KERALA WATER AUTHORITY

SEWERAGE CIRCLE THIRUVANANTHAPURAM

DPR FOR THE CONSTRUCTION OF 5 MLD STP, NETWORK & ALLIED COMPONENTS AT PANDALAM MUNICIPALITY IN PATHANAMTHITTA DISTRICT

VOLUME-II

KERALA

2021

ESTIMATE

PRICE EST NO:

General Abstract

SBM2.0 SEWERAGE SCHEME TO PANDALAM MUNICIPALITY IN PATHANAMTHITTA DISTRICT- CONSTRUCTION OF 5 MLD SEWAGE TREATMENT PLANT

(Dsor year: **2018**)

Sl No	Heading Description	Amount
1	**Site clearing and Levelling**	193539.41
2	**2.EQUALIZATION TANK**	3620905.80
3	**3. MBBR TANK - 2Nos.**	4462822.54
4	**4.SECONDARY CLARIFIER**	5543091.52
5	**5. FILTER FEED TANK**	1650225.61
6	**6.TREATED WATER TANK**	1645666.47
7	**7.SLUDGE SUMP**	479019.20
8	**8. SLUDGE THICKNER**	1190923.64
9	**9. THICKENED SLUDGE SUMP**	479860.32
10	**10. CENTRATE SUMP**	672575.43
11	**11. RCC PLAT FORM FOR VARIOUS MECHANICAL ITEMS AND MOTORS AND PIPE LAYING WORKS**	3483820.37
12	**12 TREATED WATER CHANNEL**	414580.43
13	**13. SLUDGE STORAGE YARD**	941211.09
14	**FOUNDATIONS-GENERATOR**	252807.38
15	**FILTER FOUNDATION**	2763986.93
16	**PUMP HOUSE**	226016.35
17	**INTERNEL ROADS, WALKWAYS& STORM WATER DRAINS**	24091037.44
18	**CENTRIFUGE BUILDING**	2955983.55
19	**19. LAND SCAPING & AFFORESTATION (DSR for horticulture)**	889713.50
20	**20. Receiving chamber, screen channel and grit chamber and parshall flume**	2093857.18

Total	**58051644.15**
Centage @	**10.0%**
Centage Amount	**5805164.41**
Provision for GST payments (in %) @	**18.0%**
Amount reserved for GST payments	**10449295.95**
Total & Centage	**74306104.51**
Lumpsum for round off	**0.00**
GRAND TOTAL Rs	**74306104.51**

Rounded Grand Total Rs 7,43,06,105

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Rupees Seven Crore Forty Three Lakh Six Thousand One Hundred and Five Only

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Detailed Estimate

SBM2.0 SEWERAGE SCHEME TO PANDALAM MUNICIPALITY IN PATHANAMTHITTA DISTRICT- CONSTRUCTION OF 5 MLD SEWAGE TREATMENT PLANT

(Dsor year: **2018**)

Sl No	Description	No	L	B	D	CF	Quantity	Remark
	1Site clearing and Levelling (Cost Index:37.29 %)							
1	2.31 Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared							
	Site clearing	1				9500.0	9500.000	
						Total Quantity	9500.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	9500.000 sqm	
						Say 9500.000 sqm @ Rs 14.96 / sqm	**Rs 142120.00**	
2	2.33.1 Felling trees of the girth (measured at a height of 1 m above ground level) including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material.Beyound 30 cm girth up to and including 60 cm girth							
		100					100.000	
						Total Quantity	100.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	100.000 No	
						Say 100.000 No @ Rs 453.61 / No	**Rs 45361.00**	
3	2.33.2 Felling trees of the girth (measured at a height of 1 m above ground level) including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material.Beyound 60 cm girth up to and including 120 cm girth							
		3					3.000	
						Total Quantity	3.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	3.000 No	
						Say 3.000 No @ Rs 2019.47 / No	**Rs 6058.41**	

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Sl No	Description	No	L	B	D	CF	Quantity	Remark
	22.EQUALIZATION TANK (Cost Index:37.29 %)							
1	2.6.1 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.All kinds of soil							
	18.5M INNER DIA	3.14	7.950	7.950	1.500		297.684	
						Total Quantity	297.684 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	297.684 cum	
						Say 297.684 cum @ Rs 216.71 / cum	**Rs 64511.10**	
2	2.26.1 Extra for every additional lift 1.5 m or part there of in excavation / banking excavated or stacked materials.All kinds of soil							
	18.5 M INNER DIA	3.14	7.950	7.950	1.600		317.530	
						Total Quantity	317.530 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	317.530 cum	
						Say 317.530 cum @ Rs 107.70 / cum	**Rs 34197.98**	
3	4.1.5 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)							
		3.14	5.200	5.200	0.100		8.491	
						Total Quantity	8.491 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	8.491 cum	
						Say 8.491 cum @ Rs 7459.93 / cum	**Rs 63342.27**	
4	5.37.2 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as							

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	per design mix is payable/recoverable separately.All work above plinth level upto floor V level							
	Side Wall	3.14	15.100	0.300	2.500		35.561	
						Total Quantity	35.561 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	35.561 cum	
						Say 35.561 cum @ Rs 11682.76 / cum	**Rs 415450.63**	
5	5.37.1 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All wiork upto plinth level							
	bottom slab	3.14	7.850	7.850	1.000		193.495	
	side wall alround	3.14	15.100	0.300	2.000		28.449	
						Total Quantity	221.944 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	221.944 cum	
						Say 221.944 cum @ Rs 10009.95 / cum	**Rs 2221648.34**	
6	5.34.1 Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).							
	Qty.Vide 5.37.2	1	64.009				64.009	
	Qty.Vide 5.37.1	1	221.944				221.944	
						Total Quantity	285.953 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	285.953 cum	
						Say 285.953 cum @ Rs 83.13 / cum	**Rs 23771.27**	
7	od326203/2021_2022 Epoxy coated steel reinforcement for RCC work including straightening ,cutting ,bending ,placing in possition and binding all complete up to plinth level							
	as per item no 5.37.1	1	221.940				221.940	
	as per item no 5.37.2	1	35.560				35.560	

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						Total Quantity	257.500 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	257.500 kg	
						Say 257.500 kg @ Rs 83.10 / kg	**Rs 21398.25**	
8	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete							
	PCC Side	1	3.14*15.7		0.150		7.395	
	Base slab	1	3.14*15.5		0.900		43.804	
						Total Quantity	51.199 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	51.199 sqm	
						Say 51.199 sqm @ Rs 339.52 / sqm	**Rs 17383.08**	
9	5.9.2 Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.							
	Side wall Outer	1	3.14*15.1		4.500		213.363	
	Side wall Inner	1	3.14*14.5		4.500		204.885	
						Total Quantity	418.248 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	418.248 sqm	
						Say 418.248 sqm @ Rs 726.20 / sqm	**Rs 303731.70**	
10	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)							
	inside wall	3.14	14.500	4.500			204.886	
	Bottom slab top	1	3.140	7.250	7.250		165.047	
	Outside wall around	1	3.140	15.100	4.500		213.363	
						Total Quantity	583.296 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	583.296 sqm	
						Say 583.296 sqm @ Rs 406.24 / sqm	**Rs 236958.17**	
11	13.52.2 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.On concrete work							

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	outside wall around	1	3.140	15.100	2.500		118.535	
						Total Quantity	118.535 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	118.535 sqm	
						Say 118.535 sqm @ Rs 225.70 / sqm	**Rs 26753.35**	
12	22.23.1 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.For vertical surface two coats @0.70 kg per sqm							
	Side wall Inner	1	3.14*14.5		4.500		204.885	
						Total Quantity	204.885 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	204.885 sqm	
						Say 204.885 sqm @ Rs 577.44 / sqm	**Rs 118308.79**	
13	22.23.2 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.For horizontal surface one coat @1.10 kg per sqm.							
	BOttom slab top	1	3.140	7.250	7.250		165.047	
						Total Quantity	165.047 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	165.047 sqm	
						Say 165.047 sqm @ Rs 445.03 / sqm	**Rs 73450.87**	

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Sl No	Description	No	L	B	D	CF	Quantity	Remark
	33. MBBR TANK - 2Nos. (Cost Index:37.29 %)							
1	2.6.1 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.All kinds of soil							
	MBBR -1	1	3.140	5.200	5.200	0.85	72.170	
	MBBR -2	1	3.140	5.200	5.200	0.85	72.170	
						Total Quantity	144.340 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	144.340 cum	
						Say 144.340 cum @ Rs 216.71 / cum	**Rs 31279.92**	
2	4.1.5 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)							
	MBBR -1	3.14	5.200	5.200	0.100		8.491	
	MBBR -2	3.14	5.200	5.200	0.100		8.491	
						Total Quantity	16.982 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	16.982 cum	
						Say 16.982 cum @ Rs 7459.93 / cum	**Rs 126684.53**	
3	5.37.1 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All wiork upto plinth level							
	MBBR 1 &MBBR II							
	For bottom slab	2*3.14	5.100	5.100	0.750		122.508	
	side wall alround	2*3.14	4.800	0.300	4.500		40.695	
						Total Quantity	163.203 cum	
						Total Deducted Quantity	0.000 cum	

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						Net Total Quantity	163.203 cum	
						Say 163.203 cum @ Rs 10009.95 / cum	**Rs 1633653.87**	
4	5.34.1 Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).							
	MBBR 1 & II							
	Same as 5.37.1	2*1	163.203				326.406	
						Total Quantity	326.406 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	326.406 cum	
						Say 326.406 cum @ Rs 83.13 / cum	**Rs 27134.13**	
5	od326203/2021_2022 Epoxy coated steel reinforcement for RCC work including straightening ,cutting ,bending ,placing in possition and binding all complete up to plinth level							
	as per 5.37.1	1	163.203			120.0	19584.360	
						Total Quantity	19584.360 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	19584.360 kg	
						Say 19584.360 kg @ Rs 83.10 / kg	**Rs 1627460.32**	
6	4.12 Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification .							
	qty as per 5.37.1	1	163.203			340.0	55489.021	
						Total Quantity	55489.021 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	55489.021 kg	
						Say 55489.021 kg @ Rs 1.37 / kg	**Rs 76019.96**	
7	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete							
	MBBR I &II							
	RAFT SLAB	2	3.140	10.200	0.750		48.042	
						Total Quantity	48.042 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	48.042 sqm	

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	Say 48.042 sqm @ Rs 339.52 / sqm						**Rs 16311.22**	
8	5.9.2 Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.							
	MBBR I &II							
	OUTSIDE ALROUND	2*1	3.140	9.600	4.500		271.296	
	INSIDEr	2*1	3.140	9.000	4.500		254.340	
	Total Quantity						525.636 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						525.636 sqm	
	Say 525.636 sqm @ Rs 726.20 / sqm						**Rs 381716.86**	
9	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)							
	INSIDE WALL	2*1	3.140	9.000	4.500		254.340	
	BOTTOM SLAB TOP	2*1	3.140	4.500	4.500		127.170	
	OUTSIDE WALL AROUND	2*1	3.140	9.600	4.500		271.296	
	Total Quantity						652.806 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						652.806 sqm	
	Say 652.806 sqm @ Rs 406.24 / sqm						**Rs 265195.91**	
10	13.52.2 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.On concrete work							
	Same as above 13.7.1	1	652.806				652.806	
	Total Quantity						652.806 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						652.806 sqm	
	Say 652.806 sqm @ Rs 225.70 / sqm						**Rs 147338.31**	
11	22.23.1 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the							

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	help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.For vertical surface two coats @0.70 kg per sqm							
	inside wall	1	3.140	9.000	4.500		127.170	
						Total Quantity	127.170 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	127.170 sqm	
						Say 127.170 sqm @ Rs 577.44 / sqm	**Rs 73433.04**	
12	22.23.2 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.For horizontal surface one coat @1.10 kg per sqm.							
	MBBR -1 &11							
	BOTTOM slab TOP	2*1	3.140	4.500	4.500		127.170	
						Total Quantity	127.170 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	127.170 sqm	
						Say 127.170 sqm @ Rs 445.03 / sqm	**Rs 56594.47**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
44.SECONDARY CLARIFIER (Cost Index:37.29 %)								
1	2.6.1 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.All kinds of soil							
		3.14	7.700	7.700	1.100		204.788	
						Total Quantity	204.788 cum	
						Total Deducted Quantity	0.000 cum	

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						Net Total Quantity	204.788 cum	
						Say 204.788 cum @ Rs 216.71 / cum	**Rs 44379.61**	
2	4.1.5 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)							
	For tank	3.14	7.700	7.700	0.100		18.618	
						Total Quantity	18.618 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	18.618 cum	
						Say 18.618 cum @ Rs 7459.93 / cum	**Rs 138888.98**	
3	5.37.2 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All work above plinth level upto floor V level							
	for bottom slab	3.14	7.600	7.600	1.000		181.367	
	Side wall alround	3.14	7.600	0.300	4.000		28.637	
						Total Quantity	210.004 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	210.004 cum	
						Say 210.004 cum @ Rs 11682.76 / cum	**Rs 2453426.33**	
4	5.34.1 Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).							
	Same as item no. 5.37.2	1	210.004				210.004	
						Total Quantity	210.004 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	210.004 cum	
						Say 210.004 cum @ Rs 83.13 / cum	**Rs 17457.63**	
5	od326203/2021_2022							

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	Epoxy coated steel reinforcement for RCC work including straightening ,cutting ,bending ,placing in possition and binding all complete up to plinth level							
	ASPER 5.37,2	1	210.010			120.0	25201.200	
						Total Quantity	25201.200 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	25201.200 kg	
						Say 25201.200 kg @ Rs 83.10 / kg	**Rs 2094219.72**	
6	4.12 Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification .							
	AS PER 5.37,2	1	210.010			340.0	71403.400	
						Total Quantity	71403.400 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	71403.400 kg	
						Say 71403.400 kg @ Rs 1.37 / kg	**Rs 97822.66**	
7	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete							
	Raft slab	1	3.140	15.200	1.000		47.728	
						Total Quantity	47.728 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	47.728 sqm	
						Say 47.728 sqm @ Rs 339.52 / sqm	**Rs 16204.61**	
8	5.9.2 Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.							
	outside alround	1	3.140	14.600	4.000		183.376	
	inside	1	3.140	14.000	4.000		175.840	
						Total Quantity	359.216 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	359.216 sqm	
						Say 359.216 sqm @ Rs 726.20 / sqm	**Rs 260862.66**	
9	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)							
	Inside wall	1	3.140	14.000	4.000		175.840	

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	Bttom slab top	1	3.140	7.000	7.000		153.860	
	outside wall alround	1	3.140	14.600	4.000		183.376	
						Total Quantity	513.076 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	513.076 sqm	
						Say 513.076 sqm @ Rs 406.24 / sqm	**Rs 208431.99**	
10	13.52.2 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.On concrete work							
	Outside wall alround	1	3.140	14.600	4.000		183.376	
						Total Quantity	183.376 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	183.376 sqm	
						Say 183.376 sqm @ Rs 225.70 / sqm	**Rs 41387.96**	
11	22.23.1 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.For vertical surface two coats @0.70 kg per sqm							
	inside wall	1	3.140	14.000	4.000		175.840	
						Total Quantity	175.840 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	175.840 sqm	
						Say 175.840 sqm @ Rs 577.44 / sqm	**Rs 101537.05**	
12	22.23.2 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010							

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	i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.For horizontal surface one coat @1.10 kg per sqm.							
	Bottom slab top	1	3.140	7.000	7.000		153.860	
						Total Quantity	153.860 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	153.860 sqm	
						Say 153.860 sqm @ Rs 445.03 / sqm	**Rs 68472.32**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
	55. FILTER FEED TANK (Cost Index:37.29 %)							
1	2.6.1 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.All kinds of soil							
		1	8.300	6.300	0.850		44.447	
						Total Quantity	44.447 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	44.447 cum	
						Say 44.447 cum @ Rs 216.71 / cum	**Rs 9632.11**	
2	4.1.5 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)							
	tank	1	8.300	6.300	0.100		5.230	
						Total Quantity	5.230 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	5.230 cum	
						Say 5.230 cum @ Rs 7459.93 / cum	**Rs 39015.43**	
3	5.37.2 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of							

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	concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All work above plinth level upto floor V level							
	for bottom slab	1	8.100	6.100	0.750		37.058	
	side wall alround	1	26.000	0.250	3.500		22.750	
						Total Quantity	59.808 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	59.808 cum	
						Say 59.808 cum @ Rs 11682.76 / cum	**Rs 698722.51**	
4	5.34.1 Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).							
	Same as 5.37.2	1	59.810				59.810	
						Total Quantity	59.810 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	59.810 cum	
						Say 59.810 cum @ Rs 83.13 / cum	**Rs 4972.01**	
5	od326203/2021_2022 Epoxy coated steel reinforcement for RCC work including straightening ,cutting ,bending ,placing in possition and binding all complete up to plinth level							
	as per above item	1	59.810			120.0	7177.201	
						Total Quantity	7177.201 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	7177.201 kg	
						Say 7177.201 kg @ Rs 83.10 / kg	**Rs 596425.40**	
6	4.12 Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification .							
	as per above item	1	59.810			340.0	20335.400	
						Total Quantity	20335.400 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	20335.400 kg	
						Say 20335.400 kg @ Rs 1.37 / kg	**Rs 27859.50**	
7	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of							

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	columns, etc for mass concrete							
	Raft slab	1	28.400		0.750		21.300	
						Total Quantity	21.300 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	21.300 sqm	
						Say 21.300 sqm @ Rs 339.52 / sqm	**Rs 7231.78**	
8	5.9.2 Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.							
	outside alround	1	26.000		3.500		91.000	
	inside	1	24.000		3.500		84.000	
						Total Quantity	175.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	175.000 sqm	
						Say 175.000 sqm @ Rs 726.20 / sqm	**Rs 127085.00**	
9	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)							
	inside wall	1	24.000		3.500		84.000	
	base slab	1	7.000	5.000			35.000	
						Total Quantity	119.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	119.000 sqm	
						Say 119.000 sqm @ Rs 406.24 / sqm	**Rs 48342.56**	
10	13.52.2 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.On concrete work							
	Same As 13.7.1	1	119.000				119.000	
						Total Quantity	119.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	119.000 sqm	
						Say 119.000 sqm @ Rs 225.70 / sqm	**Rs 26858.30**	
11	22.23.1 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5							

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	partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.For vertical surface two coats @0.70 kg per sqm							
	inside wall	1	24.000		3.500		84.000	
						Total Quantity	84.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	84.000 sqm	
						Say 84.000 sqm @ Rs 577.44 / sqm	**Rs 48504.96**	
12	22.23.2 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.For horizontal surface one coat @1.10 kg per sqm.							
	Bottom slab top	1	7.000	5.000			35.000	
						Total Quantity	35.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	35.000 sqm	
						Say 35.000 sqm @ Rs 445.03 / sqm	**Rs 15576.05**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
66.TREATED WATER TANK (Cost Index:37.29 %)								
1	2.6.1 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.All kinds of soil							
	PCC	1	8.300	6.300	0.850		44.447	
						Total Quantity	44.447 cum	

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						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	44.447 cum	
						Say 44.447 cum @ Rs 216.71 / cum	**Rs 9632.11**	
2	4.1.5 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)							
	for tank	1	8.300	6.300	0.100		5.230	
						Total Quantity	5.230 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	5.230 cum	
						Say 5.230 cum @ Rs 7459.93 / cum	**Rs 39015.43**	
3	5.37.2 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All work above plinth level upto floor V level							
	for bottom slab	1	8.100	6.100	0.750		37.058	
	side wall alround	1	26.000	0.250	3.500		22.750	
						Total Quantity	59.808 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	59.808 cum	
						Say 59.808 cum @ Rs 11682.76 / cum	**Rs 698722.51**	
4	5.34.1 Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).							
	Same as 5.37.2	1	59.810				59.810	
						Total Quantity	59.810 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	59.810 cum	
						Say 59.810 cum @ Rs 83.13 / cum	**Rs 4972.01**	

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5	od326203/2021_2022 Epoxy coated steel reinforcement for RCC work including straightening ,cutting ,bending ,placing in possition and binding all complete up to plinth level							
	AS PER 5.37.2	1	59.810			120.0	7177.201	
						Total Quantity	7177.201 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	7177.201 kg	
						Say 7177.201 kg @ Rs 83.10 / kg	**Rs 596425.40**	
6	4.12 Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification .							
	AS PER 5.37.2	1	59.810			340.0	20335.400	
						Total Quantity	20335.400 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	20335.400 kg	
						Say 20335.400 kg @ Rs 1.37 / kg	**Rs 27859.50**	
7	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete							
	Raft slab	1	28.400		0.750		21.300	
						Total Quantity	21.300 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	21.300 sqm	
						Say 21.300 sqm @ Rs 339.52 / sqm	**Rs 7231.78**	
8	5.9.2 Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.							
	outside alround	1	26.000		3.500		91.000	
	inside	1	24.000		3.500		84.000	
						Total Quantity	175.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	175.000 sqm	
						Say 175.000 sqm @ Rs 726.20 / sqm	**Rs 127085.00**	
9	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)							

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	inside wall	1	24.000		3.500		84.000	
	base slab	1	7.000	5.000			35.000	
						Total Quantity	119.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	119.000 sqm	
						Say 119.000 sqm @ Rs 406.24 / sqm	**Rs 48342.56**	
10	13.52.2 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.On concrete work							
	Tank wall above ground	1	26.000		3.800		98.800	
						Total Quantity	98.800 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	98.800 sqm	
						Say 98.800 sqm @ Rs 225.70 / sqm	**Rs 22299.16**	
11	22.23.1 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.For vertical surface two coats @0.70 kg per sqm							
	inside wall	1	24.000		3.500		84.000	
						Total Quantity	84.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	84.000 sqm	
						Say 84.000 sqm @ Rs 577.44 / sqm	**Rs 48504.96**	
12	22.23.2 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the							

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	help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.For horizontal surface one coat @1.10 kg per sqm.							
		1	7.000	5.000			35.000	
						Total Quantity	35.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	35.000 sqm	
						Say 35.000 sqm @ Rs 445.03 / sqm	**Rs 15576.05**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
	77.SLUDGE SUMP (Cost Index:37.29 %)							
1	2.6.1 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.All kinds of soil							
		3.14	2.525	2.525	1.500		30.030	
						Total Quantity	30.030 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	30.030 cum	
						Say 30.030 cum @ Rs 216.71 / cum	**Rs 6507.80**	
2	2.26.1 Extra for every additional lift 1.5 m or part there of in excavation / banking excavated or stacked materials.All kinds of soil							
		3.14	2.525	2.525	1.400		28.028	
						Total Quantity	28.028 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	28.028 cum	
						Say 28.028 cum @ Rs 107.70 / cum	**Rs 3018.62**	
3	4.1.5 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)							
	for tank	3.14	2.525	2.525	0.100		2.002	
						Total Quantity	2.002 cum	

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						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	2.002 cum	
						Say 2.002 cum @ Rs 7459.93 / cum	**Rs 14934.78**	
4	5.37.2 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All work above plinth level upto floor V level							
	bottom slab	3.14	2.425	2.425	0.300		5.540	
	sidewall alround	3.14	2.125	2.125	2.500		35.448	
	SIDE WALL ALROUND	3.14	1.875	1.875	2.500		-27.597	
						Total Quantity	40.988 cum	
						Total Deducted Quantity	-27.597 cum	
						Net Total Quantity	13.391 cum	
						Say 13.391 cum @ Rs 11682.76 / cum	**Rs 156443.84**	
5	5.37.1 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All wiork upto plinth level							
	slab	3.14	2.425	2.425	0.200		3.694	
						Total Quantity	3.694 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	3.694 cum	
						Say 3.694 cum @ Rs 10009.95 / cum	**Rs 36976.76**	
6	5.34.1 Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.Providing M-30 grade concrete instead of M-25 grade							

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	BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).							
	Same as 5.37.2	1	40.988				40.988	
						Total Quantity	40.988 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	40.988 cum	
						Say 40.988 cum @ Rs 83.13 / cum	**Rs 3407.33**	
7	od326203/2021_2022 Epoxy coated steel reinforcement for RCC work including straightening ,cutting ,bending ,placing in possition and binding all complete up to plinth level							
	AS PER 5.37.1	1	13.390			120.0	1606.801	
	AS PER 5.37.2	1	3.694			120.0	443.280	
						Total Quantity	2050.081 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	2050.081 kg	
						Say 2050.081 kg @ Rs 83.10 / kg	**Rs 170361.73**	
8	4.12 Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification .							
	AS PER 5.37.1	1	13.390			340.0	4552.600	
	AS PER 5.37.2	1	3.694			340.0	1255.960	
						Total Quantity	5808.560 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	5808.560 kg	
						Say 5808.560 kg @ Rs 1.37 / kg	**Rs 7957.73**	
9	5.9.2 Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.							
	outside alround	3.14	4.250		2.500		33.363	
	inside	3.14	3.750		2.500		29.438	
						Total Quantity	62.801 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	62.801 sqm	
						Say 62.801 sqm @ Rs 726.20 / sqm	**Rs 45606.09**	
10	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of							

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	columns, etc for mass concrete							
	raft slab	1	3.140	4.850	0.300		4.569	
						Total Quantity	4.569 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	4.569 sqm	
						Say 4.569 sqm @ Rs 339.52 / sqm	**Rs 1551.27**	
11	5.9.3 Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform							
	top slab bottom	1	3.140	1.875	1.875		11.040	
	top slab side	1	3.140	4.250	0.200		2.670	
						Total Quantity	13.710 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	13.710 sqm	
						Say 13.710 sqm @ Rs 826.01 / sqm	**Rs 11324.60**	
12	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)							
	inside wall	3.14	3.750		2.500		29.438	
	bottom slab top	3.14	1.875		1.875		11.040	
	top slab bottom	3.14	1.875		1.875		11.040	
						Total Quantity	51.518 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	51.518 sqm	
						Say 51.518 sqm @ Rs 406.24 / sqm	**Rs 20928.67**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
88. SLUDGE THICKNER (Cost Index:37.29 %)								
1	2.6.1 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.All kinds of soil							
		1	3.140	3.750	3.750	0.85	37.533	
						Total Quantity	37.533 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	37.533 cum	

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						Say 37.533 cum @ Rs 216.71 / cum	**Rs 8133.78**	
2	4.1.5 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)							
	for tank	3.14	3.750	3.750	0.100		4.416	
						Total Quantity	4.416 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	4.416 cum	
						Say 4.416 cum @ Rs 7459.93 / cum	**Rs 32943.05**	
3	5.37.1 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All wiork upto plinth level							
	bottom slab	3.140	3.650	3.650	0.750		31.375	
	side wall alround	3.14	3.350	0.300	3.500		11.045	
						Total Quantity	42.420 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	42.420 cum	
						Say 42.420 cum @ Rs 10009.95 / cum	**Rs 424622.08**	
4	5.34.1 Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).							
	Same as 5.37.1	1	42.420				42.420	
						Total Quantity	42.420 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	42.420 cum	
						Say 42.420 cum @ Rs 83.13 / cum	**Rs 3526.37**	
5	od326203/2021_2022 Epoxy coated steel reinforcement for RCC work including straightening ,cutting ,bending ,placing in possition and binding all complete up to plinth level							

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	AS PER 5.37.1	1	42.410			120.0	5089.200	
						Total Quantity	5089.200 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	5089.200 kg	
						Say 5089.200 kg @ Rs 83.10 / kg	**Rs 422912.52**	
6	4.12 Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification .							
	AS PER 5.37.1	1	42.420			340.0	14422.801	
						Total Quantity	14422.801 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	14422.801 kg	
						Say 14422.801 kg @ Rs 1.37 / kg	**Rs 19759.24**	
7	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete							
	Raft slab	1	3.140	7.300	0.300		6.877	
						Total Quantity	6.877 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	6.877 sqm	
						Say 6.877 sqm @ Rs 339.52 / sqm	**Rs 2334.88**	
8	5.9.2 Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.							
	inside	1	3.140	6.200	3.500		68.138	
	outside	1	3.140	6.700	3.500		73.633	
						Total Quantity	141.771 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	141.771 sqm	
						Say 141.771 sqm @ Rs 726.20 / sqm	**Rs 102954.10**	
9	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)							
	inside wall	1	3.140	6.200	4.500		87.606	
	bottom slab top	1	3.140	3.100	3.100		30.176	
	outside wall alround	1	3.140	6.700	3.500		73.633	

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						Total Quantity	191.415 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	191.415 sqm	
						Say 191.415 sqm @ Rs 406.24 / sqm	**Rs 77760.43**	
10	13.52.2 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.On concrete work							
	Same as above 13.7.1	1	191.415				191.415	
						Total Quantity	191.415 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	191.415 sqm	
						Say 191.415 sqm @ Rs 225.70 / sqm	**Rs 43202.37**	
11	22.23.1 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.For vertical surface two coats @0.70 kg per sqm							
	inside wall	1	3.140	6.200	3.500		68.138	
						Total Quantity	68.138 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	68.138 sqm	
						Say 68.138 sqm @ Rs 577.44 / sqm	**Rs 39345.61**	
12	22.23.2 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per							

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	specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.For horizontal surface one coat @1.10 kg per sqm.							
	bottom slab top	1	3.140	3.100	3.100		30.176	
						Total Quantity	30.176 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	30.176 sqm	
						Say 30.176 sqm @ Rs 445.03 / sqm	**Rs 13429.23**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
	99. THICKENED SLUDGE SUMP (Cost Index:37.29 %)							
1	2.6.1 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.All kinds of soil							
		3.14	2.525	2.525	1.500		30.030	
						Total Quantity	30.030 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	30.030 cum	
						Say 30.030 cum @ Rs 216.71 / cum	**Rs 6507.80**	
2	2.26.1 Extra for every additional lift 1.5 m or part there of in excavation / banking excavated or stacked materials.All kinds of soil							
		3.140	2.525	2.525	1.500		30.030	
						Total Quantity	30.030 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	30.030 cum	
						Say 30.030 cum @ Rs 107.70 / cum	**Rs 3234.23**	
3	4.1.5 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)							
		1	3.14*2.525	2.525	0.100		2.002	
						Total Quantity	2.002 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	2.002 cum	

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						Say 2.002 cum @ Rs 7459.93 / cum	**Rs 14934.78**	
4	5.37.1 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All wiork upto plinth level							
	BOTTOM	1	3.14*2.425	2.425	0.300		5.540	
	SIDE WALL AROUND	1	3.14*2.125	2.125	2.500		35.448	
		3.14	1.875	1.875	2.500		-27.597	
						Total Quantity	40.988 cum	
						Total Deducted Quantity	-27.597 cum	
						Net Total Quantity	13.391 cum	
						Say 13.391 cum @ Rs 10009.95 / cum	**Rs 134043.24**	
5	5.37.2 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All work above plinth level upto floor V level							
	TOP SLAB	1	3.14*2.425	2.425	0.200		3.694	
		1	0.450	0.600	0.150		-0.040	
						Total Quantity	3.694 cum	
						Total Deducted Quantity	-0.040 cum	
						Net Total Quantity	3.654 cum	
						Say 3.654 cum @ Rs 11682.76 / cum	**Rs 42688.81**	
6	od326203/2021_2022 Epoxy coated steel reinforcement for RCC work including straightening ,cutting ,bending ,placing in possition and binding all complete up to plinth level							

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	AS PER 5.37.1	1	13.390			120.0	1606.801	
	AS PER 5.37.2	1	3.650			120.0	438.000	
						Total Quantity	2044.801 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	2044.801 kg	
						Say 2044.801 kg @ Rs 83.10 / kg	**Rs 169922.96**	
7	4.12 Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification .							
	AS PER 5.37.1	1	13.390			340.0	4552.600	
	AS PER 5.37.2	1	3.650			340.0	1241.000	
						Total Quantity	5793.600 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	5793.600 kg	
						Say 5793.600 kg @ Rs 1.37 / kg	**Rs 7937.23**	
8	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete							
	raft slab	1	3.14*4.85		0.100		1.523	
						Total Quantity	1.523 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	1.523 sqm	
						Say 1.523 sqm @ Rs 339.52 / sqm	**Rs 517.09**	
9	5.9.2 Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.							
	Outer wall	1	3.14*4.25		2.500		33.363	
	Inner wall	1	3.14*3.75		2.500		29.438	
						Total Quantity	62.801 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	62.801 sqm	
						Say 62.801 sqm @ Rs 726.20 / sqm	**Rs 45606.09**	
10	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)							
	inside wall	1	3.140	3.750	2.500		29.438	

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	bottom slab top	1	3.140	1.875	1.875		11.040	
	top slab bottom	1	3.140	1.875	1.875		11.040	
						Total Quantity	51.518 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	51.518 sqm	
						Say 51.518 sqm @ Rs 406.24 / sqm	**Rs 20928.67**	
11	13.52.2 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.On concrete work							
	13.7.1	1	51.518				51.518	
						Total Quantity	51.518 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	51.518 sqm	
						Say 51.518 sqm @ Rs 225.70 / sqm	**Rs 11627.61**	
12	22.23.1 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.For vertical surface two coats @0.70 kg per sqm							
	Inner	1	3.14*3.75		2.500		29.438	
						Total Quantity	29.438 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	29.438 sqm	
						Say 29.438 sqm @ Rs 577.44 / sqm	**Rs 16998.68**	
13	22.23.2 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010							

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	i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.For horizontal surface one coat @1.10 kg per sqm.							
	bottom slab top	1	3.14*1.875		1.875		11.040	
						Total Quantity	11.040 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	11.040 sqm	
						Say 11.040 sqm @ Rs 445.03 / sqm	**Rs 4913.13**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
	1010. CENTRATE SUMP (Cost Index:37.29 %)							
1	2.6.1 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.All kinds of soil							
		3.140	1.350	1.350	1.500		8.584	
						Total Quantity	8.584 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	8.584 cum	
						Say 8.584 cum @ Rs 216.71 / cum	**Rs 1860.24**	
2	2.26.1 Extra for every additional lift 1.5 m or part there of in excavation / banking excavated or stacked materials.All kinds of soil							
		3.14	1.350	1.350	1.350	1.4	10.816	
						Total Quantity	10.816 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	10.816 cum	
						Say 10.816 cum @ Rs 107.70 / cum	**Rs 1164.88**	
3	4.1.5 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)							
		3.140	1.350	1.350	0.100		0.573	
						Total Quantity	0.573 cum	

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						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	0.573 cum	
						Say 0.573 cum @ Rs 7459.93 / cum	**Rs 4274.54**	
4	5.37.1 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All wiork upto plinth level							
	bottom slab	3.14	1.250	1.250	0.300		1.472	
	side wall alround	3.14	1.900	1.900	2.500		28.339	
						Total Quantity	29.811 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	29.811 cum	
						Say 29.811 cum @ Rs 10009.95 / cum	**Rs 298406.62**	
5	5.37.2 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All work above plinth level upto floor V level							
	top slab	3.14	0.950	0.950	0.200		0.567	
						Total Quantity	0.567 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	0.567 cum	
						Say 0.567 cum @ Rs 11682.76 / cum	**Rs 6624.12**	
6	5.34.1 Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).							
	5.37.1	1	29.811				29.811	

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	5.37.2	1	0.567				0.567	
						Total Quantity	30.378 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	30.378 cum	
						Say 30.378 cum @ Rs 83.13 / cum	**Rs 2525.32**	
7	od326206/2021_2022 Extra for providing Sulphate resistant cement for structure above plinth level							
	5.37.2	1	0.567				0.567	
						Total Quantity	0.567 tonne	
						Total Deducted Quantity	0.000 tonne	
						Net Total Quantity	0.567 tonne	
						Say 0.567 tonne @ Rs 2310.22 / tonne	**Rs 1309.89**	
8	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more							
	5.37.1	1	29.811			100.0	2981.100	
	5.37.2	1	0.567			120.0	68.040	
						Total Quantity	3049.140 kilogram	
						Total Deducted Quantity	0.000 kilogram	
						Net Total Quantity	3049.140 kilogram	
						Say 3049.140 kilogram @ Rs 99.54 / kilogram	**Rs 303511.40**	
9	od326207/2021_2022 Extra for providing Epoxy coating for Reinforcement bars							
	5.22.6	1	3049.140				3049.140	
						Total Quantity	3049.140 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	3049.140 kg	
						Say 3049.140 kg @ Rs 2.32 / kg	**Rs 7074.00**	
10	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete							
	raft slab	3.14	2.500		0.300		2.355	
						Total Quantity	2.355 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	2.355 sqm	

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						Say 2.355 sqm @ Rs 339.52 / sqm	**Rs 799.57**	
11	5.9.2 Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.							
	outside alround	1	3.140	1.900	2.500		14.916	
	Inner	1	3.140	1.500	2.500		11.775	
						Total Quantity	26.691 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	26.691 sqm	
						Say 26.691 sqm @ Rs 726.20 / sqm	**Rs 19383.00**	
12	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)							
	inside wall	1	3.140	1.500	2.500		11.775	
	bottom slab top	1	3.140	1.450	1.450		6.602	
	top slab bottom	1	3.140	0.750	0.750		1.767	
						Total Quantity	20.144 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	20.144 sqm	
						Say 20.144 sqm @ Rs 406.24 / sqm	**Rs 8183.30**	
13	13.52.2 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.On concrete work							
	13.7.1	1	20.144				20.144	
						Total Quantity	20.144 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	20.144 sqm	
						Say 20.144 sqm @ Rs 225.70 / sqm	**Rs 4546.50**	
14	22.23.1 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable							

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	of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.For vertical surface two coats @0.70 kg per sqm							
	Inner wall	1	3.140	1.500	2.500		11.775	
						Total Quantity	11.775 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	11.775 sqm	
						Say 11.775 sqm @ Rs 577.44 / sqm	**Rs 6799.36**	
15	22.23.2 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.For horizontal surface one coat @1.10 kg per sqm.							
	bottom slab top	1	3.140	0.750	0.750		1.767	
						Total Quantity	1.767 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	1.767 sqm	
						Say 1.767 sqm @ Rs 445.03 / sqm	**Rs 786.37**	
16	19.16 Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS: 10910 on 12 mm dia steeel bar conforming to IS:1786, having minimum cross section as 23 mm x 25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufactures permanent identification mark to be visible even after fixing including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size)Complete as per design							
		1	7.000				7.000	
						Total Quantity	7.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	7.000 No	
						Say 7.000 No @ Rs 551.84 / No	**Rs 3862.88**	

