2.1.2	Core drilling of N x (Internal dia To External dia) (53 mm To 75 mm ) (Internal dia To External dia) size by Rotary core drilling machine up to 20 metres depth and up to 30 metres depth in all kinds of hard rock including finishing and maintenance of core ( minimum 80 % core recovery in hard rock is essential ) and sludge etc. for foundation exploration only complete as per specifications and direction of E/I.					
	The rate for item 6.2.1.1 has been worked out for drilling up to 20 metres depth while drilling beyond 20 metres depth. The depth covered per hour gets reduced to 0.33 metres in place of 0.50 metre per hour, therefore affecting the cost of drilling as per item 8.2.1 ii.Hence cost of drilling per metre = R x 3					
	(I) Hourly use rate of rotary core drilling machine and diesel pump (Vide item no 3.4)	#VALUE!				
	ii.Hence cost of drilling per metre = R /0.33	0.33	mtr		#VALUE!	
	(iii). Cost of Diamond bit for N x size at site Rs 'D'	IINPUT				
	Life of the bit = 10 metres	10	Mtr			
	Cost of bit per metre = D/10				#VALUE!	
	(iv). Cost of (NxSize ) Reaming shell at site = 'S'	IINPUT				
	Life of Reaming shell = 50 metres / shell	50	mtr/shell			
	Cost of shell per metre = S / 50				#VALUE!	

	(v). Shifting cost of the machine from one hole to another @ 40 % of item no (ii). Above	40	%		#VALUE!	
	(vi). Cost of core box, indexing marking placing in the core box and storing it properly. Cost of good quality wooden core box 3 metres long x 0.85 metre wide x 0.15 metre deep with longitudinal compartment to accommodate 5 row of 3 metres long cores i.e. total 15 metres.	15	mtr			
	Cost of core box = 'X'	IINPUT				
	Cost per mtr = X/15				#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
	Add 1% cess				#VALUE!	#VALUE!
				Say Rs	#VALUE!	Per M
	Note:- To the rates derived above following may be included as mobilization and demobilization charge depending on the value of work (i). Upton Rs 5 lakhs @ 10 % subject to maximum of Rs 37500 /- only (ii). Above Rs 5 lakhs Upto Rs 10 lakhs @ 7.5 % subject to maximum of Rs 50000 /- only (iii). Above Rs 10 lakhs @ 5 % subject to maximum of Rs 75000 /- only					
6.2.2	Core drilling of 41mm To 75 mm (Internal dia To External dia) size by Rotary core drilling machine with T.C drill bit in all kinds of soil mixed with boulder, pebbles, shingles etc. including reaming ( to facilitate smooth lowering of casing pipe ) lowering of casing pipes and its extraction maintenance of core and sludge for foundation exploration only complete as per specifications and direction of E/I.					
	<b>(i) Hourly use rate of rotary core drilling machine and diesel pump (Vide item no 3.4)</b>	#VALUE!				
	(ii). Average progress of core drilling has been found to be 2.50 metre per hour ( As per actual observation ). Therefore cost of drilling /m= Use rate of DCDM/2.5	2.5	mtr		#VALUE!	
	(iii). Cost of Tungsten Carbide bit at site Rs.	IINPUT				
	Assuming Life of the bit = 20 metres / bit	20				
	Cost of bit per metre = R/20				#VALUE!	
	(iv). Cost of Reaming shell at site = 'N'	IINPUT				
	Life of Reaming shell = 100 metres / shell	100				
	Cost of shell per metre = N / 100				#VALUE!	
	(v). Shifting cost of the machine from one hole to another @ 40 % of item no (ii). Above ( On the basis of item on 20(iii) page 125 of report of committee on control of R.V.Project )	40	%		#VALUE!	
	(vi). Cost of core box, indexing marking placing in the core box and storing it properly. Cost of good quality wooden core box 3 metres long x 0.85 metre wide x 0.15 metre deep with longitudinal compartment to accommodate 5 row of 3 metres long cores i.e. total 15 metres.	15	mtr			
	Cost of core box = 'CB'	IINPUT				
	Cost per meter = CB/15				#VALUE!	
	(vii). Lowering 50 m dia light duty G.I causing pipe and its extraction including cutting , threading and providing socket wherever necessary.					
	(a). Cost of 50 mm dia light duty G.I pipe= (assuming 50 % of light G.I pipe will be salvaged hence only 50 % cost should be taken )	INPUT			#VALUE!	
	(b) Unskilled mazdoor for raising ( Extracting) the casing pipe	0.17	nos	206.00	34.33	
	Total (ii)+(iii)+(iv)+(v)+(vi)+(vii)				#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
	Add 1% cess				#VALUE!	#VALUE!