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17	100.36.1 Filling water with 5000 litre tankers fited in lorry and conveying water from a distance of 5 km (average) to the reservoir site and pumping the water into the reservoir of height not less than 3 m using 5 HP diesel engine pump set , hire for tanker lorry, tools and other appliences and cost of water etc. complete. "(Ref. No. 000, Technical Circular)"							
		1	3.14*2*2/4		2.500		7.851	
	Total Quantity						7.851 Kilo litre	
	Total Deducted Quantity						0.000 Kilo litre	
	Net Total Quantity						7.851 Kilo litre	
	Say 7.851 Kilo litre @ Rs 186.40 / Kilo litre						**Rs 1463.43**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
1111. RCC PLAT FORM FOR VARIOUS MECHANICAL ITEMS AND MOTORS AND PIPE LAYING WORKS (Cost Index:37.29 %)								
1	2.6.1 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.All kinds of soil							
	FOR BLOWER	15	1.000	0.750	0.500		5.625	
	For pressure and activated carbon filter	2	13.000	3.500	0.500		45.500	
	Total Quantity						51.125 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						51.125 cum	
	Say 51.125 cum @ Rs 216.71 / cum						**Rs 11079.30**	
2	4.1.8 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)							
	Blower	15	1.000	0.7500	0.100		1.126	
	For pressure and activated carbon filter	2	13.000	3.500	0.100		9.100	
	Total Quantity						10.226 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						10.226 cum	
	Say 10.226 cum @ Rs 6900.33 / cum						**Rs 70562.77**	
3	5.1.2							

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	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size							
	Blower	15	0.900	0.650	1.000		8.775	
	For pressure and activated carbon filter	2	13.000	3.500	1.000		91.000	
						Total Quantity	99.775 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	99.775 cum	
						Say 99.775 cum @ Rs 9199.05 / cum	**Rs 917835.21**	
4	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete							
	Blower for PCC	15*2	1.000		0.100		3.000	
		15*2	0.750		0.100		2.251	
	For platform	15*2	0.900		1.000		27.000	
		15*2	0.650		1.000		19.500	
	For pressure and activated carbon filter	2*2	13.000		1.000		52.000	
		2*2	3.000		1.000		12.000	
						Total Quantity	115.751 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	115.751 sqm	
						Say 115.751 sqm @ Rs 339.52 / sqm	**Rs 39299.78**	
5	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more							
	5.1.2	1	99.750			80.0	7980.000	
						Total Quantity	7980.000 kilogram	
						Total Deducted Quantity	0.000 kilogram	
						Net Total Quantity	7980.000 kilogram	
						Say 7980.000 kilogram @ Rs 99.54 / kilogram	**Rs 794329.20**	
6	100.1.1 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidatingeach							

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	deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All kinds of soil (Ref. Item No. 2.10.1 of DSR)							
	For pipe laying at various components	1	200.000	0.700	1.000		140.000	
						Total Quantity	140.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	140.000 cum	
						Say 140.000 cum @ Rs 562.48 / cum	**Rs 78747.20**	
7	18.73.5 Providing and laying Double Flanged (Screwed / Welded) Centrifugally (Spun) Ductile Iron Pipes of Class K - 9 conforming to IS: 8329 :300 mm dia Ductile Iron Double Flanged							
		1	100.000				100.000	
						Total Quantity	100.000 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	100.000 metre	
						Say 100.000 metre @ Rs 6301.47 / metre	**Rs 630147.00**	
8	18.72.19 Providing and laying S & S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS : 8329:300 mm dia Ductile iron Class K-9 pipes							
		1	200.000				200.000	
						Total Quantity	200.000 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	200.000 metre	
						Say 200.000 metre @ Rs 4592.97 / metre	**Rs 918594.00**	
9	18.70.5 Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:300 mm dia pipe							
		1	40.000				40.000	
						Total Quantity	40.000 joint	
						Total Deducted Quantity	0.000 joint	
						Net Total Quantity	40.000 joint	
						Say 40.000 joint @ Rs 417.77 / joint	**Rs 16710.80**	
10	18.83.7 Labour for cutting C.I. pipe with steel saw.300 mm diameter C.I. pipe							

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		1	10.000				10.000	
						Total Quantity	10.000 Each Cut	
						Total Deducted Quantity	0.000 Each Cut	
						Net Total Quantity	10.000 Each Cut	
						Say 10.000 Each Cut @ Rs 651.51 / Each Cut	**Rs 6515.10**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
1212 TREATED WATER CHANNEL (Cost Index:37.29 %)								
1	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil							
	Channel	1	30.000	0.900	0.300		8.100	
						Total Quantity	8.100 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	8.100 cum	
						Say 8.100 cum @ Rs 300.67 / cum	**Rs 2435.43**	
2	4.1.8 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)							
	Channel	1	30.000	0.900	0.100		2.700	
						Total Quantity	2.700 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	2.700 cum	
						Say 2.700 cum @ Rs 6900.33 / cum	**Rs 18630.89**	
3	5.37.1 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All wiork upto plinth level							
	Base slab	1	30.000	0.700	0.200		4.200	
	Side wall	2	30.000	0.100	1.000		6.000	

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		2	0.500	0.100	1.000		0.100	
						Total Quantity	10.300 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	10.300 cum	
						Say 10.300 cum @ Rs 10009.95 / cum	**Rs 103102.49**	
4	od326203/2021_2022 Epoxy coated steel reinforcement for RCC work including straightening ,cutting ,bending ,placing in possition and binding all complete up to plinth level							
	As per Item No.3	1	10.300	80.000			824.000	
						Total Quantity	824.000 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	824.000 kg	
						Say 824.000 kg @ Rs 83.10 / kg	**Rs 68474.40**	
5	4.12 Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification .							
	Asper item no 1	1	10.300			340.0	3502.001	
						Total Quantity	3502.001 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	3502.001 kg	
						Say 3502.001 kg @ Rs 1.37 / kg	**Rs 4797.74**	
6	5.9.2 Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.							
	Outside alround	2	30.000		1.200		72.000	
		2	0.700		1.200		1.680	
	Inside	2	30.000		1.000		60.000	
		2	0.500		1.000		1.000	
						Total Quantity	134.680 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	134.680 sqm	
						Say 134.680 sqm @ Rs 726.20 / sqm	**Rs 97804.62**	
7	22.23.1 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5							

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	partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.For vertical surface two coats @0.70 kg per sqm							
	Inside	2	30.000		1.000		60.000	
		2	0.500		1.000		1.000	
						Total Quantity	61.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	61.000 sqm	
						Say 61.000 sqm @ Rs 577.44 / sqm	**Rs 35223.84**	
8	22.23.2 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.For horizontal surface one coat @1.10 kg per sqm.							
	Base	1	30.000	0.500	1.000		15.000	
						Total Quantity	15.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	15.000 sqm	
						Say 15.000 sqm @ Rs 445.03 / sqm	**Rs 6675.45**	
9	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)							
	inside	2	30.000		1.000		60.000	
		2	0.500		1.000		1.000	
	Base	1	30.000	0.500			15.000	
	Outside	2	30.000		1.200		72.000	
		2	0.700		1.200		1.680	

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						Total Quantity	149.680 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	149.680 sqm	
						Say 149.680 sqm @ Rs 406.24 / sqm	**Rs 60806.00**	
10	13.52.2 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.On concrete work							
	Outside	2	30.000		1.200		72.000	
		2	0.700		1.200		1.680	
						Total Quantity	73.680 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	73.680 sqm	
						Say 73.680 sqm @ Rs 225.70 / sqm	**Rs 16629.58**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
1313. SLUDGE STORAGE YARD (Cost Index:37.29 %)								
1	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil							
	Coloumn	6	1.200	1.200	1.500		12.960	
	For DR packing long wall	2	5.000	0.400	0.450		1.800	
	Short wall	2	3.800	0.400	0.450		1.368	
						Total Quantity	16.128 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	16.128 cum	
						Say 16.128 cum @ Rs 300.67 / cum	**Rs 4849.21**	
2	2.26.1 Extra for every additional lift 1.5 m or part there of in excavation / banking excavated or stacked materials.All kinds of soil							
	Coloumn	6	1.200	1.200	1.100		9.505	
						Total Quantity	9.505 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	9.505 cum	

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					Say 9.505 cum @ Rs 107.70 / cum		**Rs 1023.69**	
3	4.1.8 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)							
	Coloumn	6	1.200	1.200	0.200		1.728	
	For ramp	1	3.600	1.500	0.200		1.080	
					Total Quantity		2.808 cum	
					Total Deducted Quantity		0.000 cum	
					Net Total Quantity		2.808 cum	
					Say 2.808 cum @ Rs 6900.33 / cum		**Rs 19376.13**	
4	od326204/2021_2022 Dry rubble masonary with hard stone in foundation and plinth including cost of all materials, labour etc upto plinth level (Modified the item 7.1.1)							
	long wall	2	6.000	0.400	0.450		2.161	
	short wall	4	2.900	0.400	0.450		2.088	
					Total Quantity		4.249 cum	
					Total Deducted Quantity		0.000 cum	
					Net Total Quantity		4.249 cum	
					Say 4.249 cum @ Rs 4009.71 / cum		**Rs 17037.26**	
5	5.37.1 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All wiork upto plinth level							
	column raft	6	1.000	1.000	0.400		2.401	
	column	6	0.200	0.200	2.000		0.481	
	plinth beam	3	6.000	0.400	0.450		3.241	
		2	6.400	0.400	0.450		2.305	
	ramp	0.5	3.500	1.500	0.450		1.182	
					Total Quantity		9.610 cum	
					Total Deducted Quantity		0.000 cum	

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						Net Total Quantity	9.610 cum	
						Say 9.610 cum @ Rs 10009.95 / cum	**Rs 96195.62**	
6	5.3 Reinforced cement concrete work in beams, suspended floors, roofs, having slope up to 15^0 landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases up to floor five level excluding the cost of centering, shuttering, finishing and reinforcement, with1:1.5:3 (1 cement : 1.5 coarse sand (Zone III) : 3 graded stone aggregate 20 mm nominal size).							
	lintel	1	6.000	0.200	0.200		0.241	
		2	6.400	0.200	0.200		0.513	
						Total Quantity	0.754 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	0.754 cum	
						Say 0.754 cum @ Rs 11636.97 / cum	**Rs 8774.28**	
7	5.37.2 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All work above plinth level upto floor V level							
	column	6	0.200	0.200	3.900		0.937	
	beam	3	6.000	0.200	0.400		1.441	
		2	6.400	0.200	0.400		1.025	
						Total Quantity	3.403 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	3.403 cum	
						Say 3.403 cum @ Rs 11682.76 / cum	**Rs 39756.43**	
8	od326205/2021_2022 Laterate masonry with neatly dressed laterate stone of size 40X20X15cm or nearest size in cement mortar 1:6 for superstructuree above plinth level up to floor two level including all cost of materials, labour charges etc							
	LONG WALL	1	6.000	0.200	3.900		4.681	
	SHORT WALL	4	2.900	0.200	3.900		9.048	
						Total Quantity	13.729 cum	

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						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	13.729 cum	
						Say 13.729 cum @ Rs 6174.53 / cum	**Rs 84770.12**	
9	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more							
	as per item no5	1	9.610	120.000			1153.200	
	as per item no 6	1	0.754	80.000			60.320	
	as per item no 7	1	3.400	120.000			408.000	
						Total Quantity	1621.520 kilogram	
						Total Deducted Quantity	0.000 kilogram	
						Net Total Quantity	1621.520 kilogram	
						Say 1621.520 kilogram @ Rs 99.54 / kilogram	**Rs 161406.10**	
10	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete							
	Raft slab	6	4.000		0.400		9.601	
						Total Quantity	9.601 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	9.601 sqm	
						Say 9.601 sqm @ Rs 339.52 / sqm	**Rs 3259.73**	
11	5.9.5 Centering and shuttering including strutting, etc. and removal of form for:Lintels, beams, plinth beams, girders bressumers and cantilevers							
	PLINTH BEAM OUTSIDE	4	6.400		0.450		11.521	
	PLINTH BEAM INSIDE	6	6.000		0.450		16.201	
	LINTEL OUTSIDE	3	6.400		0.200		3.841	
	LINTEL OUTSIDE SIDE	3	6.200		0.200		3.721	
	BEAM OUTSIDE	4	6.400		0.400		10.241	
	BEAM INTSIDE SIDE	6	6.000		0.400		14.401	
	BEAM BOTTOM	3	6.000	0.200			3.601	
		4	2.900	0.200			2.320	
						Total Quantity	65.847 sqm	

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						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	65.847 sqm	
						Say 65.847 sqm @ Rs 657.96 / sqm	**Rs 43324.69**	
12	5.9.6 Centering and shuttering including strutting, etc. and removal of form for:Columns, Pillars, Piers, Abutments, Posts and Struts							
	COLUMN	6	0.800		5.900		28.321	
						Total Quantity	28.321 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	28.321 sqm	
						Say 28.321 sqm @ Rs 874.47 / sqm	**Rs 24765.86**	
13	2.25 Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.							
	INSIDE	2	2.900	6.000	0.450		15.660	
						Total Quantity	15.660 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	15.660 cum	
						Say 15.660 cum @ Rs 261.81 / cum	**Rs 4099.94**	
14	13.1.1 12 mm cement plaster of mix:1:4 (1 cement : 4 fine sand)							
	BUILDING OUTSIDE	1	19.200		4.950		95.040	
	BUILDING INSIDE	1	18.800		4.500		84.601	
	BEAM INSIDE	1	6.000		1.000		6.000	
						Total Quantity	185.641 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	185.641 sqm	
						Say 185.641 sqm @ Rs 318.03 / sqm	**Rs 59039.41**	
15	11.41.2 Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS : 15622, of approved make, in all colours and shades, laid on 20 mm thick cement mortar 1:4(1 cement : 4 coarse sand), including grouting the joints with white cement and matching pigments etc., complete.Size of Tile 600 x 600 mm.							
	INSIDE	1	6.000	6.200			37.200	

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	SKIRTING STORE ROOM	1	18.800		0.100		1.881	
						Total Quantity	39.081 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	39.081 sqm	
						Say 39.081 sqm @ Rs 1788.41 / sqm	**Rs 69892.85**	
16	13.1.2 12 mm cement plaster of mix:1:6 (1 cement : 6 fine sand).							
	DOOR	1	1.500	0.200	2.400		-0.720	
	GF -COLUMN	6	1.200		3.700		26.640	
	GF-ROOF CEILING	1	10.000	7.000			70.000	
	GF- BEAM SIDE	6	7.000		0.200		8.400	
		6	10.000		0.200		12.000	
	FIRST FLOOR CEILING-BUILDING OUTSIDE	1	36.400		4.450		161.980	
	FIRST FLOOR CEILING-BUILDING INSIDE	1	34.000		4.000		136.000	
	FIRST FLOOR CEILING-ROOF CEILING	1	10.000	7.000			70.000	
	FIRST FLOOR CEILING-BEAM SIDE	6	7.000		0.200		8.400	
		6	10.000		0.200		12.000	
	SUNSHADE	1	38.800	0.675			26.190	
						Total Quantity	531.610 sqm	
						Total Deducted Quantity	-0.720 sqm	
						Net Total Quantity	530.890 sqm	
						Say 530.890 sqm @ Rs 303.00 / sqm	**Rs 160859.67**	
17	13.43.1 Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface:Water thinnable cement primer							
	AS PER ITEM NO 15	1	530.890				530.890	
						Total Quantity	530.890 sqm	
						Total Deducted Quantity	0.000 sqm	

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						Net Total Quantity	530.890 sqm	
						Say 530.890 sqm @ Rs 71.53 / sqm	**Rs 37974.56**	
18	13.82.2 Wall painting with acrylic emulsion paint, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture including applying additional coats wherever required, to achieve even shade and colour.Two coats							
	AS PER ITEM NO 15	1				530.89	530.890	
						Total Quantity	530.890 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	530.890 sqm	
						Say 530.890 sqm @ Rs 127.34 / sqm	**Rs 67603.53**	
19	10.3 Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2 mm and braced with flat iron diagonals 20x5 mm size, with top and bottom rail of T-iron 40x40x6 mm, with 40 mm dia steel pulleys, complete with bolts, nuts,locking arrangement, stoppers, handles, including applying a priming coat of approved steel primer .							
	FOR ENTRANCE	1	1.500			2.4	3.600	
						Total Quantity	3.600 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	3.600 sqm	
						Say 3.600 sqm @ Rs 10333.89 / sqm	**Rs 37202.00**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
14FOUNDATIONS-GENERATOR (Cost Index:37.29 %)								
1	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil							
		1	6.200	4.200	0.200		5.209	
						Total Quantity	5.209 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	5.209 cum	
						Say 5.209 cum @ Rs 300.67 / cum	**Rs 1566.19**	
2	4.1.8 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)							

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		1	6.200	4.200	0.200		5.209	
						Total Quantity	5.209 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	5.209 cum	
						Say 5.209 cum @ Rs 6900.33 / cum	**Rs 35943.82**	
3	5.37.1 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All wiork upto plinth level							
	FOUNDATION RAFT	1	6.000	4.000	0.400		9.601	
						Total Quantity	9.601 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	9.601 cum	
						Say 9.601 cum @ Rs 10009.95 / cum	**Rs 96105.53**	
4	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more							
	AS PER ITEM NO 3	1	9.600			120.0	1152.000	
						Total Quantity	1152.000 kilogram	
						Total Deducted Quantity	0.000 kilogram	
						Net Total Quantity	1152.000 kilogram	
						Say 1152.000 kilogram @ Rs 99.54 / kilogram	**Rs 114670.08**	
5	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete							
	RAFT SLAB	1	20.000		0.400		8.000	
						Total Quantity	8.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	8.000 sqm	
						Say 8.000 sqm @ Rs 339.52 / sqm	**Rs 2716.16**	
6	13.52.2							

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	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.On concrete work							
	OUTSIDE WALL AROUND	1	20.000		0.400		8.000	
						Total Quantity	8.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	8.000 sqm	
						Say 8.000 sqm @ Rs 225.70 / sqm	**Rs 1805.60**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
	15FILTER FOUNDATION (Cost Index:37.29 %)							
1	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil							
		1	15.200	10.700	0.750		121.980	
						Total Quantity	121.980 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	121.980 cum	
						Say 121.980 cum @ Rs 300.67 / cum	**Rs 36675.73**	
2	4.1.8 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)							
		1	15.200	10.700	0.100		16.264	
						Total Quantity	16.264 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	16.264 cum	
						Say 16.264 cum @ Rs 6900.33 / cum	**Rs 112226.97**	
3	5.37.1 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in							

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	-charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All wiork upto plinth level							
	FOUNDATION RAFT	1	15.000	10.500	0.750		118.125	
						Total Quantity	118.125 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	118.125 cum	
						Say 118.125 cum @ Rs 10009.95 / cum	**Rs 1182425.34**	
4	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more							
	AS PER ITEM NO 3	1	118.130			120.0	14175.600	
						Total Quantity	14175.600 kilogram	
						Total Deducted Quantity	0.000 kilogram	
						Net Total Quantity	14175.600 kilogram	
						Say 14175.600 kilogram @ Rs 99.54 / kilogram	**Rs 1411039.22**	
5	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete							
	RAFT SLAB	1	51.000		0.750		38.250	
						Total Quantity	38.250 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	38.250 sqm	
						Say 38.250 sqm @ Rs 339.52 / sqm	**Rs 12986.64**	
6	13.52.2 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.On concrete work							
	OUT SIDE WALL AROUND	1	51.000		0.750		38.250	
						Total Quantity	38.250 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	38.250 sqm	
						Say 38.250 sqm @ Rs 225.70 / sqm	**Rs 8633.03**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
16PUMP HOUSE (Cost Index:37.29 %)								

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1	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil							
		4	3.200	0.600	0.600		4.608	
	Total Quantity						4.608 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						4.608 cum	
	Say 4.608 cum @ Rs 300.67 / cum						**Rs 1385.49**	
2	7.1.1 Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) up to plinth level with:Cement mortar 1:6 (1 cement : 6 coarse sand)							
	FOUNDATION	4	3.200	0.600	0.600		4.608	
	BASEMENT	4	3.200	0.400	0.450		2.305	
	Total Quantity						6.913 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						6.913 cum	
	Say 6.913 cum @ Rs 7295.11 / cum						**Rs 50431.10**	
3	5.3 Reinforced cement concrete work in beams, suspended floors, roofs, having slope up to 15^0 landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases up to floor five level excluding the cost of centering, shuttering, finishing and reinforcement, with1:1.5:3 (1 cement : 1.5 coarse sand (Zone III) : 3 graded stone aggregate 20 mm nominal size).							
	ROOF SLAB	1	3.700	3.700	0.150		2.054	
	Total Quantity						2.054 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						2.054 cum	
	Say 2.054 cum @ Rs 11636.97 / cum						**Rs 23902.34**	
4	od326205/2021_2022 Laterate masonry with neatly dressed laterate stone of size 40X20X15cm or nearest size in cement mortar 1:6 for superstructuree above plinth level up to floor two level including all cost of materials, labour charges etc							
	WALL	4	3.200	0.200	2.400		6.145	
	DOR	1	1.000	0.200	2.400		-0.480	
	Total Quantity						6.145 cum	

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						Total Deducted Quantity	-0.480 cum	
						Net Total Quantity	5.665 cum	
						Say 5.665 cum @ Rs 6174.53 / cum	**Rs 34978.71**	
5	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more							
	AS PER ITEM NO 3	1	2.050	120.000			246.000	
						Total Quantity	246.000 kilogram	
						Total Deducted Quantity	0.000 kilogram	
						Net Total Quantity	246.000 kilogram	
						Say 246.000 kilogram @ Rs 99.54 / kilogram	**Rs 24486.84**	
6	5.9.3 Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform							
	ROOF SLAB	1	3.000	3.000			9.000	
	SLAB EDGE	1	14.200		0.300		4.260	
						Total Quantity	13.260 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	13.260 sqm	
						Say 13.260 sqm @ Rs 826.01 / sqm	**Rs 10952.89**	
7	2.25 Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.							
	Inside Total	1	3.000	3.000	0.450		4.050	
						Total Quantity	4.050 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	4.050 cum	
						Say 4.050 cum @ Rs 261.81 / cum	**Rs 1060.33**	
8	13.1.1 12 mm cement plaster of mix:1:4 (1 cement : 4 fine sand)							
	Building outside	1	13.600		2.400		32.640	
	Building inside	1	12.000		2.400		28.800	
	Door	1	1.000		2.400		-2.400	
						Total Quantity	61.440 sqm	

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						Total Deducted Quantity	-2.400 sqm	
						Net Total Quantity	59.040 sqm	
						Say 59.040 sqm @ Rs 318.03 / sqm	**Rs 18776.49**	
9	13.17 6 mm cement plaster 1:3 (1 cement : 3 fine sand) finished with a floating coat of neat cement and thick coat of Lime wash on top of walls when dry for bearing of R.C.C. slabs and beams.							
	Roof ceiling	1	3.000	3.000			9.000	
	Slab edge	1	14.200		0.300		4.260	
						Total Quantity	13.260 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	13.260 sqm	
						Say 13.260 sqm @ Rs 359.49 / sqm	**Rs 4766.84**	
10	11.41.2 Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS : 15622, of approved make, in all colours and shades, laid on 20 mm thick cement mortar 1:4(1 cement : 4 coarse sand), including grouting the joints with white cement and matching pigments etc., complete.Size of Tile 600 x 600 mm.							
	Inside	1	3.000	3.000			9.000	
						Total Quantity	9.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	9.000 sqm	
						Say 9.000 sqm @ Rs 1788.41 / sqm	**Rs 16095.69**	
11	13.43.1 Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface:Water thinnable cement primer							
	Building outside	1	13.600		2.400		32.640	
	Building inside	1	12.000		2.400		28.800	
	Roof ceiling	1	3.000	3.000			9.000	
	Slab edge	1	14.200		0.300		4.260	
	Door	1	1.000		2.400		-2.400	
						Total Quantity	74.700 sqm	
						Total Deducted Quantity	-2.400 sqm	
						Net Total Quantity	72.300 sqm	
						Say 72.300 sqm @ Rs 71.53 / sqm	**Rs 5171.62**	
12	13.82.2 Wall painting with acrylic emulsion paint, having VOC (Volatile Organic Compound) content less than 50							

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	grams/ litre, of approved brand and manufacture including applying additional coats wherever required, to achieve even shade and colour.Two coats							
	Quantity Item No. 11	1	72.300				72.300	
						Total Quantity	72.300 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	72.300 sqm	
						Say 72.300 sqm @ Rs 127.34 / sqm	**Rs 9206.68**	
13	10.3 Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2 mm and braced with flat iron diagonals 20x5 mm size, with top and bottom rail of T-iron 40x40x6 mm, with 40 mm dia steel pulleys, complete with bolts, nuts,locking arrangement, stoppers, handles, including applying a priming coat of approved steel primer .							
	For Entrance	1	1.000		2.400		2.400	
						Total Quantity	2.400 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	2.400 sqm	
						Say 2.400 sqm @ Rs 10333.89 / sqm	**Rs 24801.34**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
17INTERNEL ROADS, WALKWAYS& STORM WATER DRAINS (Cost Index:37.29 %)								
1	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil							
	For 7M wide road	1	180.000	7.000			1260.000	
	For 5M wide road	1	80.000	5.000			400.000	
	For 3M wide road	1	60.000	3.000			180.000	
	Walkways	1	270.000	1.500			405.000	
						Total Quantity	2245.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	2245.000 cum	
						Say 2245.000 cum @ Rs 300.67 / cum	**Rs 675004.15**	
2	2.27 Supplying and filling in plinth with Jamuna sand under floors, including watering, ramming consolidating and dressing complete.							
	For 7M wide road	1	180.000	7.000	0.250		315.000	

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	For 5M wide road	1	80.000	5.000	0.250		100.000	
	For 3M wide road	1	60.000	3.000	0.250		45.000	
						Total Quantity	460.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	460.000 cum	
						Say 460.000 cum @ Rs 2327.75 / cum	**Rs 1070765.00**	
3	od326202/2021_2022 Providing and laying factory made chamfered edge Cement Concrete paver blocks medium traffic roads/parking etc, of required strength, thickness & size/ shape, made by table vibratory method using PU mould, laid in required colour & pattern over 40mm thick compacted bed of sand, and 75mm thick 6mm brocken stones compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand. complete all as per direction of Engineer-in-Charge.							
	For 7M wide road	1	180.000	7.000			1260.000	
	For 5M wide road	1	80.000	5.000			400.000	
	For 3M wide road	1	60.000	3.000			180.000	
						Total Quantity	1840.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	1840.000 sqm	
						Say 1840.000 sqm @ Rs 10438.17 / sqm	**Rs 19206232.80**	
4	16.91.2 Providing and laying factory made chamfered edge Cement Concrete paver blocksin footpath, parks, lawns, drive ways or light traffic parking etc, of required strength,thickness & size/ shape, made by table vibratory method using PU mould, laid inrequired colour & pattern over 50mm thick compacted bed of sand, compacting andproper embedding/laying of inter locking paver blocks into the sand bedding layerthrough vibratory compaction by using plate vibrator, filling the joints with sand andcutting of paver blocks as per required size and pattern, finishing and sweepingextra sand. complete all as per direction of Engineer-in-Charge.80 mm thick C.C. paver block of M-30 grade with approved color design and pattern.							
	Walk ways	1	270.000	1.500			405.000	
						Total Quantity	405.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	405.000 sqm	
						Say 405.000 sqm @ Rs 1135.87 / sqm	**Rs 460027.35**	
5	16.63 Providing, laying and making kerb channel 30 cm wide and 50 mm thick with cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75 mm bed of dry brick							

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	ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finishing the top smooth etc. complete and as per direction Engineer - in-Charge.							
	Kerb stone	1	260.000	0.300			78.000	
						Total Quantity	78.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	78.000 sqm	
						Say 78.000 sqm @ Rs 575.66 / sqm	**Rs 44901.48**	
6	16.69 Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature jointed with cement mortar 1:3 (1 cement : 3 coarse sand) , including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5 mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-Charge)							
	Kerb stone	1	260.000	0.200	0.300		15.600	
						Total Quantity	15.600 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	15.600 cum	
						Say 15.600 cum @ Rs 9983.11 / cum	**Rs 155736.52**	
7	16.59.1 Manufacturing, supplying and fixing retro reflective sign boards made up of 2 mmthick aluminium sheet, face to be fully covered with high intensity encapsulatedtype heat activated retro reflective sheeting conforming to type - IV of ASTM-D4956-01 in blue and silver white or other colour combination including subjectmatter, message (bi-lingual), symbols and borders etc. as per IRC: 67- 2001, pastedon substrate by an adhesive backing which shall be activated by applying heatand pressure conforming to class-2 of ASTM-D-4956-01 and fixing the same withsuitable sized aluminium alloy rivets @ 20 cm c/c to back support frame of M.S.angle iron of size 25x25x3 mm along with theft resistant measures, mounted andfixed with 2 Nos M.S. angles of size 35x35x5 mm to a vertical post made up to M.S.Tee section ISMT 50x50x6 mm welded with base plate of size 100x100x 5 mm at thebottom end and including making holes in pipes, angles flats, providing & fixingM.S. message plate of required size, steel work to be painted with two or morecoats of synthetic enamel paint of required shade and of approved brand &manufacture over priming coat of zinc chromate yellow primer (vertical MS-Teesupport to be painted in black and white colours). Backside of aluminium sheet tobe painted with two or more coats of epoxy paint over and including appropriatepriming coat including all leads and lifts etc. complete as per drawing , specification and direction of Engineer-in-Charge.Mandatory / Regulatory sign boards of 900 mm diametre with support length of 3750 mm							
	For Internal walkways	5					5.000	
						Total Quantity	5.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	5.000 No	

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						Say 5.000 No @ Rs 7147.95 / No		**Rs 35739.75**
8	16.59.2 Manufacturing, supplying and fixing retro reflective sign boards made up of 2 mmthick aluminium sheet, face to be fully covered with high intensity encapsulatedtype heat activated retro reflective sheeting conforming to type - IV of ASTM-D4956-01 in blue and silver white or other colour combination including subjectmatter, message (bi-lingual), symbols and borders etc. as per IRC: 67- 2001, pastedon substrate by an adhesive backing which shall be activated by applying heatand pressure conforming to class-2 of ASTM-D-4956-01 and fixing the same withsuitable sized aluminium alloy rivets @ 20 cm c/c to back support frame of M.S.angle iron of size 25x25x3 mm along with theft resistant measures, mounted andfixed with 2 Nos M.S. angles of size 35x35x5 mm to a vertical post made up to M.S.Tee section ISMT 50x50x6 mm welded with base plate of size 100x100x 5 mm at thebottom end and including making holes in pipes, angles flats, providing & fixingM.S. message plate of required size, steel work to be painted with two or morecoats of synthetic enamel paint of required shade and of approved brand &manufacture over priming coat of zinc chromate yellow primer (vertical MS-Teesupport to be painted in black and white colours). Backside of aluminium sheet tobe painted with two or more coats of epoxy paint over and including appropriatepriming coat including all leads and lifts etc. complete as per drawing , specification and direction of Engineer-in-Charge.Cautionary / warning sign boards of equilateral triangular shape having each side of 900 mm with support length of 3650 mm							
	For Internal walkways	5					5.000	
						Total Quantity	5.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	5.000 No	
						Say 5.000 No @ Rs 5404.15 / No		**Rs 27020.75**
9	2.7.1 Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.Ordinary rock							
	STORM WATER DRAIN							
	SWD along roads	1	320.000	0.700	0.600		134.400	
	SWD along walkways	1	270.000	0.500	0.400		54.000	
						Total Quantity	188.400 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	188.400 cum	
						Say 188.400 cum @ Rs 420.04 / cum		**Rs 79135.54**
10	5.37.1 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement							

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	including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All wiork upto plinth level							
	SWD along roads							
	Base slab	1	320.000	0.700	0.100		22.401	
	Side wall	2	320.000	0.100	0.500		32.000	
	SWD along walkways Base slab	1	270.000	0.500	0.100		13.500	
	Side wall	2	270.000	0.100	0.300		16.200	
						Total Quantity	84.101 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	84.101 cum	
						Say 84.101 cum @ Rs 10009.95 / cum	**Rs 841846.80**	
11	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more							
	Quantity item No.10	1	84.100	80.000			6728.000	
						Total Quantity	6728.000 kilogram	
						Total Deducted Quantity	0.000 kilogram	
						Net Total Quantity	6728.000 kilogram	
						Say 6728.000 kilogram @ Rs 99.54 / kilogram	**Rs 669705.12**	
12	4.12 Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification .							
	Quantity as per Item No.I	1	84.100	340.000			28594.000	
						Total Quantity	28594.000 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	28594.000 kg	
						Say 28594.000 kg @ Rs 1.37 / kg	**Rs 39173.78**	
13	5.9.2 Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.							
	SWD along roads wall out side	2	320.000		0.600		384.000	

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	wall inside	2	320.000		0.500		320.000	
	SWD along walkways wall out side	2	270.000		0.400		216.000	
	SWD along walkways wall in side	2	270.000		0.300		162.000	
						Total Quantity	1082.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	1082.000 sqm	
						Say 1082.000 sqm @ Rs 726.20 / sqm	**Rs 785748.40**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
18CENTRIFUGE BUILDING (Cost Index:37.29 %)								
1	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil							
	Column	6	1.200	1.200	1.500		12.960	
						Total Quantity	12.960 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	12.960 cum	
						Say 12.960 cum @ Rs 300.67 / cum	**Rs 3896.68**	
2	2.26.1 Extra for every additional lift 1.5 m or part there of in excavation / banking excavated or stacked materials.All kinds of soil							
	Column	6	1.200	1.200	1.100		9.505	
						Total Quantity	9.505 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	9.505 cum	
						Say 9.505 cum @ Rs 107.70 / cum	**Rs 1023.69**	
3	4.1.8 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)							
	Column	6	1.200	1.200	0.200		1.728	
	For plinth beam	2	6.100	0.300	0.100		0.366	
		2	7.900	0.300	0.100		0.475	

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	Plinth inside	1	9.700	6.700	0.100		6.499	
						Total Quantity	9.068 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	9.068 cum	
						Say 9.068 cum @ Rs 6900.33 / cum	**Rs 62572.19**	
4	5.37.1 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All wiork upto plinth level							
	Column Raft	6	1.000	1.000	0.400		2.401	
	Column	6	0.300	0.300	2.000		1.080	
	Plinth beam	3	7.600	0.300	0.450		3.079	
		3	9.700	0.300	0.450		3.929	
						Total Quantity	10.489 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	10.489 cum	
						Say 10.489 cum @ Rs 10009.95 / cum	**Rs 104994.37**	
5	5.3 Reinforced cement concrete work in beams, suspended floors, roofs, having slope up to 15^0 landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases up to floor five level excluding the cost of centering, shuttering, finishing and reinforcement, with1:1.5:3 (1 cement : 1.5 coarse sand (Zone III) : 3 graded stone aggregate 20 mm nominal size).							
	Lintel first floor	2	7.600	0.200	0.200		0.609	
		2	10.000	0.200	0.200		0.800	
	Sunshade first floor	1	38.800	0.600	0.075		1.746	
						Total Quantity	3.155 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	3.155 cum	
						Say 3.155 cum @ Rs 11636.97 / cum	**Rs 36714.64**	
6	5.37.2 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work,							

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	using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All work above plinth level upto floor V level							
	Ground floor column	6	0.300	0.300	3.500		1.891	
	Beam	3	7.600	0.300	0.200		1.368	
		3	9.700	0.300	0.200		1.746	
	Slab	1	10.600	7.600	0.300		24.168	
	FIRST column	6	0.300	0.300	3.550		1.917	
	Beam	3	7.600	0.300	0.200		1.368	
		3	9.700	0.300	0.200		1.746	
	Slab	1	10.600	7.600	0.150		12.084	
						Total Quantity	46.288 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	46.288 cum	
						Say 46.288 cum @ Rs 11682.76 / cum	**Rs 540771.59**	
7	od326205/2021_2022 Laterate masonry with neatly dressed laterate stone of size 40X20X15cm or nearest size in cement mortar 1:6 for superstructuree above plinth level up to floor two level including all cost of materials, labour charges etc							
	First floor long wall	2	9.700	0.200	3.550		13.774	
	Short wall	2	7.000	0.200	3.550		9.941	
	Door	1	1.500	0.200	2.400		-0.720	
						Total Quantity	23.715 cum	
						Total Deducted Quantity	-0.720 cum	
						Net Total Quantity	22.995 cum	
						Say 22.995 cum @ Rs 6174.53 / cum	**Rs 141983.32**	
8	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more							
	Quantity item No.4	1	10.490	120.000			1258.800	
	Quantity item No.5	1	3.150	80.000			252.000	

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	Quantity item No.6	1	46.290	120.000			5554.800	
						Total Quantity	7065.600 kilogram	
						Total Deducted Quantity	0.000 kilogram	
						Net Total Quantity	7065.600 kilogram	
						Say 7065.600 kilogram @ Rs 99.54 / kilogram	**Rs 703309.82**	
9	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete							
	Raft slab	6	4.000		0.400		9.601	
						Total Quantity	9.601 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	9.601 sqm	
						Say 9.601 sqm @ Rs 339.52 / sqm	**Rs 3259.73**	
10	5.9.5 Centering and shuttering including strutting, etc. and removal of form for:Lintels, beams, plinth beams, girders bressumers and cantilevers							
	Plinth beam out side	1	36.400		0.450		16.380	
	Plinth beam in side	2	10.000		0.450		9.000	
		4	7.000		0.450		12.600	
	Lintel out side	1	36.400		0.200		7.280	
	Lintel in side	1	34.000		0.200		6.801	
	Ground floor -Beam outside	1	36.400		0.450		16.380	
	Beam inside	4	10.000		0.450		18.000	
		4	7.000		0.450		12.600	
	Beam bottom	3	9.700	0.300			8.730	
		3	7.000	0.300			6.301	
	First floor beam outside	1	36.400		0.450		16.380	
	Beam inside	4	10.000		0.450		18.000	
		4	7.000		0.450		12.600	
	Beam bottom	3	9.700	0.300			8.730	
		3	7.000	0.300			6.301	
						Total Quantity	176.083 sqm	
						Total Deducted Quantity	0.000 sqm	

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						Net Total Quantity	176.083 sqm	
						Say 176.083 sqm @ Rs 657.96 / sqm	**Rs 115855.57**	
11	5.9.6 Centering and shuttering including strutting, etc. and removal of form for:Columns, Pillars, Piers, Abutments, Posts and Struts							
	Column	6	1.200		9.050		65.161	
						Total Quantity	65.161 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	65.161 sqm	
						Say 65.161 sqm @ Rs 874.47 / sqm	**Rs 56981.34**	
12	5.9.3 Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform							
	Ground floor slab	1	9.700	6.700			64.990	
	First floor	1	9.700	6.700			64.990	
	Sunshade	1	38.800	0.600			23.280	
	slab edge-GF+FF	2	36.400	0.450			32.760	
						Total Quantity	186.020 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	186.020 sqm	
						Say 186.020 sqm @ Rs 826.01 / sqm	**Rs 153654.38**	
13	2.25 Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.							
	Inside	1	9.700	6.700	0.350		22.747	
						Total Quantity	22.747 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	22.747 cum	
						Say 22.747 cum @ Rs 261.81 / cum	**Rs 5955.39**	
14	13.1.1 12 mm cement plaster of mix:1:4 (1 cement : 4 fine sand)							
	First floor -Building outside	1	36.400		4.450		161.980	
	First floor -Building inside	1	34.000		4.000		136.000	