		Say Rs	#VALUE!	Per M	#VALUE!
	Note:- To the rates derived above following may be included as mobilization and demobilization charge depending on the value of work (i). Upto Rs 5 lakhs @ 10 % subject to maximum of Rs 37500 /- only (ii). Above Rs 5 lakhs Upto Rs 10 lakhs @ 7.5 % subject to maximum of Rs 50000 /- only (iii). Above Rs 10 lakhs @ 5 % subject to maximum of Rs 75000 /- only				
6.2.3.1	Core drilling of B x (41 mm To 59 mm )(Internal dia To External dia) size by Rotary core drilling machine up to 20 metres depth and up to 30 metres depth in all kinds of hard rock including finishing and maintenance of core ( minimum 80 % core recovery in hard rock is essential ) and sludge etc. for foundation exploration only complete as per specifications and direction of E/I.				
	(I) Hourly use rate of rotary core drilling machine and diesel pump (Vide item no 3.4)	#VALUE!			
	(ii). Average progress of core drilling has been found to be 0.80 metre per hrs(as per actual observation at Latratu Dam site). Therefore cost of drilling /m= R/0.80	0.8	mtr		#VALUE!
	(iii). Cost of Diamond bit or (Bxsize ) at site Rs 'T'	INPUT			
	Life of the bit = 10 metres	10			
	Cost of bit per metre = T/10				#VALUE!
	(iv). Cost of (Bxsize ) Reaming shell at site = 'TK'	INPUT			
	Life of Reaming shell = 50 metres / shell	50			
	Cost of shell per metre = TK / 50				#VALUE!
	(v). Shifting cost of the machine from one hole to another @ 40 % of item no (ii). Above	40	%		#VALUE!
	(vi). Cost of core box, indexing marking placing in the core box and storing it properly. Cost of good quality wooden core box 3 metres long x 0.85 metre wide x 0.15 metre deep with longitudinal compartment to accommodate 5 row of 3 metres long cores i.e. total 15 metres.	15	mtr		
	Cost of core box = 'CB'	INPUT			
	Cost per meter= CB/15				#VALUE!
	Add Overhead charge & C.P@15%				#VALUE!
	Add 1% cess				#VALUE!
					#VALUE!
		Say Rs	#VALUE!	Per M	#VALUE!
6.2.3.2	Core drilling of B x (Internal dia To External dia) (41 mm To 59 mm ) size by Rotary core drilling machine up to 20 metres depth in all kinds of hard rock including finishing and maintenance of core ( minimum 80 % core recovery in hard rock is essential ) and sludge etc. for foundation exploration only complete as per specifications and direction of E/I.				
	The rate for item 8.2.3.1 has been worked out for drilling up to 20 metres depth while drilling beyond 20 metres depth. The depth covered per hour gets reduced to 0.50 metres in place of 0.80 metre per hour, therefor affecting the cost of drilling as per item 8.2.1 (ii). Hence cost of drilling per metre = R x 0.50				
	(I) Hourly use rate of rotary core drilling machine and diesel pump (Vide item no 3.4)	#VALUE!			

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(ii).Average progress of core drilling has been found to be 0.50 metre per hrs(as per actual observation at Latratu Dam site). Therefore cost of drilling /m= R/0.50	0.5	mtr		#VALUE!	
(iii). Cost of Diamond bit or (Bxsize ) at site Rs 'T'	IINPUT				
Life of the bit = 10 metres	10				
Cost of bit per metre = T/10				#VALUE!	
(iv). Cost of (Bxsize ) Reaming shell at site = 'TK'	IINPUT				
Life of Reaming shell = 50 metres / shell	50				
Cost of shell per metre = TK / 50				#VALUE!	
(v). Shifting cost of the machine from one hole to another @ 40 % of item no (ii). Above	40	%		#VALUE!	
(vi). Cost of core box, indexing marking placing in the core box and storing it properly. Cost of good quality wooden core box 3 metres long x 0.85 metre wide x 0.15 metre deep with longitudinal compartment to accommodate 5 row of 3 metres long cores i.e. total 15 metres.	15	mtr			
Coxt of core box = 'CB'	IINPUT				
Cost per mtrre= CB/15				#VALUE!	
				#VALUE!	
Add Overhead charge & C.P@15%				#VALUE!	#VALUE!
Add 1% cess				#VALUE!	#VALUE!
				#VALUE!	#VALUE!
			Say Rs	#VALUE!	Per M
Note:- To the rates derived above following may be included as mobilization and demobilization charge depending on the value of work (i). Up to Rs 5 lakhs @ 10 % subject to maximum of Rs 37500 /- only (ii).Above Rs 5 lakhs Upto Rs 10 lakhs @ 7.5 % subject to maximum of Rs 50000 /- only (iii). Above Rs 10 lakhs @ 5 % subject to maximum of Rs 75000 /- only					
6.2.4. Drilling by Rotary core drilling machine of size 41 mm To 75 mm dia (Internal dia To External dia) with I.C drill bit for grout and test holes in all kinds of soil including moorum, hard soil mixed with pebbles, shingles and compacted soil up to 20 metre depth including reaming ( to facilitate smooth lowering of casing pipe ) lowering of casing pipes and its extraction finishing etc. till operation is completed as per specifications and direction of E/L.					
<b>(I) Hourly use rate of rotary core drilling machine and diesel pump (Vide item no 3.4)</b>	#VALUE!				
(ii).Average progress of core drilling has been found to be 2.50 metre per hour ( As per actual observation ). Therefore cost of drilling /m= D/2.5	2.5	mtr		#VALUE!	
(iii). Cost of Tungsten Carbide bit at site Rs.T.C	IINPUT				
Assuming Life of the T.C bit = 20 metres	20				
Cost of bit per metre = T.C/20				#VALUE!	
(iv). Cost of Reaming shell at site = 'RS'	IINPUT				
Assuming Life of Reaming shell = 100 metres	100				
Cost of shell per metre = RS / 100				#VALUE!	
(v). Shifting cost of the machine from one hole to another @ 40 % of item no (ii). Above	40	%		#VALUE!	
(vi). Lowering 50 metre dia light duty G.I casing pipe and its extraction including cutting, threading and providing socket wherever necessary.( vide T.E.C Item no 12.1.61)	1	mtr		#VALUE!	#VALUE!

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	Analysis ( vide T.E.C Item no 12.1.61) Supplying labour, materials and equipment for lowering 100 mm G.I.pipe (casing) up to 12 m depth for protecting the sides from filling during the process of drilling as per specification and direction of E/I. ( G.I casing to be supplied					
	i. Carriage of pipe for an average lead of 50 K.M from store to site (12 mtr. In length as per carriage schedual					
	ii. Cutting two pipe in four pieces ) lowering of pipe is made in length of 3 metre )					
	iii. Making thread in cut pieces	4	nos	INPUT	#VALUE!	
	iv. Supplying and fitting two extra socket	2	nos	INPUT	#VALUE!	
	v. Red lead and jute etc. for socket fixing				3.00	
	vi. Plumber Gr I	0.5	nos	265.00	132.50	
	Add Overhead charge & C.P @15%				#VALUE!	
	Add 1% cess				#VALUE!	
	Say		Rs	#VALUE!	Per mtr	#VALUE!
	(a). Cost of 50 mm dia light duty G.I pipe=( assuming 50 % of light G.I pipe will be salvaged hence only 50 % cost should be taken )	1.00	mtr	INPUT	#VALUE!	
	(b). Labour for cutting, threading and inserting etc.	0.08		206.00	16.48	
	© Unskilled mazdoor for raising ( Extracting ) the casing pipe	0.17	nos	206.00	35.02	
	(d). Clearing the pipe				#VALUE!	
	Final Rate (ii)+(iii)+(iv)+(v)+(vi)+(vii)				#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
	Add 1% cess				#VALUE!	#VALUE!
					#VALUE!	#VALUE!
			Say Rs	#VALUE!	Per M	#VALUE!
	Note:- To the rates derived above following may be included as mobilisation and demobilisation charge dependant on the valu of work (I). Upto Rs 5 lakhs @ 10 % subject to maximum of Rs 37500 /- only (ii). Above Rs 5 lakhs Upto Rs 10 lakhs @ 7.5 % subject to maximum of Rs 50000 /- only (iii). Above Rs 10 lakhs @ 5 % subject to maximum of Rs 75000 /- only					
6.2.5	Drilling by Rotary drill machine of size 41 mm To 75 mm dia (Internal dia To External dia) with T.C drill BUT for grout and test holes in clay soft and decomposed rock upto 20 metre depth including reaming ( to facilitate smooth lowering of casing pipe ) lowering of casing pipes and its extraction finishing etc. till grouting, complete as per specifications and direction of E/I.					
	(I) Hourly use rate of rotary core drilling machine and diesel pump (Vide item no 3.4)	#VALUE!				
	(ii).Average progress of core drilling has been found to be 1.50 metreper hour ( As per actual observation at Latrau Dam site ). Thereforo cost of drilling /m= R/1.5	1.5	mtr		#VALUE!	
	(iii). Cost of Tungaton Carbide bit at site Rs.			INPUT		
	Assuming Life of the T.C bit = 20 metres	20				
	Cost of bit per metre = T.C/20				#VALUE!	
	(iv). Cost of Reaming shell at site = 'RS'			INPUT		
	Assuming Life of Reaming shell =100 metres	100				
	Cost of shell per metre = RS / 100				#VALUE!	
	(v). Shifting cost of the machine from one hole to another @ 40% of item no (ii). Above	40	%		#VALUE!	

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	(vi). Lowering 50 metre dia light duty G.I casing pipe and its extraction including cutting, threading and providing socket wherever necessary.	1	mtr	#VALUE!	#VALUE!	
	(a). Cost of 50 mm dia light duty G.I pipe= (assuming 50 % of light G.I pipe will be salvaged hence only 50 % cost should be taken )	1.00	mtr	160.70	80.35	
	(b). Labour for cutting, threading and inserting etc.	0.08		184.00	14.72	
	© Unskilled mazdoor for raising ( Extracting ) the casing pipe	0.17	nos	184.00	31.28	
	(d). Clearing the pipe					
	Final Rate (II)+(III)+(IV)+(V)+(VI)+(VII)				#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
	Add 1% cess				#VALUE!	#VALUE!
					#VALUE!	#VALUE!
			Say Rs	#VALUE!	Per M	
	Note:- To the rates derived above following may be included as mobilisation and demobilisation charge depending on the value of work (i). Upto Rs 5 lakhs @ 10 % subject to maximum of Rs 37500 /- only (ii). Above Rs 5 lakhs Upto Rs 10 lakhs @ 7.5 % subject to maximum of Rs 50000 /- only (iii). Above Rs 10 lakhs @ 5 % subject to maximum of Rs 75000 /- only					
6.2.6	Drilling B x (41 mm To 59 mm ) (Internal dia To External dia) size dia test and grout holes in all kinds of hard rock including finishing etc. till grouting operation is completed as per specifications and direction of E/I.					
	(A). 40% drilling is done by wagon drill machine. Hence cost of drilling per metre by wagon drill vide item no 8.2.9 x 0.4 =				#VALUE!	
	(B). 60 % drilling is done by diamond core drilling machine because beyond filled up portion of cut off trench diamond core drilling machine is utilised in place of wagon drill for deeper depth machine. Drilling for the purpose of test and grout holes take place only in fissures and fractured rock. Hence cost of drilling per metre by Diamond core drilling= 0.60 x Rate of B x Size drilling by Rotary core drilling machine. Cost of core box, indexing, marking etc.) vide item 8.2.3.1. Total cost of drilling per metre				#VALUE!	
	Total				#VALUE!	#VALUE!
	Add 1% cess	1	%		#VALUE!	#VALUE!
					#VALUE!	#VALUE!
			Say Rs	#VALUE!	Per M	
	Note:- To the rates derived above following may be included as mobilisation and demobilisation charge depending on the value of work (i). Upto Rs 5 lakhs @ 10 % subject to maximum of Rs 37500 /- only (ii). Above Rs 5 lakhs Upto Rs 10 lakhs @ 7.5 % subject to maximum of Rs 50000 /- only (iii). Above Rs 10 lakhs @ 5 % subject to maximum of Rs 75000 /- only					
6.2.7	Drilling N x (53 mm To 75 mm ) size dia test and grout holes in all kinds of hard rock including finishing etc. till grouting operation is completed as per specifications and direction of E/I.					
	( One a fission and Zoological condition as per report received from zoological and actual observation )					
	(A). 40% drilling is done by wagon drill machine. Hence cost of drilling per metre by wagon drill vide item no 8.2.9 x 0.4 =				#VALUE!	