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	Door	1	1.500	0.200	2.400		-0.720	
						Total Quantity	297.980 sqm	
						Total Deducted Quantity	-0.720 sqm	
						Net Total Quantity	297.260 sqm	
						Say 297.260 sqm @ Rs 318.03 / sqm	**Rs 94537.60**	
15	13.17 6 mm cement plaster 1:3 (1 cement : 3 fine sand) finished with a floating coat of neat cement and thick coat of Lime wash on top of walls when dry for bearing of R.C.C. slabs and beams.							
	Ground floor - Column6	6	1.200		3.700		26.640	
	Roof ceiling	1	10.000	7.000			70.000	
	Beam side	6	7.000		0.200		8.400	
	First floor - ceiling	1	10.000	7.000			70.000	
	Beam side	6	7.000		0.200		8.400	
		6	10.000		0.200		12.000	
	Sunshade	1	38.800	0.67500			26.190	
						Total Quantity	221.630 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	221.630 sqm	
						Say 221.630 sqm @ Rs 359.49 / sqm	**Rs 79673.77**	
16	11.41.2 Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS : 15622, of approved make, in all colours and shades, laid on 20 mm thick cement mortar 1:4(1 cement : 4 coarse sand), including grouting the joints with white cement and matching pigments etc., complete.Size of Tile 600 x 600 mm.							
	First Floor - Inside	1	10.000	7.000			70.000	
	Skirting store room	1	34.000		0.100		3.401	
						Total Quantity	73.401 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	73.401 sqm	
						Say 73.401 sqm @ Rs 1788.41 / sqm	**Rs 131271.08**	
17	13.8.1 15 mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix:1:3 (1 Cement : 3 fine sand)							
	Ground floor - column	6	1.200		3.700		26.640	

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	Roof ceiling	1	10.000	7.000			70.000	
	Beam side	6	7.000		0.200		8.400	
		6	10.000		0.200		12.000	
	First floor ceiling - Building outside	1	36.400		4.450		161.980	
	Building inside	1	34.000		4.000		136.000	
	Roof ceiling	1	10.000	7.000			70.000	
	Beam side	6	7.000		0.200		8.400	
		6	10.000		0.200		12.000	
	Sunshade	1	38.800	0.6750			26.190	
	Door	1	1.500	0.200	2.400		-0.720	
						Total Quantity	531.610 sqm	
						Total Deducted Quantity	-0.720 sqm	
						Net Total Quantity	530.890 sqm	
						Say 530.890 sqm @ Rs 458.07 / sqm	**Rs 243184.78**	
18	11.43 Fixing glazed/ Ceramic/ Vitrified floor tiles with cement based high polymer modified quick-set tile adhesive (Water based) conforming to IS : 15477, in average 3 mm thickness.							
	As per item no. 17	1	530.890				530.890	
						Total Quantity	530.890 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	530.890 sqm	
						Say 530.890 sqm @ Rs 699.84 / sqm	**Rs 371538.06**	
19	13.82.2 Wall painting with acrylic emulsion paint, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture including applying additional coats wherever required, to achieve even shade and colour.Two coats							
	AS per item NO.17	1	530.890				530.890	
						Total Quantity	530.890 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	530.890 sqm	
						Say 530.890 sqm @ Rs 127.34 / sqm	**Rs 67603.53**	
20	10.3 Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2 mm and braced with flat iron diagonals 20x5 mm size, with top and bottom rail of T-iron 40x40x6 mm, with 40 mm dia steel pulleys, complete with bolts, nuts,locking arrangement, stoppers, handles, including applying a							

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	priming coat of approved steel primer .							
	For entrance	1	1.500		2.400		3.600	
						Total Quantity	3.600 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	3.600 sqm	
						Say 3.600 sqm @ Rs 10333.89 / sqm	**Rs 37202.00**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
	1919. LAND SCAPING & AFFORESTATION (DSR for horticulture) (Cost Index:37.29 %)							
1	od342769/2021_2022 Trenching in ordinary soil up to a depth of 60 cm including removal and stacking of serviceable materials and then disposing of surplus soil, by spreading and neatly leveling within a lead of 50 m and making up the trenched area to proper levels by filling with earth or earth mixed with sludge or / and manure before and after flooding trench with water (excluding cost of imported earth, sludge or manure).							
	Lawn Area	1	750.000		0.600		450.000	
						Total Quantity	450.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	450.000 cum	
						Say 450.000 cum @ Rs 77.80 / cum	**Rs 35010.00**	
2	od342772/2021_2022 Supplying and stacking of good earth at site including royalty and carriage upto 5 km complete (earth measured in stacks will be reduced by 20% for payment).							
	50% excavated earth	1	0.500		450.000		225.000	
						Total Quantity	225.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	225.000 cum	
						Say 225.000 cum @ Rs 564.25 / cum	**Rs 126956.25**	
3	od342801/2021_2022 Supplying and stacking at site dump manure from approved source, including carriage upto 5 km complete (manure measured in stacks will be reduced by 8% for payment)							
	50% of excavated earth	1	0.500		450.000		225.000	
						Total Quantity	225.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	225.000 cum	
						Say 225.000 cum @ Rs 354.87 / cum	**Rs 79845.75**	

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4	od342805/2021_2022 Mixing earth and sludge or manure in the required proportion specified or directed by the Officerin-charge							
	Lawn area	1	750.000		0.600		450.000	
						Total Quantity	450.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	450.000 cum	
						Say 450.000 cum @ Rs 36.23 / cum	**Rs 16303.50**	
5	od342856/2021_2022 Spreading of sludge, dump manure and/or good earth in required thickness as per direction of officer-in-charge (cost of sludge, dump manure and/ or good earth to be paid separately).							
	lawn area	1	750.000		0.600		450.000	
						Total Quantity	450.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	450.000 cum	
						Say 450.000 cum @ Rs 52.51 / cum	**Rs 23629.50**	
6	od342860/2021_2022 Providing and laying Neelgiri/Mexican grass turf with earth 50mm to 60mm thickness of existing ground prepared with proper level and ramming with tools wooden (Dhurmos) and than rolling the surface with light roller make the surface smoothen and light waterning with sprinkler and maintenance for 30 days or more till the grass establish properly, as per direction of officer-incharge.							
	lawn area	1	750.000				750.000	
						Total Quantity	750.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	750.000 cum	
						Say 750.000 cum @ Rs 345.96 / cum	**Rs 259470.00**	
7	od342863/2021_2022 Digging holes in ordinary soil and refilling the same with the excavated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20% : 1 part of stacked volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish and surplus earth, if any, with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately) :Holes 45 cm dia, and 45 cm deep							
	LS	1	600.000				600.000	
						Total Quantity	600.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	600.000 No	
						Say 600.000 No @ Rs 22.73 / No	**Rs 13638.00**	

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8	od342865/2021_2022 Providing and fixing M.S. flat iron tree guard 60 cm dia and 2 m high, above ground consisting 4 nos 25 x 6 mm, 2.25 m long and 8 nos 25 x 3 mm 2 m long verticals M.S. flats, riveted to 3 nos 25 x 6 mm M.S. flat iron rings in two halves, fixing together at site with required six numbers of 8 mm dia and 30 mm long bolts, including painting two coats with synthetic enamel paint of approved brand and manufacture over a coat of primer. One name plate of 1 mm thick M.S. sheet of size 250x100 mm shall be welded to the tree guard near the middle height and lettered CPWD / PWD/ any other approved name. The tree guard shall be suitably fixed to the ground by embedding four legs of tree guard in pits of suitable dia and to a depth of 25 cm, refilling the pits with soil and ramming, complete in all respect as per satisfaction and direction of Officer-in-charge. 							
	ls	50					50.000	
						Total Quantity	50.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	50.000 No	
						Say 50.000 No @ Rs 5151.50 / No	**Rs 257575.00**	
9	od342885/2021_2022 Supply and stacking of Azadirachta indica (Neem) plant of height 120130cm in big polybag of size 25 cm as per direction of the officer-in-charge.							
	LS	50					50.000	
						Total Quantity	50.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	50.000 No	
						Say 50.000 No @ Rs 101.81 / No	**Rs 5090.50**	
10	od342888/2021_2022 Supply and stacking of Delonix regia (Gulmohar) plant of height 150-165 cm. in big poly bags of size 25 cm as per direction of the officer-in-charge							
	LS	50					50.000	
						Total Quantity	50.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	50.000 No	
						Say 50.000 No @ Rs 101.81 / No	**Rs 5090.50**	
11	od342889/2021_2022 Supply and stacking of Ficus benjamina (green) plant of height 120-135 cm. with 6-8 branches and lush green foliage in g. bags of size 25 cm as per direction of the officer-in-charge.							
	LS	50					50.000	
						Total Quantity	50.000 No	
						Total Deducted Quantity	0.000 No	

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						Net Total Quantity	50.000 No	
						Say 50.000 No @ Rs 169.67 / No	**Rs 8483.50**	
12	od342899/2021_2022 Supply and stacking of Plumeria acutifolia plant of height 150-165 cm. with 3-4 branches in big size HDPE bag as per direction of the officer-in-charge.							
	LS	100					100.000	
						Total Quantity	100.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	100.000 No	
						Say 100.000 No @ Rs 339.34 / No	**Rs 33934.00**	
13	od342914/2021_2022 Supply and stacking of Lagerstroemia flosreginae plant of height 150-165 cm.in big poly bag of size 25 cm as per direction of the officer-in-charge.							
	LS	100					100.000	
						Total Quantity	100.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	100.000 No	
						Say 100.000 No @ Rs 203.61 / No	**Rs 20361.00**	
14	od342916/2021_2022 Plantation of Trees, Shrubs, and Hedge at site i/c watering and removal of unserveiceable material's as per direction of officer in charge (excluding cast of plant & water)							
	LS	600					600.000	
						Total Quantity	600.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	600.000 No	
						Say 600.000 No @ Rs 7.21 / No	**Rs 4326.00**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
2020. Receiving chamber, screen channel and grit chamber and parshall flume (Cost Index:37.29 %)								
1	2.6.1 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.All kinds of soil							
	Foundation , Columns and beams							
	For Column - C1	5	3.200	1.300	1.500		31.201	
	For Column - C2	6	1.100	1.100	1.100	1.5	11.980	

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						Total Quantity	43.181 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	43.181 cum	
						Say 43.181 cum @ Rs 216.71 / cum	**Rs 9357.75**	
2	2.26.1 Extra for every additional lift 1.5 m or part there of in excavation / banking excavated or stacked materials.All kinds of soil							
	For column C1	5	3.200	1.300	1.100		22.881	
	For column C2	6	1.100	1.100	1.100		7.987	
						Total Quantity	30.868 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	30.868 cum	
						Say 30.868 cum @ Rs 107.70 / cum	**Rs 3324.48**	
3	4.1.8 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)							
	For Column - C1	5	3.200	1.300	0.200		4.160	
	For Column - C2	6	1.100	1.100	0.200		1.453	
						Total Quantity	5.613 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	5.613 cum	
						Say 5.613 cum @ Rs 6900.33 / cum	**Rs 38731.55**	
4	5.37.1 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All wiork upto plinth level							
	Column - C1 Raft	5	3.000	1.100	0.400		6.601	
	Column - C2 Raft	6	1.100	1.100	0.400		2.905	
	Column - C1	10	0.300	0.300	2.000		1.800	
	Column - C2	6	0.300	0.300	2.000		1.080	

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	Plinth beams	5	1.900	0.300	0.450		1.283	
		2	11.320	0.300	0.450		3.057	
		2	8.050	0.300	0.450		2.174	
		3	3.550	0.300	0.450		1.438	
		2	6.200	0.300	0.450		1.674	
						Total Quantity	22.012 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	22.012 cum	
						Say 22.012 cum @ Rs 10009.95 / cum	**Rs 220339.02**	
5	5.37.2 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All work above plinth level upto floor V level							
	Column - C1	2	0.300	0.300	1.200		0.216	
		4	0.300	0.300	0.700		0.252	
	Column - C2	6	0.300	0.300	0.700		0.378	
	Beams B1	5	1.900	0.300	0.300		0.855	
		2	3.800	0.300	0.300		0.684	
		2	8.050	0.300	0.300		1.449	
		3	3.550	0.300	0.300		0.959	
		2	6.200	0.300	0.300		1.116	
						Total Quantity	5.909 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	5.909 cum	
						Say 5.909 cum @ Rs 11682.76 / cum	**Rs 69033.43**	
6	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more							
	Quantity as per item no. 4	1	22.010	120.000			2641.201	

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	Quantity as per item no. 5	1	5.910	121.000			715.110	
						Total Quantity	3356.311 kilogram	
						Total Deducted Quantity	0.000 kilogram	
						Net Total Quantity	3356.311 kilogram	
						Say 3356.311 kilogram @ Rs 99.54 / kilogram	**Rs 334087.20**	
7	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete							
	Column C1 Raft	5	8.200		0.400		16.400	
	Column C2 Raft	6	4.400		0.400		10.561	
						Total Quantity	26.961 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	26.961 sqm	
						Say 26.961 sqm @ Rs 339.52 / sqm	**Rs 9153.80**	
8	5.9.5 Centering and shuttering including strutting, etc. and removal of form for:Lintels, beams, plinth beams, girders bressumers and cantilevers							
	Plinth beams - PB1	10	1.900		0.450		8.550	
		4	11.320		0.450		20.376	
		4	8.050		0.450		14.491	
		6	3.550		0.450		9.585	
		4	6.200		0.450		11.160	
	Beams B1 sides	10	1.900		0.300		5.700	
		4	3.800		0.300		4.560	
		4	8.050		0.300		9.660	
		6	3.550		0.300		6.390	
		4	6.200		0.300		7.440	
	Beams B1 bottom	5	1.900	0.300			2.850	
		2	3.800	0.300			2.280	
		2	8.050	0.300			4.830	
		3	3.550	0.300			3.195	
		2	6.200	0.300			3.720	
						Total Quantity	114.787 sqm	

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						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	114.787 sqm	
						Say 114.787 sqm @ Rs 657.96 / sqm	**Rs 75525.25**	
9	5.9.6 Centering and shuttering including strutting, etc. and removal of form for:Columns, Pillars, Piers, Abutments, Posts and Struts							
	Columns - C1	4	1.200		2.000		9.600	
		2	1.200		3.200		7.680	
		4	1.200		2.700		12.960	
	Columns - C2	6	1.200		2.700		19.440	
						Total Quantity	49.680 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	49.680 sqm	
						Say 49.680 sqm @ Rs 874.47 / sqm	**Rs 43443.67**	
10	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)							
	Columns C1	2	1.200		1.200		2.880	
		4	1.200		0.700		3.360	
	Columns C2	6	1.200		0.700		5.040	
	Plinth Beam PB 1	10	1.900		0.450		8.550	
		4	11.320		0.450		20.376	
		4	8.050		0.450		14.491	
		6	3.550		0.450		9.585	
		4	6.200		0.450		11.160	
	Beam B1 sides	10	1.900		0.300		5.700	
		4	3.800		0.300		4.560	
		4	8.050		0.300		9.660	
		6	3.550		0.300		6.390	
		4	6.200		0.300		7.440	
	Beams B1 bottom	5	1.900	0.300			2.850	
		2	3.800	0.300			2.280	
		2	8.050	0.300			4.830	
		3	3.550	0.300			3.195	
		2	6.200	0.300			3.720	

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						Total Quantity	126.067 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	126.067 sqm	
						Say 126.067 sqm @ Rs 406.24 / sqm	**Rs 51213.46**	
11	13.52.2 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.On concrete work							
	Qty as per item no.12	1	9.050		1.600		14.481	
						Total Quantity	14.481 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	14.481 sqm	
						Say 14.481 sqm @ Rs 225.70 / sqm	**Rs 3268.36**	
12	5.34.1 Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).							
	Base Slab - Grit chamber	1	5.600	9.500	0.200		10.640	
	Screen channel	1	7.000	2.900	0.200		4.061	
	Receiving chamber	1	4.400	2.900	0.200		2.552	
	Parshall flume with Distribution chamber	1	5.600	2.260	0.200		2.532	
	Wall - Distribution channel - Right	1	9.050	0.200	1.400		2.535	
	Grit chamber - Long	2	8.050	0.250	1.400		5.635	
	Grit chamber - short	3	3.650	0.250	1.400		3.833	
	Distribution Channel - Left	1	9.550	0.200	1.400		2.674	
	Screen Channel	4	7.000	0.150	1.000		4.200	
	Receiving Chamber - Long	2	4.400	0.200	2.500		4.400	
	Receiving Chamber - Short	2	1.500	0.200	2.500		1.501	
	Parshall Flume with Distribution Chamber - Long Wall	2	5.600	0.200	1.400		3.136	

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	Parshall Flume with Distribution Chamber - Short Wall	2	1.860	0.200	1.400		1.042	
		1	3.000	0.200	1.400		0.841	
						Total Quantity	49.582 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	49.582 cum	
						Say 49.582 cum @ Rs 83.13 / cum	**Rs 4121.75**	
13	5.22.5 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelHard drawn steel wire fabric							
	Qty as per item no. 12	1	49.580	120.000			5949.600	
						Total Quantity	5949.600 kilogram	
						Total Deducted Quantity	0.000 kilogram	
						Net Total Quantity	5949.600 kilogram	
						Say 5949.600 kilogram @ Rs 109.83 / kilogram	**Rs 653444.57**	
14	4.12 Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification .							
	Qty as per item no. 1	1	49.580	340.000			16857.200	
						Total Quantity	16857.200 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	16857.200 kg	
						Say 16857.200 kg @ Rs 1.37 / kg	**Rs 23094.36**	
15	5.9.2 Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.							
	Distribution Channel - Left Outside	1	9.050		1.600		14.481	
	Distribution Channel - Left Inside	1	8.650		1.400		12.110	
	Grit Chamber - Long L&R Outside	2	7.650		1.600		24.481	
	Grit Chamber - Long U&D Outside	2	4.150		1.600		13.281	
	Grit Chamber - Inside	8	3.650		1.400		40.880	

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	Distribution Channel - Right Outside	1	9.550		1.600		15.281	
	Distribution Channel - Right Inside	1	9.150		1.400		12.810	
	Screen Channel Outside	2	7.000		1.200		16.800	
	Screen Channel Inside	6	7.000		1.000		42.000	
	Receiving Chamber Outside	1	12.600		2.700		34.020	
	Receiving Chamber Inside	1	11.000		2.500		27.500	
	Parshall Flume with Distribution Chamber - Long Wall Outside	2	5.600		1.400		15.680	
	Parshall Flume with Distribution Chamber - Long Wall Inside	2	5.200		1.400		14.560	
		2	3.000		1.400		8.400	
	Parshall Flume with Distribution Chamber - Short Wall Outside	1	2.260		1.400		3.164	
	Parshall Flume with Distribution Chamber - Short Wall Inside	3	1.860		1.400		7.812	
						Total Quantity	303.260 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	303.260 sqm	
						Say 303.260 sqm @ Rs 726.20 / sqm	**Rs 220227.41**	
16	5.9.3 Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform							
	Grit Chamber	1	5.600	9.500			53.200	
	Screen Channel	1	7.000	2.900			20.300	
	Receiving Chamber	1	4.400	2.900			12.760	
	Parshall Flume with Distribution Chamber	1	5.600	2.260			12.656	
	Edge	11	6.000			0.2	13.201	

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						Total Quantity	112.117 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	112.117 sqm	
						Say 112.117 sqm @ Rs 826.01 / sqm	**Rs 92609.76**	
17	22.23.1 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.For vertical surface two coats @0.70 kg per sqm							
	Distribution Channel - Left Inside	1	8.650		1.400		12.110	
	Grit Chamber Inside	8	3.650		1.400		40.880	
	Distribution Channel - Right Inside	1	9.150		1.400		12.810	
	Screen Channel	6	7.000		1.000		42.000	
	Receiving Chamber Inside	1	11.000		2.500		27.500	
	Parshall Flume with Distribution Chamber - Long wall inside	2	5.200		1.400		14.560	
		2	3.000		1.400		8.400	
	Parshall Flume with Distribution Chamber - Short wall inside	3	1.860		1.400		7.812	
						Total Quantity	166.072 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	166.072 sqm	
						Say 166.072 sqm @ Rs 577.44 / sqm	**Rs 95896.62**	
18	22.23.2 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5							

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	partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.For horizontal surface one coat @1.10 kg per sqm.							
	Distribution Channel - Left	1	7.650	0.500			3.825	
	Grit Chamber	2	3.650	3.650			26.645	
	Distribution Channel - Right	1	7.650	0.750			5.738	
	Screen Channel	2	7.000	0.450			6.300	
	Screen Channel	1	7.000	0.400			2.801	
	Receiving Chamber	1	4.000	1.500			6.000	
	Parshall Flume with distribution chamber - Base inside	1	5.200	1.860			9.672	
						Total Quantity	60.981 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	60.981 sqm	
						Say 60.981 sqm @ Rs 445.03 / sqm	**Rs 27138.37**	
19	13.7.2 12 mm cement plaster finished with a floating coat of neat cement of mix:1:4 (1 cement : 4 fine sand)							
	Wall - Distribution Channel -Left inside	1	8.650		1.400		12.110	
	Grit Chamber inside	8	3.650		1.400		40.880	
	Distribution Channel - Right inside	1	9.150		1.400		12.810	
	Screen Channel	6	7.000		1.000		42.000	
	Receiving Chamber inside	1	11.000		2.500		27.500	
	Parshall flume with Distribution chamber with long wall inside	2	5.200		1.400		14.560	
		2	3.000		1.400		8.400	

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	Screen channel with short wall inside	3	1.860		1.400		7.812	
	Base- Distribution Channel -Left	1	7.650	0.500			3.825	
	Grit Chamber	2	3.650	3.650			26.645	
	Distribution Channel - Right	1	7.650	0.750			5.738	
	Screen channel	2	7.000	0.450			6.300	
	Screen channel	1	7.000	0.400			2.801	
	Receiving Chamber	1	4.000	1.500			6.000	
	Parshall flume with Distribution chamber base inside	1	5.200	1.860			9.672	
						Total Quantity	227.053 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	227.053 sqm	
						Say 227.053 sqm @ Rs 391.21 / sqm	**Rs 88825.40**	
20	13.52.1 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.On steel work							
	Distribution channel - Left outside	1	9.050		1.600		14.481	
	Grit chamber Long L&R Outside	2	7.650		1.600		24.481	
	Grit chamber Long U&D Outside	2	4.150		1.600		13.281	
	Distribution channel - Right Out side	1	9.550		1.600		15.281	
	Screen Channel outside	2	7.000		1.200		16.800	
	Receiving chamber outside	1	12.600		2.700		34.020	
	Parshall flume with distribution chamber Long wall outside	2	5.600		1.400		15.680	

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	Parshall flume with distribution chamber short wall outside	1	2.260		1.400		3.164	
						Total Quantity	137.188 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	137.188 sqm	
						Say 137.188 sqm @ Rs 226.12 / sqm	**Rs 31020.95**	
						Total	**58051644.15**	
						Centage @	**10.0%**	
						Centage Amount	**5805164.41**	
						Provision for GST payments (in %) @	**18.0%**	
						Amount reserved for GST payments	**10449295.95**	
						Total & Centage	**74306104.51**	
						Lumpsum for round off	**0.00**	
						GRAND TOTAL Rs	**74306104.51**	
Rounded Grand Total Rs 7,43,06,105								
Rupees Seven Crore Forty Three Lakh Six Thousand One Hundred and Five Only								

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PRICE EST NO:

General Abstract

DESIGN OF COTREATMENT UNIT FOR SEPTAGE WITH STP AT PANDALAM MUNICIPALITY IN PATHANAMTHITTA DIST.

(Dsor year: **2018**)

Sl No	Heading Description	Amount
1	**Receiving Chamber**	24990.70
2	**DILUTION CHAMBER**	1012392.65
3	**OIL AND GREASE TRAP**	69303.12
4	**SCREEN CHAMBER**	51749.31
5	**Other Ancillary units**	1491734.20
	Total	**2650169.97**
	Centage @	**10.0%**
	Centage Amount	**265017.00**
	Provision for GST payments (in %) @	**18.0%**
	Amount reserved for GST payments	**477030.59**
	Total & Centage	**3392217.56**
	Lumpsum for round off	**7782.44**
	GRAND TOTAL Rs	**3400000.00**
		Rounded Grand Total Rs 34,00,000
		Rupees Thirty Four Lakh Only

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Detailed Estimate

DESIGN OF COTREATMENT UNIT FOR SEPTAGE WITH STP AT PANDALAM MUNICIPALITY IN PATHANAMTHITTA DIST.

(Dsor year: **2018**)

Sl No	Description	No	L	B	D	CF	Quantity	Remark
	1Receiving Chamber (Cost Index:37.29 %)							
1	2.6.1 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.All kinds of soil							
		1	1.000	0.280	0.400		0.113	
	Total Quantity						0.113 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						0.113 cum	
	Say 0.113 cum @ Rs 216.71 / cum						**Rs 24.49**	
2	4.1.5 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)							
		1	1.000	0.280	0.100		0.029	
	Total Quantity						0.029 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						0.029 cum	
	Say 0.029 cum @ Rs 7459.93 / cum						**Rs 216.34**	
3	5.37.2 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All work above plinth level upto floor V level							
	base slab	1	1.000	0.280	0.300		0.084	

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	side walls	1	2*(1+0.28)	0.250	1.350		0.865	
	top slab	1	1.000	0.280	0.300		0.084	
						Total Quantity	1.033 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	1.033 cum	
						Say 1.033 cum @ Rs 11682.76 / cum	**Rs 12068.29**	
4	5.9.2 Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.							
	base slab	1	1.000	0.280			0.280	
	side walls	1	2*(1+0.28)	0.250			0.640	
	top slab	1	1.000	0.280			0.280	
						Total Quantity	1.200 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	1.200 sqm	
						Say 1.200 sqm @ Rs 726.20 / sqm	**Rs 871.44**	
5	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more							
	@100 kg/m3							
	qty vide 5.37.2	1	1.030			100.0	103.000	
						Total Quantity	103.000 kilogram	
						Total Deducted Quantity	0.000 kilogram	
						Net Total Quantity	103.000 kilogram	
						Say 103.000 kilogram @ Rs 99.54 / kilogram	**Rs 10252.62**	
6	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)							
		1	(1*0.28)+(1+0.28)*2	1.350			3.834	
						Total Quantity	3.834 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	3.834 sqm	
						Say 3.834 sqm @ Rs 406.24 / sqm	**Rs 1557.52**	

Sl No	Description	No	L	B	D	CF	Quantity	Remark
	2DILUTION CHAMBER (Cost Index:37.29 %)							

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1	2.6.1 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.All kinds of soil							
		1	5.000	5.000	0.600		15.000	
	Total Quantity						15.000 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						15.000 cum	
	Say 15.000 cum @ Rs 216.71 / cum						**Rs 3250.65**	
2	4.1.5 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)							
		1	5.000	5.000	0.100		2.500	
	Total Quantity						2.500 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						2.500 cum	
	Say 2.500 cum @ Rs 7459.93 / cum						**Rs 18649.83**	
3	5.37.2 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All work above plinth level upto floor V level							
	base slab	1	5.000	5.000	0.300		7.500	
	side walls	1	2*(5+5)	0.250	4.950		24.750	
	top slab	1	5.000	5.000	0.300		7.500	
	Total Quantity						39.750 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						39.750 cum	
	Say 39.750 cum @ Rs 11682.76 / cum						**Rs 464389.71**	
4	5.9.2 Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including							

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	attached pilasters, butteresses, plinth and string courses etc.							
	base slab	1	5.000	5.000			25.000	
	side walls	1	2*(5+5)	0.250			5.000	
	top slab	1	5.000	5.000			25.000	
						Total Quantity	55.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	55.000 sqm	
						Say 55.000 sqm @ Rs 726.20 / sqm	**Rs 39941.00**	
5	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more							
	@100 kg/m3							
	qty vide5.37,2	1	39.750			100.0	3975.000	
						Total Quantity	3975.000 kilogram	
						Total Deducted Quantity	0.000 kilogram	
						Net Total Quantity	3975.000 kilogram	
						Say 3975.000 kilogram @ Rs 99.54 / kilogram	**Rs 395671.50**	
6	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)							
		1	(5*5)+(5+5)*2	4.950			222.750	
						Total Quantity	222.750 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	222.750 sqm	
						Say 222.750 sqm @ Rs 406.24 / sqm	**Rs 90489.96**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
	3OIL AND GREASE TRAP (Cost Index:37.29 %)							
1	2.6.1 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.All kinds of soil							
		1	1.800	0.800	0.600		0.865	
						Total Quantity	0.865 cum	
						Total Deducted Quantity	0.000 cum	

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						Net Total Quantity	0.865 cum	
						Say 0.865 cum @ Rs 216.71 / cum	**Rs 187.45**	
2	4.1.5 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)							
		1	1.800	0.800	0.100		0.145	
						Total Quantity	0.145 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	0.145 cum	
						Say 0.145 cum @ Rs 7459.93 / cum	**Rs 1081.69**	
3	5.37.2 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All work above plinth level upto floor V level							
	base slab	1	1.800	0.800	0.300		0.433	
	side walls	1	2*(1.8+0.8)	0.250	1.500		1.951	
	top slab	1	1.800	0.800	0.300		0.433	
						Total Quantity	2.817 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	2.817 cum	
						Say 2.817 cum @ Rs 11682.76 / cum	**Rs 32910.33**	
4	5.9.2 Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.							
	base slab	1	1.800	0.800			1.441	
	side walls	1	2*(1.8+0.8)	0.250			1.300	
	top slab	1	1.800	0.800			1.441	
						Total Quantity	4.182 sqm	

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						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	4.182 sqm	
						Say 4.182 sqm @ Rs 726.20 / sqm	**Rs 3036.97**	
5	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more							
	@100 kg/m3							
	qty vide5.37,2	1	2.817			100.0	281.701	
						Total Quantity	281.701 kilogram	
						Total Deducted Quantity	0.000 kilogram	
						Net Total Quantity	281.701 kilogram	
						Say 281.701 kilogram @ Rs 99.54 / kilogram	**Rs 28040.52**	
6	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)							
		1	(1.8*0.8)+(1.8+0.8)*2	1.500			9.960	
						Total Quantity	9.960 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	9.960 sqm	
						Say 9.960 sqm @ Rs 406.24 / sqm	**Rs 4046.15**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
4SCREEN CHAMBER (Cost Index:37.29 %)								
1	2.6.1 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.All kinds of soil							
		1	1.500	0.600	0.600		0.540	
						Total Quantity	0.540 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	0.540 cum	
						Say 0.540 cum @ Rs 216.71 / cum	**Rs 117.02**	
2	4.1.5 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)							

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		1	1.500	0.600	0.100		0.090	
						Total Quantity	0.090 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	0.090 cum	
						Say 0.090 cum @ Rs 7459.93 / cum	**Rs 671.39**	
3	5.37.2 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All work above plinth level upto floor V level							
	base slab	1	1.500	0.600	0.300		0.270	
	side walls	1	2*(1.5+0.6)	0.250	1.500		1.576	
	top slab	1	1.500	0.600	0.300		0.270	
						Total Quantity	2.116 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	2.116 cum	
						Say 2.116 cum @ Rs 11682.76 / cum	**Rs 24720.72**	
4	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more							
	@100 kg/m3							
	qty vide5.37,2	1	2.116			100.0	211.601	
						Total Quantity	211.601 kilogram	
						Total Deducted Quantity	0.000 kilogram	
						Net Total Quantity	211.601 kilogram	
						Say 211.601 kilogram @ Rs 99.54 / kilogram	**Rs 21062.76**	
5	5.9.2 Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.							
	base slab	1	1.500	0.600			0.900	

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	side walls	1	2*(1.5+0.6)	0.250			1.050	
	top slab	1	1.500	0.600			0.900	
						Total Quantity	2.850 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	2.850 sqm	
						Say 2.850 sqm @ Rs 726.20 / sqm	**Rs 2069.67**	
6	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)							
		1	(1.5*0.6)+(1.5+0.6)*2	1.500			7.650	
						Total Quantity	7.650 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	7.650 sqm	
						Say 7.650 sqm @ Rs 406.24 / sqm	**Rs 3107.74**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
5Other Ancillary units (Cost Index:37.29 %)								
1	od316060/2021_2022 Other Ancillary Units							
	Space for co-composting	1					1.000	
						Total Quantity	1.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	1.000 sqm	
						Say 1.000 sqm @ Rs 1263712.00 / sqm	**Rs 1263712.00**	
2	od316710/2021_2022 Supplying and erection of 10 HP submerssible pump set							
		1					1.000	
						Total Quantity	1.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	1.000 No	
						Say 1.000 No @ Rs 228022.20 / No	**Rs 228022.20**	
						Total	**2650169.97**	
						Centage @	**10.0%**	
						Centage Amount	**265017.00**	

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Provision for GST payments (in %) @	**18.0%**
Amount reserved for GST payments	**477030.59**
Total & Centage	**3392217.56**
Lumpsum for round off	**7782.44**
GRAND TOTAL Rs	**3400000.00**
Rounded Grand Total Rs 34,00,000	
Rupees Thirty Four Lakh Only	

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General Abstract

Pile foundation for PANDALAM MUNICIPALITY

(Dsor year: **2018**)

Sl No	Heading Description	Amount
1	**1. PILE FOUNDATION**	51161501.15
	Total	**51161501.15**
	Centage @	**10.0%**
	Centage Amount	**5116150.12**
	Provision for GST payments (in %) @	**18.0%**
	Amount reserved for GST payments	**9209070.21**
	Total & Centage	**65486721.48**
	Lumpsum for round off	**13278.52**
	GRAND TOTAL Rs	**65500000.00**
	Rounded Grand Total Rs 6,55,00,000	
	Rupees Six Crore Fifty Five Lakh Only	

Kerala Water Authority
PRICE

Detailed Estimate

Pile foundation for PANDALAM MUNICIPALITY

(Dsor year: **2018**)

Sl No	Description	No	L	B	D	CF	Quantity	Remark
	11. PILE FOUNDATION (Cost Index:37.29 %)							
1	20.2A.1 Boring, providing and installation bored cast-in-situ reinforced cement concrete piles of garde M-25 ofspecified diameter and length below pile cap, to carry a safe working load not less than specified,excluding the cost of steel reinforcement but including the cost of boring with bentonite solution andtemporary casing of appropriate length for setting out and removal of same and the length of the pile tobe embedded in the pile cap etc. by Crawler mounted, telescopic boom hydraulic pilling Rig all complete,including removal of excavated earth with all its lifts and leads (length of pile for payment shall bemeasured up to bottom of pile cap).Note: Truck Mounted rotary/TMR/Tube well boring machine shall not be used.600 mm dia piles							
	60mm dia	113				56.0	6328.000	
						Total Quantity	6328.000 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	6328.000 metre	
						Say 6328.000 metre @ Rs 5036.28 / metre	**Rs 31869579.84**	
2	20.6.2.1 Vertical load testing of piles in accordance with IS 2911(Part IV) including installation of loading platform and preparation of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & the direction of engineer -in-Charge.Single pile above 50 tonne and upto 100 tonne capacityInitial test							
		15					15.000	
						Total Quantity	15.000 per test	
						Total Deducted Quantity	0.000 per test	
						Net Total Quantity	15.000 per test	
						Say 15.000 per test @ Rs 71758.05 / per test	**Rs 1076370.75**	
3	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more							
	600 mm dia 113*3.14/4*(0.6)*2	113	3.14/4	0.6*0.6	56.000	100.0	178829.281	
						Total Quantity	178829.281 kilogram	
						Total Deducted Quantity	0.000 kilogram	

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	Net Total Quantity						178829.281 kilogram	
	Say 178829.281 kilogram @ Rs 99.54 / kilogram						**Rs 17800666.63**	
4	od326209/2021_2022 Extra for providing Epoxy coating for Reinforcement bars							
	5.22.6	1	178829.281				178829.281	
	Total Quantity						178829.281 kg	
	Total Deducted Quantity						0.000 kg	
	Net Total Quantity						178829.281 kg	
	Say 178829.281 kg @ Rs 2.32 / kg						**Rs 414883.93**	
	Total						**51161501.15**	
	Centage @						**10.0%**	
	Centage Amount						**5116150.12**	
	Provision for GST payments (in %) @						**18.0%**	
	Amount reserved for GST payments						**9209070.21**	
	Total & Centage						**65486721.48**	
	Lumpsum for round off						**13278.52**	
	GRAND TOTAL Rs						**65500000.00**	
	Rounded Grand Total Rs 6,55,00,000							
	Rupees Six Crore Fifty Five Lakh Only							

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General Abstract

SUPPLY OF PUMPS AND OTHER MATERIALS FOR MBBR IN PANDALAM MUNICIPALITY

(Dsor year: **2018**)

Sl No	Heading Description	Amount
1	**1. SUPPLY OF PUMPS & OTHER MATERIALS FOR MBBR**	21352192.70
2	**Supply A nd Fitting Diesel Generator**	3716800.00
3	**Providing Solar Panel System**	2000000.00
4	**INSIDE ELECTRICAL WORKS,PANNEL BOARD AND COMPOUND LIGHTING ARRANGEMENTS**	2000000.00
5	**TRANSFORMER CONTROL ROOM & GENERATOR ROOM**	500000.00
6	**INSTALLATION OF TRANSFORMER AND ELECTRICAL INSTALLATION WORKS**	6000000.00
7	**MISCELLANEOUSITEMS**	6053571.00
	Total	**41622563.70**
	Centage @	**10.0%**
	Centage Amount	**4162256.37**
	Provision for GST payments (in %) @	**18.0%**
	Amount reserved for GST payments	**7492061.47**
	Total & Centage	**53276881.54**
	Lumpsum for round off	**23118.46**
	GRAND TOTAL Rs	**53300000.00**
	Rounded Grand Total Rs 5,33,00,000	
	Rupees Five Crore Thirty Three Lakh Only	

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Detailed Estimate

SUPPLY OF PUMPS AND OTHER MATERIALS FOR MBBR IN PANDALAM MUNICIPALITY

(Dsor year: **2018**)