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(i) Hourly use rate of Wagon drilling machine and diesel pump. (vide item 3.5)	#VALUE!				
(ii).Average progress of core drilling has been found to be 6 metre per hour 50 % progress due to source limitation etc. . The rate of drilling /hr= Use rate of wagon drill M/C-R/3				#VALUE!	
(iii). Cost of drill steel per metre of drilling					
(a). Drill steel used with wagon drill					
The following drill equipments will be required for 10 metre deep drill holes with one wagon drill.					
Shank adppter	1	no	IINPUT	#VALUE!	
Coupling sleeves	4	no	IINPUT	#VALUE!	
Extension rod 1 x 3.00metre	1	no	IINPUT	#VALUE!	
Extension rod 1 x 2.50 metre	1	no	IINPUT	#VALUE!	
Extension rod 1 x 2.00 metre	1	no	IINPUT	#VALUE!	
Extension rod 1 x 1.50 metre	1	no	IINPUT	#VALUE!	
Extension rod 1 x 1.00 metre	1	no	IINPUT	#VALUE!	
				#VALUE!	
Economic lift=460 metre	460				
Cost of drill steel per metre of drilling				#VALUE!	
(b ).Cost of 4 point drill bit at site= R.S ( Vide item no 3.5h)	IINPUT				
Total life of bit 130 metre	130				
Cost of bit/ metre of drilling= R.S/130				#VALUE!	
(c).Sharpening charge @ 1.00 per metre				1.00	
(iv). Cost of shifting of wagon drill @ 40 % of item (iii).				#VALUE!	
(v). Lightening, ventilation and workshop charge @ 40 % of item (iii)				#VALUE!	
(iv).Washing hole				#VALUE!	
Total				#VALUE!	
Add Overhead charge & C.P.@15%				#VALUE!	
				#VALUE!	#VALUE!
Add 1% cess	1	%		#VALUE!	#VALUE!
				#VALUE!	#VALUE!
		Say Rs	#VALUE!	Per M	
Note:- To the rates derived above following may be included as mobilisation and domobilisation charge depending on the valu of work (i). Upto Rs 5 lakhs @ 10 % subject to maximum of Rs 37500 /- only (ii).Above Rs 5 lakhs Upto Rs 10 lakhs @ 7.5 % subject to maximum of Rs 50000 /- only (iii). Above Rs 10 lakhs @ 5 % subject to maximum of Rs 75000 /- only					

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Sr.No.	Item	Rate	Unit
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### 6.3. CONCRETE WORK

Sr.No.	Item	Rate	Unit
6.3.1	Providing and laying P.C.C with nominal mix of (1: 4 : 8) in various components of Barrage foundation with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty and all taxes etc. complete job as per specifications and direction of E/I. <b>(Taking Rate of approved quality of aggregate as per Design)</b> ( Rate of Coarse aggregates Gr III Taken)		
	Patna Urban	3221.80	Per M <sup>3</sup>
	Patna	3221.80	Per M <sup>3</sup>
	Muzaffarpur	3221.80	Per M <sup>3</sup>
	Darbhanga	3221.80	Per M <sup>3</sup>
	Bhagalpur	3201.30	Per M <sup>3</sup>
	Munger	3201.30	Per M <sup>3</sup>
	Saharsa	3221.80	Per M <sup>3</sup>
	Purnea	3221.80	Per M <sup>3</sup>
	Gaya	3156.10	Per M <sup>3</sup>
	Saran	3201.30	Per M <sup>3</sup>
6.3.2	Providing and laying P.C.C M-100 with nominal mix of (1: 3 : 6) in various components of Barrage foundation with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty and all taxes etc. complete job as per specifications and direction of E/I. <b>(Taking Rate of approved quality of aggregate as per Design)</b> ( Rate of Coarse aggregates Gr IV Taken )		
	Patna Urban	3609.10	Per M <sup>3</sup>
	Patna	3609.10	Per M <sup>3</sup>
	Muzaffarpur	3609.10	Per M <sup>3</sup>
	Darbhanga	3609.10	Per M <sup>3</sup>
	Bhagalpur	3582.40	Per M <sup>3</sup>
	Munger	3582.40	Per M <sup>3</sup>
	Saharsa	3609.10	Per M <sup>3</sup>
	Purnea	3609.10	Per M <sup>3</sup>
	Gaya	3523.50	Per M <sup>3</sup>
	Saran	3572.40	Per M <sup>3</sup>
6.3.3	Providing and laying P.C.C or R.C.C M-150 with nominal mix of (1:2:4) in various components of Barrage foundation with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty and all taxes etc. complete job as per specifications and direction of E/I. <b>(Taking Rate of approved quality of aggregate as per Design)</b> ( Rate of Coarse aggregates 20 mm to 10 mm Taken )		
	Patna Urban	4477.20	Per M <sup>3</sup>

Sr.No.	Item	Rate	Unit
	Patna	4477.20	Per M <sup>3</sup>
	Muzaffarpur	4477.20	Per M <sup>3</sup>
	Darbhanga	4477.20	Per M <sup>3</sup>
	Bhagalpur	4438.80	Per M <sup>3</sup>
	Munger	4438.80	Per M <sup>3</sup>
	Saharsa	4477.20	Per M <sup>3</sup>
	Purnea	4477.20	Per M <sup>3</sup>
	Gaya	4354.20	Per M <sup>3</sup>
	Saran	4438.80	Per M <sup>3</sup>
6.3.4	Providing and laying P.C.C or R.C.C M-200 with nominal mix of (1:1.5:3) in various components of Barrage foundation with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty and all taxes etc. complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)( Rate of Coarse aggregates 20 mm to 10 mm Taken )		
	Patna Urban	5081.80	Per M <sup>3</sup>
	Patna	5081.80	Per M <sup>3</sup>
	Muzaffarpur	5081.80	Per M <sup>3</sup>
	Darbhanga	5081.80	Per M <sup>3</sup>
	Bhagalpur	5032.90	Per M <sup>3</sup>
	Munger	5032.90	Per M <sup>3</sup>
	Saharsa	5081.80	Per M <sup>3</sup>
	Purnea	5081.80	Per M <sup>3</sup>
	Gaya	4925.00	Per M <sup>3</sup>
	Saran	5032.90	Per M <sup>3</sup>
6.3.5	Providing and laying P.C.C or R.C.C M-250 with nominal mix of (1:1:2) in various components of Barrage foundation with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty and all taxes etc. complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design) ( Rate of Coarse aggregates 20 mm To 10 mm Taken )		
	Patna Urban	6488.80	Per M <sup>3</sup>
	Patna	6488.80	Per M <sup>3</sup>
	Muzaffarpur	6488.80	Per M <sup>3</sup>
	Darbhanga	6488.80	Per M <sup>3</sup>
	Bhagalpur	6416.40	Per M <sup>3</sup>
	Munger	6416.40	Per M <sup>3</sup>
	Saharsa	6488.80	Per M <sup>3</sup>
	Purnea	6488.80	Per M <sup>3</sup>
	Gaya	6257.00	Per M <sup>3</sup>
	Saran	6416.40	Per M <sup>3</sup>