Sl No	Description	No	L	B	D	CF	Quantity	Remark
11. SUPPLY OF PUMPS & OTHER MATERIALS FOR MBBR (Cost Index:37.29 %)								
1	od324490/2021_2022 Supply , erection , testing and commissioning of new generation non clog submersible motor pump set having suitable discharge and head including all accessories such as cost of pannel board with ammeter ,volt meter ,phase indicating lamps ,change over switch ,main switch, cost of soft starter ,cable from pannel board to starter , starter to motor ,capacitors suction pipe ,foot valve , non return valve ,suction and delivery pipe of required length , pressure gauge ,earthing and wiring material etc.							
	Equalisation tank to MBBR-dis 57.87 lps-23m head	1	36.000				36.000	One for stand by
	Pressure filter-dis57.87 lps-44m head	1	67.000				67.000	
						Total Quantity	103.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	103.000 No	
						Say 103.000 No @ Rs 580.75 / No	**Rs 59817.25**	
2	od324492/2021_2022 Mixing equipment -Supply,erection,testing znd commissionig of direct driven floating mixers of approximately 4HP or as required with the rotation arm for rated continuous duty mixing and efficiencycomplete with 3 phase motor,including rotory paddles,gear box,cables,wall mooring and anchoring system with all electro mechanical equipments etc complete for the denitrification tank of the proposed 5MLD STP.Electrical control panel shall be supplied with the pump as per the specification in the electrical BOQ or directed as per the department officers-Capacity 400 m3/hr,Motor4 HP three phase							
	Mixing equipment	1					1.000	
						Total Quantity	1.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	1.000 No	
						Say 1.000 No @ Rs 139380.00 / No	**Rs 139380.00**	
3	od324493/2021_2022 Filter feed pump- Supplying and fixing of mono block centrifugal pump,for rated continuous duty and best							

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	efficiency CI construction ,CI Impeller,complete with 3 phase motor,FRP motorncover,pressure gauge,operation on 415+/-10% volts,50 Hz,AC power supply etc including sluice valves,pressure gauges,NRVs with DI/I/Pipes connecting common delivery suitable for complete in all respects as required by the standard specifications and shall suit following capacities complete with all accessories as per technical specification .Pumps shall have dry run protection $high/low level alarm.Electrical control panel shall be supplied with the pump as per specification in the electrical BOQ.Capacity 250m/hrHead-30m							
	Filter feed pump	1					1.000	
						Total Quantity	1.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	1.000 No	
						Say 1.000 No @ Rs 871125.00 / No	**Rs 871125.00**	
4	od324494/2021_2022 Air blower- Supply,erection,testing and commisioning of twin lobe air blower for indoor application complete with acoustic canopy,air filter ,motor of 1500 rpm,pulleys,pressure gauge ,pressure relief valve,acoustic hood,suction silencer with suitable flanges ,common motor and compressor base frame with motor belt tightening specification as directed by engineer in charge Capacity-1800 m/hr Pressure -0.6kg/sqcm Motor :3 phase with IP68 Protection (2W+1S)^n							
	3 NOS Standby	6					6.000	
						Total Quantity	6.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	6.000 No	
						Say 6.000 No @ Rs 574942.50 / No	**Rs 3449655.00**	
5	od324496/2021_2022 Bubble Diffuser for Equalisation tank Supplying at site ,erection ,testing $commissioning of coarse bubble diffuser (retrievable type using rope and pulley) for the aeration system of the equailisation tank with diffusers of sufficient size and length made of EPDM make with SS tee 1mmx1mm.SS lifting hook 8mm,SS foundation bolt 6mm,SS C clamp suitable for 1mm OD hose.PP Rope,PPswivel nut .PPsleeve,Slicone washer,SShose clamp,RCC block complete at a minimum rating of 95m/hras per technical specification / directed by engineer in charge							
	Bubble Diffuser for Equalisation tank	3					3.000	
						Total Quantity	3.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	3.000 No	
						Say 3.000 No @ Rs 80724.25 / No	**Rs 242172.75**	
6	od324497/2021_2022 Air grid pipe Supply and erection of air pipes(HDPE)into valves and other accessories as required for blowers to varioustanks as a complete unit							

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	Air grid pipe	1					1.000	
						Total Quantity	1.000 set	
						Total Deducted Quantity	0.000 set	
						Net Total Quantity	1.000 set	
						Say 1.000 set @ Rs 174225.00 / set	**Rs 174225.00**	
7	od324498/2021_2022 Supply MBBR Media (size dia 25x4mm,hole numbers:64.Efficient surface area -1200m2/m3.density 0.96-0.98 g/cc,packing numbers >2,10000/m3.porosity >85%membrane forming ,Time-3-15 days,lifespan>15 years ,BOD Oxidation efficiency:2500-20,000 rpm,CODoxidation efficiency:2500-20,000 ppm,COD oxidation efficiency:2500-25000ppm							
	Supply MBBR Media	1	250.000				250.000	
						Total Quantity	250.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	250.000 cum	
						Say 250.000 cum @ Rs 34845.00 / cum	**Rs 8711250.00**	
8	od324499/2021_2022 Gas chlorinator system Supply at site,erection,testing and commissioning of electronic chlorine dosing system with all wetted parts in PP construction suitable for pumping chlorine gas including booster pumps,valves,suctions and delivery lines using heavy duty PVC tubes,gas line diffusers,emergency repairskit,FRP motor cover etccomplete with all accessories,Capacity500 gm to 1 kg/hr with 2 Nos of chlorine tonners							
	Gas chlorinator system	2					2.000	
						Total Quantity	2.000 set	
						Total Deducted Quantity	0.000 set	
						Net Total Quantity	2.000 set	
						Say 2.000 set @ Rs 464600.00 / set	**Rs 929200.00**	
9	od324500/2021_2022 Electromagnetic flow meter Supply ,installation,testing and commissioning of electro magnetic/ ultra sonic D/F permanent conduit flow meter with flow recorder,digital flow indicator,flow integrator with sensors,7 digit totaliser,transmittal and digital display arrangements and all accessories including housing arrangements,internal data logger, to save up to 2000 lines of data etc complete to fix as per the specifications.Flow range 0f 10 to 600 LPS, one displayshall be installed at the main control centre							
	Electromagnetic flow mete	2					2.000	
						Total Quantity	2.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	2.000 No	

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	Say 2.000 No @ Rs 87112.50 / No						**Rs 174225.00**	
10	od324501/2021_2022 Lifting mechanism for air grid Supply,installation &commissioning of the manually operating chain pulley mechanism to lift the equipment fromheight not less than 5m including all equipments, foundation etc							
	Lifting mechanism for air grid	5					5.000	
	Total Quantity						5.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						5.000 No	
	Say 5.000 No @ Rs 11615.00 / No						**Rs 58075.00**	
11	od324502/2021_2022 SS GATES Supplying at site,installation testing and commissioning of all materials,fabricating,fixing and commissioning ofspindle operated open channel sluice gates/shutter of DI make with a peakflow of 145LPS and velocity less than1 m/s at the inlet & outlet of screen channel to suit thechannel sizes as per the drawings,tender specifications and as directed by engineer in charge							
	SS GATES	8					8.000	
	Total Quantity						8.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						8.000 No	
	Say 8.000 No @ Rs 17422.50 / No						**Rs 139380.00**	
12	od324503/2021_2022 SUDGE THICKENER MECHANISM Supplying all materials,fabricating,fixing and commissioning of Bridge mounted central driven type sludge thickening mechanism for the full diameter of sludge thickener tank as per drawing includingall feed well,drive and rake mechanism with removable scrappers with sufficient 3 phase motor and gears etc as per tender specification and as directed by engineer in charge							
	SUDGE THICKENER MECHANISM	1					1.000	
	Total Quantity						1.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						1.000 No	
	Say 1.000 No @ Rs 313605.00 / No						**Rs 313605.00**	
13	od324504/2021_2022 Poly Electrolyte dosing system Supplying and fixing of electronic dosimg pump with all wetted parts in PP construction suitable for pumping poly electrolyte solution including cost of suitable agitators,control gears, valve,suction and delivery lines using heavyduty PVC tubes,HD,FRP motor cover etc and complete with all accessoriesto prepare 5% solution of 0.2kg/hr							

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	Poly Electrolyte dosing system	2					2.000	
						Total Quantity	2.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	2.000 No	
						Say 2.000 No @ Rs 92920.00 / No	**Rs 185840.00**	
14	od324505/2021_2022 High Pressure Jet Pump Supply and commissioning of portable high pressure water pumps(along with 500 litre water tanks to supply water to all pumps)all mounted on a suitable medium vehicle platform for clearing wells,pumps and other equipments using high pressure gauges,safety arrangements etccomplete as per standards							
	High Pressure Jet Pump	1					1.000	
						Total Quantity	1.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	1.000 No	
						Say 1.000 No @ Rs 34845.00 / No	**Rs 34845.00**	
15	od324506/2021_2022 Portable Hoist-500 kg Supply and commissioningof portable monkey type hoist with capacity up to 500 kgwith lifting height of 6m,5 HPMotor415V50HZall mounted on a suitable medium vehicle platform for easy shifting of equipments and materials whenever required with complete setas per standards							
	Portable Hoist	1					1.000	
						Total Quantity	1.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	1.000 No	
						Say 1.000 No @ Rs 104535.00 / No	**Rs 104535.00**	
16	od324507/2021_2022 Wheel Barrow Supply of three wheel type wheel barrow of capacity 200 ltrs							
		1					1.000	
						Total Quantity	1.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	1.000 No	
						Say 1.000 No @ Rs 29037.50 / No	**Rs 29037.50**	
17	od324508/2021_2022 Plate Settler Supplying and fixing SS plate SS306 for using plate settler (size 100 cmx90 cmx2,5mm) suitable for use in the water and wastetreatment plants to improve the quantity and qualityof sewerage treatment plants to improve the quantity and quality of sewerage treatmentas per the direction							

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	of engineers							
	Total for secondary clarifier channel	1	1570.000				1570.000	
						Total Quantity	1570.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	1570.000 No	
						Say 1570.000 No @ Rs 795.51 / No	**Rs 1248950.70**	
18	od324509/2021_2022 Aluminum Ladder Supply, installation of aluminium with caging on each elevated structures of required height as per the drawing or as directed by engineer in charge							
		1	8.000				8.000	
						Total Quantity	8.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	8.000 No	
						Say 8.000 No @ Rs 6969.00 / No	**Rs 55752.00**	
19	od324510/2021_2022 FRP Ladder Supply installation of FRP ladders with caging on each elevated structures of required height as per the drawings or as directed by engineer in charge							
		1	3.000				3.000	
						Total Quantity	3.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	3.000 No	
						Say 3.000 No @ Rs 34845.00 / No	**Rs 104535.00**	
20	od324511/2021_2022 Monorail crane Supply,installation and commissioning in position mechanically operated mono rail craneof load bearing capacity of2 tonnes suitable for operation on 415+/-10% volts.50 HZ,AC power supplyetc with 6m lift &spanupto 20m complete in all respects as required by standards complete with all accessories as per specification							
		1					1.000	
						Total Quantity	1.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	1.000 No	
						Say 1.000 No @ Rs 406525.00 / No	**Rs 406525.00**	
21	od324512/2021_2022 Pessure sand filter Supply at site erection and commissioning of pressure sand filter vertical type pressure vessel fabricated with MS construction with epoxy coatinginside and anti corrosive treatment							

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	outside,2 coatsof paint outside withstand a minimum test pressure of 7 kg/cm with an operating pressure of 3.5 kg/cm complete with valves and dual filter media including graded pabble and sand and antracite.frontal piping.butterflyvalves.internals.pressure gauges.strainers.supporting structures etc and all other accessories tested twice complete as per specification or as directed by engineer in charge							
		3					3.000	
						Total Quantity	3.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	3.000 No	
						Say 3.000 No @ Rs 522675.00 / No	**Rs 1568025.00**	
22	od324513/2021_2022 Activated carbon filter Supply at site erection and commissioning of activated carbon filter vertical type pressure vessel fabricated with MS construction with epoxy coatinginside and anti corrosive treatment outside,2 coatsof paint outside withstand a minimum test pressure of 7 kg/cm with an operating pressure of 3.5 kg/cm complete with valves and filter media including activated carbon of approved grade and quality.frontal piping.butterflyvalves.internals.pressure gauges.strainers.supporting structures.backwash arrangement etc and all other accessories tested twice complete as per specification or as directed by engineer in charge.The scope shall include complete piping with MS fabricatedpipes and specials including valves Flow rate-250 m/hr Dia-3m Height-2.5m							
		3					3.000	
						Total Quantity	3.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	3.000 No	
						Say 3.000 No @ Rs 551712.50 / No	**Rs 1655137.50**	
23	od324514/2021_2022 Centrifuge system Supply at site.installation and commissioning of fiter press/centrifuge system.Filter press shall be automatedrecessed type press with SS fabricated structure pipe button surface and SS flat parallel bar with PP cloth.Filter operations to be mechanical .Outlet cake consistency should not be more than 35% moisture.The capacity of the filter press should be 1 cum/hr.The filter press unit shall be mounted on a platform and all around drain systemto be provided to prevent the filtratewater contaminating the entire surroundings as per the specifications							
		2					2.000	
						Total Quantity	2.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	2.000 No	
						Say 2.000 No @ Rs 348450.00 / No	**Rs 696900.00**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark

2Supply A nd Fitting Diesel Generator (Cost Index:37.29 %)

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1	od324488/2021_2022 500 KVA Diesel generator providing,installing,testing and commissioning of silent type ,Diesel generating set along with having prime power rating 250 KVA,415 volts at 1500 RPM,0.8 lagging power factor at 415V suitable for 50 HZ,3Phase system& for 0.85 load factor							
		1					1.000	
						Total Quantity	1.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	1.000 No	
						Say 1.000 No @ Rs 3716800.00 / No	**Rs 3716800.00**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
3Providing Solar Panel System								
						Lump-Sum Total	**Rs 2000000.00**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
4INSIDE ELECTRICAL WORKS,PANNEL BOARD AND COMPOUND LIGHTING ARRANGEMENTS								
						Lump-Sum Total	**Rs 2000000.00**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
5TRANSFORMER CONTROL ROOM & GENERATOR ROOM								
						Lump-Sum Total	**Rs 500000.00**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
6INSTALLATION OF TRANSFORMER AND ELECTRICAL INSTALLATION WORKS								
						Lump-Sum Total	**Rs 6000000.00**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
7MISCELLANEOUSITEMS								
						Lump-Sum Total	**Rs 6053571.00**	
						Total	**41622563.70**	
						Centage @	**10.0%**	
						Centage Amount	**4162256.37**	
						Provision for GST payments (in %) @	**18.0%**	
						Amount reserved for GST payments	**7492061.47**	
						Total & Centage	**53276881.54**	
						Lumpsum for round off	**23118.46**	
						GRAND TOTAL Rs	**53300000.00**	
Rounded Grand Total Rs 5,33,00,000								
Rupees Five Crore Thirty Three Lakh Only								

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General Abstract

NETWORK DESIGN AND ALLIED COMPONENTS FOR 5MLD STP AT PANDALAM MUNICIPALITY IN PATHANAMTHITTA DIST.

(Dsor year: **2018**)

Sl No	Heading Description	Amount
1	**APPA -CONSTRUCTION OF WELL I - 8.0 M DIA COLLECTION WELL**	7259876.00
2	**CONSTRUCTION OF WELL 2 - 5 mDIA**	6486002.03
3	**CONSTRUCTION OF WELL 3 - 3 m DIA**	4122554.03
4	**3 APP B-CONSTRUCTION 0F PUMP HOUSE AT TOP OF WELL**	3485912.45
5	**CONSTRUCTION OF GRIT CHAMBER**	2612969.49
6	**5 APP D - LAYING PUMPING MAIN**	10491252.92
7	**6 APP- E SUPPLY OFMATERIALS FOR PUMPING MAIN**	16144400.00
8	**7 APP F-LAYING GRAVITY SEWER MAIN & CONSTRUCTION OF MAN HOLES**	411242367.49
9	**8 APP G -ADDITIONING PROVISION FOR HEADER PIPE,VALVE,MANHOLE COVERS ETC.IN PUMP HOUSES**	3000000.00
10	**9 APP H - SUPPLYING AND PROVIDING BLOWER ARRANGEMENT FOR AERATION SUITABLE TO COLLECTION WELL AND ALL INSTALLATION CHARGE AND ELECTRICAL FITTINGS - 3NOS.**	500000.00
11	**10 APP I- SUPPLY AND ERECTION OF 65KWA DIESEL / PETROL GENERATORS -3 NOS.**	1500000.00
12	**11 APP J- INSTALLATIONS EARTHING ,CABLING ,CONTROL PANNEL, ELECTRIC CONNECTION ,KSEB DOCUMENTATIONS AND SUPPORTING STRUCTRE**	2500000.00
13	**12 APP K- ROAD RESTORATION CHARGES**	94383570.00
14	**13 APP -L SUPPLY ERECTION TRAIL RUN & COMMISSIONING OF PUMPSET AT LIFTING STATION**	1000000.00
15	**Supply erection ,Trial run and commissioning of Pumpset**	3286319.10
	Total	**568015223.52**
	Centage @	**10.0%**
	Centage Amount	**56801522.35**
	Provision for GST payments (in %) @	**18.0%**
	Amount reserved for GST payments	**102242740.23**
	Total & Centage	**727059486.10**
	Lumpsum for round off	**40513.90**
	GRAND TOTAL Rs	**727100000.00**
	Rounded Grand Total Rs 72,71,00,000	
	Rupees Seventy Two Crore Seventy One Lakh Only	

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Detailed Estimate

NETWORK DESIGN AND ALLIED COMPONENTS FOR 5MLD STP AT PANDALAM MUNICIPALITY IN PATHANAMTHITTA DIST.

(Dsor year: **2018**)

Sl No	Description	No	L	B	D	CF	Quantity	Remark
1APPA -CONSTRUCTION OF WELL I - 8.0 M DIA COLLECTION WELL (Cost Index:37.29 %)								
1	2.3.1 Banking excavated earth in layers not exceeding 20 cm in depth, breaking clods, watering, rolling each layer with 1/2 tonne roller, or wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 tonnes and dressing up, in embankments for roads, flood banks, marginal banks, and guide banks etc., lead up to 50 m and lift up to 1.5 m :All kinds of soil							
	well site	1	30.000	20.000	0.300		180.000	
						Total Quantity	180.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	180.000 cum	
						Say 180.000 cum @ Rs 560.83 / cum	**Rs 100949.40**	
2	2.1.1 Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5m in width as well as 10 sqm on plan including disposal of excavated earth up to 50 m and lift up to 1.5 m, disposed soil to be levelled and neatly dressed:All Kinds of soil							
	well	1	10.000	10.000			100.000	
						Total Quantity	100.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	100.000 sqm	
						Say 100.000 sqm @ Rs 110.31 / sqm	**Rs 11031.00**	
3	2.6.1 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.All kinds of soil							
	11,6m Inner DIA							
	CONSTRUCTION OF WELL KERB	1	10.000	10.000	1.500		150.000	
						Total Quantity	150.000 cum	
						Total Deducted Quantity	0.000 cum	

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	Net Total Quantity						150.000 cum	
	Say 150.000 cum @ Rs 216.71 / cum						**Rs 32506.50**	
4	od317402/2021_2022 Fabricating MS Kerb of size using 8 mm thick MS plate including cost of MS plate and 10mm dia anger bar welded to the kerb and conveyance charges of MS plate, all fabrication charges, charges of painting outer side of the steel work with two or more coat deluxe multi surface paint to give an even shade over an under coat of primer erection tying anger bar with reinforcement placing in position etc. complete.							
	FOR KERB							
	WELL KERB	1	3.14*9				28.260	
	Total Quantity						28.260 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						28.260 metre	
	Say 28.260 metre @ Rs 3425.98 / metre						**Rs 96818.19**	
5	od331848/2021_2022 Sinking well (in or under water) of dia 8m inside all kinds of soil to lines and levels and plumb by scooping out earth from inside and below the steining using necessary appliances including hire and labour for the same including dumping the spoil beyond the initial lead of 50m etc. complete total depth 1.5 to 3m.							
		1	1.500				1.500	
	Total Quantity						1.500 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						1.500 metre	
	Say 1.500 metre @ Rs 51425.72 / metre						**Rs 77138.58**	
6	od331797/2021_2022 Sinking well (in or under water) of dia8m inside all kinds of soil to lines and levels and plumb by scooping out earth from inside and below the steining using necessary appliances including hire and labour for the same including dumping the spoil beyond the initial lead of 50m etc. complete total depth 3 to 4.5m.							
		1	1.500				1.500	
	Total Quantity						1.500 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						1.500 metre	
	Say 1.500 metre @ Rs 54959.57 / metre						**Rs 82439.36**	
7	od331802/2021_2022 Sinking well (in or under water) of dia8m inside all kinds of soil to lines and levels and plumb by scooping out earth from inside and below the steining using necessary appliances including hire and lbour for the same including dumping the spoil beyond the initial lead of 50m etc. complete total depth							

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	4.5 to 6m.							
		1	1.500				1.500	
	Total Quantity						1.500 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						1.500 metre	
	Say 1.500 metre @ Rs 58488.95 / metre						**Rs 87733.42**	
8	od331803/2021_2022 Sinking well (in or under water) of dia8m inside all kinds of soil to lines and levels and plumb by scooping out earth from inside and below the steining using necessary appliances including hire and lbour for the same including dumping the spoil beyond the initial lead of 50m etc. complete total depth 6 to 7.5m.							
		1	1.500				1.500	
	Total Quantity						1.500 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						1.500 metre	
	Say 1.500 metre @ Rs 62022.79 / metre						**Rs 93034.19**	
9	od331804/2021_2022 Sinking well (in or under water) of dia8m inside all kinds of soil to lines and levels and plumb by scooping out earth from inside and below the steining using necessary appliances including hire and lbour for the same including dumping the spoil beyond the initial lead of 50m etc. complete total depth 7.5 to 9m.							
		1	1.500				1.500	
	Total Quantity						1.500 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						1.500 metre	
	Say 1.500 metre @ Rs 65556.64 / metre						**Rs 98334.96**	
10	5.7 Reinforced cement concrete work in well - steining excluding the cost of centering, shuttering, finishing and reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand (Zone - III) : 3 graded stone aggregate 20 mm nominal size)							
	FOR KERB	1	3.14*8	(0.05+.55)/2	0.300		2.261	
	UP TO GL l	1	3.14/4	(8.9*8.9-8*8)	8.000		95.519	
	ABOVE GL	1	3.14*8.45	0.500	1.000		13.267	
	COVER SLAB	1	3.14/4	8*8	0.200	0.2	2.010	
	BEAM	2	7.900	0.300	1.000		4.740	

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	COLUMN-FROM LAST STEINING TO WELL COVER SLAB	4	0.300	0.500	2.700		1.620	
						Total Quantity	119.417 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	119.417 cum	
						Say 119.417 cum @ Rs 8665.06 / cum	**Rs 1034755.47**	
11	od317483/2021_2022 Centering and shuttering including strutting, etc. and removal of form for Wellstening (including 20% extra for circular works)							
	UP TO GL OUTER	1	3.14*8.9		9.000		251.514	
	UP TO GL INNER	1	3.14*8		9.000		226.080	
	ABOVE GL OUTER	1	3.14*8.9		1.000		27.946	
	ABOVE GL INNER	1	3.14*8		1.000		25.120	
	COVER SLAB	1	3.14/4	9*9			63.585	
	COVER SLAB SIDE	1	3.140	9.000	0.200		5.653	
						Total Quantity	599.898 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	599.898 sqm	
						Say 599.898 sqm @ Rs 303.38 / sqm	**Rs 181997.06**	
12	5.22.4 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelHot rolled deformed bars							
	@120 KG/M3							
	TOTAL QUANTITY	1	119.417			100.0	11941.700	
	QTY ITEM 15	1	54.733			100.0	5473.300	
						Total Quantity	17415.000 kilogram	
						Total Deducted Quantity	0.000 kilogram	
						Net Total Quantity	17415.000 kilogram	
						Say 17415.000 kilogram @ Rs 99.54 / kilogram	**Rs 1733489.10**	
13	4.1.8 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)							
	BOTTOM PLUGGING							

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	PCC FOR BOTTOM PLUGGING-TOP	1	3.14/4	8.700	8.700	0.2	11.884	
	BOTTOM PORTION LIKE CAP OF HEMISPHERE	1	0.166*3.14*0.6	3*4.4*4.4+0.3			18.258	
	FOUNDATION OF STEP	1	1.600	1.400	0.150		0.336	
						Total Quantity	30.478 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	30.478 cum	
						Say 30.478 cum @ Rs 6900.33 / cum	**Rs 210308.26**	
14	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)							
	FOR BOTTOM PLUGGING							
		1	3.14/4	8.250	8.250	0.2	10.686	
						Total Quantity	10.686 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	10.686 cum	
						Say 10.686 cum @ Rs 8091.05 / cum	**Rs 86460.96**	
15	5.1.2 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size							
	COUNTER WEIGHT	1	3.14/4	8.35*8.35	1.000		54.733	b=(8+8.7)/2
						Total Quantity	54.733 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	54.733 cum	
						Say 54.733 cum @ Rs 9199.05 / cum	**Rs 503491.60**	
16	4.15 Extra for laying concrete in or under water and or liquid mud including cost of pumping or bailing out water and removing slush etc. complete. Note for item No. 4.15 : - The quantity will be calculated by multiplying the depth measured from the sub-soil water level upto centre of gravity of concrete under sub-soil water level with quantity of concrete in cum executed under the sub-soil water. The depth of centre of gravity shall be reconed correct to 0.10 m 0.05 m or more shall be taken as 0.10 m and less than 0.05 m ignored.							

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	BOTTOM PLUGGING							
	PCC FOR BOTTOM PLUGGING-TOP	1	3.14/4	8.700	8.700	0.2	11.884	b=(8+8.7)/2
	BOTTOM PORTION LIKE CAP OF HEMISPHERE	1	0.166*3.14*0.6	3*4.5*4.5+0.3			19.094	
	FOR BOTTOM PLUGGING							
		1	3.14/4	9*9	0.200		12.717	TOTAL OUTER DIA OF WELL
		1	3.14/4	8.35*8.35	0.800		43.786	b=(8+8.7)/2
						Total Quantity	87.481 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	87.481 cum	
						Say 87.481 cum @ Rs 947.10 / cum	**Rs 82853.26**	
17	5.9.3 Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform							
	Coloumn	4	1.300		1.200		6.240	
						Total Quantity	6.240 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	6.240 sqm	
						Say 6.240 sqm @ Rs 826.01 / sqm	**Rs 5154.30**	
18	5.9.5 Centering and shuttering including strutting, etc. and removal of form for:Lintels, beams, plinth beams, girders bressumers and cantilevers							
	Well slab bottom beam	2	8.500	2.300			39.100	
						Total Quantity	39.100 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	39.100 sqm	
						Say 39.100 sqm @ Rs 657.96 / sqm	**Rs 25726.24**	
19	19.16 Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS: 10910 on 12 mm dia steeel bar conforming to IS:1786, having minimum cross section as 23 mm x 25 mm and over							

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	all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufactures permanent identification mark to be visible even after fixing including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size)Complete as per design							
	Total depth of well 8M/30	1	8/0.25				32.000	
						Total Quantity	32.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	32.000 No	
						Say 32.000 No @ Rs 551.84 / No	**Rs 17658.88**	
20	14.72 Providing and fixing double scaffolding system (cup lock type) on the exterior side, upto seven story hight made with 40 mm dia. M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube challies, M.S. clamps and M.S. staricase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after. The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required location with essential safety features for the workmen etc. complete as per directions and approval of Engineer- in Charge. The elevational area of the scaffolding shall be measured for payment purpose. The payment will be made once irrespective of duration of scaffolding. Note:- This item to be used for maintenance work judicially, necessary deduction for scaffolding in the existing item to be done .							
	for various work	1	3.140	8.000	8.000		200.960	
						Total Quantity	200.960 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	200.960 sqm	
						Say 200.960 sqm @ Rs 307.46 / sqm	**Rs 61787.16**	
21	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)							
	bottom of well	1	3.14/4	8*8			50.240	
	inside of steining	1	3.140	8.000	8.000		200.960	
	well top	1	3.14/4	8.700	8.700		59.417	
	beam	2	8.000		2.000		32.000	
	column	4	0.900		8.000		28.800	
	well above ground outer	1	3.140	8.500	1.000		26.690	
						Total Quantity	398.107 sqm	

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						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	398.107 sqm	
						Say 398.107 sqm @ Rs 406.24 / sqm	**Rs 161726.99**	
22	13.52.2 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.On concrete work							
	qty same as above	1	398.107				398.107	
						Total Quantity	398.107 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	398.107 sqm	
						Say 398.107 sqm @ Rs 225.70 / sqm	**Rs 89852.75**	
23	2.25 Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.							
		1	10.000	10.000	1.800		180.000	
		1	3.14/4	9*9	1.800		-114.453	
						Total Quantity	180.000 cum	
						Total Deducted Quantity	-114.453 cum	
						Net Total Quantity	65.547 cum	
						Say 65.547 cum @ Rs 261.81 / cum	**Rs 17160.86**	
24	od317581/2021_2022 Removal of excess earth by lorry for minimum mechanical conveyance and less cost of erath							
		1	150.000				150.000	
						Total Quantity	150.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	150.000 cum	
						Say 150.000 cum @ Rs 143.06 / cum	**Rs 21459.00**	
25	100.7.1 Bailing out water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete. NEW DATA (Prepared based on PHED SDB - Item No.1070							
		6	5*0.746	120.000	8.000		21484.801	
						Total Quantity	21484.801 Kwh	

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						Total Deducted Quantity	0.000 Kwh	
						Net Total Quantity	21484.801 Kwh	
						Say 21484.801 Kwh @ Rs 37.41 / Kwh	**Rs 803746.41**	
26	100.7.2 Bailing out water with engine and pumpset above 5 HP upto 10 HP including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete. NEW DATA (Prepared based on PHED SDB - Item No.1070							
		8	10*0.746	80.000	8.000		38195.200	
						Total Quantity	38195.200 Kwh	
						Total Deducted Quantity	0.000 Kwh	
						Net Total Quantity	38195.200 Kwh	
						Say 38195.200 Kwh @ Rs 18.67 / Kwh	**Rs 713104.38**	
27	100.7.3 Bailing out water with engine and pumpset above 10 HP upto 20 HP including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete. NEW DATA (Prepared based on PHED SDB - Item No.1070							
		8	20*.746	80.000	8.000		76390.400	
						Total Quantity	76390.400 Kwh	
						Total Deducted Quantity	0.000 Kwh	
						Net Total Quantity	76390.400 Kwh	
						Say 76390.400 Kwh @ Rs 9.34 / Kwh	**Rs 713486.34**	
28	100.98.1008 Engaging Coolie							
	BAILING OUT AND CONTROLLING TRAFFIC							
		1	130.000				130.000	
						Total Quantity	130.000 Day	
						Total Deducted Quantity	0.000 Day	
						Net Total Quantity	130.000 Day	
						Say 130.000 Day @ Rs 889.78 / Day	**Rs 115671.40**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
2CONSTRUCTION OF WELL 2 - 5 mDIA (Cost Index:37.29 %)								

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1	2.3.1 Banking excavated earth in layers not exceeding 20 cm in depth, breaking clods, watering, rolling each layer with 1/2 tonne roller, or wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 tonnes and dressing up, in embankments for roads, flood banks, marginal banks, and guide banks etc., lead up to 50 m and lift up to 1.5 m :All kinds of soil							
	well site	1	30.000	20.000			600.000	
						Total Quantity	600.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	600.000 cum	
						Say 600.000 cum @ Rs 560.83 / cum	**Rs 336498.00**	
2	2.1.1 Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5m in width as well as 10 sqm on plan including disposal of excavated earth up to 50 m and lift up to 1.5 m, disposed soil to be levelled and neatly dressed:All Kinds of soil							
	well	1	10.000	10.000			100.000	
						Total Quantity	100.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	100.000 sqm	
						Say 100.000 sqm @ Rs 110.31 / sqm	**Rs 11031.00**	
3	2.6.1 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.All kinds of soil							
	4.5m Inner DIA							
	CONSTRUCTION OF WELL KERB	1	10.000	10.000	1.500		150.000	
						Total Quantity	150.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	150.000 cum	
						Say 150.000 cum @ Rs 216.71 / cum	**Rs 32506.50**	
4	od317896/2021_2022 Fabricating MS Kerb of size using 8 MM thick MS plate including cost of MS plate and 10mm dia anger bar welded to the kerb and conveyance charges of MS plate ,all fabrication charges ,charges of painting outer side of steel work with two or more coat delux multi surface paint over an under coat of primer erection tying anger bar with reinforcement placing in position etc. complete							
		1	3.140	6.000			18.840	
						Total Quantity	18.840 kg	

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	Total Deducted Quantity						0.000 kg	
	Net Total Quantity						18.840 kg	
	Say 18.840 kg @ Rs 10277.91 / kg						**Rs 193635.82**	
5	od331805/2021_2022 Sinking wells of dia 5m inside all kinds of soil to lines and levels and plumb by scooping out earth from inside and below the steining using necessary appliances including hire and labour for the same including dumping the spoil beyond the initial lead 50m etc. complete total depth 1.5 to 3m.							
		1	1.500				1.500	
	Total Quantity						1.500 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						1.500 cum	
	Say 1.500 cum @ Rs 23285.54 / cum						**Rs 34928.31**	
6	od331806/2021_2022 Sinking wells of dia5m inside all kinds of soil to lines and levels and plumb by scooping out earth from inside and below the steining using necessary appliances including hire and labour for the same including dumping the spoil beyond the initial lead 50m etc. complete total depth 3 to 4.5m.							
		1	1.500				1.500	
	Total Quantity						1.500 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						1.500 cum	
	Say 1.500 cum @ Rs 24873.59 / cum						**Rs 37310.39**	
7	od331807/2021_2022 Sinking wells of dia5m inside all kinds of soil to lines and levels and plumb by scooping out earth from inside and below the steining using necessary appliances including hire and labour for the same including dumping the spoil beyond the initial lead 50m etc. complete total depth 4.5 to 6m.							
		1	1.500				1.500	
	Total Quantity						1.500 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						1.500 cum	
	Say 1.500 cum @ Rs 26459.64 / cum						**Rs 39689.46**	
8	od331808/2021_2022 Sinking well (in or under water) of dia5m inside all kinds of soil to lines and levels and plumb by scooping out earth from inside and below the steining using necessary appliances including hire and lbour for the same including dumping the spoil beyond the initial lead of 50m etc. complete total depth 6 to 7.5m.							
		1	1.500				1.500	

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						Total Quantity	1.500 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	1.500 metre	
						Say 1.500 metre @ Rs 28047.69 / metre	**Rs 42071.53**	
9	od331809/2021_2022 Sinking well (in or under water) of dia 5 m inside all kinds of soil to lines and levels and plumb by scooping out earth from inside and below the steining using necessary appliances including hire and lbour for the same including dumping the spoil beyond the initial lead of 50m etc. complete total depth 7.5 to 9m.							
		1	1.500				1.500	
						Total Quantity	1.500 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	1.500 metre	
						Say 1.500 metre @ Rs 29635.75 / metre	**Rs 44453.63**	
10	od317483/2021_2022 Centering and shuttering including strutting, etc. and removal of form for Wellstening (including 20% extra for circular works)							
	UP TO GL OUTER	1	3.14*6		8.000		150.720	
	UP TO GL INNER	1	3.14*5.0		8.000		125.601	
	ABOVE GL OUTER	1	3.14*6		1.000		18.840	
	ABOVE GL INNER	1	3.140*5		1.000		15.701	
	COVER SLAB	1	3.140/4	6.1*6.1			29.210	
	COVER SIDE	1	3.140	6.1000	0.200		3.831	
	Column	4	1.600		2.800		17.920	
						Total Quantity	361.823 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	361.823 sqm	
						Say 361.823 sqm @ Rs 303.38 / sqm	**Rs 109769.86**	
11	5.7 Reinforced cement concrete work in well - steining excluding the cost of centering, shuttering, finishing and reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand (Zone - III) : 3 graded stone aggregate 20 mm nominal size)							
	FOR KERB	1	3.14*6.1	(.05+.55)/2	0.300		1.724	
	UP TO GL WALL	1	3.14*6.1	0.500	10.000		95.770	
	ABOVE GL	1	3.14*5.7	0.500	1.000		8.949	

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	COVER SLAB	1	3.14/4	6.1*6.1	0.200		5.842	
	BEAM	2	6.100	0.300	1.000		3.660	
	COLUMN-FROM LAST STEINING TO WELL COVER SLAB	4	0.500	0.300	2.900		1.740	
						Total Quantity	117.685 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	117.685 cum	
						Say 117.685 cum @ Rs 8665.06 / cum	**Rs 1019747.59**	
12	5.22.4 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelHot rolled deformed bars							
	@120 KG/M3							
	TOTAL QUANTITY	1	117.685			120.0	14122.200	
	QTY ITEM 15	1	22.469			100.0	2246.900	
						Total Quantity	16369.100 kilogram	
						Total Deducted Quantity	0.000 kilogram	
						Net Total Quantity	16369.100 kilogram	
						Say 16369.100 kilogram @ Rs 99.54 / kilogram	**Rs 1629380.21**	
13	4.1.8 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)							
	BOTTOM PLUGGING							
	PCC FOR BOTTOM PLUGGING-TOP	1	3.14/4	6.000	6.000	0.2	5.652	
	BOTTOM PORTION LIKE CAP OF HEMISPHERE	1	0.166*3.14*0.6	3*6.25*6.25+0.3			36.744	
	FOUNDATION OF STEP	1	1.600	1.400	0.150		0.336	
						Total Quantity	42.732 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	42.732 cum	
						Say 42.732 cum @ Rs 6900.33 / cum	**Rs 294864.90**	
14	4.1.3							

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	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)							
	FOR BOTTOM PLUGGING							
		1	3.14/4	5.250	5.250	0.2	4.328	
	Total Quantity						4.328 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						4.328 cum	
	Say 4.328 cum @ Rs 8091.05 / cum						**Rs 35018.06**	
15	5.1.2 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size							
	COUNTER WEIGHT	1	3.14/4	5.35*5.35	1.000		22.469	b=(5+5.7)/2
	Total Quantity						22.469 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						22.469 cum	
	Say 22.469 cum @ Rs 9199.05 / cum						**Rs 206693.45**	
16	4.15 Extra for laying concrete in or under water and or liquid mud including cost of pumping or bailing out water and removing slush etc. complete. Note for item No. 4.15 : - The quantity will be calculated by multiplying the depth measured from the sub-soil water level upto centre of gravity of concrete under sub-soil water level with quantity of concrete in cum executed under the sub-soil water. The depth of centre of gravity shall be reconed correct to 0.10 m 0.05 m or more shall be taken as 0.10 m and less than 0.05 m ignored.							
	BOTTOM PLUGGING							
	PCC FOR BOTTOM PLUGGING-TOP	1	3.14/4	6.000	6.000	0.2	5.652	
	BOTTOM PORTION LIKE CAP OF HEMISPHERE	1	0.166*3.14*0.6	3*6.25*6.25+0.3			36.744	
	FOR BOTTOM PLUGGING							
		1	3.14/4	6*6	0.200		5.653	TOTAL OUTER DIA OF WELL

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		1	3.14/4	5.35*5.35	0.800		17.975	b=(5+5.7)/2
						Total Quantity	66.024 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	66.024 cum	
						Say 66.024 cum @ Rs 947.10 / cum	**Rs 62531.33**	
17	5.9.5 Centering and shuttering including strutting, etc. and removal of form for:Lintels, beams, plinth beams, girders bressumers and cantilevers							
		2	5.500	2.300			25.300	
						Total Quantity	25.300 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	25.300 sqm	
						Say 25.300 sqm @ Rs 657.96 / sqm	**Rs 16646.39**	
18	5.9.3 Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform							
	COLUMNS							
		4	1.300		1.200		6.240	
						Total Quantity	6.240 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	6.240 sqm	
						Say 6.240 sqm @ Rs 826.01 / sqm	**Rs 5154.30**	
19	19.16 Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS: 10910 on 12 mm dia steeel bar conforming to IS:1786, having minimum cross section as 23 mm x 25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufactures permanent identification mark to be visible even after fixing including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size)Complete as per design							
		1	9/0.25				36.000	
						Total Quantity	36.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	36.000 No	
						Say 36.000 No @ Rs 551.84 / No	**Rs 19866.24**	

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20	14.72 Providing and fixing double scaffolding system (cup lock type) on the exterior side, upto seven story hight made with 40 mm dia. M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube challies, M.S. clamps and M.S. staricase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after. The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required location with essential safety features for the workmen etc. complete as per directions and approval of Engineer- in Charge. The elevational area of the scaffolding shall be measured for payment purpose. The payment will be made once irrespective of duration of scaffolding. Note:- This item to be used for maintenance work judicially, necessary deduction for scaffolding in the existing item to be done .							
	FOR VARIOUS WORK							
		1	3.140	5.000	8.000		125.601	
	Total Quantity						125.601 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						125.601 sqm	
	Say 125.601 sqm @ Rs 307.46 / sqm						**Rs 38617.28**	
21	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)							
	bottom of well	1	3.14/4	5*5			19.625	
	inside of steining	1	3.140	5.000	8.000		125.601	
	well top	1	3.14/4	5.700	5.700		25.505	
	beam	2	5.000		2.000		20.000	
	column	4	0.900		8.000		28.800	
	well above ground outer	1	3.140	5.5000	1.000		17.270	
	Total Quantity						236.801 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						236.801 sqm	
	Say 236.801 sqm @ Rs 406.24 / sqm						**Rs 96198.04**	
22	13.52.2 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.On concrete work							
	same as above	1	236.801				236.801	
	Total Quantity						236.801 sqm	
	Total Deducted Quantity						0.000 sqm	

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						Net Total Quantity	236.801 sqm	
						Say 236.801 sqm @ Rs 225.70 / sqm	**Rs 53445.99**	
23	2.25 Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.							
		1	6.800	6.800	1.800		83.232	
		1	3.14/4	6*6	1.800		-50.868	
						Total Quantity	83.232 cum	
						Total Deducted Quantity	-50.868 cum	
						Net Total Quantity	32.364 cum	
						Say 32.364 cum @ Rs 261.81 / cum	**Rs 8473.22**	
24	od317581/2021_2022 Removal of excess earth by lorry for minimum mechanical conveyance and less cost of erath							
		1	150.000				150.000	
						Total Quantity	150.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	150.000 cum	
						Say 150.000 cum @ Rs 143.06 / cum	**Rs 21459.00**	
25	100.7.1 Bailing out water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete. NEW DATA (Prepared based on PHED SDB - Item No.1070							
		5	5*0.746	120.000	8.000		17904.000	
						Total Quantity	17904.000 Kwh	
						Total Deducted Quantity	0.000 Kwh	
						Net Total Quantity	17904.000 Kwh	
						Say 17904.000 Kwh @ Rs 37.41 / Kwh	**Rs 669788.64**	
26	100.7.2 Bailing out water with engine and pumpset above 5 HP upto 10 HP including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete. NEW DATA (Prepared based on PHED SDB - Item No.1070							
		7	10*0.746	80.000	8.000		33420.800	
						Total Quantity	33420.800 Kwh	

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						Total Deducted Quantity	0.000 Kwh	
						Net Total Quantity	33420.800 Kwh	
						Say 33420.800 Kwh @ Rs 18.67 / Kwh	**Rs 623966.34**	
27	100.7.3 Bailing out water with engine and pumpset above 10 HP upto 20 HP including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete. NEW DATA (Prepared based on PHED SDB - Item No.1070							
		7	20*0.746	80.000	8.000		66841.600	
						Total Quantity	66841.600 Kwh	
						Total Deducted Quantity	0.000 Kwh	
						Net Total Quantity	66841.600 Kwh	
						Say 66841.600 Kwh @ Rs 9.34 / Kwh	**Rs 624300.54**	
28	100.98.1008 Engaging Coolie							
		1	200.000				200.000	
						Total Quantity	200.000 Day	
						Total Deducted Quantity	0.000 Day	
						Net Total Quantity	200.000 Day	
						Say 200.000 Day @ Rs 889.78 / Day	**Rs 177956.00**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
3CONSTRUCTION OF WELL 3 - 3 m DIA (Cost Index:37.29 %)								
1	2.3.1 Banking excavated earth in layers not exceeding 20 cm in depth, breaking clods, watering, rolling each layer with 1/2 tonne roller, or wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 tonnes and dressing up, in embankments for roads, flood banks, marginal banks, and guide banks etc., lead up to 50 m and lift up to 1.5 m :All kinds of soil							
	well site	1	30.000	20.000	0.300		180.000	
						Total Quantity	180.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	180.000 cum	
						Say 180.000 cum @ Rs 560.83 / cum	**Rs 100949.40**	
2	2.1.1 Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5m in width as well as 10 sqm on plan including disposal of excavated earth up to 50 m and lift up to 1.5 m, disposed soil to be levelled and neatly dressed:All Kinds of soil							
	well	1	8.000	8.000			64.000	

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						Total Quantity	64.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	64.000 sqm	
						Say 64.000 sqm @ Rs 110.31 / sqm	**Rs 7059.84**	
3	2.6.1 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.All kinds of soil							
	6.5m Inner DIA							
	CONSTRUCTION OF WELL KERB	1	8.000	8.000	1.500		96.000	
						Total Quantity	96.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	96.000 cum	
						Say 96.000 cum @ Rs 216.71 / cum	**Rs 20804.16**	
4	od317896/2021_2022 Fabricating MS Kerb of size using 8 MM thick MS plate including cost of MS plate and 10mm dia anger bar welded to the kerb and conveyance charges of MS plate ,all fabrication charges ,charges of painting outer side of steel work with two or more coat delux multi surface paint over an under coat of primer erection tying anger bar with reinforcement placing in position etc. complete							
		1	3.140	4.000			12.560	
						Total Quantity	12.560 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	12.560 kg	
						Say 12.560 kg @ Rs 10277.91 / kg	**Rs 129090.55**	
5	od317405/2021_2022 Sinking well (in or under water) of dia 3m inside all kinds of soil to lines and levels and plumb by scooping out earth from inside and below the steining using necessary appliances including hire and labour for the same including dumping the spoil beyond the initial lead of 50m etc. complete total depth 1.5 to 3m.							
		1	1.500				1.500	
						Total Quantity	1.500 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	1.500 metre	
						Say 1.500 metre @ Rs 10697.54 / metre	**Rs 16046.31**	
6	od317407/2021_2022							

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	Sinking well (in or under water) of dia 3. m inside all kinds of soil to lines and levels and plumb by scooping out earth from inside and below the steining using necessary appliances including hire and labour for the same including dumping the spoil beyond the initial lead of 50m etc. complete total depth 3 to 4.5m.							
		1	1.500				1.500	
	Total Quantity						1.500 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						1.500 metre	
	Say 1.500 metre @ Rs 11409.58 / metre						**Rs 17114.37**	
7	od317408/2021_2022 Sinking well (in or under water) of dia 3 m inside all kinds of soil to lines and levels and plumb by scooping out earth from inside and below the steining using necessary appliances including hire and lbour for the same including dumping the spoil beyond the initial lead of 50m etc. complete total depth 4.5 to 6m.							
		1	1.500				1.500	
	Total Quantity						1.500 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						1.500 metre	
	Say 1.500 metre @ Rs 12125.95 / metre						**Rs 18188.93**	
8	od317414/2021_2022 Sinking well (in or under water) of dia 3 m inside all kinds of soil to lines and levels and plumb by scooping out earth from inside and below the steining using necessary appliances including hire and lbour for the same including dumping the spoil beyond the initial lead of 50m etc. complete total depth 6 to 7.5m.							
		1	1.500				1.500	
	Total Quantity						1.500 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						1.500 metre	
	Say 1.500 metre @ Rs 12843.23 / metre						**Rs 19264.85**	
9	od317415/2021_2022 Sinking well (in or under water) of dia 3 m inside all kinds of soil to lines and levels and plumb by scooping out earth from inside and below the steining using necessary appliances including hire and lbour for the same including dumping the spoil beyond the initial lead of 50m etc. complete total depth 7.5 to 9m.							
		1	1.500				1.500	
	Total Quantity						1.500 metre	
	Total Deducted Quantity						0.000 metre	

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						Net Total Quantity	1.500 metre	
						Say 1.500 metre @ Rs 13560.50 / metre	**Rs 20340.75**	
10	od318114/2021_2022 Centering and shuttering including strutting propping etc. and removal of form etc. well steining (Including 20% extra for circular works) 							
	UP TO GL OUTER	1	3.14*4.9		9.000		138.475	
	UP TO GL INNER	1	3.14*4		9.000		113.040	
	ABOVE GL OUTER	1	3.14*4.9		1.000		15.387	
	ABOVE GL INNER	1	3.140*4		1.000		12.560	
	COVER SLAB	1	3.140/4	5*5			19.625	
	COVER SIDE	1	3.140	5.000	0.200		3.141	
						Total Quantity	302.228 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	302.228 sqm	
						Say 302.228 sqm @ Rs 252.82 / sqm	**Rs 76409.28**	
11	5.7 Reinforced cement concrete work in well - steining excluding the cost of centering, shuttering, finishing and reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand (Zone - III) : 3 graded stone aggregate 20 mm nominal size)							
	FOR KERB	1	3.14*4.1	(.05+.55)/ 2	0.300		1.159	
	UP TO GL WALL	1	3.14/4	(3.9*3.9-3*3)	9.000		43.874	
	ABOVE GL	1	3.14*3.45	0.500	1.000		5.417	
	COVER SLAB	1	3.14/4	4*4	0.200		2.513	
	BEAM	2	3.900	0.300	1.000		2.340	
	C O L U M N - F R O M LAST STEINING TO WELL COVER SLAB	4	0.300	0.500	2.900		1.740	
						Total Quantity	57.043 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	57.043 cum	
						Say 57.043 cum @ Rs 8665.06 / cum	**Rs 494281.02**	
12	5.22.4 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelHot rolled deformed bars							

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	@120 KG/M3							
	TOTAL QUANTITY	1	57.043			120.0	6845.160	
	QTY ITEM 15	1	8.810			100.0	881.000	
						Total Quantity	7726.160 kilogram	
						Total Deducted Quantity	0.000 kilogram	
						Net Total Quantity	7726.160 kilogram	
						Say 7726.160 kilogram @ Rs 99.54 / kilogram	**Rs 769061.97**	
13	4.1.8 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)							
	BOTTOM PLUGGING							
	PCC FOR BOTTOM PLUGGING-TOP	1	3.14/4	3.700	3.700	0.2	2.150	
	BOTTOM PORTION LIKE CAP OF HEMISPHERE	1	.166*3.14*0.6	3*1.9*1.9+0.3			3.481	
	FOUNDATION OF STEP	1	1.600	1.400	0.150		0.336	
						Total Quantity	5.967 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	5.967 cum	
						Say 5.967 cum @ Rs 6900.33 / cum	**Rs 41174.27**	
14	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)							
	FOR BOTTOM PLUGGING	1	3.14/4	4.250	4.250	0.2	2.836	
						Total Quantity	2.836 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	2.836 cum	
						Say 2.836 cum @ Rs 8091.05 / cum	**Rs 22946.22**	
15	5.1.2 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size							

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	FOR COUNTER WEIGHT	1	3.14/4	3.35*3.35	1.000		8.810	b=(3+3.7)/2
						Total Quantity	8.810 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	8.810 cum	
						Say 8.810 cum @ Rs 9199.05 / cum	**Rs 81043.63**	
16	4.15 Extra for laying concrete in or under water and or liquid mud including cost of pumping or bailing out water and removing slush etc. complete. Note for item No. 4.15 : - The quantity will be calculated by multiplying the depth measured from the sub-soil water level upto centre of gravity of concrete under sub-soil water level with quantity of concrete in cum executed under the sub-soil water. The depth of centre of gravity shall be reconed correct to 0.10 m 0.05 m or more shall be taken as 0.10 m and less than 0.05 m ignored.							
	BOTTOM PLUGGING							
	PCC FOR BOTTOM PLUGGING-TOP	1	3.14/4	7.400	7.400	0.2	8.598	
	BOTTOM PORTION LIKE CAP OF HEMISPHERE	1	0.166*3.14*0.6	3*3.75*3.75+0.3			13.288	
	FOR BOTTOM PLUGGING							
		1	3.14/4	7.4*7.4	0.200		8.598	TOTAL OUTER DIA OF WELL
		1	3.14/4	6.85*6.85	0.800		29.468	b=(10.2+10.9)/2
						Total Quantity	59.952 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	59.952 cum	
						Say 59.952 cum @ Rs 947.10 / cum	**Rs 56780.54**	
17	5.9.5 Centering and shuttering including strutting, etc. and removal of form for:Lintels, beams, plinth beams, girders bressumers and cantilevers							
	well slab bottom beam	2	4.500	2.300			20.700	
						Total Quantity	20.700 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	20.700 sqm	
						Say 20.700 sqm @ Rs 657.96 / sqm	**Rs 13619.77**	

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18	5.9.3 Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform							
	columns	4	1.300		1.200		6.240	
						Total Quantity	6.240 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	6.240 sqm	
						Say 6.240 sqm @ Rs 826.01 / sqm	**Rs 5154.30**	
19	19.16 Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS: 10910 on 12 mm dia steeel bar conforming to IS:1786, having minimum cross section as 23 mm x 25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufactures permanent identification mark to be visible even after fixing including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size)Complete as per design							
		1	9/0.25				36.000	
						Total Quantity	36.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	36.000 No	
						Say 36.000 No @ Rs 551.84 / No	**Rs 19866.24**	
20	14.72 Providing and fixing double scaffolding system (cup lock type) on the exterior side, upto seven story hight made with 40 mm dia. M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube challies, M.S. clamps and M.S. staricase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after. The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required location with essential safety features for the workmen etc. complete as per directions and approval of Engineer- in Charge. The elevational area of the scaffolding shall be measured for payment purpose. The payment will be made once irrespective of duration of scaffolding. Note:- This item to be used for maintenance work judicially, necessary deduction for scaffolding in the existing item to be done .							
	for various works	1	3.140	3.000	8.000		75.360	
						Total Quantity	75.360 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	75.360 sqm	
						Say 75.360 sqm @ Rs 307.46 / sqm	**Rs 23170.19**	

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21	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)							
	bottom of well	1	3.14/4	3*3			7.065	
	inside of steining	1	3.140	3.000	8.000		75.360	
	well top	1	3.14/4	3.700	9.900		28.755	
	beam	2	3.000		2.000		12.000	
	column	4	0.900		8.000		28.800	
	well above ground outer	1	3.140	3.500	1.000		10.990	
						Total Quantity	162.970 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	162.970 sqm	
						Say 162.970 sqm @ Rs 406.24 / sqm	**Rs 66204.93**	
22	13.52.2 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.On concrete work							
	same as above	1	162.970				162.970	
						Total Quantity	162.970 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	162.970 sqm	
						Say 162.970 sqm @ Rs 225.70 / sqm	**Rs 36782.33**	
23	2.25 Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.							
		1	8.000	8.000	1.800		115.200	
		1	3.14/4	5*5	1.800		-35.325	
						Total Quantity	115.200 cum	
						Total Deducted Quantity	-35.325 cum	
						Net Total Quantity	79.875 cum	
						Say 79.875 cum @ Rs 261.81 / cum	**Rs 20912.07**	
24	od318118/2021_2022 Removal of excess earth by lorry for minimum mechanical conveyance and less cost of earth							
		1	150.000				150.000	
						Total Quantity	150.000 cum	

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						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	150.000 cum	
						Say 150.000 cum @ Rs 143.06 / cum	**Rs 21459.00**	
25	100.7.1 Bailing out water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete. NEW DATA (Prepared based on PHED SDB - Item No.1070							
		5	5*.746	120.000	8.000		17904.000	
						Total Quantity	17904.000 Kwh	
						Total Deducted Quantity	0.000 Kwh	
						Net Total Quantity	17904.000 Kwh	
						Say 17904.000 Kwh @ Rs 37.41 / Kwh	**Rs 669788.64**	
26	100.7.2 Bailing out water with engine and pumpset above 5 HP upto 10 HP including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete. NEW DATA (Prepared based on PHED SDB - Item No.1070							
		7	10*0.746	80.000	8.000		33420.800	
						Total Quantity	33420.800 Kwh	
						Total Deducted Quantity	0.000 Kwh	
						Net Total Quantity	33420.800 Kwh	
						Say 33420.800 Kwh @ Rs 18.67 / Kwh	**Rs 623966.34**	
27	100.7.3 Bailing out water with engine and pumpset above 10 HP upto 20 HP including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete. NEW DATA (Prepared based on PHED SDB - Item No.1070							
		7	20*0.746	80.000	8.000		66841.600	
						Total Quantity	66841.600 Kwh	
						Total Deducted Quantity	0.000 Kwh	
						Net Total Quantity	66841.600 Kwh	
						Say 66841.600 Kwh @ Rs 9.34 / Kwh	**Rs 624300.54**	
28	100.98.1008 Engaging Coolie							
		1	120.000				120.000	

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						Total Quantity	120.000 Day	
						Total Deducted Quantity	0.000 Day	
						Net Total Quantity	120.000 Day	
						Say 120.000 Day @ Rs 889.78 / Day	**Rs 106773.60**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
	43 APP B-CONSTRUCTION 0F PUMP HOUSE AT TOP OF WELL (Cost Index:37.29 %)							
1	5.2.2 Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up tot floor five level excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3(1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)							
	COLUMN-PUMP HOUSE ABOVE WELL1	4	0.300	0.300	4.500		1.620	
	COLUMN-PUMP HOUSE ABOVE WELL2	4	0.300	0.300	4.500		1.620	
	COLUMN-PUMP HOUSE ABOVE WELL3	4	0.300	0.300	4.500		1.620	
						Total Quantity	4.860 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	4.860 cum	
						Say 4.860 cum @ Rs 11091.38 / cum	**Rs 53904.11**	
2	5.3 Reinforced cement concrete work in beams, suspended floors, roofs, having slope up to 15^0 landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases up to floor five level excluding the cost of centering, shuttering, finishing and reinforcement, with1:1.5:3 (1 cement : 1.5 coarse sand (Zone III) : 3 graded stone aggregate 20 mm nominal size).							
	WELL 3							
	PUMP HOUSE LINTEL	1	3.14*3.2	0.200	0.150		0.302	
	SUNSHADE ALROUND	1	3.14*4	0.600	0.075		0.566	
	BEAM TOP OF PH	2	3.400	0.300	1.000		2.040	
	PH ROOF SLAB	1	3.140	3.8*3.8	0.120		5.441	
	WELL II							
	PH LINTEL	1	3.14*5.2	0.200	0.150		0.490	

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	SUNSHADE ALROUND	1	3.14*6	0.600	0.075		0.848	
	BEAM-TOP OF PH	2	5.400	0.300	1.000		3.240	
	PH ROOF SLAB	1	3.140	5.800	0.120		2.186	
	WELL I							
	PH LINTEL	1	3.14*8.2	0.200	0.150		0.773	
	SUNSHADE ALROUND	1	3.14*9	0.600	0.075		1.272	
	BEAM TOP OF PH	2	8.400	0.300	1.000		5.040	
	PH ROOF SLAB	1	3.140	8.8*8.8	0.120		29.180	
						Total Quantity	51.378 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	51.378 cum	
						Say 51.378 cum @ Rs 11636.97 / cum	**Rs 597884.24**	
3	5.9.3 Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform							
	WELL I							
	SUNSHADE ALROUND	1	3.14*9	0.675			19.076	
	PH ROOF SLAB	1	3.14/4	8.8*8.8			60.791	
	WELL II							
	SUNSHADE ALROUND	1	3.14*6	0.675			12.717	
	PH ROOF SLAB	1	3.14/4	5.6*5.6			24.618	
	WELL III							
	SUNSHADE ALROUND	1	3.14*4	0.675			8.479	
	PH ROOF SLAB	1	3.14/4	3.8*3.8			11.336	
						Total Quantity	137.017 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	137.017 sqm	
						Say 137.017 sqm @ Rs 826.01 / sqm	**Rs 113177.41**	
4	5.9.5 Centering and shuttering including strutting, etc. and removal of form for:Lintels, beams, plinth beams, girders bressumers and cantilevers							

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	WELL I							
	PH LINTEL INNER SIDE	1	3.14*8		0.150		3.768	
	OUTER	1	3.14*8.4		0.050		1.319	
	BEAM TOP OF PH	2	8.400		2.300		38.640	
	WELL II							
	PH LINTEL INNER	1	3.14*5		0.150		2.355	
	OUTER	1	3.14*5.4		0.050		0.848	
	BEAM TOP OF PH	1	5.400		2.300		12.420	
	WELL III							
	lintel inner side	1	3.14*11.6		0.150		5.464	
	outer	1	3.14*3.4		0.050		0.534	
	beam top of ph	2	3.400		2.300		15.640	
						Total Quantity	80.988 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	80.988 sqm	
						Say 80.988 sqm @ Rs 657.96 / sqm	**Rs 53286.86**	
5	5.9.6 Centering and shuttering including strutting, etc. and removal of form for:Columns, Pillars, Piers, Abutments, Posts and Struts							
	WELL I							
	COLUMN -PH ABOVE WELL	4	1.200		4.500		21.600	
	WELL II							
	COLUMN -PH ABOVE WELLII	4	1.200		4.500		21.600	
	WELL III							
	COLUMN -PH ABOVE WELLIII	1	1.200		4.500		5.400	
						Total Quantity	48.600 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	48.600 sqm	
						Say 48.600 sqm @ Rs 874.47 / sqm	**Rs 42499.24**	
6	5.22.4 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and							

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	binding all complete upto plinth levelHot rolled deformed bars							
	@100 KG/M3							
	SAME AS ITEM 1& 2	1	56.240				56.240	
						Total Quantity	56.240 kilogram	
						Total Deducted Quantity	0.000 kilogram	
						Net Total Quantity	56.240 kilogram	
						Say 56.240 kilogram @ Rs 99.54 / kilogram	**Rs 5598.13**	
7	6.3.1 Brick work with common burnt clay machine moulded perforated bricks of classdesignation 12.5 conforming to IS: 2222 in superstructure above plinth level up tofloor five level in cement mortar 1:6 (1 cement : 6 coarse sand):With F.P.S. (non modular) bricks(from floor 2 level up to floor 5 level)							
	WELL I							
	SIDE WALL	1	3.14*8.2	0.200	4.500		23.174	
	PARAPET TOTAL SUNSHADE	1	3.14*9.6	0.100	0.100		0.302	
	PARAPET	1	3.14*8.6	0.100	0.450		1.216	
	INSIDE PARTITION&WC,PANNEL BOARD	7	3.200	0.200	2.400		10.753	
	WINDOW	6	1.000	0.200	1.500		-1.800	
	DOOR	2	1.500	0.200	2.200		-1.320	
	VENTILATOR OVER WINDOW &DOOR	8	1.000	0.200	0.500		-0.800	
	LINTEL	1	3.14*8.2	0.200	0.150		-0.772	
	WELL II							
	SIDE WALL	1	3.14*6.2	0.200	4.500		17.522	
	total sunshade	1	3.14*6.6	0.100	0.450		0.933	
	PARAPET	1	3.14*5.6	0.100	0.450		0.792	
	insidepartition & WC	7	3.200	0.200	2.400		10.753	
	WINDOW	6	1.000	0.200	1.500		-1.800	
	DOOR	2	1.500	0.200	2.200		-1.320	
	VENTILATORS	8	1.000	0.200	0.500		-0.800	
	LINTEL	1	3.14*6.7	0.200	0.150		-0.631	
	WE III							
	SIDE WALL	1	3.14*3.2	0.200	4.500		9.044	

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	PARAPET	1	3.14*4.6	0.100	0.450		0.650	
	I N S I D E P A R T I T I O N & W C	7	3.600	0.200	2.400		12.097	
	WINDOW	6	1.000	0.200	1.500		-1.800	
	DOOR	2	1.500	0.200	2.200		-1.320	
	VENTILATORS	8	1.000	0.200	0.500		-0.800	
	LINTEL	1	3.14*3.2	0.200	0.150		-0.301	
						Total Quantity	87.236 cum	
						Total Deducted Quantity	-13.464 cum	
						Net Total Quantity	73.772 cum	
						Say 73.772 cum @ Rs 9204.26 / cum	**Rs 679016.67**	
8	9.1.1 Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately).Second class teak wood							
	WELL I ,II &III							
	DOOR VERTICAL	3*2*2	0.100	0.050	2.100		0.127	
	HORIZONTAL	3*2*2	1.500	0.100	0.050		0.091	
	WINDOW VERTICAL	3*6*3	1.500	0.100	0.050		0.406	
	HORIZONTAL	3*6*2	1.000	0.100	0.050		0.181	
	V E N T I L A T O R V E R T I C A L	3*8*3	0.450	0.100	0.050		0.163	
	V E N T I L A T O R H O R I Z O N T A L	3*8*2	1.000	0.100	0.050		0.241	
						Total Quantity	1.209 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	1.209 cum	
						Say 1.209 cum @ Rs 155159.05 / cum	**Rs 187587.29**	
9	9.5.1.1 Providing and fixing panelled or panelled and glazed shutters for shutters for doors, windows and clerestory windows, including ISI marked M.S. pressed butt hinges bright finished of required size with necessery screws, excluding panelling which will be paid for separately, all complete as per direction of Engineer - in-charge.Second class teak woodProviding and fixing panelled or panelled and glazed shutters for doors, windowsand clerestory windows fixing with butt hinges of required size with necessaryscrews, excluding panelling which will be paid for separately, all complete as perdirection of Engineer-in-charge. (Note:- Butt hinges and necessary screws shallbe paid separately)Second class teak wood35 mm thick shutters							

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	WELL I ,II &III							
	DOOR	3*2	1.300		2.000		15.601	
	WINDOW	3*6*2	0.350		1.300		16.380	
	VENTILATOR	2*8*2	0.350		0.250		2.800	
	Total Quantity						34.781 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						34.781 sqm	
	Say 34.781 sqm @ Rs 4306.58 / sqm						**Rs 149787.16**	
10	13.9.1 Cement plaster 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement.12 mm cement plaster							
	WELL 1II							
	CEILING	1	3.14/4	4*4			12.560	
	BEAM VERTICAL PH	2	5.400		2.000		21.600	
	SUNSHADE	1	3.14*5	1.275			20.018	
	ROOF PARAPET	1	3.14*4.5	1.300			18.370	
	WALL OUTSIDE PH	1	3.14*4.4		4.500		62.173	
	WALL INSIDE PH	1	3.14*4		4.500		56.520	
	INSIDE WALLS	7*2	3.000		2.400		100.800	
	DOOR	2	1.500		2.100	1.25	-7.875	
	WINDOW	6	1.000		1.500	1.25	-11.250	
	VENTILATOR	8	1.000		0.450	1.25	-4.500	
	WELL 1							
	CEILING	1	3.14/4	11.6*11.6			105.630	
	BEAM VERTICAL PH	2	11.600		2.000		46.400	
	SUNSHADE	1	3.14*12.6	1.275			50.445	
	ROOF PARAPET	1	3.14*12.1	1.300			49.393	
	WALL OUTSIDE PH	1	3.14*12		4.500		169.560	
	WALL INSIDE PH	1	3.14*11.6		4.500		163.908	
	INSIDE WALLS	7*2	3.000		2.400		100.800	
	DOOR	2	1.500		2.100	1.25	-7.875	
	WINDOW	6	1.000		1.500	1.25	-11.250	
	VENTILATOR	8	1.000		0.450	1.25	-4.500	

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	WELL 1I							
	CEILING	1	3.14/4	6.5*6.5			33.167	
	BEAM VERTICAL PH	2	7.900		2.000		31.600	
	SUNSHADE	1	3.14*7.5	1.275			30.027	
	ROOF PARAPET	1	3.14*7	1.300			28.574	
	WALL OUTSIDE PH	1	3.14*6.9		4.500		97.497	
	WALL INSIDE PH	1	3.14*6.5		4.500		91.845	
	INSIDE WALLS	7*2	3.000		2.400		100.800	
	Total Quantity						1391.687 sqm	
	Total Deducted Quantity						-47.250 sqm	
	Net Total Quantity						1344.437 sqm	
	Say 1344.437 sqm @ Rs 417.29 / sqm						**Rs 561020.12**	
11	13.9.2 Cement plaster 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement.20 mm cement plaster							
	WELL II							
	PH ROOF SLAB TOP	1	3.14/4	6.6*6.6			34.195	
	PH FLOOR	1	3.14/4	5*5			19.625	
	WELL I							
	PH ROOF SLAB TOP	1	3.14/4	9.6*9.6			72.346	
	PH FLOOR	1	3.14/4	8*8			50.240	
	WELL III							
	PH ROOF SLAB TOP	1	3.14/4	4.6*4.6			16.611	
	PH FLOOR	1	3.14/4	3*3			7.065	
	Total Quantity						200.082 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						200.082 sqm	
	Say 200.082 sqm @ Rs 549.09 / sqm						**Rs 109863.03**	
12	13.60.1 Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade:Two or more coats on new work							
	SAME AS ITEM NO10 &11	1	1544.600				1544.600	
	Total Quantity						1544.600 sqm	

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						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	1544.600 sqm	
						Say 1544.600 sqm @ Rs 153.28 / sqm	**Rs 236756.29**	
13	13.48.2 Finishing with Deluxe Multi surface paint system for interiors and exteriors using primer as per manufacturers specifications:Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.75 ltr/10 sqm of approved brand and manufacture							
	WELLS I,II &III							
	DOOR VERTICAL	3*2	1.500		2.100	2.25	42.526	
	WINDOW	3*6	1.000		1.500	2.25	60.750	
	VENTILATOR	3*8	1.000		0.450		10.800	
						Total Quantity	114.076 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	114.076 sqm	
						Say 114.076 sqm @ Rs 155.21 / sqm	**Rs 17705.74**	
14	11.53 Providing and fixing Glass mossaic tiles at finished plain wall surface of size 20 mm x 20 mm x 4 mm in all colour, design, fixing in customize design as per direction of Engineer-in-charge. The glass mosaic tiles to be fixed on the wall surface with the help of approved adhesive applied at the rate of 2.5 kg per sqm and grouting of the same. The rate is inclusive of all operation, material and required pattern approved by Engineer-in-charge.							
	WELL I	1	3.14/4	8*8			50.240	
	WELL II	1	3.14/4	5*5			19.625	
	WELL III	1	3.14/4	3*3			7.065	
						Total Quantity	76.930 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	76.930 sqm	
						Say 76.930 sqm @ Rs 3873.98 / sqm	**Rs 298025.28**	
15	11.37A Providing and fixing 1st quality ceramic glazed floor tiles conforming to IS :15622 (thickness to be specified by the manufacturer) of approved make in allcolours, shades except burgundy, bottle green, black of any size as approvedby Engineer-in-Charge in skirting, risers of steps and dados over 12 mm thickbed of cement Mortar 1:3 (1 cement: 3 coarse sand) and jointing with grey cementslurry @ 3.3kg per sqm including pointing in white cement mixed with pigmentof matching shade complete.							

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	FOR WC WALL TOTAL LENGTH=1.5*2.1*204	3	7.200		2.400		51.840	
	FLOOR	3	1.500	2.100			9.451	
						Total Quantity	61.291 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	61.291 sqm	
						Say 61.291 sqm @ Rs 1105.87 / sqm	**Rs 67779.88**	
16	17.2.1 Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required:W.C. pan with ISI marked white solid plastic seat and lid							
	3 WC	3					3.000	
						Total Quantity	3.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	3.000 No	
						Say 3.000 No @ Rs 6270.31 / No	**Rs 18810.93**	
17	17.7.3 Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:White Vitreous China Wash basin size 550x400 mm with a pair of 15 mm C.P. brass pillar taps							
		3					3.000	
						Total Quantity	3.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	3.000 No	
						Say 3.000 No @ Rs 3393.05 / No	**Rs 10179.15**	
18	10.6.3 Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.80x0.90 mm M.S. laths with 0.90 mm thick to cover							
		2	1.800		2.500		9.000	

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						Total Quantity	9.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	9.000 sqm	
						Say 9.000 sqm @ Rs 3163.44 / sqm	**Rs 28470.96**	
19	9.120.2 Providing and fixing factory made panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and sized of 19 mm x 19 mm for styles and 15x15 mm for top & bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture. M.S. frame covered with 5 mm thick heat moulded PVC 'C' channel of size 30 mm thickness, 70 mm width out of whicj 50 mm shall be flat and 20 mm shall be tapered in 45 degree angle on both side forming styles and 5mm thick, 95 mm wide PVC sheet out of which75 mm shall be tapered in 45 degree on th inner side to form top and bottom rail and 115 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered on both sides to form lock rail. Top, bottom and lock rails shall be provided both side of the panel. 10 mm (5 mmx2) thick, 20 mm wide cross PVC sheet be provided as gap insert for top rail & bottom rail. paneling of 5 mm thick both side PVC sheet to be fitted in the M.S. frame welded /sealed to the styles & rails with 7 mm (5 mm + 2 mm) thick x 15 mm wide PVC sheet beading on inner side, and joined together with solvent cement adhesive. An additional 5 mm thick PVC strip of 20 mm width is to be stuck on the interior side of the 'C' Channel using PVC solvent adhesive etc. complete as per direction of Engineer -in-charge, manufacture's specification & drawing.30 mm thick pre laminated PVC door shutters								
		3	0.800		2.100		5.041	
						Total Quantity	5.041 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	5.041 sqm	
						Say 5.041 sqm @ Rs 2888.31 / sqm	**Rs 14559.97**	
20	od318119/2021_2022 Providing, Supplying syntex tank and laying pvc pipes, taps valve etc. for plumbing arrangements to the WC, including all material and labour charges including KWA water supply connections.							
		3					3.000	
						Total Quantity	3.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	3.000 No	
						Say 3.000 No @ Rs 80000.00 / No	**Rs 240000.00**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
5CONSTRUCTION OF GRIT CHAMBER (Cost Index:37.29 %)								
1	100.98.1000 Engaging Bandhani							
		3	2.000				6.000	
						Total Quantity	6.000 Day	

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						Total Deducted Quantity	0.000 Day	
						Net Total Quantity	6.000 Day	
						Say 6.000 Day @ Rs 983.89 / Day	**Rs 5903.34**	
2	100.8.1 Fencing one side of trenches, 1.50 m height with two rows of 10 cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals. (Data Prepared based on PWD SDB - Item No.1009)							
		3*2	12.000				72.000	
						Total Quantity	72.000 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	72.000 metre	
						Say 72.000 metre @ Rs 28.24 / metre	**Rs 2033.28**	
3	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil							
	GRIT CHAMBER							
	WELL I	1	4.300	2.050	1.500		13.223	
	WELL II	1	4.300	2.050	1.500		13.223	
	WELL III	1	4.300	2.050	2.800		24.682	
						Total Quantity	51.128 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	51.128 cum	
						Say 51.128 cum @ Rs 300.67 / cum	**Rs 15372.66**	
4	od320711/2021_2022 Earthwork in excavation by mechanical means/ manual means in foundation trenches or drains(not exceeding 1.5 meter in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 3 mtr including getting out the excavated soil and disposa of surplus excavated soil as directed within a lead of 50mtr. All kinds of soil							
	GRIT CHAMBER							
	WELL I	1	4.300	2.050	1.500		13.223	
	WELL II	1	4.300	2.050	1.500		13.223	
	WELL III	1	4.300	2.050	2.800		24.682	
						Total Quantity	51.128 cum	
						Total Deducted Quantity	0.000 cum	

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						Net Total Quantity	51.128 cum	
						Say 51.128 cum @ Rs 408.37 / cum	**Rs 20879.14**	
5	od320708/2021_2022 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10sqm on plan) including dressing of sides and ramming of bottom, lift of 4.5m to 6m, including getting out the excavated soil and disposal of surplus excavated soil as directed within a lead of 50m. Fourth depth 4.5m to 6m							
	GRIT CHAMBER							
	WELL I	1	4.300	2.050	1.500		13.223	
	WELL II	1	4.300	2.050	1.500		13.223	
	WELL III	1	4.300	2.050	2.800		24.682	
						Total Quantity	51.128 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	51.128 cum	
						Say 51.128 cum @ Rs 539.82 / cum	**Rs 27599.92**	
6	od320712/2021_2022 Earthwork in excavation by mechanical means/ manual means in foundation trenches or drains(not exceeding 1.5 meter in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 6 mtr including getting out the excavated soil and disposa of surplus excavated soil as directed within a lead of 50mtr. All kinds of soil							
	GRIT CHAMBER							
	WELL I	1	4.300	2.050	1.500		13.223	
	WELL II	1	4.300	2.050	1.500		13.223	
	WELL III	1	4.300	2.050	2.800		24.682	
						Total Quantity	51.128 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	51.128 cum	
						Say 51.128 cum @ Rs 623.78 / cum	**Rs 31892.62**	
7	od320714/2021_2022 Earthwork in excavation by mechanical means/ manual means in foundation trenches or drains(not exceeding 1.5 meter in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 7.5 mtr including getting out the excavated soil and disposa of surplus excavated soil as directed within a lead of 50mtr. All kinds of soil							
	GRIT CHAMBER							
	WELL I	1	4.300	2.050	1.500		13.223	
	WELL II	1	4.300	2.050	1.500		13.223	