Sr.No.	Item	Rate	Unit
6.3.6	Providing and laying P.C.C M-75 with nominal mix of (1: 4 : 8 ) in various components of Barrage superstructure with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty and all taxes etc. complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design ) ( Rate of Coarse aggregates Gr IV Taken )		
	Patna Urban	3272.60	Per M <sup>3</sup>
	Patna	3272.60	Per M <sup>3</sup>
	Muzzaffarpur	3272.60	Per M <sup>3</sup>
	Darbhanga	3272.60	Per M <sup>3</sup>
	Bhagalpur	3252.10	Per M <sup>3</sup>
	Munger	3252.10	Per M <sup>3</sup>
	Saharsa	3272.60	Per M <sup>3</sup>
	Purnea	3272.60	Per M <sup>3</sup>
	Gaya	3206.90	Per M <sup>3</sup>
	Saran	3252.10	Per M <sup>3</sup>
6.3.7	Providing and laying P.C.C M-100 with nominal mix of (1: 3 : 6) in various components of Barrage superstructure with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty and all taxes etc. complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design ) ( Rate of Coarse aggregates Gr III Taken )		
	Patna Urban	3609.90	Per M <sup>3</sup>
	Patna	3609.90	Per M <sup>3</sup>
	Muzzaffarpur	3609.90	Per M <sup>3</sup>
	Darbhanga	3609.90	Per M <sup>3</sup>
	Bhagalpur	3583.20	Per M <sup>3</sup>
	Munger	3583.20	Per M <sup>3</sup>
	Saharsa	3609.90	Per M <sup>3</sup>
	Purnea	3609.90	Per M <sup>3</sup>
	Gaya	3524.30	Per M <sup>3</sup>
	Saran	3583.20	Per M <sup>3</sup>
6.3.8	Providing and laying P.C.C or R.C.C M-150 with nominal mix of (1:2:4) in various components of Barrage superstructure with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty and all taxes etc. complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per design) ( Rate of Coarse aggregates 20 mm to 10 mm Taken )		
	Patna Urban	4502.80	Per M <sup>3</sup>
	Patna	4502.80	Per M <sup>3</sup>
	Muzaffarpur	4502.80	Per M <sup>3</sup>
	Darbhanga	4502.80	Per M <sup>3</sup>
	Bhagalpur	4464.40	Per M <sup>3</sup>
	Munger	4464.40	Per M <sup>3</sup>

Sr.No.	Item	Rate	Unit
	Saharsa	4502.80	Per M <sup>3</sup>
	Purnea	4502.80	Per M <sup>3</sup>
	Gaya	4379.70	Per M <sup>3</sup>
	Saran	4464.40	Per M <sup>3</sup>
6.3.9	Providing and laying P.C.C or R.C.C M-200 with nominal mix of (1:1.5:3) in various components of Barrage superstructure with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty and all taxes etc. complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design) ( Rate of Coarse aggregates 20 mm to 10 mm Taken )		
	Patna Urban	5107.40	Per M <sup>3</sup>
	Patna	5107.40	Per M <sup>3</sup>
	Muzaffarpur	5107.40	Per M <sup>3</sup>
	Darbhanga	5107.40	Per M <sup>3</sup>
	Bhagalpur	5058.40	Per M <sup>3</sup>
	Munger	5058.40	Per M <sup>3</sup>
	Saharsa	5107.40	Per M <sup>3</sup>
	Purnea	5107.40	Per M <sup>3</sup>
	Gaya	4950.50	Per M <sup>3</sup>
	Saran	5058.40	Per M <sup>3</sup>
6.3.10	Providing and laying P.C.C or R.C.C M-250 with nominal mix of (1:1:2) in various components of Barrage superstructure with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty and all taxes etc. complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design) ( Rate of Coarse aggregates 20 mm to 10 mm Taken )		
	Patna Urban	6514.30	Per M <sup>3</sup>
	Patna	6514.30	Per M <sup>3</sup>
	Muzaffarpur	6514.30	Per M <sup>3</sup>
	Darbhanga	6514.30	Per M <sup>3</sup>
	Bhagalpur	6442.00	Per M <sup>3</sup>
	Munger	6442.00	Per M <sup>3</sup>
	Saharsa	6514.30	Per M <sup>3</sup>
	Purnea	6514.30	Per M <sup>3</sup>
	Gaya	6282.50	Per M <sup>3</sup>
	Saran	6442.00	Per M <sup>3</sup>
6.3.11	Providing and laying R.C.C M-150 with nominal mix of (1: 2 : 4 ) in deck slab with approved quality of graded coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty and all taxes etc. complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)( Rate of Coarse aggregates 20 mm To 10 mm Taken )		
	Patna Urban	4503.10	Per M <sup>3</sup>
	Patna	4503.10	Per M <sup>3</sup>
	Muzaffarpur	4503.10	Per M <sup>3</sup>
	Darbhanga	4503.10	Per M <sup>3</sup>