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	WELL III	1	4.300	2.050	2.800		24.682	
						Total Quantity	51.128 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	51.128 cum	
						Say 51.128 cum @ Rs 731.48 / cum	**Rs 37399.11**	
8	100.6.1 Providing steel sheet shoring to the sides of the trenches to depths of above 4.00 m but not exceeding 6.00m using 6 mm M.S. sheet 0.50 M wide stiffen on edges with 50 mm x 50mm x 6 mm M.S. angles driving down vertically on either side one after another in lines and levels with suitable pile driving equipments and accessories to a maximum depth of 0.50 M below the bottom of the proposed excavation 0.5 M above ground level suitably braced by horizontal walling pieces at 75 x 150 mm x 8 mm angles on either side at intervals not exceeding 1.50M and horizontal screw jack type struts at 1.50M intervals and maintaining the shoring till the pipes are laid and works are completed, dismantling, cleaning and restacking for reuse including all labour, hire charges and conveyance for equipments, tools and plants and sundries etc. complete.							
	Grit chamber							
	WELL I	2	4.300		7.500		64.500	
		2	2.050		7.500		30.750	
	WELL II	2	4.300		7.500		64.500	
		2	2.050		7.500		30.750	
	WELL III	2	4.300		14.000		120.400	
		2	2.050		14.000		57.400	
						Total Quantity	368.300 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	368.300 sqm	
						Say 368.300 sqm @ Rs 758.53 / sqm	**Rs 279366.60**	
9	4.1.8 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)							
	WELL I	1	4.300	2.050	0.200		1.763	
	WELL II	1	4.300	2.050	0.200		1.763	
	WELL III	1	4.300	2.050	0.200		1.763	
						Total Quantity	5.289 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	5.289 cum	

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						Say 5.289 cum @ Rs 6900.33 / cum	**Rs 36495.85**	
10	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)							
	grit chamber settling portion							
	WELL I	1	2.000	1.250	0.150		0.375	
	WELL II	1	2.000	1.250	0.150		0.375	
	WELL III	1	2.000	1.250	0.150		0.375	
						Total Quantity	1.125 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	1.125 cum	
						Say 1.125 cum @ Rs 8091.05 / cum	**Rs 9102.43**	
11	5.1.2 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size							
	WELL I	1	4.100	1.850	0.200		1.518	
	WELL II	1	4.100	1.850	0.200		1.518	
	WELL III	1	4.100	1.850	0.200		1.518	
						Total Quantity	4.554 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	4.554 cum	
						Say 4.554 cum @ Rs 9199.05 / cum	**Rs 41892.47**	
12	5.2.2 Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up tot floor five level excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3(1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)							
	well I	1	10.300	0.200	5.500		11.330	
	INTERMEDIATE WALL	1	1.250	0.200	5.500		1.375	
	WELL II	1	10.300	0.200	3.500		7.210	
	INTERMEDIATE WALL	1	1.250	0.200	3.500		0.875	
	WELL 3	1	10.300	0.200	2.500		5.150	

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	INTERMEDIATE WALL	1	1.250	0.200	2.500		0.625	
						Total Quantity	26.565 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	26.565 cum	
						Say 26.565 cum @ Rs 11091.38 / cum	**Rs 294642.51**	
13	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete							
	WELL I ,WELL II.WELL III	3	4.100		0.200		2.460	
		3	1.850		0.200		1.110	
						Total Quantity	3.570 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	3.570 sqm	
						Say 3.570 sqm @ Rs 339.52 / sqm	**Rs 1212.09**	
14	5.9.2 Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.							
	WELL I	2	3.9*2		5.500		85.800	
		2	1.65*2		5.500		36.300	
	INNER TOTAL	2	8.000		5.500		88.000	
	WELL II	1	3.9*2		3.500		27.300	
		1	1.65*2		3.500		11.550	
	INNER TOTAL	1	5.000		3.500		17.500	
	well III	1	3.9*2		2.500		19.500	
		1	1.65*2		2.500		8.250	
	INNER TOTAL	1	3.000		2.500		7.500	
						Total Quantity	301.700 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	301.700 sqm	
						Say 301.700 sqm @ Rs 726.20 / sqm	**Rs 219094.54**	
15	5.22.4 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelHot rolled deformed bars							

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	TOTAL QTY OF GRIT CHAMBER,REINFORCEMENT @100 KG/M3							
		1	26.565			100.0	2656.500	
						Total Quantity	2656.500 kilogram	
						Total Deducted Quantity	0.000 kilogram	
						Net Total Quantity	2656.500 kilogram	
						Say 2656.500 kilogram @ Rs 99.54 / kilogram	**Rs 264428.01**	
16	19.16 Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS: 10910 on 12 mm dia steeel bar conforming to IS:1786, having minimum cross section as 23 mm x 25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufactures permanent identification mark to be visible even after fixing including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size)Complete as per design								
	WELL I& II	2	6.9/0.3				46.001	
	WELL III	1	13.4/0.3				44.667	
						Total Quantity	90.668 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	90.668 No	
						Say 90.668 No @ Rs 551.84 / No	**Rs 50034.23**	
17	13.9.1 Cement plaster 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement.12 mm cement plaster							
	WELL I	1	8.000		5.500		44.000	
	WELL II	1	5.000		3.500		17.500	
	WELL III	1	3.000		2.500		7.500	
	BOTTOM TOTAL	3	2.000		1.250		7.500	
		3	1.300		1.250		4.875	
	ADD 20% EXTRA	1	340.000			0.2	68.000	
						Total Quantity	149.375 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	149.375 sqm	
						Say 149.375 sqm @ Rs 417.29 / sqm	**Rs 62332.69**	
18	13.52.2 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per							

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	manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.On concrete work							
	WELL I	1	8.000		5.500		44.000	
	WELL II	1	5.000		3.500		17.500	
	WELL III	1	3.000		2.500		7.500	
	BOTTOM TOTAL	3	2.000		1.250		7.500	
		3	1.300		1.250		4.875	
	ADD 20% EXTRA	1	340.000			0.2	68.000	
						Total Quantity	149.375 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	149.375 sqm	
						Say 149.375 sqm @ Rs 225.70 / sqm	**Rs 33713.94**	
19	100.7.1 Bailing out water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete. NEW DATA (Prepared based on PHED SDB - Item No.1070							
		3*3	5*0.746	30.000	12.000		12085.200	
						Total Quantity	12085.200 Kwh	
						Total Deducted Quantity	0.000 Kwh	
						Net Total Quantity	12085.200 Kwh	
						Say 12085.200 Kwh @ Rs 37.41 / Kwh	**Rs 452107.33**	
20	100.7.2 Bailing out water with engine and pumpset above 5 HP upto 10 HP including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete. NEW DATA (Prepared based on PHED SDB - Item No.1070							
		3*3	10*.746	15.000	8.000		8056.800	
						Total Quantity	8056.800 Kwh	
						Total Deducted Quantity	0.000 Kwh	
						Net Total Quantity	8056.800 Kwh	
						Say 8056.800 Kwh @ Rs 18.67 / Kwh	**Rs 150420.46**	
21	100.98.1007 Engaging Beldar							
		3	30.000				90.000	
						Total Quantity	90.000 Day	

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						Total Deducted Quantity	0.000 Day	
						Net Total Quantity	90.000 Day	
						Say 90.000 Day @ Rs 889.78 / Day	**Rs 80080.20**	
22	100.52.S.1 Sub Data for providing Earth filled cement bags including cutting of the Earth, filling, conveying and placing in position.							
		1				100.0	100.000	
						Total Quantity	100.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	100.000 cum	
						Say 100.000 cum @ Rs 3785.10 / cum	**Rs 378510.00**	
23	od320879/2021_2022 Structural steelwork in a single section for providing girder over the grit champer with 80mm dia 4mm thick MS circular sectio fixing of RCC column and providing necessary arrangements for fixing pully for ease f desilting, fixed with or without connection plate, including hoisitng, fixing in position and applying a priming coat of approved steel primer all compete							
		3					3.000	
						Total Quantity	3.000 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	3.000 kg	
						Say 3.000 kg @ Rs 7303.92 / kg	**Rs 21911.76**	
24	od320880/2021_2022 Providing grating size 1.25x0.95m to the grit chamber with fabrication MS flat size 50x8mm thick with 50mm c/c and connected 12mm dia MS bar across the flat and welded bend necessary angle ease to place and removal etc.and painting with approved anti fungal paint prime coat placing etc.							
		3					3.000	
						Total Quantity	3.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	3.000 No	
						Say 3.000 No @ Rs 10753.21 / No	**Rs 32259.63**	
25	100.31.2.5 Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 200 mm diameter. Class II" Data derived from item no.18.31.4.2of DAR							
	1 VALVE FOR EACH GRIT	3					3.000	

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						Total Quantity	3.000 Nos	
						Total Deducted Quantity	0.000 Nos	
						Net Total Quantity	3.000 Nos	
						Say 3.000 Nos @ Rs 1751.20 / Nos	**Rs 5253.60**	
26	od320882/2021_2022 Supplying 200mm sluice valve							
		3					3.000	
						Total Quantity	3.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	3.000 No	
						Say 3.000 No @ Rs 12075.83 / No	**Rs 36227.49**	
27	100.41.33 Supplying and fixing 500mm dia CI manhole cover with frame(medium duty) charges including all cost, labour charges etc complete.							
	ONE FOR EACH GRIT	3					3.000	
						Total Quantity	3.000 Nos	
						Total Deducted Quantity	0.000 Nos	
						Net Total Quantity	3.000 Nos	
						Say 3.000 Nos @ Rs 7601.20 / Nos	**Rs 22803.60**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
65 APP D - LAYING PUMPING MAIN (Cost Index:37.29 %)								
1	15.43.2 Dismantling manually / by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer -in-Charge:Bituminous road							
	Well I PHC	1	4000.000	0.700			2800.000	
	Well II Chiramudi	1	3000.000	0.700			2100.000	
	Well III Sasthamvila	1	2500.000	0.700			1750.000	
						Total Quantity	6650.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	6650.000 sqm	
						Say 6650.000 sqm @ Rs 365.47 / sqm	**Rs 2430375.50**	
2	100.1.1 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidatingeach							

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	deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All kinds of soil (Ref. Item No. 2.10.1 of DSR)							
	Well I PHC	1	4000.000	0.700	1.300		3640.000	
	Well II Chiramudi	1	3000.000	0.700	1.300		2730.000	
	Well III Sasthamvila	1	2500.000	0.700	1.300		2275.000	
						Total Quantity	8645.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	8645.000 cum	
						Say 8645.000 cum @ Rs 562.48 / cum	**Rs 4862639.60**	
3	100.8.1 Fencing one side of trenches, 1.50 m height with two rows of 10 cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals. (Data Prepared based on PWD SDB - Item No.1009)							
	Well I PHC	2	2500.000				5000.000	
	Well II Chiramudi	2	1500.000				3000.000	
	Well III Sasthamvila	2	1500.000				3000.000	
						Total Quantity	11000.000 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	11000.000 metre	
						Say 11000.000 metre @ Rs 28.24 / metre	**Rs 310640.00**	
4	100.8.2 Fencing 1.50m high with two rows of casuarina poles (girth 15cm to 24cm) tied with coir yarn on vertical casuarina pole (girth 15cm to 24cm) fixed at 1.5m intervals. NEW DATA (Prepared based on PWD SDB - Item No.1009							
	Well I PHC	2	1500.000				3000.000	
	Well II Chiramudi	2	1500.000				3000.000	
	Well III Sasthamvila	2	1000.000				2000.000	
						Total Quantity	8000.000 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	8000.000 metre	
						Say 8000.000 metre @ Rs 97.20 / metre	**Rs 777600.00**	
5	100.7.1 Bailing out water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc.							

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	complete. NEW DATA (Prepared based on PHED SDB - Item No.1070							
		6	5*0.746	8.000		28.0	5013.120	
	Total Quantity						5013.120 Kwh	
	Total Deducted Quantity						0.000 Kwh	
	Net Total Quantity						5013.120 Kwh	
	Say 5013.120 Kwh @ Rs 37.41 / Kwh						**Rs 187540.82**	
6	100.98.1008 Engaging Coolie							
	Controlling traffic and bailing out	3				100.0	300.000	
	Total Quantity						300.000 Day	
	Total Deducted Quantity						0.000 Day	
	Net Total Quantity						300.000 Day	
	Say 300.000 Day @ Rs 889.78 / Day						**Rs 266934.00**	
7	100.14.1 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials : 100 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.15 in DAR							
	Well III Sasthamvila	1	2500.000				2500.000	
	Total Quantity						2500.000 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						2500.000 metre	
	Say 2500.000 metre @ Rs 59.58 / metre						**Rs 148950.00**	
8	100.14.2 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials : 150 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.16 in DAR							
	Well II Chiramudi	1	3000.000				3000.000	
	Total Quantity						3000.000 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						3000.000 metre	
	Say 3000.000 metre @ Rs 88.76 / metre						**Rs 266280.00**	
9	100.14.4							

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	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials : 250 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.18 in DAR							
	Well I PHC	1	4000.000				4000.000	
						Total Quantity	4000.000 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	4000.000 metre	
						Say 4000.000 metre @ Rs 165.09 / metre	**Rs 660360.00**	
10	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)							
	To support delivery pipe	3*6	1.000	1.000	1.000		18.000	
	Header pipe	3	6.000	1.000	1.000		18.000	
						Total Quantity	36.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	36.000 cum	
						Say 36.000 cum @ Rs 8091.05 / cum	**Rs 291277.80**	
11	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete							
	To support delivery pipe	2*6	6.000		1.000		72.000	
	To support header pipe	2*6	12.000				144.000	
						Total Quantity	216.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	216.000 sqm	
						Say 216.000 sqm @ Rs 339.52 / sqm	**Rs 73336.32**	
12	5.22.4 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelHot rolled deformed bars							
	Anchor block @ 50 kg/ M3	1	36.000			50.0	1800.000	
						Total Quantity	1800.000 kilogram	

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						Total Deducted Quantity	0.000 kilogram	
						Net Total Quantity	1800.000 kilogram	
						Say 1800.000 kilogram @ Rs 99.54 / kilogram	**Rs 179172.00**	
13	od320999/2021_2022 Supplying, conveying and laying 20/25mm dia PVC best quality Pipe, 10kg/cm2,including specials for diverting near manholes							
		2	50.000				100.000	
						Total Quantity	100.000 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	100.000 metre	
						Say 100.000 metre @ Rs 68.52 / metre	**Rs 6852.00**	
14	18.59.3 Providing and fixing C.I double acting air valve of approved quality with bolts, nuts, rubber insertion etc. complete (The tail pieces, tapers etc. if required will be paid separately):100 mm dia							
		3					3.000	
						Total Quantity	3.000 Nos	
						Total Deducted Quantity	0.000 Nos	
						Net Total Quantity	3.000 Nos	
						Say 3.000 Nos @ Rs 9764.96 / Nos	**Rs 29294.88**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
76 APP- E SUPPLY OFMATERIALS FOR PUMPING MAIN (Cost Index:37.29 %)								
1	100.98.101 Supply of DI K7 Pipe Conforming to IS 8329/2000, 100mm Dia.							
	Well III Sasthamvila	1	2500.000				2500.000	
						Total Quantity	2500.000 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	2500.000 metre	
						Say 2500.000 metre @ Rs 1005.00 / metre	**Rs 2512500.00**	
2	100.98.102 Supply of DI K7 Pipe Conforming to IS 8329/2000, 150mm Dia.							
	Well II Chiramudi	1	3000.000				3000.000	
						Total Quantity	3000.000 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	3000.000 metre	
						Say 3000.000 metre @ Rs 1475.50 / metre	**Rs 4426500.00**	

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3	100.98.104 Supply of DI K7 Pipe Conforming to IS 8329/2000, 250mm Dia.							
	Well I PHC	1	4000.000				4000.000	
						Total Quantity	4000.000 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	4000.000 metre	
						Say 4000.000 metre @ Rs 2301.35 / metre	**Rs 9205400.00**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
87 APP F-LAYING GRAVITY SEWER MAIN & CONSTRUCTION OF MAN HOLES (Cost Index:37.29 %)								
1	16.83 Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.							
	Tiled road	1	22452.000	1.000		0.15	3367.800	
	Manholes 1.2 M dia	1279	2.000	1.000		0.15	383.700	
	Manholes 1.5 M dia	87	2.300	1.300		0.15	39.020	
	Manholes 1.8 M dia	75	2.600	1.600		0.15	46.800	
	Manholes 2.25 M dia	21	3.050	2.050		0.15	19.696	
	Manholes 2.7 M dia	37	3.500	2.500		0.15	48.563	
						Total Quantity	3905.579 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	3905.579 sqm	
						Say 3905.579 sqm @ Rs 112.10 / sqm	**Rs 437815.41**	
2	15.3 Demolishing R.C.C. work manually / by mechanical means including stacking of steel bars and disposal of unserviceable material with in 50 metres lead as per direction of Engineer -in-Charge.							
	15% of total qty of cutting							
	Concreat road	1	22452.000	1.000		0.15	3367.800	
	Manholes 1.2 M dia	1279	2.000	1.000		0.15	383.700	
	Manholes 1.5 M dia	87	2.300	1.300		0.15	39.020	
	Manholes 1.8 M dia	75	2.600	1.600		0.15	46.800	
	Manholes 2.25 M dia	21	3.050	2.050		0.15	19.696	
	Manholes 2.7 M dia	37	3.500	2.500		0.15	48.563	
						Total Quantity	3905.579 cum	

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						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	3905.579 cum	
						Say 3905.579 cum @ Rs 3021.00 / cum	**Rs 11798754.16**	
3	15.43.2 Dismantling manually / by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer -in-Charge:Bituminous road							
	15% of total qty of cutting							
	BMBC Tar road	1	22452.000	1.000		7.0	157164.000	
	Manholes 1.2 M dia	1279	2.000	1.000		0.7	1790.600	
	Manholes 1.5 M dia	87	2.300	1.300		0.7	182.091	
	Manholes 1.8 M dia	75	2.600	1.600		0.7	218.400	
	Manholes 2.25 M dia	21	3.050	2.050		0.7	91.912	
	Manholes 2.7 M dia	37	3.500	2.500		0.7	226.625	
						Total Quantity	159673.628 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	159673.628 sqm	
						Say 159673.628 sqm @ Rs 365.47 / sqm	**Rs 58355920.83**	
4	100.1.1 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidatingeach deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All kinds of soil (Ref. Item No. 2.10.1 of DSR)							
	Total pipe line	1	22452.000	2.000	1.500		67356.000	
	MANHOLE PORTION	1499	1.000	1.000	1.500		-2248.500	
						Total Quantity	67356.000 cum	
						Total Deducted Quantity	-2248.500 cum	
						Net Total Quantity	65107.500 cum	
						Say 65107.500 cum @ Rs 562.48 / cum	**Rs 36621666.60**	
5	100.1.2 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth exceeding 1.5m but not exceeding 3 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus							

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	excavated soil as directed, within a lead of 50 m: 1.50m to 3.0m All kinds of soil (Ref. Item No. 2.11 of DSR)							
	Total pipe line	1	11948.000	2.000	1.500		35844.000	
	MANHOLE PORTION	1499	1.000	1.000	1.500		-2248.500	
						Total Quantity	35844.000 cum	
						Total Deducted Quantity	-2248.500 cum	
						Net Total Quantity	33595.500 cum	
						Say 33595.500 cum @ Rs 670.18 / cum	**Rs 22515032.19**	
6	100.1.3 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth exceeding 3m in depth but not exceeding 4.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : 3.0m to 4.50m All kinds of soil (Ref. Item No. 2.12 of DSR)							
	Total pipe line	1	3823.000	2.000	1.500		11469.000	
						Total Quantity	11469.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	11469.000 cum	
						Say 11469.000 cum @ Rs 777.89 / cum	**Rs 8921620.41**	
7	100.1.4 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth exceeding 4.5m in depth but not exceeding 6 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : 4.5m to 6.0m All kinds of soil. (Ref. Item No. 2.12 of DSR)							
	Total pipe line	1	140.000	2.000	1.500		420.000	
						Total Quantity	420.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	420.000 cum	
						Say 420.000 cum @ Rs 885.59 / cum	**Rs 371947.80**	
8	2.16.1 Close timbering in trenches including strutting, shoring and packing cavities (wherever required) complete (Measurements to be taken of the face area timbered).Depth not exceeding 1.5m							

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	Well I,II & III	2	10364.000		1.500		31092.000	
						Total Quantity	31092.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	31092.000 sqm	
						Say 31092.000 sqm @ Rs 154.86 / sqm	**Rs 4814907.12**	
9	2.16.2 Close timbering in trenches including strutting, shoring and packing cavities (wherever required) complete (Measurements to be taken of the face area timbered).Depth exceeding 1.5 m but not exceeding 3 m							
	Well I,II & III	2	8265.000		1.500		24795.000	
						Total Quantity	24795.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	24795.000 sqm	
						Say 24795.000 sqm @ Rs 168.25 / sqm	**Rs 4171758.75**	
10	2.16.3 Close timbering in trenches including strutting, shoring and packing cavities (wherever required) complete (Measurements to be taken of the face area timbered).Depth exceeding 3 m but not exceeding 4.5 m							
	Well I,II & III	2	3683.000	1.000	1.500		11049.000	
						Total Quantity	11049.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	11049.000 sqm	
						Say 11049.000 sqm @ Rs 198.52 / sqm	**Rs 2193447.48**	
11	100.10.7 Laying HDPE pipes (IS : 4984)on land portion including conveying within initial lead and aligning the pipes, electro-fusion welding using automatic or semi automatic electrofusion machines, testing the pipe line thus fabricated to suit the hydrulic working pressure and after testing , aligning the pipeline, lowering the pipe in position into the trenches already made, testing the line to suitable pressure with potable water before back filling and leveling the trenches including all labour charge, hire for appliances etc. complete but excluding cost of pipe and fittings. 200 mm OD HDPE pipe NEW DATA							
	MAIN SEWER LINE	1	19284.000				19284.000	
	Connection chamber to manhole	2*1279	3.000				7674.000	
	MANHOLE 1.2 DIA	1279	1.200				-1534.800	
						Total Quantity	26958.000 metre	
						Total Deducted Quantity	-1534.800 metre	
						Net Total Quantity	25423.200 metre	

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	Say 25423.200 metre @ Rs 323.87 / metre						**Rs 8233811.78**	
12	100.98.140 Supply of PE Pipe, PE100, PN8, 200mm dia, conforming to IS 4984/2016.							
	200 MM DIA HDPE PIPE	1	25423.200				25423.200	
	Total Quantity						25423.200 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						25423.200 metre	
	Say 25423.200 metre @ Rs 1056.95 / metre						**Rs 26871051.24**	
13	100.10.9 Laying HDPE pipes (IS : 4984)on land portion including conveying within initial lead and aligning the pipes, electro-fusion welding using automatic or semi automatic electrofusion machines, testing the pipe line thus fabricated to suit the hydrulic working pressure and after testing , aligning the pipeline, lowering the pipe in position into the trenches already made, testing the line to suitable pressure with potable water before back filling and leveling the trenches including all labour charge, hire for appliances etc. complete but excluding cost of pipe and fittings. 250 mm OD HDPE pipe NEW DATA							
	MAIN SEWER LINE	1	1191.000				1191.000	
	Connection chamber to man holes	2*87	3.000				522.000	
	MANHOLE 1.5M DIA	87	1.500				-130.500	
	Total Quantity						1713.000 metre	
	Total Deducted Quantity						-130.500 metre	
	Net Total Quantity						1582.500 metre	
	Say 1582.500 metre @ Rs 447.36 / metre						**Rs 707947.20**	
14	100.98.142 Supply of PE Pipe, PE100, PN8, 250mm dia, conforming to IS 4984/2016.							
	250 MM DIA HDPE PIPE	1	1582.500				1582.500	
	Total Quantity						1582.500 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						1582.500 metre	
	Say 1582.500 metre @ Rs 1644.70 / metre						**Rs 2602737.75**	
15	100.10.11 Laying HDPE pipes (IS : 4984)on land portion including conveying within initial lead and aligning the pipes, electro-fusion welding using automatic or semi automatic electrofusion machines, testing the pipe line thus fabricated to suit the hydrulic working pressure and after testing , aligning the pipeline, lowering							

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	the pipe in position into the trenches already made, testing the line to suitable pressure with potable water before back filling and leveling the trenches including all labour charge, hire for appliances etc. complete but excluding cost of pipe and fittings. 315 mm OD HDPE pipe NEW DATA							
	MAIN SEWER LINE	1	1057.000				1057.000	
	Connection chamber to Man holes	2*75	3.000				450.000	
	MANHOLE 1.8 M DIA	75	1.800				-135.000	
						Total Quantity	1507.000 metre	
						Total Deducted Quantity	-135.000 metre	
						Net Total Quantity	1372.000 metre	
						Say 1372.000 metre @ Rs 588.29 / metre	**Rs 807133.88**	
16	100.98.144 Supply of PE Pipe, PE100, PN8, 315mm dia, conforming to IS 4984/2016.							
	315 MM DIA HDPE PIPE	1	1372.000				1372.000	
						Total Quantity	1372.000 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	1372.000 metre	
						Say 1372.000 metre @ Rs 2625.00 / metre	**Rs 3601500.00**	
17	100.10.13 Laying HDPE pipes (IS : 4984)on land portion including conveying within initial lead and aligning the pipes, electro-fusion welding using automatic or semi automatic electrofusion machines, testing the pipe line thus fabricated to suit the hydrulic working pressure and after testing , aligning the pipeline, lowering the pipe in position into the trenches already made, testing the line to suitable pressure with potable water before back filling and leveling the trenches including all labour charge, hire for appliances etc. complete but excluding cost of pipe and fittings. 400 mm OD HDPE pipe NEW DATA							
	MAIN SEWER LINE	1	375.000				375.000	
	Connection chamber to man holes	2*21	3.000				126.000	
	MANHOLE 2.25 M DIA	21	2.250				-47.250	
						Total Quantity	501.000 metre	
						Total Deducted Quantity	-47.250 metre	
						Net Total Quantity	453.750 metre	

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	Say 453.750 metre @ Rs 739.44 / metre						**Rs 335520.90**	
18	100.98.166 Supply of PE Pipe, PE100, PN10, 400mm dia, conforming to IS 4984/2016.							
	400MM DIA HDPE PIPE	1	453.750				453.750	
	Total Quantity						453.750 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						453.750 metre	
	Say 453.750 metre @ Rs 5279.35 / metre						**Rs 2395505.06**	
19	100.10.14 Laying HDPE pipes (IS : 4984)on land portion including conveying within initial lead and aligning the pipes, electro-fusion welding using automatic or semi automatic electrofusion machines, testing the pipe line thus fabricated to suit the hydrulic working pressure and after testing , aligning the pipeline, lowering the pipe in position into the trenches already made, testing the line to suitable pressure with potable water before back filling and leveling the trenches including all labour charge, hire for appliances etc. complete but excluding cost of pipe and fittings 450 mm OD HDPE pipe NEW DATA							
	SEWER LINE	1	545.000				545.000	
	Connection chamber to man holes	2*37	3.000				222.000	
	MANHOLE 2.7 DIA	37	2.700				-99.900	
	Total Quantity						767.000 metre	
	Total Deducted Quantity						-99.900 metre	
	Net Total Quantity						667.100 metre	
	Say 667.100 metre @ Rs 822.09 / metre						**Rs 548416.24**	
20	100.98.167 Supply of PE Pipe, PE100, PN10, 450mm dia, conforming to IS 4984/2016.							
	450 MM DIA HDPE PIPE	1	667.100				667.100	
	Total Quantity						667.100 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						667.100 metre	
	Say 667.100 metre @ Rs 6696.20 / metre						**Rs 4467035.02**	
21	4.1.5 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)							

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	ENCASING SEWER LINE WITH CC1:3:6							
	BEDDING 200 MM PE	1	1279.000	0.600	0.100		76.740	
	BEDDING 250 MM PE	1	87.000	0.750	0.100		6.525	
	BEDDING 300 MM PE37	1	75.000	0.900	0.100		6.750	
	BEDDING 375 MM PE	1	21.000	1.125	0.100		2.363	
	BEDDING 450 MM PE	1	37.000	1.350	0.100		4.996	
	CASING BLOCK@3mc/c 200mm PE	1	1279.000/3	0.600	0.220		56.276	
	CASING BLOCK@3mc/c 250mm PE	1	87/3	0.750	0.270		5.873	
	CASING BLOCK@3mc/c 300mm PE	1	75/3	0.900	0.320		7.200	
	CASING BLOCK@3mc/c 375mm PE	1	21/3	1.125	1.145		9.017	
	CASING BLOCK@3mc/c 450mmPE	1	37/3	1.350	1.370		22.811	
						Total Quantity	198.551 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	198.551 cum	
						Say 198.551 cum @ Rs 7459.93 / cum	**Rs 1481176.56**	
22	100.7.1 Bailing out water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete. NEW DATA (Prepared based on PHED SDB - Item No.1070							
	FOR PIPE LAYING WORK &MANHOLE WORK	6	5*0.746	8.000		180.0	32227.200	
						Total Quantity	32227.200 Kwh	
						Total Deducted Quantity	0.000 Kwh	
						Net Total Quantity	32227.200 Kwh	
						Say 32227.200 Kwh @ Rs 37.41 / Kwh	**Rs 1205619.55**	

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23	100.7.2 Bailing out water with engine and pumpset above 5 HP upto 10 HP including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete. NEW DATA (Prepared based on PHED SDB - Item No.1070							
	FOR MANHOLE WORK&PIPE LAYING	6	10*0.746	8.000		90.0	32227.200	
						Total Quantity	32227.200 Kwh	
						Total Deducted Quantity	0.000 Kwh	
						Net Total Quantity	32227.200 Kwh	
						Say 32227.200 Kwh @ Rs 18.67 / Kwh	**Rs 601681.82**	
24	100.7.3 Bailing out water with engine and pumpset above 10 HP upto 20 HP including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete. NEW DATA (Prepared based on PHED SDB - Item No.1070							
		5	20*0.746	8.000		90.0	53712.000	
						Total Quantity	53712.000 Kwh	
						Total Deducted Quantity	0.000 Kwh	
						Net Total Quantity	53712.000 Kwh	
						Say 53712.000 Kwh @ Rs 9.34 / Kwh	**Rs 501670.08**	
25	100.98.1008 Engaging Coolie							
		6	180.000				1080.000	
						Total Quantity	1080.000 Day	
						Total Deducted Quantity	0.000 Day	
						Net Total Quantity	1080.000 Day	
						Say 1080.000 Day @ Rs 889.78 / Day	**Rs 960962.40**	
26	2.6.1 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.All kinds of soil							
	MANHOLE 1.2M DIA	515	2.000	2.000	1.500		3090.000	
	MANHOLE 1.5M DIA	8	2.300	2.300	1.500		63.480	
	MANHOLE 1.8M DIA	6	2.600	2.600	1.500		60.840	
	MANHOLE 2.25 DIA	1	3.050	3.050	1.500		13.954	

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	BEDDING PORTION							
	200 MM PE	1	1279.000	0.600	0.100	0.5	38.370	
	250 MM PE	1	87.000	0.750	0.100	0.5	3.263	
	315 MMPE	1	75.000	0.900	0.100	0.5	3.375	
	400 MM PE	1	21.000	1.050	0.100	0.5	1.103	
	450 MM PE	1	37.000	1.200	0.100	0.5	2.220	
						Total Quantity	3276.605 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	3276.605 cum	
						Say 3276.605 cum @ Rs 216.71 / cum	**Rs 710073.07**	
27	od321965/2021_2022 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, disposed earth to be levelled and neatly dressed for manhole.Second depth 1.5m to 3m							
	MANHOLE 1.2M DIA	606	2.000	2.000	1.500		3636.000	
	MANHOLE 1.5M DIA	23	2.300	2.300	1.500		182.505	
	MANHOLE 1.8M DIA	39	2.600	2.600	1.500		395.461	
	MANHOLE 2.25 DIA	6	3.050	3.050	1.500		83.723	
	MANHOLE 2.7DIA	16	3.500	3.500	1.500		294.000	
	BEDDING PORTION							
	200 MM PE	1	1279.000	0.600	0.100	0.5	38.370	
	250 MM PE	1	87.000	0.750	0.100	0.5	3.263	
	315 MMPE	1	75.000	0.900	0.100	0.5	3.375	
	400 MM PE	1	21.000	1.050	0.100	0.5	1.103	
	450 MM PE	1	37.000	1.200	0.100	0.5	2.220	
						Total Quantity	4640.020 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	4640.020 cum	
						Say 4640.020 cum @ Rs 324.42 / cum	**Rs 1505315.29**	
28	od321964/2021_2022 :Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, disposed earth to be levelled and neatly dressed for manhole. Third Depth 3m to 4.5m							
	MANHOLE 1.2M DIA	154	2.000	2.000	1.500		924.000	
	MANHOLE 1.5M DIA	56	2.300	2.300	1.500		444.360	

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	MANHOLE 1.8M DIA	30	2.600	2.600	1.500		304.201	
	MANHOLE 2.25 DIA	14	3.050	3.050	1.500		195.353	
	MANHOLE 2.7 DIA	21	3.500	3.500	1.500		385.875	
	BEDDING PORTION							
	200 MM PE	1	1279.000	0.600	0.100	0.5	38.370	
	250 MM PE	1	87.000	0.750	0.100	0.5	3.263	
	315 MMPE	1	75.000	0.900	0.100	0.5	3.375	
	400 MM PE	1	21.000	1.050	0.100	0.5	1.103	
	450 MM PE	1	37.000	1.200	0.100	0.5	2.220	
						Total Quantity	2302.120 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	2302.120 cum	
						Say 2302.120 cum @ Rs 432.12 / cum	**Rs 994792.09**	
29	od320708/2021_2022 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10sqm on plan) including dressing of sides and ramming of bottom, lift of 4.5m to 6m, including getting out the excavated soil and disposal of surplus excavated soil as directed within a lead of 50m. Fourth depth 4.5m to 6m							
	MANHOLE 1.2M DIA	4	2.000	2.000	1.500		24.000	
	BEDDING PORTION							
	200 MM PE	1	1279.000	0.600	0.100	0.5	38.370	
	250 MM PE	1	87.000	0.750	0.100	0.5	3.263	
	315 MMPE	1	75.000	0.900	0.100	0.5	3.375	
	400 MM PE	1	21.000	1.050	0.100	0.5	1.103	
	450 MM PE	1	37.000	1.200	0.100	0.5	2.220	
						Total Quantity	72.331 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	72.331 cum	
						Say 72.331 cum @ Rs 539.82 / cum	**Rs 39045.72**	
30	100.6.1 Providing steel sheet shoring to the sides of the trenches to depths of above 4.00 m but not exceeding 6.00m using 6 mm M.S. sheet 0.50 M wide stiffen on edges with 50 mm x 50mm x 6 mm M.S. angles driving down vertically on either side one after another in lines and levels with suitable pile driving equipments and accessories to a maximum depth of 0.50 M below the bottom of the proposed excavation 0.5 M above ground level suitably braced by horizontal walling pieces at 75 x 150 mm x 8 mm angles on either side at intervals not exceeding 1.50M and horizontal screw jack type struts at 1.50M intervals and							

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	maintaining the shoring till the pipes are laid and works are completed, dismantling, cleaning and restacking for reuse including all labour, hire charges and conveyance for equipments, tools and plants and sundries etc. complete.							
	FOR MANHOLE EARTHWORK EXCAVATION TOTAL AREA							
	MANHOLE DIA1.2 M	1	4*2		375.381		3003.048	
	MANHOLE DIA1.5 M	1	4*2.3		99.196		912.604	
	MANHOLE DIA1.8 M	1	4*2.6		102.196		1062.839	
	MANHOLE DIA2.25M	1	4*3.05		53.066		647.406	
						Total Quantity	5625.897 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	5625.897 sqm	
						Say 5625.897 sqm @ Rs 758.53 / sqm	**Rs 4267411.65**	
31	4.1.8 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)							
	MANHOLE 1.2M DIA	1279	2.000	2.000	0.200		1023.200	
	MANHOLE 1.5M DIA	87	2.300	2.300	0.200		92.046	
	MANHOLE 1.8M DIA	75	2.600	2.600	0.200		101.401	
	MANHOLE 2.25 DIA	21	3.050	3.050	0.200		39.071	
	MANHOLE 2.7 DIA	37	3.500	3.500	0.200		90.650	
	connection drain chamber							
	total manhole *2 nos	2	1.200	1.200	0.150	1499.0	647.568	
						Total Quantity	1993.936 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	1993.936 cum	
						Say 1993.936 cum @ Rs 6900.33 / cum	**Rs 13758816.40**	
32	5.1.2 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size							
	MANHOLE 1.2M DIA	1279	1.800	1.800	0.150		621.594	
	MANHOLE 1.5M DIA	87	2.100	2.100	0.150		57.551	
	MANHOLE 1.8M DIA	75	2.400	2.400	0.150		64.800	
	MANHOLE 2.25 DIA	21	2.850	2.850	0.150		25.586	

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	MANHOLE 2.7 DIA	37	3.300	3.300	0.150		60.440	
	MANHOLE 1.2M DIA-COVER SLAB	1279	3.14/4	1.800	1.800	0.3	975.903	
	MANHOLE 1.5M DIA-COVER SLAB	87	3.14/4	2.100	2.100	0.3	90.355	
	MANHOLE 1.8M DIA-COVER SLAB	75	3.14/4	2.400	2.400	0.3	101.736	
	MANHOLE 2.25M DIA-COVER SLAB	21	3.14/4	2.850	2.850	0.3	40.170	
	MANHOLE 2.7M DIA-COVER SLAB	37	3.14/4	3.300	3.300	0.3	94.891	
	CONNECTION DRAIN CHAMBER							
	MANHOLES TOTAL 1499*2 NOS-MAT CONCRETE	2*1499	1.000	1.000	0.100		299.800	
	COVER SLAB	2*1499	0.900	0.900	0.100		242.839	
	SIDE WALL	2*1499	(2*0.6+2*0.8)	0.450	0.100		377.748	
	MANHOLE COVER OPENING DEDUCTION							
	MANHOLE 1.2M COVER SLAB OPENING	1279	3.14/4	0.5*0.5	0.300		-75.301	
	MANHOLE 1.5M COVER SLAB OPENING	87	3.14/4	0.5*0.5	0.300		-5.122	
	MANHOLE 1.8M COVER SLAB OPENING	75	3.14/4	0.5*0.5	0.300		-4.415	
	MANHOLE 2.25M COVER SLAB OPENING	21	3.14/4	0.5*0.5	0.300		-1.236	
	MANHOLE 2.7M COVER SLAB OPENING	37	3.14/4	0.5*0.5	0.300		-2.178	
						Total Quantity	3053.413 cum	
						Total Deducted Quantity	-88.252 cum	
						Net Total Quantity	2965.161 cum	
						Say 2965.161 cum @ Rs 9199.05 / cum	**Rs 27276664.30**	