Sr.No.	Item	Rate	Unit
	Bhagalpur	4464.70	Per M <sup>3</sup>
	Munger	4464.70	Per M <sup>3</sup>
	Saharsa	4503.10	Per M <sup>3</sup>
	Purnea	4503.10	Per M <sup>3</sup>
	Gaya	4380.00	Per M <sup>3</sup>
	Saran	4464.70	Per M <sup>3</sup>
6.3.12	Providing and laying R.C.C M-200 with nominal mix of (1:1.5:3) in deck slab with approved quality of graded coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty and all taxes etc. complete job as per specifications and direction of E/I. <b>(Taking Rate of approved quality of aggregate as per Design)( Rate of Coarse aggregates 20 mm to 10 mm Taken )</b>		
	Patna Urban	5107.40	Per M <sup>3</sup>
	Patna	5107.40	Per M <sup>3</sup>
	Muzaffarpur	5107.40	Per M <sup>3</sup>
	Darbhanga	5107.40	Per M <sup>3</sup>
	Bhagalpur	5058.40	Per M <sup>3</sup>
	Munger	5058.40	Per M <sup>3</sup>
	Saharsa	5107.40	Per M <sup>3</sup>
	Purnea	5107.40	Per M <sup>3</sup>
	Gaya	4950.50	Per M <sup>3</sup>
	Saran	5058.40	Per M <sup>3</sup>
6.3.13	Providing and laying mass concrete of M-100 with nominal mix of (1:3:6) in Barrage with approved quality of graded coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened including vibrating, curing etc. as well as royalty and all taxes etc.but excluding the cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I. <b>(Taking Rate of approved quality of aggregate as per Design)( Rate of Coarse aggregates Gr IV Taken )</b>		
	Patna Urban	#VALUE!	Per M <sup>3</sup>
	Patna	#VALUE!	Per M <sup>3</sup>
	Muzaffarpur	#VALUE!	Per M <sup>3</sup>
	Darbhanga	#VALUE!	Per M <sup>3</sup>
	Bhagalpur	#VALUE!	Per M <sup>3</sup>
	Munger	#VALUE!	Per M <sup>3</sup>
	Saharsa	#VALUE!	Per M <sup>3</sup>
	Purnea	#VALUE!	Per M <sup>3</sup>
	Gaya	#VALUE!	Per M <sup>3</sup>
	Saran	#VALUE!	Per M <sup>3</sup>
6.3.14	Providing and laying mass concrete of M-150 with nominal mix of (1:2:4) in Barrage with approved quality of graded coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened including vibrating, curing etc. as well as royalty and all taxes etc.but excluding the cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I. <b>(Taking Rate of approved quality of aggregate as per Design)( Rate of Coarse aggregates 20 mm To 10 mm Taken )</b>		
	Patna Urban	#VALUE!	Per M <sup>3</sup>
	Patna	#VALUE!	Per M <sup>3</sup>
	Muzaffarpur	#VALUE!	Per M <sup>3</sup>
	Darbhanga	#VALUE!	Per M <sup>3</sup>

Sr.No.	Item	Rate	Unit
	Bhagalpur	#VALUE!	Per M <sup>3</sup>
	Munger	#VALUE!	Per M <sup>3</sup>
	Saharsa	#VALUE!	Per M <sup>3</sup>
	Purnea	#VALUE!	Per M <sup>3</sup>
	Gaya	#VALUE!	Per M <sup>3</sup>
	Saran	#VALUE!	Per M <sup>3</sup>
6.3.15	Providing and laying mass concrete of M-200 with nominal mix of (1:1.5:3) in Barrage with approved quality of graded coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened including vibrating, curing etc. as well as royalty and all taxes etc.but excluding the cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)( Rate of Coarse aggregates 20 mm To 10 mm Taken )		
	Patna Urban	#VALUE!	Per M <sup>3</sup>
	Patna	#VALUE!	Per M <sup>3</sup>
	Muzaffarpur	#VALUE!	Per M <sup>3</sup>
	Darbhanga	#VALUE!	Per M <sup>3</sup>
	Bhagalpur	#VALUE!	Per M <sup>3</sup>
	Munger	#VALUE!	Per M <sup>3</sup>
	Saharsa	#VALUE!	Per M <sup>3</sup>
	Purnea	#VALUE!	Per M <sup>3</sup>
	Gaya	#VALUE!	Per M <sup>3</sup>
	Saran	#VALUE!	Per M <sup>3</sup>
6.3.16	Providing and laying mass concrete of M-250 with nominal mix of (1:1:2) in Barrage with approved quality of graded coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened including vibrating, curing etc. as well as royalty and all taxes etc.but excluding the cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)( Rate of Coarse aggregates 20 mm To 10 mm Taken )		
	Patna Urban	#VALUE!	Per M <sup>3</sup>
	Patna	#VALUE!	Per M <sup>3</sup>
	Muzaffarpur	#VALUE!	Per M <sup>3</sup>
	Darbhanga	#VALUE!	Per M <sup>3</sup>
	Bhagalpur	#VALUE!	Per M <sup>3</sup>
	Munger	#VALUE!	Per M <sup>3</sup>
	Saharsa	#VALUE!	Per M <sup>3</sup>
	Purnea	#VALUE!	Per M <sup>3</sup>
	Gaya	#VALUE!	Per M <sup>3</sup>
	Saran	#VALUE!	Per M <sup>3</sup>
6.3.17	Providing and laying dry pitching with precast cement concrete block 600 mm x 600 mm x 300 mm size of M-75 with nominal mix of ( 1:4:8 ) in floor and flank wall with approved quality of graded coarse aggregate of required grade ( as per design ) and approved quality of sand of requisite F.M washed and screened including necessary form work, tools and plants, vibrating, curing as well royalty and all taxes complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)( Rate of Coarse aggregates Gr III Taken )		
	Patna Urban	4358.80	Per M <sup>3</sup>
	Patna	4358.80	Per M <sup>3</sup>
	Muzaffarpur	4358.80	Per M <sup>3</sup>
	Darbhanga	4358.80	Per M <sup>3</sup>

Sr.No.	Item	Rate	Unit
	Bhagalpur	4338.30	Per M <sup>3</sup>
	Munger	4338.30	Per M <sup>3</sup>
	Saharsa	4358.80	Per M <sup>3</sup>
	Purnea	4358.80	Per M <sup>3</sup>
	Gaya	4293.10	Per M <sup>3</sup>
	Saran	4338.30	Per M <sup>3</sup>
6.3.18	Providing and laying dry pitching with precast cement concrete block 600 mm x 600 mm x 300 mm size of M-100 with nominal mix of ( 1:3:6 ) in floor and flank wall with approved quality of graded coarse aggregate of required grade ( as per design ) and approved quality of sand of requisite F.M washed and screened including necessary form work, tools and plants, vibrating, curing as well royalty and all taxes complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)( Rate of Coarse aggregates Gr III Taken )		
	Patna Urban	5949.70	Per M <sup>3</sup>
	Patna	5949.70	Per M <sup>3</sup>
	Muzaffarpur	5949.70	Per M <sup>3</sup>
	Darbhanga	5949.70	Per M <sup>3</sup>
	Bhagalpur	5922.60	Per M <sup>3</sup>
	Munger	5922.60	Per M <sup>3</sup>
	Saharsa	5949.70	Per M <sup>3</sup>
	Purnea	5949.70	Per M <sup>3</sup>
	Gaya	5862.80	Per M <sup>3</sup>
	Saran	5922.60	Per M <sup>3</sup>
6.3.19	Centering and shuttering in major Barrage work involving mass concrete including cost of form work, their carriage from work shop to work site, erection with the help of suitable crane and stripping etc. complete job as per specifications and direction of E/I.	#VALUE!	Per M <sup>2</sup>
6.3.20	Providing shuttering including strutting. Propping etc. and its removal after use in foundation work as per specifications and direction of E/I.	567.30	Per M <sup>2</sup>
6.3.21	Providing shuttering including strutting. Propping etc. and its removal after use in superstructure portion of various components of dam work as per specifications and direction of E/I.	567.30	Per M <sup>2</sup>
6.3.22	Providing centering including strutting. Propping etc. and removing after use in deck slab as per specifications and direction of E/I.	654.70	Per M <sup>2</sup>
6.3.23	Providing M.S reinforcement( Plain steel ) as per approved design , drawing, removal of rust, cutting, bending, binding, including supplying annealed wire, placing M.S rods in position complete job as per specifications and direction of E/I.		
	(a).Dia of bar 6 mm	46423.30	Per M.T
	(B).Dia of bar above 6 mm to 12 mm	46423.30	Per M.T
	(B).Dia of bar above 14 mm to 50 mm	46423.30	Per M.T
6.3.24	Providing M.S reinforcement ( Tor steel ) as per approved design , drawing, removal of rust, cutting, bending, binding, including supplying annealed wire, placing M.S rods in position complete job as per specifications and direction of E/I.		
(a)	T.M.T.GRADE Fe-415- 8 mm	#VALUE!	Per M.T
(b)	T.M.T.GRADE Fe-415- 10 mm	#VALUE!	Per M.T
(c)	T.M.T.GRADE Fe-415- 12 mm	#VALUE!	Per M.T
(d)	T.M.T.GRADE Fe-415- 16 mm	#VALUE!	Per M.T
(e)	T.M.T.GRADE Fe-415- 20 mm	#VALUE!	Per M.T
(f)	T.M.T.GRADE Fe-415- 25 mm	#VALUE!	Per M.T
(g)	T.M.T.GRADE Fe-415- 28 mm	#VALUE!	Per M.T
(h)	T.M.T. GRADE Fe-415- 32 mm	#VALUE!	Per M.T
(i)	T.M.T.GRADE Fe-500- 8 mm	47282.00	Per M.T
(j)	T.M.T. GRADE Fe-500- 10 mm	45989.20	Per M.T
(k)	T.M.T.GRADE Fe-500- 12 mm	45342.00	Per M.T

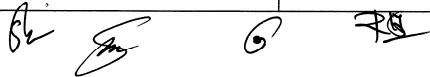
Sr.No.	Item	Rate	Unit
(l)	T.M.T. Fe-500- 16 mm	45342.90	Per M.T
(m)	T.M.T. Fe-500- 20 mm	44955.00	Per M.T
(n)	T.M.T. Fe-500- 25 mm	44955.00	Per M.T
(o)	T.M.T. Fe-500- 28 mm	44955.00	Per M.T
(p)	T.M.T. Fe-500- 32 mm	44955.00	Per M.T
(q)	T.M.T. Fe-500- 36 mm	#VALUE!	Per M.T
6.3.25	Grouting for Dam foundation per bags of cement all complete as per specifications and direction of E/I.		
	Patna Urban	393.20	Per Bags of cement
	Patna	393.20	Per Bags of cement
	Muzaffarpur	393.20	Per Bags of cement
	Darbhanga	393.20	Per Bags of cement
	Bhagalpur	387.10	Per Bags of cement
	Munger	387.10	Per Bags of cement
	Saharsa	393.20	Per Bags of cement
	Purnea	393.20	Per Bags of cement
	Gaya	373.70	Per Bags of cement
	Saran	387.10	Per Bags of cement
6.3.26	Providing and laying mass concrete of M-100 with nominal mix of (1:3:6 ) in flow and non-over flow of dam section with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.but excluding cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I.( With Batching Plant, Transit Mixer And Concrete Pump)(Taking Rate of approved quality of aggregate as per Design)( Rate of Coarse aggregates Gr IV Taken )		
	Patna Urban	2888.00	Per M <sup>3</sup>
	Patna	2888.00	Per M <sup>3</sup>
	Muzaffarpur	2888.00	Per M <sup>3</sup>
	Darbhanga	2888.00	Per M <sup>3</sup>
	Bhagalpur	2861.20	Per M <sup>3</sup>
	Munger	2861.20	Per M <sup>3</sup>
	Saharsa	2888.00	Per M <sup>3</sup>
	Purnea	2888.00	Per M <sup>3</sup>
	Gaya	2802.10	Per M <sup>3</sup>
	Saran	2861.20	Per M <sup>3</sup>
6.3.27	Providing and laying mass concrete of M-150 with nominal mix of (1:2:4 ) in over flow and non-over flow sectopm of dry intake, structures and bridges etc with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.but excluding cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I. ( With Batching Plant, Transit Mixer And Concrete Pump)(Taking Rate of approved quality of aggregate as per Design)( Rate of Coarse aggregates 20 mm To 10 mm Taken )		
	Patna Urban	3750.70	Per M <sup>3</sup>
	Patna	3750.70	Per M <sup>3</sup>
	Muzaffarpur	3750.70	Per M <sup>3</sup>