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33	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete							
	MANHOLE 1.2 M DIA-MAT	1279	4*1.8		0.150		1381.321	
	MANHOLE 1.5 M DIA-MAT	87	4*2.1		0.150		109.620	
	MANHOLE 1.8M DIA-MAT	75	4*2.4		0.150		108.000	
	MANHOLE 2.25M DIA- MAT	21	4*2.85		0.150		35.910	
	MANHOLE 2.7 M DIA-MAT	371	4*3.3		0.150		734.580	
	CONNECTION DRAIN CHAMBER TOTAL MANHOLE 1499*2 NOS	2	2.400		0.100	1499.0	719.520	
						Total Quantity	3088.951 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	3088.951 sqm	
						Say 3088.951 sqm @ Rs 339.52 / sqm	**Rs 1048760.64**	
34	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)							
	manhole pipe channel &slanted portion							
	MANHOLE 1.2M DIA	1279	3.14/4	1.6*1.6	0.250		642.570	
	MANHOLE 1.5M DIA	87	3.14/4	1.9*1.9	0.300		73.964	
	MANHOLE 1.8M DIA	75	3.14/4	2.2*2.2	0.350		99.735	
	MANHOLE 2.25 DIA	21	3.14/4	2.65*2.65	0.400		46.307	
	MANHOLE 2.7M DIA	37	3.14/4	3.1*3.1	0.450	0.3	37.682	
	MANHOLE 1.2M DIA-PIPE PORTION	1279	3.14/4	0.15*0.15	1/3		-7.530	
	CHANNEL PORTION	1279	1.200	(1.6+0.15) /2	0.080		-107.436	
	MANHOLE 1.5M DIA-PIPE PORTION	87	3.14/4	0.15*0.15	1/3		-0.512	

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	CHANNEL PORTION	87	1.500	(1.9+0.15)/2	0.110		-14.713	
	MANHOLE 1.8M DIA-PIPE PORTION	75	3.14/4	0.15*0.15	1/3		-0.441	
	CHANNEL PORTION	75	1.800	(2.2+0.15)/2	0.140		-22.207	
	MANHOLE 2.25M DIA-PIPE PORTION	21	3.14/4	0.15*0.15	1/3		-0.123	
	CHANNEL PORTION	21	2.250	(2.65+0.15)/2	0.170		-11.245	
	MANHOLE 2.7M DIA-PIPE PORTION	37	3.14/4	0.15*0.15	1/3		-0.217	
	CHANNEL PORTION	37	2.700	(3.1+0.15)/2	0.200		-32.467	
						Total Quantity	900.258 cum	
						Total Deducted Quantity	-196.891 cum	
						Net Total Quantity	703.367 cum	
						Say 703.367 cum @ Rs 8091.05 / cum	**Rs 5690977.57**	
35	5.7 Reinforced cement concrete work in well - steining excluding the cost of centering, shuttering, finishing and reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand (Zone - III) : 3 graded stone aggregate 20 mm nominal size)							
	MANHOLES 1,2M DIA SIDE WALL STEINING- TOTAL	1	3.14/4	(1.6*1.6-1.2*1.2)	1860.000		1635.313	
	MANHOLES 1,5M DIA SIDE WALL STEINING- TOTAL	1	3.14/4	(1.9*1.9-1.5*1.5)	164.000		175.087	
	MANHOLES 1.8M DIA SIDE WALL STEINING- TOTAL	1	3.14/4	(2.2*2.2-1.8*1.8)	167.562		210.458	
	MANHOLES 2.25M DIA SIDE WALL STEINING- TOTAL	1	3.14/4	(2.65*2.65-2.25*2.25)	69.177		106.436	
	MANHOLES 2.7M DIA SIDE WALL STEINING- TOTAL	1	3.14/4	(3.1*3.1-2.7*2.7)	108.840		198.220	
						Total Quantity	2325.514 cum	
						Total Deducted Quantity	0.000 cum	

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						Net Total Quantity	2325.514 cum	
						Say 2325.514 cum @ Rs 8665.06 / cum	**Rs 20150718.34**	
36	od322181/2021_2022 Centering and shuttering including strutting, propping etc. and removal of form for etc. for cover slab (Including 20% extra for circular works): Foundations, footings, bases of columns, etc for mass concrete							
	MANHOLES 1.2 M-COVER SLAB							
	OUTER	1279	3.140	1.800	0.300		2168.673	
	MANHOLE OPENING	1279	3.140	0.560	0.300		674.699	
	MANHOLES 1.5M-COVER SLAB							
	MANHOLES 1.5M-COVER SLAB	87	3.140	2.100	0.300		172.104	
	OPENING	87	3.140	0.560	0.300		45.895	
	MANHOLES 1.8M-COVER SLAB	1	3.140	2.400	0.300		2.261	
	OPENING	1	3.140	0.560	0.300		0.528	
	MANHOLES 2.25M-COVER SLAB	1	3.140	2.850	0.300		2.685	
	OPENING	1	3.140	0.560	0.300		0.528	
	MANHOLES 2.7M-COVER SLAB	1	3.140	3.300	0.300		3.109	
	OPENING	1	3.140	0.560	0.300		0.528	
	MANHOLES 1.5M-COVER SLAB	1	3.140		0.300		0.942	
	OPENING	1	3.140	0.560	0.300		0.528	
	CONNECTION DRAIN CHAMBER							
	MANHOLE TOTAL 1499 *2 NOS-MAT	2*1499	4*1	0.100			1199.200	
	COVER SLAB	2*1499	4*0.9	0.100			1079.281	
	SIDE WALL TOTAL	2*1499	(4*0.8+4*0.6)	0.450			7554.960	
						Total Quantity	12905.921 sqcm	
						Total Deducted Quantity	0.000 sqcm	
						Net Total Quantity	12905.921 sqcm	
						Say 12905.921 sqcm @ Rs 303.38 / sqcm	**Rs 3915398.31**	
37	od317483/2021_2022							

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	Centering and shuttering including strutting, etc. and removal of form for Wellstening (including 20% extra for circular works)							
	MANHOLES 1,2M DIA SIDE WALL STEINING- TOTAL	1	3.140	1.600	1860.000		9344.641	
	INSIDE AREA	1	3.140	1.200	1860.000		7008.480	
	MANHOLES 1,5M DIA SIDE WALL STEINING- TOTAL	1	3.140	1.900	164.000		978.424	
	INSIDE AREA	1	3.140	1.500	164.000		772.440	
	MANHOLES 1.8M DIA SIDE WALL STEINING- TOTAL	1	3.140	2.200	167.562		1157.519	
	INSIDE AREA	1	3.140	1.800	167.562		947.061	
	MANHOLES 2.25M DIA SIDE WALL STEINING- TOTAL	1	3.140	2.650	69.177		575.622	
	INSIDE AREA	1	3.140	2.250	69.177		488.736	
	MANHOLES 2.7M DIA SIDE WALL STEINING- TOTAL	1	3.140	3.100	108.840		1059.449	
	INSIDE AREA	1	3.140	2.700	108.840		922.746	
						Total Quantity	23255.118 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	23255.118 sqm	
						Say 23255.118 sqm @ Rs 303.38 / sqm	**Rs 7055137.70**	
38	5.22.4 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelHot rolled deformed bars							
	MANHOLE COVER AND BOTTOM ITEM NO 32	1	2965.161			80.0	237212.880	
	MANHOLE SIDE WALLS ITEM NO 35	1	2325.514			80.0	186041.120	
						Total Quantity	423254.000 kilogram	
						Total Deducted Quantity	0.000 kilogram	
						Net Total Quantity	423254.000 kilogram	
						Say 423254.000 kilogram @ Rs 99.54 / kilogram	**Rs 42130703.16**	

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39	13.9.1 Cement plaster 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement.12 mm cement plaster							
	Man hole 1.2 m dia	1279	3.14/4	1.2*1.2			1445.782	
	Channel portion	1279	3.141*2/3*0.15	1.200			482.081	
	Man hole 1.5 m dia	87	3.14/4	1.5*1.5			153.664	
	Channel portion	87	3.141*2/3*0.2	1.500			54.654	
	Man hole 1.8 m dia	75	3.14/4	1.8*1.8			190.755	
	Channel portion	75	3.141*2/3*0.25	1.800			70.673	
	Man hole 2.25 m dia	21	3.14/4	2.25*2.25			83.456	
	Channel portion	21	3.141*2/3*0.3	2.250			29.683	
	Man hole 2.7 m dia	37	3.14/4	2.7*2.7			211.739	
	Channel portion	37	3.141*2/3*0.35	2.700			73.217	
						Total Quantity	2795.704 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	2795.704 sqm	
						Say 2795.704 sqm @ Rs 417.29 / sqm	**Rs 1166619.32**	
40	19.16 Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS: 10910 on 12 mm dia steeel bar conforming to IS:1786, having minimum cross section as 23 mm x 25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufactures permanent identification mark to be visible even after fixing including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size)Complete as per design							
	TOTAL MANHOLE1499	1	8994.000				8994.000	
						Total Quantity	8994.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	8994.000 No	
						Say 8994.000 No @ Rs 551.84 / No	**Rs 4963248.96**	

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41	19.21.1 Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix(1 cement:2 coarse sand: 4 graded stone aggregate 20 mm nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement and making necessary channels for the drain etc. complete.For pipes 100 to 250 mm diameter							
		10					10.000	
	Total Quantity						10.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						10.000 No	
	Say 10.000 No @ Rs 743.08 / No						**Rs 7430.80**	
42	od322481/2021_2022 Conveying from casting yard and fixing the RCC cover slab of various size dia, 25cm thick including cost of 5kg cement/E							
	TOTAL COVER SLAB	1499					1499.000	
	Total Quantity						1499.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						1499.000 No	
	Say 1499.000 No @ Rs 640.16 / No						**Rs 959599.84**	
43	100.41.33 Supplying and fixing 500mm dia CI manhole cover with frame(medium duty) charges including all cost, labour charges etc complete.							
		1499					1499.000	
	Total Quantity						1499.000 Nos	
	Total Deducted Quantity						0.000 Nos	
	Net Total Quantity						1499.000 Nos	
	Say 1499.000 Nos @ Rs 7601.20 / Nos						**Rs 11394198.80**	
44	2.25 Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.							
	MANHOLE EARTH WORK TOTAL	1	10291.076				10291.076	
	MANHOLE 1.2M DIA	1	3.14/4	1.6*1.6	1860.000		-3737.856	
	MANHOLE 1.5M DIA	1	3.14/4	1.9*1.9	164.000		-464.751	
	MANHOLE 1.8M DIA	1	3.14/4	2.2*2.2	167.562		-636.635	
	MANHOLE 2.25M DIA	1	3.14/4	2.65*2.65	69.177		-381.349	

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	MANHOLE 2.7M DIA	1	3.14/4	3.1*3.1	108.840		-821.072	
						Total Quantity	10291.076 cum	
						Total Deducted Quantity	-6041.663 cum	
						Net Total Quantity	4249.413 cum	
						Say 4249.413 cum @ Rs 261.81 / cum	**Rs 1112538.82**	
45	od317581/2021_2022 Removal of excess earth by lorry for minimum mechanical conveyance and less cost of erath							
	MANHOLE 1.2M DIA FOUNDATION	1279	2.000	2.000	0.200		1023.200	
	MANHOLE 1.5M DIA FOUNDATION	87	2.300	2.300	0.200		92.046	
	MANHOLE 1.8M DIA FOUNDATION	75	2.600	2.600	0.200		101.401	
	MANHOLE 2.25M DIA FOUNDATION	21	3.050	3.050	0.200		39.071	
	MANHOLE 2.7M DIA FOUNDATION	37	3.500	3.500	0.200		90.650	
	MANHOLE 1.2M DIA MAT	1279	1.800	1.800	0.150		621.594	
	MANHOLE 1.5M DIA MAT	87	2.100	2.100	0.150		57.551	
	MANHOLE 1.8M DIA MAT	75	2.400	2.400	0.150		64.800	
	MANHOLE 2.25M DIA MAT	21	2.850	2.850	0.150		25.586	
	MANHOLE 2.7M DIA MAT	37	3.300	3.300	0.150		60.440	
	MANHOLE 1.2M DIA COVER SLAB	1279	3.14/4	1.8*1.8	0.300		975.903	
	MANHOLE 1.5M DIA COVER SLAB	87	3.14/4	2.1*2.1	0.300		90.355	
	MANHOLE 1.8M DIA COVER SLAB	75	3.14/4	2.4*2.4	0.300		101.736	
	MANHOLE 2.25M DIA COVER SLAB	1	3.14/4	2.85*2.85	0.300		1.913	
	MANHOLE 2.7M DIA COVER SLAB	1	3.14/4	3.3*3.3	0.300		2.565	
						Total Quantity	3348.811 cum	

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	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						3348.811 cum	
	Say 3348.811 cum @ Rs 143.06 / cum						**Rs 479080.90**	
46	od322505/2021_2022 Providing protection works to the Electric post by using 3nos of Kattadi poles and removing the same after completion of work.							
		400					400.000	
	Total Quantity						400.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						400.000 No	
	Say 400.000 No @ Rs 1156.02 / No						**Rs 462408.00**	
47	od322511/2021_2022 Providing protection works to avoid damages to the water supply lines etc. by using earth filled gunny bags and as temporary bund							
		1				4000.0	4000.000	
	Total Quantity						4000.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						4000.000 No	
	Say 4000.000 No @ Rs 3780.59 / No						**Rs 15122360.00**	
48	16.84 Laying old cement concrete interlocking paver blocks of any design/ shape laid in required line, level, curvature, colour and pattern over and including 50 mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge. (Old CC paver blocks shall be supplied by the department free of cost.)							
	TILED ROAD	1	22452.000	1.000		0.15	3367.800	
	MANHOLE 1.2M DIA	1279	2.000	1.000		0.15	383.700	
	MANHOLE 1.5M DIA	87	2.300	1.300			260.130	
	MANHOLE 1.8M DIA	75	2.600	1.600			312.000	
	MANHOLE 2.25M DIA	21	3.050	1.900			121.695	
	MANHOLE 2.7M DIA	37	3.500	2.200			284.901	
	ADD 25% FOR DAMAGES	1	5616.360			0.25	1404.090	
	Total Quantity						6134.316 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						6134.316 sqm	

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						Say 6134.316 sqm @ Rs 386.40 / sqm	**Rs 2370299.70**	
49	5.1.3 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)							
	CONCRETE ROAD	1	22452.000	1.000	0.150	0.15	505.170	
	MANHOLE 1.2M DIA	1279	2.000	1.000	0.150	0.15	57.555	
	MANHOLE 1.5M DIA	87	2.300	1.300	0.150		39.020	
	MANHOLE 1.8M DIA	75	2.600	1.600	0.150		46.800	
	MANHOLE 2.25M DIA	21	3.050	1.900	0.150		18.255	
	MANHOLE 2.7M DIA	37	3.500	2.200	0.150		42.735	
	ADD 25% FOR DAMAGES	1	5616.360			0.25	1404.090	
						Total Quantity	2113.625 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	2113.625 cum	
						Say 2113.625 cum @ Rs 8696.15 / cum	**Rs 18380400.04**	
50	16.79 Providing , laying spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm) to wet mix macadam (WMM) specification including premixing the material with water at OMC in mechanical mix plant, carriage of mixed material by tipper to site, for all leads & lifts, laying in uniform layers with mechanical paver finisher in sub - base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achieve the desired density, complete as per specifications and directions of Engineer - in- Charge.							
	BMBC ROAD	1	22452.000	1.000	0.300	0.7	4714.920	
	MANHOLE 1.2M DIA	1279	2.000	1.000	0.300	0.15	115.110	
	MANHOLE 1.5M DIA	87	2.300	1.300	0.300		78.039	
	MANHOLE 1.8M DIA	75	2.600	1.600	0.300		93.600	
	MANHOLE 2.25M DIA	21	3.050	1.900	0.300		36.509	
	MANHOLE 2.7M DIA	37	3.500	2.200	0.300		85.470	
	ADD 25% FOR DAMAGES	1	5616.360			0.25	1404.090	
						Total Quantity	6527.738 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	6527.738 cum	
						Say 6527.738 cum @ Rs 3148.13 / cum	**Rs 20550167.83**	

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51	od320999/2021_2022 Supplying, conveying and laying 20/25mm dia PVC best quality Pipe, 10kg/cm2,including specials for diverting near manholes							
	No. of connections	1500	2.000				3000.000	
						Total Quantity	3000.000 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	3000.000 metre	
						Say 3000.000 metre @ Rs 68.52 / metre	**Rs 205560.00**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
98 APP G -ADDITIONING PROVISION FOR HEADER PIPE,VALVE,MANHOLE COVERS ETC.IN PUMP HOUSES								
						Lump-Sum Total	**Rs 3000000.00**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
109 APP H - SUPPLYING AND PROVIDING BLOWER ARRANGEMENT FOR AERATION SUITABLE TO COLLECTION WELL AND ALL INSTALLATION CHARGE AND ELECTRICAL FITTINGS - 3NOS.								
						Lump-Sum Total	**Rs 500000.00**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
1110 APP I- SUPPLY AND ERECTION OF 65KWA DIESEL / PETROL GENERATORS -3 NOS.								
						Lump-Sum Total	**Rs 1500000.00**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
1211 APP J- INSTALLATIONS EARTHING ,CABLING ,CONTROL PANNEL, ELECTRIC CONNECTION ,KSEB DOCUMENTATIONS AND SUPPORTING STRUCTRE								
						Lump-Sum Total	**Rs 2500000.00**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
1312 APP K- ROAD RESTORATION CHARGES (Cost Index:37.29 %)								
1	od323265/2021_2022 Shoulder Cutting							
		1	5000.000				5000.000	
						Total Quantity	5000.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	5000.000 sqm	
						Say 5000.000 sqm @ Rs 1587.49 / sqm	**Rs 7937450.00**	
2	od323295/2021_2022 Concrete road surface							
		1	10000.000				10000.000	
						Total Quantity	10000.000 sqm	
						Total Deducted Quantity	0.000 sqm	

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						Net Total Quantity	10000.000 sqm	
						Say 10000.000 sqm @ Rs 4887.00 / sqm	**Rs 48870000.00**	
3	od323297/2021_2022 100mm thick interlocking tiled road surface							
		1	3000.000				3000.000	
						Total Quantity	3000.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	3000.000 sqm	
						Say 3000.000 sqm @ Rs 3747.10 / sqm	**Rs 11241300.00**	
4	od323298/2021_2022 BM & BC road surface restoration charge							
		1	3000.000				3000.000	
						Total Quantity	3000.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	3000.000 sqm	
						Say 3000.000 sqm @ Rs 3633.49 / sqm	**Rs 10900470.00**	
5	od323299/2021_2022 Tar road cut restoration charge							
		1	5000.000				5000.000	
						Total Quantity	5000.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	5000.000 sqm	
						Say 5000.000 sqm @ Rs 3086.87 / sqm	**Rs 15434350.00**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
1413 APP -L SUPPLY ERECTION TRAIL RUN & COMMISSIONING OF PUMPSET AT LIFTING STATION								
						Lump-Sum Total	**Rs 1000000.00**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
15Supply erection ,Trial run and commissioning of Pumpset (Cost Index:37.29 %)								
1	od326612/2021_2022 Supply, erection, testing, and commissioning of new generation non clog Submersible motor pump set having suitable discharge and head, including all accessories such as cost of the panel board with an ammeter, voltmeter, phase indicating lamps, change over switch, main switch, cost of soft starter, cable from panel board to starter, starter to motor, capacitors suction pipe, foot valve, Non return valve, suction and delivery pipes of required length, pressure gauge, earthing and wiring materials, cables etc. complete.							
		3	25.000				75.000	

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						Total Quantity	75.000 Hp	
						Total Deducted Quantity	0.000 Hp	
						Net Total Quantity	75.000 Hp	
						Say 75.000 Hp @ Rs 21063.80 / Hp	**Rs 1579785.00**	
2	od326613/2021_2022 Supply, erection, testing, and commissioning of new generation non clog Submersible motor pump set having suitable discharge and head, including all accessories such as cost of the panel board with an ammeter, voltmeter, phase indicating lamps, change over switch, main switch, cost of soft starter, cable from panel board to starter, starter to motor, capacitors suction pipe, foot valve, Non return valve, suction and delivery pipes of required length, pressure gauge, earthing and wiring materials, cables etc. complete							
		2*2	10.000				40.000	
		2*2	10.000				40.000	
		2	5.000				10.000	
						Total Quantity	90.000 Hp	
						Total Deducted Quantity	0.000 Hp	
						Net Total Quantity	90.000 Hp	
						Say 90.000 Hp @ Rs 18961.49 / Hp	**Rs 1706534.10**	
						Total	**568015223.52**	
						Centage @	**10.0%**	
						Centage Amount	**56801522.35**	
						Provision for GST payments (in %) @	**18.0%**	
						Amount reserved for GST payments	**102242740.23**	
						Total & Centage	**727059486.10**	
						Lumpsum for round off	**40513.90**	
						GRAND TOTAL Rs	**727100000.00**	
Rounded Grand Total Rs 72,71,00,000								
Rupees Seventy Two Crore Seventy One Lakh Only								

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PRICE EST NO:

General Abstract

SEWERAGE SCHEME TO PANDALAM MUNICIPALITY - CONSTRUCTION OF 5 MLD CAPACITY SEWAGE TREATMENT PLANT AND LAYING SEWERAGE NET WORK TO PANDALAM MUNICIPALITY - O & M

(Dsor year: **2018**)

Sl No	Heading Description	Amount
1	**STP-Providing skilled and experienced personnals for the monitoring of the day to day operation and maintenance of the all systems for STP**	5242615.45
2	**STP-Periodical cleaning STP units**	7480.00
3	**STP-Upkeep of Civil structures, maintaining Landscaping etc.**	140355.08
4	**STP-Annual Chemicals charges**	535276.00
5	**STP-Major repairs and maintenance of Electro Mechanical work (Break down maintanence).**	60000.00
6	**STP-Others**	2755965.00
7	**STP-Annual Operation and Maintenance for 9 years (2nd year to 9th year)**	77001078.71
8	**Sewer- Operation and maintenance for one year**	8374881.97
9	**Sewer-O&M for 2nd year to 10th Year**	93746209.39
	Total	**187863861.60**
	Centage @	**10.0%**
	Centage Amount	**18786386.16**
	Provision for GST payments (in %) @	**18.0%**
	Amount reserved for GST payments	**33815495.09**
	Total & Centage	**240465742.85**
	Lumpsum for round off	**0.00**
	GRAND TOTAL Rs	**240465742.85**
		Rounded Grand Total Rs 24,04,65,743
		Rupees Twenty Four Crore Four Lakh Sixty Five Thousand Seven Hundred and Forty Three Only

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Detailed Estimate

SEWERAGE SCHEME TO PANDALAM MUNICIPALITY - CONSTRUCTION OF 5 MLD CAPACITY SEWAGE TREATMENT PLANT AND LAYING SEWERAGE NET WORK TO PANDALAM MUNICIPALITY - O & M

(Dsor year: **2018**)

Sl No	Description	No	L	B	D	CF	Quantity	Remark
1STP-Providing skilled and experienced personnals for the monitoring of the day to day operation and maintenance of the all systems for STP (Cost Index:37.29 %)								
1	od341341/2021_2022 Plant Manager							
		1	365.000				365.000	
						Total Quantity	365.000 Day	
						Total Deducted Quantity	0.000 Day	
						Net Total Quantity	365.000 Day	
						Say 365.000 Day @ Rs 1563.28 / Day	**Rs 570597.20**	
2	100.98.1030 Engaging Operator (pile/ Special Machine)							
		3	365.000				1095.000	
						Total Quantity	1095.000 Day	
						Total Deducted Quantity	0.000 Day	
						Net Total Quantity	1095.000 Day	
						Say 1095.000 Day @ Rs 1176.85 / Day	**Rs 1288650.75**	
3	100.98.1032 Engaging Technician							
	Process Chemist(Call on duty)							
	Single shift	1	365.000				365.000	
	Instrumentation technician(General shift)							
		1	365.000				365.000	
						Total Quantity	730.000 Day	
						Total Deducted Quantity	0.000 Day	
						Net Total Quantity	730.000 Day	
						Say 730.000 Day @ Rs 1235.82 / Day	**Rs 902148.60**	
4	100.98.1009							

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	Engaging Fitter (grade 1)							
	Mechanic(General shift)	1	365.000				365.000	
						Total Quantity	365.000 Day	
						Total Deducted Quantity	0.000 Day	
						Net Total Quantity	365.000 Day	
						Say 365.000 Day @ Rs 1176.85 / Day	**Rs 429550.25**	
5	100.98.1008 Engaging Coolie							
	Sweeper/Cleaner(General shift)	3	365.000				1095.000	
						Total Quantity	1095.000 Day	
						Total Deducted Quantity	0.000 Day	
						Net Total Quantity	1095.000 Day	
						Say 1095.000 Day @ Rs 889.78 / Day	**Rs 974309.10**	
6	100.98.1036 Supply of Security Guard without gun.							
	Security guards							
		1*3	365.000				1095.000	
						Total Quantity	1095.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	1095.000 No	
						Say 1095.000 No @ Rs 983.89 / No	**Rs 1077359.55**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
2STP-Periodical cleaning STP units (Cost Index:37.29 %)								
1	2.31 Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared							
		2	250.000				500.000	
						Total Quantity	500.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	500.000 sqm	
						Say 500.000 sqm @ Rs 14.96 / sqm	**Rs 7480.00**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark

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	3STP-Upkeep of Civil structures, maintaining Landscaping etc. (Cost Index:37.29 %)							
1	od341334/2021_2022 Maintaining the garden as per the direction of department officers							
	For each month for a year							
		1	12.000				12.000	
	Total Quantity						12.000 Month	
	Total Deducted Quantity						0.000 Month	
	Net Total Quantity						12.000 Month	
	Say 12.000 Month @ Rs 5264.39 / Month						**Rs 63172.68**	
2	13.99.1 Painting with synthetic enamel paint of approved brand and manufacture ofrequired colour to give an even shade :One or more coats on old work							
		1	100.000				100.000	
	Total Quantity						100.000 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						100.000 sqm	
	Say 100.000 sqm @ Rs 95.28 / sqm						**Rs 9528.00**	
3	13.51.2 Painting with silicon & acrylic emulsion based water thinnable sealer of approved brand and manufacture on wet or patchy portion of plastered surfaces:Two coats							
	Painting Area:2200m2. Two painting within O& M Period. Area= 2x2200/10=440m2 / year	1	440.000				440.000	
	Total Quantity						440.000 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						440.000 sqm	
	Say 440.000 sqm @ Rs 153.76 / sqm						**Rs 67654.40**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
	4STP-Annual Chemicals charges (Cost Index:37.29 %)							
1	od341336/2021_2022 Supply of liquid chlorine in Tonne Cylinders (5 PPM dosage)							
		4	5.000	365.000			7300.000	
	Total Quantity						7300.000 kg	

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						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	7300.000 kg	
						Say 7300.000 kg @ Rs 26.45 / kg	**Rs 193085.00**	
2	od341337/2021_2022 Supply and delivery of Hydrated lime as per specification (7 PPM dosage)							
		4	7.000	365.000			10220.000	
						Total Quantity	10220.000 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	10220.000 kg	
						Say 10220.000 kg @ Rs 14.05 / kg	**Rs 143591.00**	
3	od341342/2021_2022 Supply and delivery of Alum at (7 PPM dosage) as per specification							
		4	7.000	365.000			10220.000	
						Total Quantity	10220.000 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	10220.000 kg	
						Say 10220.000 kg @ Rs 13.75 / kg	**Rs 140525.00**	
4	od341344/2021_2022 Other Chemicals							
		1					1.000	
						Total Quantity	1.000 L.S	
						Total Deducted Quantity	0.000 L.S	
						Net Total Quantity	1.000 L.S	
						Say 1.000 L.S @ Rs 58075.00 / L.S	**Rs 58075.00**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
5STP-Major repairs and maintenance of Electro Mechanical work (Break down maintanence). (Cost Index:37.29 %)								
1	od341350/2021_2022 Repairs to Motor and Punpsets , rewinding of motors and its assembly and putting into use for the break down maintenance for the pumps of the following considering the salvage values of the components.							
		1					1.000	
						Total Quantity	1.000 set	
						Total Deducted Quantity	0.000 set	
						Net Total Quantity	1.000 set	
						Say 1.000 set @ Rs 60000.00 / set	**Rs 60000.00**	

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Sl No	Description	No	L	B	D	CF	Quantity	Remark
	6STP-Others (Cost Index:37.29 %)							
1	od341340/2021_2022 Testing and calibration of electrical meters and relays,ammeter and voltmeters,cranes and hoists,testing of ELCB,testing of earth pit,testing and cathodic protection of MS line,environmental monitoring,sludge testing,transformer testing and other inspection charges payable to inspecting agencies excluding the Govt.agencies.							
		1					1.000	
	Total Quantity						1.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						1.000 No	
	Say 1.000 No @ Rs 5000.00 / No						**Rs 5000.00**	
2	od341348/2021_2022 Attending the repairs in the valves,actuators,electro magnetic flow meters and connected works							
		1					1.000	
	Total Quantity						1.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						1.000 No	
	Say 1.000 No @ Rs 5000.00 / No						**Rs 5000.00**	
3	od341349/2021_2022 Attending repairs in the E.O.T crane including changing of spare if any during servicing							
		1					1.000	
	Total Quantity						1.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						1.000 No	
	Say 1.000 No @ Rs 4000.00 / No						**Rs 4000.00**	
4	od341351/2021_2022 Transformer air filtration and topup oil in transformer,replacement of tap changing mechanism,replacement of dial thermometer,replacement of terminal bushes(HT),painting of the transformer etc.							
		1					1.000	
	Total Quantity						1.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						1.000 No	
	Say 1.000 No @ Rs 5000.00 / No						**Rs 5000.00**	
5	od341352/2021_2022							

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	Attending emergency repair works in starter like replacement of fixed contacts,moving contacts,auxilary contacts,replacement of over load relays,replacement of timer,no volt coil,repair work in switches like replacement of fixed contacts,moving contacts,fuse carrier sets.HRC fuse base and carriers,replacement of isolator,isolator bridges,repair of oil circuit breaker and air circuit breaker like replacement of fixed contacts,moving contacts,replacement of operating mechanism sets,tripping mechanism sets,no volt coils control circuit etc.							
		1					1.000	
						Total Quantity	1.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	1.000 No	
						Say 1.000 No @ Rs 5000.00 / No	**Rs 5000.00**	
6	od341353/2021_2022 Hire charges of Tools and Plants required for the day to day operation of the Plant and equipment s							
		1					1.000	
						Total Quantity	1.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	1.000 No	
						Say 1.000 No @ Rs 5000.00 / No	**Rs 5000.00**	
7	od341354/2021_2022 Supply and maintenance of emergency personal and fire fighting equipment s including periodical check up,refilling and getting sanction from concerned departments,license renewal etc except renewal of Factories and Boilers and Electrical Inspectorate							
		1					1.000	
						Total Quantity	1.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	1.000 No	
						Say 1.000 No @ Rs 5000.00 / No	**Rs 5000.00**	
8	od341355/2021_2022 Repair and maintenance of control/instrumentation cabling,communication cabling,instrumentation cabling etc for the proper upkeep of SCADA and telemetry system including repair of all faulty components whenever necessary							
		1					1.000	
						Total Quantity	1.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	1.000 No	
						Say 1.000 No @ Rs 6000.00 / No	**Rs 6000.00**	

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9	od341356/2021_2022 Maintenance of SCADA system like Hardware including servers,printers,monitors etc for control room Scada,office stationary items.software for control room Scada,ups for control room including batteries,interface to regional telemetry system, etc including replacing of all faulty components whenever necessary							
		1					1.000	
	Total Quantity						1.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						1.000 No	
	Say 1.000 No @ Rs 8000.00 / No						**Rs 8000.00**	
10	od341357/2021_2022 Replacement of Catridge one time between 5 to 10 years							
		1					1.000	
	Total Quantity						1.000 L.S	
	Total Deducted Quantity						0.000 L.S	
	Net Total Quantity						1.000 L.S	
	Say 1.000 L.S @ Rs 40000.00 / L.S						**Rs 40000.00**	
11	od341347/2021_2022 Vehicle hire charges							
		12					12.000	
	Total Quantity						12.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						12.000 No	
	Say 12.000 No @ Rs 167256.00 / No						**Rs 2007072.00**	
12	od341358/2021_2022 Generator Fuel charges							
		1	100.000				100.000	
	Total Quantity						100.000 hour	
	Total Deducted Quantity						0.000 hour	
	Net Total Quantity						100.000 hour	
	Say 100.000 hour @ Rs 6608.93 / hour						**Rs 660893.00**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
7STP-Annual Operation and Maintenance for 9 years (2nd year to 9th year) (Cost Index:37.29 %)								
1	od341346/2021_2022 Annual Operation and Maintenance for 9 years (2nd year to 9th year)							

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	2 nd Year - Add 5 % to 1st year	1	1.050				1.050	
	3rd Year - Add 10 % to 1st year	1	1.100				1.100	
	4th Year - Add 15 % to 1st year	1	1.150				1.150	
	5th Year - Add 20 % to 1st year	1	1.200				1.200	
	6th Year - Add 25 % to 1st year	1	1.250				1.250	
	7th Year - Add 30 % to 1st year	1	1.300				1.300	
	8th Year - Add 35 % to 1st year	1	1.350				1.350	
	9th Year - Add 40 % to 1st year	1	1.400				1.400	
	10th Year - Add 45 % to 1st year	1	1.450				1.450	
						Total Quantity	11.250 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	11.250 No	
						Say 11.250 No @ Rs 6844540.33 / No	**Rs 77001078.71**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
8Sewer- Operation and maintenance for one year (Cost Index:37.29 %)								
1	od341335/2021_2022 Labour for operation the well and connected works(Operator,Work assistant,fitter,electrician,Technician etc) as per the direction of departmental officers.							
		1					1.000	
						Total Quantity	1.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	1.000 No	
						Say 1.000 No @ Rs 5904684.86 / No	**Rs 5904684.86**	
2	od341339/2021_2022 Annul maintenance(Day today if needed) of electrical, civil ,mechanical and other connected items and including replacement damaged of electrical , mechanical and civil, Including painting of items as per the direction of departmental officials							
		1					1.000	

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						Total Quantity	1.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	1.000 No	
						Say 1.000 No @ Rs 929618.54 / No	**Rs 929618.54**	
3	od341343/2021_2022 Consumable Cotton waste ,Lubricants (oil and Grease)soap ,chemicals,Glass ware,safety equipment & Devices, Cleaning etc.. for wet well and pumping station							
		1					1.000	
						Total Quantity	1.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	1.000 No	
						Say 1.000 No @ Rs 120000.00 / No	**Rs 120000.00**	
4	od341345/2021_2022 Sewer line,well maintenance - Sewer cleaners including necessary accessories required for cleaning of sewer lines with safety equipment.							
		1					1.000	
						Total Quantity	1.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	1.000 No	
						Say 1.000 No @ Rs 1253322.57 / No	**Rs 1253322.57**	
5	od341347/2021_2022 Vehicle hire charges							
		1					1.000	
						Total Quantity	1.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	1.000 No	
						Say 1.000 No @ Rs 167256.00 / No	**Rs 167256.00**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
9Sewer-O&M for 2nd year to 10th Year (Cost Index:37.29 %)								
1	od341338/2021_2022 Operation and Maintenance for 9 years (2nd year to 10th year)							
	2 nd Year - Add 5 % to 1st year	1	1.050				1.050	
	3rd Year - Add 10 % to 1st year	1	1.100				1.100	

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	4th Year - Add 15 % to 1st year	1	1.150				1.150	
	5th Year - Add 20 % to 1st year	1	1.200				1.200	
	6th Year - Add 25 % to 1st year	1	1.250				1.250	
	7th Year - Add 30 % to 1st year	1	1.300				1.300	
	8th Year - Add 35 % to 1st year	1	1.350				1.350	
	9th Year - Add 40 % to 1st year	1	1.400				1.400	
	10th Year - Add 45 % to 1st year	1	1.450				1.450	
						Total Quantity	11.250 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	11.250 No	
						Say 11.250 No @ Rs 8332996.39 / No	**Rs 93746209.39**	
						Total	**187863861.60**	
						Centage @	**10.0%**	
						Centage Amount	**18786386.16**	
						Provision for GST payments (in %) @	**18.0%**	
						Amount reserved for GST payments	**33815495.09**	
						Total & Centage	**240465742.85**	
						Lumpsum for round off	**0.00**	
						GRAND TOTAL Rs	**240465742.85**	
						Rounded Grand Total Rs 24,04,65,743		
						Rupees Twenty Four Crore Four Lakh Sixty Five Thousand Seven Hundred and Forty Three Only		

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DATA ANALYSIS
MBBR

Site clearing and Levelling

1 Specification Code: 2.31

2.31 Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 sqm LABOUR:				
0114	Beldar	Day	1.08	558.00	602.64
0115	Coolie	Day	0.6	558.00	334.80
				TOTAL	937.44
				Add Water Charges @ 1%	9.37
				TOTAL	946.81
				Add CPOH @ 15%	142.02
				TOTAL	1088.83
				Cost of 100.0 sqm	1088.83
				Cost per sqm	10.89
				Say	10.9

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	Cost index **37.29%**				4.06
	Total with Cost index				14.96

2 Specification Code: 2.33.1

2.33 Felling trees of the girth (measured at a height of 1 m above ground level) including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material.

2.33.1 Beyound 30 cm girth up to and including 60 cm girth

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for one tree of 15cm dia and average height 3m LABOUR: quantity of wood- 3.14/4x0.15x0.15x3 = 0.053 cum. Add 20% for branches = 0.011cum. Total = 0.064 cum. Labour for cutting in trees removing the roots from the soil and then filling in Pit and depresions				
0114	Beldar	Day	0.33	558.00	184.14
0115	Coolie	Day	0.17	558.00	94.86
9999	Sundries-	L.S	2.73	2.00	5.46

TOTAL	284.46
Add Water Charges @ 1%	2.84
TOTAL	287.30
Add CPOH @ 15%	43.09
TOTAL	330.39
Cost of 1.0 each	330.39
Say	330.4

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	Cost index **37.29%**				123.21
	Total with Cost index				453.61

3 Specification Code: 2.33.2

2.33 Felling trees of the girth (measured at a height of 1 m above ground level) including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material.