Sr.No.	Item	Rate	Unit
	Darbhanga	3750.70	Per M <sup>3</sup>
	Bhagalpur	3712.30	Per M <sup>3</sup>
	Munger	3712.30	Per M <sup>3</sup>
	Saharsa	3750.70	Per M <sup>3</sup>
	Purnea	3750.70	Per M <sup>3</sup>
	Gaya	3627.60	Per M <sup>3</sup>
	Saran	3712.30	Per M <sup>3</sup>
6.3.28	Providing and laying mass concrete of M-200 with nominal mix of (1:1.5:3) in Dam and Spillways with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.but excluding cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I. ( With Batching Plant, Transit Mixer And Concrete Pump)(Taking Rate of approved quality of aggregate as per Design)( Rate of Coarse aggregates 20 mm To 10 mm Taken )		
	Patna Urban	4357.00	Per M <sup>3</sup>
	Patna	4357.00	Per M <sup>3</sup>
	Muzaffarpur	4357.00	Per M <sup>3</sup>
	Darbhanga	4357.00	Per M <sup>3</sup>
	Bhagalpur	4308.00	Per M <sup>3</sup>
	Munger	4308.00	Per M <sup>3</sup>
	Saharsa	4357.00	Per M <sup>3</sup>
	Purnea	4357.00	Per M <sup>3</sup>
	Gaya	4200.00	Per M <sup>3</sup>
	Saran	4308.00	Per M <sup>3</sup>
6.3.29	Providing and laying mass concrete of M-250 with nominal mix of (1: 1 : 2) in Dam , Spillways and Head works with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.but excluding cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I. ( With Batching Plant, Transit Mixer And Concrete Pump)(Taking Rate of approved quality of aggregate as per Design)( Rate of Coarse aggregates 20 mm To 10 mm Taken )		
	Patna Urban	5716.00	Per M <sup>3</sup>
	Patna	5716.00	Per M <sup>3</sup>
	Muzaffarpur	5716.00	Per M <sup>3</sup>
	Darbhanga	5716.00	Per M <sup>3</sup>
	Bhagalpur	5644.00	Per M <sup>3</sup>
	Munger	5644.00	Per M <sup>3</sup>
	Saharsa	5716.00	Per M <sup>3</sup>
	Purnea	5716.00	Per M <sup>3</sup>
	Gaya	5486.30	Per M <sup>3</sup>
	Saran	5644.00	Per M <sup>3</sup>

Dr. E. G. R.

## 6.3. CONCRETE WORK

Sl.No.	Description	Quantity	Unit	Rate	Amount	Ref.
6.3.1	Providing and laying P.C.C M-75 with nominal mix of (1: 4 : 8 ) in various components of Barrage foundation with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty and all taxes etc. complete job as per specifications and direction of E/I.					
		Analysis same as Item 5.3.2				
6.3.2	Providing and laying P.C.C or R.C.C M-100 with nominal mix of (1: 3 : 6 ) in various components of Barrage foundation with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty and all taxes etc. complete job as per specifications and direction of E/I.					
		Analysis same as Item 5.3.3				
6.3.3	Providing and laying P.C.C or R.C.C M-150 with nominal mix of (1: 2 : 4 ) in various components of Barrage foundation with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty and all taxes etc. complete job as per specifications and direction of E/I.					
		Analysis same as Item 5.3.4				
6.3.4	Providing and laying P.C.C or R.C.C M-200 with nominal mix of (1: 1.5 : 3 ) in various components of Barrage foundation with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty and all taxes etc. complete job as per specifications and direction of E/I.					
		Analysis same as Item 5.3.5				
6.3.5	Providing and laying P.C.C or R.C.C M-250 with nominal mix of (1: 1 : 2 ) in various components of Barrage foundation with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty and all taxes etc. complete job as per specifications and direction of E/I.					
		Analysis same as Item 5.3.6				



6.3.6	Providing and laying P.C.C or R.C.C M-75 with nominal mix of (1: 4 : 8) in various components of Barrage superstructure with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty and all taxes etc. complete job as per specifications and direction of E/I.					
	Unit:- Per Cum					
	Assuming out put=2.832 Cum					
	<b>MATERIALS</b>					
	Coarse aggregates Gr IV (Rate of approved quality of aggregate as per Design)	2.718	M <sup>3</sup>	512.40	1392.70	
	Sand	1.368	M <sup>3</sup>	145.10	198.50	
	Cement	0.34	M <sup>3</sup>	8912.00	3030.08	
	<b>Labour</b>					
	Head mason	0.5	nos	279.00	139.50	
	Mason Gr II	1.25	nos	249.00	311.25	
	Unskilled mazdoor	12	nos	206.00	2472.00	
	Bhisti	1	nos	207.00	207.00	
	<b>HIRE CHARGES OF MACHINE</b>					
	(i) Concrete mixer (10 H.P) for 2.832 cum consists on the basic of mixer production capacity 1.98 M <sup>3</sup> per hour. (vide item no 3.25)	66.00				
	Used rate per hour 2.832/1.98				94.40	
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. ( Vide item no 3.22 )	93.65				
	Used rate per hour 2.832/1.98				133.94	
					7979.37	
	Add Overhead charge & C.P@15%				1196.91	
					9176.28	
	Add 1% cess				91.76	
					9268.04	3272.61
		Say Rs		3272.60	Per M <sup>3</sup>	
6.3.7	Providing and laying P.C.C or R.C.C M-100 with nominal mix of (1: 3 : 6) in various components of Barrage superstructure with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty and all taxes etc. complete job as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=2.832 Cum					
	<b>MATERIALS</b>					
	Coarse aggregates Gr III (Rate of approved quality of aggregate as per Design)	2.66	M <sup>3</sup>	489.70	1302.60	
	Sand	1.330	M <sup>3</sup>	145.10	192.98	
	Cement	0.443	M <sup>3</sup>	8912.00	3948.02	
	<b>Labour</b>					
	Head mason	0.5	nos	279.00	139.50	
	Mason Gr II	1.25	nos	249.00	311.25	
	Unskilled mazdoor	12	nos	206.00	2472.00	
	Bhisti	1	nos	207.00	207.00	
	<b>HIRE CHARGES OF MACHINE</b>					
	(i) Concrete mixer (10 H.P) for 2.832 cum consists on the basic of mixer production capacity 1.98 M <sup>3</sup> per hour. (vide item no 3.25)	66.00				