2.33.2 Beyound 60 cm girth up to and including 120 cm girth

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for a tree of average girth 90cm, average dia .0.3m and length 5m LABOUR: quantity of wood- (22x0.3x0.3x5)/7x4 = 0.35 cum 20% branches = 0.07 cum Total = 0.42 cum Labour for cutting the trees and removing in roots from the soil filling in pit and the depresions				
0114	Beldar	Day	1.5	558.00	837.00
0115	Coolie	Day	0.75	558.00	418.50
9999	Sundries-	L.S	5.46	2.00	10.92
				TOTAL	1266.42
				Add Water Charges @ 1%	12.66
				TOTAL	1279.08
				Add CPOH @ 15%	191.86
				TOTAL	1470.94
				Cost of 1.0 each	1470.94
				Say	1470.95

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	Cost index **37.29%**				548.52
	Total with Cost index				2019.47

2.EQUALIZATION TANK

4 Specification Code: 2.6.1

2.6 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5

m, disposed earth to be levelled and neatly dressed.

2.6.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. Average output of Hydraulic Excavator per hour = 30cum MACHINERY:				
0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.041	7000.00	287.00
0018	Hire and running charges of loader LABOUR:	Day	0.041	5000.00	205.00
0128	Mate Beldar/	Day	0.32	617.00	197.44
0115	Coolie	Day	1.2	558.00	669.60
				TOTAL	1359.04
				Add Water Charges @ 1%	13.59
				TOTAL	1372.63
				Add CPOH @ 15%	205.89
				TOTAL	1578.52
				Cost of 10.0 cum	1578.52
				Cost per cum	157.85
				Say	157.85

	Cost index **37.29%**				58.86
	Total with Cost index				216.71

5 Specification Code: 2.26.1

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2.26 Extra for every additional lift 1.5 m or part there of in excavation / banking excavated or stacked materials.

2.26.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum LABOUR:				
0128	Mate	Day	0.1	617.00	61.70
0114	Beldar	Day	1.1	558.00	613.80
				TOTAL	675.50
				Add Water Charges @ 1%	6.75
				TOTAL	682.25
				Add CPOH @ 15%	102.34
				TOTAL	784.59
				Cost of 10.0 cum	784.59
				Cost per cum	78.46
				Say	78.45

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	Cost index **37.29%**				29.25
	Total with Cost index				107.7

6 Specification Code: 4.1.5

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.5 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum				

0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.7	1350.00	945.00
0297	Stone Aggregate(single size): 10 mm nominal size nominal size	cum	0.24	1350.00	324.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.94	103.77	97.54
0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement (0.15674 cum)	tonne	0.22	4940.00	1086.80
2209	Carriage of Cement LABOUR:	tonne	0.22	92.24	20.29
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.52	2.00	27.04

TOTAL	4678.18
Add Water Charges @ 1%	46.78
TOTAL	4724.96
Add CPOH @ 15%	708.74
TOTAL	5433.70
Cost of 1.0 cum	5433.70
Say	5433.7

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	Cost index **37.29%**				2026.23
	Total with Cost index				7459.93

7 Specification Code: 5.37.2

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

5.37.2 All work above plinth level upto floor V level

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44

7318	Plasticizer / super plasticizer 0.5% of cement Production Cost, carriage to site, pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40
0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-Extra labour for lifting up to floor five level 0.75x 2.5 = 1.88	L.S	13.0	2.00	26.00
0115	Coolie	Day	1.88	558.00	1049.04

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TOTAL	7326.36
Add Water Charges @ 1%	73.26
TOTAL	7399.62
Add CPOH @ 15%	1109.94
TOTAL	8509.56
Cost of 1.0 cum	8509.56
Say	8509.55

	Cost index **37.29%**				3173.21

	Total with Cost index				11682.76

8 Specification Code: 5.37.1

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

5.37.1 All wiork upto plinth level

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44

7318	Plasticizer / super plasticizer 0.50% of cement Production Cost, carriage to site pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40
0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.0	2.00	26.00

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TOTAL	6277.32
Add Water Charges @ 1%	62.77
TOTAL	6340.09
Add CPOH @ 15%	951.01
TOTAL	7291.10
Cost of 1.0 cum	7291.10
Say	7291.1

	Cost index **37.29%**				2718.85
	Total with Cost index				10009.95

9 Specification Code: 5.34.1

5.34 Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.

5.34.1 Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum. Cement for M-30 mix = 0.340 t Cement for M-25 mix = 0.330 t Difference = 0.010 t				
0367	Portland Cement	tonne	0.01	4940.00	49.40
2209	Carriage of Cement Plasticizer for M-30 mix = 1.70 kg Plasticizer for M-25 mix = 1.65 kg Difference = 0.05 kg	tonne	0.01	92.24	0.92
7318	Plasticizer / super plasticizer	kilogram	0.05	36.00	1.80
				TOTAL	52.12
				Add Water Charges @ 1%	.52
				TOTAL	52.64
				Add CPOH @ 15%	7.90
				TOTAL	60.54
				Cost of 1.0 cum	60.54
				Say	60.55

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	Cost index **37.29%**				22.58
	Total with Cost index				83.13

10 Specification Code: od326203/2021_2022

od326203/2021_2022 :Epoxy coated steel reinforcement for RCC work including straightening ,cutting ,bending ,placing in possition and binding all complete up to plinth level

*Details of cost for 1 Quintel
Epoxy coated deformed twisted steel bar =1q,waistage = 5%,Total steel= 1.05q*

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Epoxy coated deformed twisted steel bar	quintal	1.05000	5500.00	5775.00	
2205	Steel	tonne	0.10500	92.24	9.69	
9999	Sundries	L.S	26.00000	2.00	52.00	
MR	Blacksmith	Day	1.00000	487.00	487.00	
MR	Beldar	Day	1.00000	368.00	368.00	
MR	Bhisti	Day	0.90000	407.00	366.30	
9999	Sundries	L.S	26.91000	2.00	53.82	
				TOTAL	7111.81	
				Add Water Charges @ 1%	71.12	
				Add CPOH @ 15%	1077.44	
				cost for 100.0 kg	7111.81	
				cost for one kg	82.60	
				say	82.60	

Kerala Water Authority
PRICE

Cost index **37.29 %**	.50
Total with Cost index	83.1

11 Specification Code: 5.9.1

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.1 Foundations, footings, bases of columns, etc for mass concrete

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for footing size 2.7mx2.7mx 1.00m Contact area = 10.8sqm MATERIAL: Assuming shuttering material will become unserviceable after use of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	860.00	292.40
7326	Corner angle 45x45x5 mm 1.50 m long Qty taken for cost of using once = 4x0.85/40=0.085	each	0.085	240.00	20.40
7327	100 mm channel shoulder 2.5 m long Qty taken for cost of using once = 8x0.85/40=0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	76.00	25.84
7329	Single clip Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	59.00	10.03
7330	M.S. Tube 40 mm dia Qty taken for cost of using once = 10.8x0.85/40 = 0.2295	metre	0.2295	215.00	49.34
9999	Sundries-Assembly nuts 7 bolts Qty taken for cost of using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	0.75	738.00	553.50
0114	Beldar	Day	1.5	558.00	837.00

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9999	Sundries-Suttering oil	L.S	52.0	2.00	104.00
9999	Sundries-	L.S	26.0	2.00	52.00

TOTAL	2299.41
Add Water Charges @ 1%	22.99
TOTAL	2322.40
Add CPOH @ 15%	348.36
TOTAL	2670.76
Cost of 10.8 sqm	2670.76
Cost per sqm	247.29
Say	247.3

	Cost index **37.29%**				92.22
	Total with Cost index				339.52

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PRICE

12 Specification Code: 5.9.2

SUBHEAD 5.0

REINFORCED CEMENT CONCRETE

5.9

Centering and shuttering including strutting, etc. and removal of form for:

5.9.2

Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 7.9m long and 1.00m high wall Area of contact 2x7.9x1.0 = 15.8 sqm MATERIAL: Assuming shuttering material will become unserviceable after us of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm 2x3x2x2 = 24 Nos. Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	860.00	438.60
7327	100 mm channel shoulder 2.5 m long 4x2 = 8 Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) 2x6x2 = 24 Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	76.00	38.76
7329	Single clip 2x3x2 = 12 Qty taken for cost of using once = 12x0.85/40 = 0.255	each	0.255	59.00	15.05
7330	M.S. Tube 40 mm dia 2x2x8m = 32m Qty taken for cost of using once = 32x0.85/40 = 0.68	metre	0.68	215.00	146.20
9999	Sundries-Qty taken for cost of using once = 1300x0.85/40 = 27.62	L.S	27.62	2.00	55.24
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	3.5	738.00	2583.00
0114	Beldar	Day	6.0	558.00	3348.00

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9999	Sundries- shuttering oil	L.S	78.0	2.00	156.00
9999	Sundries-	L.S	52.0	2.00	104.00
				TOTAL	7195.55
				Add Water Charges @ 1%	71.96
				TOTAL	7267.51
				Add CPOH @ 15%	1090.13
				Costof 15.8 Sq. m.	8357.64
				Cost per 1 Sq. m.	528.96
				Say	528.95

	Cost index **37.29%**				197.25
	Total with Cost index				726.2

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13 Specification Code: 13.7.1

13.7 12 mm cement plaster finished with a floating coat of neat cement of mix:

13.7.1 1:3 (1 cement : 3 fine sand)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:3 (1 cement : 3 fine sand				
3.3	Rate as per item Number3.3 of SH: Mortars MATERIAL:	cum	0.144	4183.05	602.36
0155	Mason (average)	Day	0.67	709.00	475.03
0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64

9999	Sundries-Scaffolding and sundries.	L.S	12.61	2.00	25.22
0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	Day	0.27	709.00	191.43
0115	Coolie	Day	0.27	558.00	150.66
9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12

TOTAL	2547.60
Add Water Charges @ 1%	25.48
TOTAL	2573.08
Add CPOH @ 15%	385.96
TOTAL	2959.04
Cost of 10.0 sqm	2959.04
Cost per sqm	295.90
Say	295.9

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	Cost index **37.29%**				110.34
	Total with Cost index				406.24

14 Specification Code: 13.52.2

13.52 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.

13.52.2 On concrete work

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm PRIMING COAT MATERIAL:				

0821	Distemper primer	Litre	0.84	70.00	58.80
9999	Sundries-Putty	L.S	13.52	2.00	27.04
9977	Carriage LABOUR:	L.S	0.52	2.00	1.04
0131	Painter	Day	0.25	679.00	169.75
0115	Coolie	Day	0.25	558.00	139.50
9999	Sundries-Brushes, sand paper etc.	L.S	2.73	2.00	5.46
9999	Sundries-EPOXY PAINTING| MATERIAL:	L.S	8.06	2.00	16.12
7239	Epoxy paint	Litre	1.21	230.00	278.30
9999	Sundries-Materials for filling in holes and cracks	L.S	6.76	2.00	13.52
9977	Carriage of materialLABOUR:	L.S	1.43	2.00	2.86
0131	Painter	Day	0.54	679.00	366.66
0115	Coolie	Day	0.54	558.00	301.32
9999	Sundries-Putty, brushes, sand paper etc.	L.S	10.79	2.00	21.58
9999	Sundries-	L.S	6.76	2.00	13.52

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TOTAL	1415.47
Add Water Charges @ 1%	14.15
TOTAL	1429.62
Add CPOH @ 15%	214.44
TOTAL	1644.06
Cost of 10.0 sqm	1644.06
Cost per sqm	164.41
Say	164.4

	Cost index **37.29%**				61.30

	Total with Cost index				225.7

15 Specification Code: 22.23.1

22.23 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.

22.23.1 For vertical surface two coats @0.70 kg per sqm

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 .00 sqm MATERIAL :				
0351	Integral cystalline slurry x .70kg / sq.mtr. = 1.40kg) LABOUR	kilogram	1.4	238.00	333.20
9999	Sundries-For application of waterproofing material	L.S	11.55	2.00	23.10
9999	Sundries-	L.S	1.15	2.00	2.30
9999	Sundries-of material and tools cost etc..	L.S	1.75	2.00	3.50
				TOTAL	362.10
				Add Water Charges @ 1%	3.62
				TOTAL	365.72

Add CPOH @ 15%	54.86
TOTAL	420.58
Cost of 1.0 sqm	420.58
Say	420.6

	Cost index **37.29%**				156.84
	Total with Cost index				577.44

16 Specification Code: 22.23.2

22.23 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.

22.23.2 For horizontal surface one coat @1.10 kg per sqm.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 .00 sqm MATERIAL :				
0351	Integral cystalline slurry (1 x 1.10kg / sq.mtr. = 1.10kg) LABOUR	kilogram	1.1	238.00	261.80

9999	Sundries-For application of waterproofing material	L.S	5.75	2.00	11.50
9999	Sundries-	L.S	1.15	2.00	2.30
9999	Sundries-of material and tools cost etc..	L.S	1.75	2.00	3.50

TOTAL	279.10
Add Water Charges @ 1%	2.79
TOTAL	281.89
Add CPOH @ 15%	42.28
TOTAL	324.17
Cost of 1.0 sqm	324.17
Cost per sqm	324.17
Say	324.15

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	Cost index **37.29%**				120.88
	Total with Cost index				445.03

PRICE

3. MBBR TANK - 2Nos.

17 Specification Code: 2.6.1

2.6 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.

2.6.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. Average output of Hydraulic Excavator per hour = 30cum MACHINERY:				

0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.041	7000.00	287.00
0018	Hire and running charges of loader LABOUR:	Day	0.041	5000.00	205.00
0128	Mate Beldar/	Day	0.32	617.00	197.44
0115	Coolie	Day	1.2	558.00	669.60

TOTAL	1359.04
Add Water Charges @ 1%	13.59
TOTAL	1372.63
Add CPOH @ 15%	205.89
TOTAL	1578.52
Cost of 10.0 cum	1578.52
Cost per cum	157.85
Say	157.85

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PRICE

	Cost index **37.29%**				58.86
	Total with Cost index				216.71

18 Specification Code: 4.1.5

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.5 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum				

0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.7	1350.00	945.00
0297	Stone Aggregate(single size): 10 mm nominal size nominal size	cum	0.24	1350.00	324.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.94	103.77	97.54
0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement (0.15674 cum)	tonne	0.22	4940.00	1086.80
2209	Carriage of Cement LABOUR:	tonne	0.22	92.24	20.29
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.52	2.00	27.04

TOTAL	4678.18
Add Water Charges @ 1%	46.78
TOTAL	4724.96
Add CPOH @ 15%	708.74
TOTAL	5433.70
Cost of 1.0 cum	5433.70
Say	5433.7

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	Cost index **37.29%**				2026.23
	Total with Cost index				7459.93

19 Specification Code: 5.37.1

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

5.37.1 All wiork upto plinth level

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44

7318	Plasticizer / super plasticizer 0.50% of cement Production Cost, carriage to site pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40
0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.0	2.00	26.00

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TOTAL	6277.32
Add Water Charges @ 1%	62.77
TOTAL	6340.09
Add CPOH @ 15%	951.01
TOTAL	7291.10
Cost of 1.0 cum	7291.10
Say	7291.1

	Cost index **37.29%**				2718.85
	Total with Cost index				10009.95

20 Specification Code: 5.34.1

5.34 Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.

5.34.1 Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum. Cement for M-30 mix = 0.340 t Cement for M-25 mix = 0.330 t Difference = 0.010 t				
0367	Portland Cement	tonne	0.01	4940.00	49.40
2209	Carriage of Cement Plasticizer for M-30 mix = 1.70 kg Plasticizer for M-25 mix = 1.65 kg Difference = 0.05 kg	tonne	0.01	92.24	0.92
7318	Plasticizer / super plasticizer	kilogram	0.05	36.00	1.80
				TOTAL	52.12
				Add Water Charges @ 1%	.52
				TOTAL	52.64
				Add CPOH @ 15%	7.90
				TOTAL	60.54
				Cost of 1.0 cum	60.54
				Say	60.55

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	Cost index **37.29%**				22.58
	Total with Cost index				83.13

21 Specification Code: od326203/2021_2022

od326203/2021_2022 :Epoxy coated steel reinforcement for RCC work including straightening ,cutting ,bending ,placing in possition and binding all complete up to plinth level

*Details of cost for 1 Quintel
Epoxy coated deformed twisted steel bar =1q,waistage = 5%,Total steel= 1.05q*

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Epoxy coated deformed twisted steel bar	quintal	1.05000	5500.00	5775.00	
2205	Steel	tonne	0.10500	92.24	9.69	
9999	Sundries	L.S	26.00000	2.00	52.00	
MR	Blacksmith	Day	1.00000	487.00	487.00	
MR	Beldar	Day	1.00000	368.00	368.00	
MR	Bhisti	Day	0.90000	407.00	366.30	
9999	Sundries	L.S	26.91000	2.00	53.82	
				TOTAL	7111.81	
				Add Water Charges @ 1%	71.12	
				Add CPOH @ 15%	1077.44	
				cost for 100.0 kg	7111.81	
				cost for one kg	82.60	
				say	82.60	

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PRICE

Cost index **37.29 %**	.50
Total with Cost index	83.1

22 Specification Code: 4.12

4.12 Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification .

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for per bag 50 kg. of cement MATERIAL: Approved water proofing materials according to the recommended proportions				

1213	Water proofing materials	kilogram	1.0	35.00	35.00
9988	Carriage and sundries Carriage of water proofing material and labour for mixing	L.S	3.64	2.00	7.28

TOTAL	42.28
Add Water Charges @ 1%	.42
TOTAL	42.70
Add CPOH @ 15%	6.41
TOTAL	49.11
Cost of 50.0 kg	49.11
Cost per kg	.98
Say	1.0

	Cost index **37.29%**				.37
	Total with Cost index				1.37

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23 Specification Code: 5.9.1

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.1 Foundations, footings, bases of columns, etc for mass concrete

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for footing size 2.7mx2.7mx 1.00m Contact area = 10.8sqm MATERIAL: Assuming shuttering material will become unserviceable after use of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	860.00	292.40
7326	Corner angle 45x45x5 mm 1.50 m long Qty taken for cost of using once = 4x0.85/40=0.085	each	0.085	240.00	20.40
7327	100 mm channel shoulder 2.5 m long Qty taken for cost of using once = 8x0.85/40=0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	76.00	25.84
7329	Single clip Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	59.00	10.03
7330	M.S. Tube 40 mm dia Qty taken for cost of using once = 10.8x0.85/40 = 0.2295	metre	0.2295	215.00	49.34
9999	Sundries-Assembly nuts 7 bolts Qty taken for cost of using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	0.75	738.00	553.50
0114	Beldar	Day	1.5	558.00	837.00

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9999	Sundries-Suttering oil	L.S	52.0	2.00	104.00
9999	Sundries-	L.S	26.0	2.00	52.00

TOTAL	2299.41
Add Water Charges @ 1%	22.99
TOTAL	2322.40
Add CPOH @ 15%	348.36
TOTAL	2670.76
Cost of 10.8 sqm	2670.76
Cost per sqm	247.29
Say	247.3

	Cost index **37.29%**				92.22
	Total with Cost index				339.52

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24 Specification Code: 5.9.2

SUBHEAD 5.0

REINFORCED CEMENT CONCRETE

5.9

Centering and shuttering including strutting, etc. and removal of form for:

5.9.2

Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 7.9m long and 1.00m high wall Area of contact 2x7.9x1.0 = 15.8 sqm MATERIAL: Assuming shuttering material will become unserviceable after us of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm 2x3x2x2 = 24 Nos. Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	860.00	438.60
7327	100 mm channel shoulder 2.5 m long 4x2 = 8 Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) 2x6x2 = 24 Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	76.00	38.76
7329	Single clip 2x3x2 = 12 Qty taken for cost of using once = 12x0.85/40 = 0.255	each	0.255	59.00	15.05
7330	M.S. Tube 40 mm dia 2x2x8m = 32m Qty taken for cost of using once = 32x0.85/40 = 0.68	metre	0.68	215.00	146.20
9999	Sundries-Qty taken for cost of using once = 1300x0.85/40 = 27.62	L.S	27.62	2.00	55.24
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	3.5	738.00	2583.00
0114	Beldar	Day	6.0	558.00	3348.00

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9999	Sundries- shuttering oil	L.S	78.0	2.00	156.00
9999	Sundries-	L.S	52.0	2.00	104.00
				TOTAL	7195.55
				Add Water Charges @ 1%	71.96
				TOTAL	7267.51
				Add CPOH @ 15%	1090.13
				Costof 15.8 Sq. m.	8357.64
				Cost per 1 Sq. m.	528.96
				Say	528.95

	Cost index **37.29%**				197.25
	Total with Cost index				726.2

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25 Specification Code: 13.7.1

13.7 12 mm cement plaster finished with a floating coat of neat cement of mix:

13.7.1 1:3 (1 cement : 3 fine sand)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:3 (1 cement : 3 fine sand				
3.3	Rate as per item Number3.3 of SH: Mortars MATERIAL:	cum	0.144	4183.05	602.36
0155	Mason (average)	Day	0.67	709.00	475.03
0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64

9999	Sundries-Scaffolding and sundries.	L.S	12.61	2.00	25.22
0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	Day	0.27	709.00	191.43
0115	Coolie	Day	0.27	558.00	150.66
9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12

TOTAL	2547.60
Add Water Charges @ 1%	25.48
TOTAL	2573.08
Add CPOH @ 15%	385.96
TOTAL	2959.04
Cost of 10.0 sqm	2959.04
Cost per sqm	295.90
Say	295.9

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	Cost index **37.29%**				110.34
	Total with Cost index				406.24

26 Specification Code: 13.52.2

13.52 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.

13.52.2 On concrete work

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm PRIMING COAT MATERIAL:				

0821	Distemper primer	Litre	0.84	70.00	58.80
9999	Sundries-Putty	L.S	13.52	2.00	27.04
9977	Carriage LABOUR:	L.S	0.52	2.00	1.04
0131	Painter	Day	0.25	679.00	169.75
0115	Coolie	Day	0.25	558.00	139.50
9999	Sundries-Brushes, sand paper etc.	L.S	2.73	2.00	5.46
9999	Sundries-EPOXY PAINTING| MATERIAL:	L.S	8.06	2.00	16.12
7239	Epoxy paint	Litre	1.21	230.00	278.30
9999	Sundries-Materials for filling in holes and cracks	L.S	6.76	2.00	13.52
9977	Carriage of materialLABOUR:	L.S	1.43	2.00	2.86
0131	Painter	Day	0.54	679.00	366.66
0115	Coolie	Day	0.54	558.00	301.32
9999	Sundries-Putty, brushes, sand paper etc.	L.S	10.79	2.00	21.58
9999	Sundries-	L.S	6.76	2.00	13.52

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TOTAL	1415.47
Add Water Charges @ 1%	14.15
TOTAL	1429.62
Add CPOH @ 15%	214.44
TOTAL	1644.06
Cost of 10.0 sqm	1644.06
Cost per sqm	164.41
Say	164.4

	Cost index **37.29%**				61.30

	Total with Cost index				225.7

27 Specification Code: 22.23.1

22.23 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.

22.23.1 For vertical surface two coats @0.70 kg per sqm

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 .00 sqm MATERIAL :				
0351	Integral cystalline slurry x .70kg / sq.mtr. = 1.40kg) LABOUR	kilogram	1.4	238.00	333.20
9999	Sundries-For application of waterproofing material	L.S	11.55	2.00	23.10
9999	Sundries-	L.S	1.15	2.00	2.30
9999	Sundries-of material and tools cost etc..	L.S	1.75	2.00	3.50
				TOTAL	362.10
				Add Water Charges @ 1%	3.62
				TOTAL	365.72

Add CPOH @ 15%	54.86
TOTAL	420.58
Cost of 1.0 sqm	420.58
Say	420.6

	Cost index **37.29%**				156.84
	Total with Cost index				577.44

28 Specification Code: 22.23.2

22.23 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.

22.23.2 For horizontal surface one coat @1.10 kg per sqm.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 .00 sqm MATERIAL :				
0351	Integral cystalline slurry (1 x 1.10kg / sq.mtr. = 1.10kg) LABOUR	kilogram	1.1	238.00	261.80

9999	Sundries-For application of waterproofing material	L.S	5.75	2.00	11.50
9999	Sundries-	L.S	1.15	2.00	2.30
9999	Sundries-of material and tools cost etc..	L.S	1.75	2.00	3.50

TOTAL	279.10
Add Water Charges @ 1%	2.79
TOTAL	281.89
Add CPOH @ 15%	42.28
TOTAL	324.17
Cost of 1.0 sqm	324.17
Cost per sqm	324.17
Say	324.15

	Cost index **37.29%**				120.88
	Total with Cost index				445.03

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4.SECONDARY CLARIFIER

29 Specification Code: 2.6.1

2.6 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.

2.6.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. Average output of Hydraulic Excavator per hour = 30cum MACHINERY:				

0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.041	7000.00	287.00
0018	Hire and running charges of loader LABOUR:	Day	0.041	5000.00	205.00
0128	Mate Beldar/	Day	0.32	617.00	197.44
0115	Coolie	Day	1.2	558.00	669.60

TOTAL	1359.04
Add Water Charges @ 1%	13.59
TOTAL	1372.63
Add CPOH @ 15%	205.89
TOTAL	1578.52
Cost of 10.0 cum	1578.52
Cost per cum	157.85
Say	157.85

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	Cost index **37.29%**				58.86
	Total with Cost index				216.71

30 Specification Code: 4.1.5

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.5 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum				

0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.7	1350.00	945.00
0297	Stone Aggregate(single size): 10 mm nominal size nominal size	cum	0.24	1350.00	324.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.94	103.77	97.54
0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement (0.15674 cum)	tonne	0.22	4940.00	1086.80
2209	Carriage of Cement LABOUR:	tonne	0.22	92.24	20.29
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.52	2.00	27.04

TOTAL	4678.18
Add Water Charges @ 1%	46.78
TOTAL	4724.96
Add CPOH @ 15%	708.74
TOTAL	5433.70
Cost of 1.0 cum	5433.70
Say	5433.7

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	Cost index **37.29%**				2026.23
	Total with Cost index				7459.93

31 Specification Code: 5.37.2

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

5.37.2 All work above plinth level upto floor V level

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44

7318	Plasticizer / super plasticizer 0.5% of cement Production Cost, carriage to site, pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40
0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-Extra labour for lifting up to floor five level 0.75x 2.5 = 1.88	L.S	13.0	2.00	26.00
0115	Coolie	Day	1.88	558.00	1049.04

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TOTAL	7326.36
Add Water Charges @ 1%	73.26
TOTAL	7399.62
Add CPOH @ 15%	1109.94
TOTAL	8509.56
Cost of 1.0 cum	8509.56
Say	8509.55

	Cost index **37.29%**				3173.21

	Total with Cost index				11682.76

32 Specification Code: 5.34.1

5.34 Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.

5.34.1 Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum. Cement for M-30 mix = 0.340 t Cement for M-25 mix = 0.330 t Difference = 0.010 t				
0367	Portland Cement	tonne	0.01	4940.00	49.40
2209	Carriage of Cement Plasticizer for M-30 mix = 1.70 kg Plasticizer for M-25 mix = 1.65 kg Difference = 0.05 kg	tonne	0.01	92.24	0.92
7318	Plasticizer / super plasticizer	kilogram	0.05	36.00	1.80
				TOTAL	52.12
				Add Water Charges @ 1%	.52
				TOTAL	52.64
				Add CPOH @ 15%	7.90
				TOTAL	60.54
				Cost of 1.0 cum	60.54
				Say	60.55

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	Cost index **37.29%**				22.58

	Total with Cost index				83.13

33 Specification Code: od326203/2021_2022

od326203/2021_2022 :Epoxy coated steel reinforcement for RCC work including straightening ,cutting ,bending ,placing in possition and binding all complete up to plinth level

*Details of cost for 1 Quintel
Epoxy coated deformed twisted steel bar =1q,waistage = 5%,Total steel= 1.05q*

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Epoxy coated deformed twisted steel bar	quintal	1.05000	5500.00	5775.00	
2205	Steel	tonne	0.10500	92.24	9.69	
9999	Sundries	L.S	26.00000	2.00	52.00	
MR	Blacksmith	Day	1.00000	487.00	487.00	
MR	Beldar	Day	1.00000	368.00	368.00	
MR	Bhisti	Day	0.90000	407.00	366.30	
9999	Sundries	L.S	26.91000	2.00	53.82	
				TOTAL	7111.81	
				Add Water Charges @ 1%	71.12	
				Add CPOH @ 15%	1077.44	
				cost for 100.0 kg	7111.81	
				cost for one kg	82.60	
				say	82.60	

Cost index **37.29 %**	.50
Total with Cost index	83.1

34 Specification Code: 4.12

4.12 Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification .

Code	Description	Unit	Quantity	Rate	Amount

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	Details of cost for per bag 50 kg. of cement MATERIAL: Approved water proofing materials according to the recommended proportions				
1213	Water proofing materials	kilogram	1.0	35.00	35.00
9988	Carriage and sundries Carriage of water proofing material and labour for mixing	L.S	3.64	2.00	7.28

TOTAL	42.28
Add Water Charges @ 1%	.42
TOTAL	42.70
Add CPOH @ 15%	6.41
TOTAL	49.11
Cost of 50.0 kg	49.11
Cost per kg	.98
Say	1.0

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	Cost index **37.29%**				.37
	Total with Cost index				1.37

35 Specification Code: 5.9.1

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.1 Foundations, footings, bases of columns, etc for mass concrete

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for footing size 2.7mx2.7mx 1.00m Contact area = 10.8sqm MATERIAL: Assuming shuttering material will become unserviceable after use of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	860.00	292.40
7326	Corner angle 45x45x5 mm 1.50 m long Qty taken for cost of using once = 4x0.85/40=0.085	each	0.085	240.00	20.40
7327	100 mm channel shoulder 2.5 m long Qty taken for cost of using once = 8x0.85/40=0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	76.00	25.84
7329	Single clip Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	59.00	10.03
7330	M.S. Tube 40 mm dia Qty taken for cost of using once = 10.8x0.85/40 = 0.2295	metre	0.2295	215.00	49.34
9999	Sundries-Assembly nuts 7 bolts Qty taken for cost of using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	0.75	738.00	553.50
0114	Beldar	Day	1.5	558.00	837.00

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9999	Sundries-Suttering oil	L.S	52.0	2.00	104.00
9999	Sundries-	L.S	26.0	2.00	52.00

TOTAL	2299.41
Add Water Charges @ 1%	22.99
TOTAL	2322.40
Add CPOH @ 15%	348.36
TOTAL	2670.76
Cost of 10.8 sqm	2670.76
Cost per sqm	247.29
Say	247.3

	Cost index **37.29%**				92.22
	Total with Cost index				339.52

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36 Specification Code: 5.9.2

SUBHEAD 5.0

REINFORCED CEMENT CONCRETE

5.9

Centering and shuttering including strutting, etc. and removal of form for:

5.9.2

Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 7.9m long and 1.00m high wall Area of contact 2x7.9x1.0 = 15.8 sqm MATERIAL: Assuming shuttering material will become unserviceable after us of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm 2x3x2x2 = 24 Nos. Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	860.00	438.60
7327	100 mm channel shoulder 2.5 m long 4x2 = 8 Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) 2x6x2 = 24 Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	76.00	38.76
7329	Single clip 2x3x2 = 12 Qty taken for cost of using once = 12x0.85/40 = 0.255	each	0.255	59.00	15.05
7330	M.S. Tube 40 mm dia 2x2x8m = 32m Qty taken for cost of using once = 32x0.85/40 = 0.68	metre	0.68	215.00	146.20
9999	Sundries-Qty taken for cost of using once = 1300x0.85/40 = 27.62	L.S	27.62	2.00	55.24
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	3.5	738.00	2583.00
0114	Beldar	Day	6.0	558.00	3348.00

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9999	Sundries- shuttering oil	L.S	78.0	2.00	156.00
9999	Sundries-	L.S	52.0	2.00	104.00
				TOTAL	7195.55
				Add Water Charges @ 1%	71.96
				TOTAL	7267.51
				Add CPOH @ 15%	1090.13
				Costof 15.8 Sq. m.	8357.64
				Cost per 1 Sq. m.	528.96
				Say	528.95

	Cost index **37.29%**				197.25
	Total with Cost index				726.2

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37 Specification Code: 13.7.1

13.7 12 mm cement plaster finished with a floating coat of neat cement of mix:

13.7.1 1:3 (1 cement : 3 fine sand)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:3 (1 cement : 3 fine sand				
3.3	Rate as per item Number3.3 of SH: Mortars MATERIAL:	cum	0.144	4183.05	602.36
0155	Mason (average)	Day	0.67	709.00	475.03
0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64

9999	Sundries-Scaffolding and sundries.	L.S	12.61	2.00	25.22
0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	Day	0.27	709.00	191.43
0115	Coolie	Day	0.27	558.00	150.66
9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12

TOTAL	2547.60
Add Water Charges @ 1%	25.48
TOTAL	2573.08
Add CPOH @ 15%	385.96
TOTAL	2959.04
Cost of 10.0 sqm	2959.04
Cost per sqm	295.90
Say	295.9

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	Cost index **37.29%**				110.34
	Total with Cost index				406.24

38 Specification Code: 13.52.2

13.52 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.

13.52.2 On concrete work

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm PRIMING COAT MATERIAL:				

0821	Distemper primer	Litre	0.84	70.00	58.80
9999	Sundries-Putty	L.S	13.52	2.00	27.04
9977	Carriage LABOUR:	L.S	0.52	2.00	1.04
0131	Painter	Day	0.25	679.00	169.75
0115	Coolie	Day	0.25	558.00	139.50
9999	Sundries-Brushes, sand paper etc.	L.S	2.73	2.00	5.46
9999	Sundries-EPOXY PAINTING| MATERIAL:	L.S	8.06	2.00	16.12
7239	Epoxy paint	Litre	1.21	230.00	278.30
9999	Sundries-Materials for filling in holes and cracks	L.S	6.76	2.00	13.52
9977	Carriage of materialLABOUR:	L.S	1.43	2.00	2.86
0131	Painter	Day	0.54	679.00	366.66
0115	Coolie	Day	0.54	558.00	301.32
9999	Sundries-Putty, brushes, sand paper etc.	L.S	10.79	2.00	21.58
9999	Sundries-	L.S	6.76	2.00	13.52

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TOTAL	1415.47
Add Water Charges @ 1%	14.15
TOTAL	1429.62
Add CPOH @ 15%	214.44
TOTAL	1644.06
Cost of 10.0 sqm	1644.06
Cost per sqm	164.41
Say	164.4

	Cost index **37.29%**				61.30

	Total with Cost index				225.7

39 Specification Code: 22.23.1

22.23 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.

22.23.1 For vertical surface two coats @0.70 kg per sqm

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 .00 sqm MATERIAL :				
0351	Integral cystalline slurry x .70kg / sq.mtr. = 1.40kg) LABOUR	kilogram	1.4	238.00	333.20
9999	Sundries-For application of waterproofing material	L.S	11.55	2.00	23.10
9999	Sundries-	L.S	1.15	2.00	2.30
9999	Sundries-of material and tools cost etc..	L.S	1.75	2.00	3.50
				TOTAL	362.10
				Add Water Charges @ 1%	3.62
				TOTAL	365.72

Add CPOH @ 15%	54.86
TOTAL	420.58
Cost of 1.0 sqm	420.58
Say	420.6

	Cost index **37.29%**				156.84
	Total with Cost index				577.44

40 Specification Code: 22.23.2

22.23 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.

22.23.2 For horizontal surface one coat @1.10 kg per sqm.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 .00 sqm MATERIAL :				
0351	Integral cystalline slurry (1 x 1.10kg / sq.mtr. = 1.10kg) LABOUR	kilogram	1.1	238.00	261.80

9999	Sundries-For application of waterproofing material	L.S	5.75	2.00	11.50
9999	Sundries-	L.S	1.15	2.00	2.30
9999	Sundries-of material and tools cost etc..	L.S	1.75	2.00	3.50

TOTAL	279.10
Add Water Charges @ 1%	2.79
TOTAL	281.89
Add CPOH @ 15%	42.28
TOTAL	324.17
Cost of 1.0 sqm	324.17
Cost per sqm	324.17
Say	324.15

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	Cost index **37.29%**				120.88
	Total with Cost index				445.03

PRICE

5. FILTER FEED TANK

41 Specification Code: 2.6.1

2.6 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.

2.6.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. Average output of Hydraulic Excavator per hour = 30cum MACHINERY:				

0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.041	7000.00	287.00
0018	Hire and running charges of loader LABOUR:	Day	0.041	5000.00	205.00
0128	Mate Beldar/	Day	0.32	617.00	197.44
0115	Coolie	Day	1.2	558.00	669.60

TOTAL	1359.04
Add Water Charges @ 1%	13.59
TOTAL	1372.63
Add CPOH @ 15%	205.89
TOTAL	1578.52
Cost of 10.0 cum	1578.52
Cost per cum	157.85
Say	157.85

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	Cost index **37.29%**				58.86
	Total with Cost index				216.71

42 Specification Code: 4.1.5

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.5 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum				

0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.7	1350.00	945.00
0297	Stone Aggregate(single size): 10 mm nominal size nominal size	cum	0.24	1350.00	324.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.94	103.77	97.54
0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement (0.15674 cum)	tonne	0.22	4940.00	1086.80
2209	Carriage of Cement LABOUR:	tonne	0.22	92.24	20.29
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.52	2.00	27.04

TOTAL	4678.18
Add Water Charges @ 1%	46.78
TOTAL	4724.96
Add CPOH @ 15%	708.74
TOTAL	5433.70
Cost of 1.0 cum	5433.70
Say	5433.7

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	Cost index **37.29%**				2026.23
	Total with Cost index				7459.93

43 Specification Code: 5.37.2

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

5.37.2 All work above plinth level upto floor V level

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44

7318	Plasticizer / super plasticizer 0.5% of cement Production Cost, carriage to site, pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40
0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-Extra labour for lifting up to floor five level 0.75x 2.5 = 1.88	L.S	13.0	2.00	26.00
0115	Coolie	Day	1.88	558.00	1049.04

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TOTAL	7326.36
Add Water Charges @ 1%	73.26
TOTAL	7399.62
Add CPOH @ 15%	1109.94
TOTAL	8509.56
Cost of 1.0 cum	8509.56
Say	8509.55

	Cost index **37.29%**				3173.21

	Total with Cost index				11682.76

44 Specification Code: 5.34.1

5.34 Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.

5.34.1 Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum. Cement for M-30 mix = 0.340 t Cement for M-25 mix = 0.330 t Difference = 0.010 t				
0367	Portland Cement	tonne	0.01	4940.00	49.40
2209	Carriage of Cement Plasticizer for M-30 mix = 1.70 kg Plasticizer for M-25 mix = 1.65 kg Difference = 0.05 kg	tonne	0.01	92.24	0.92
7318	Plasticizer / super plasticizer	kilogram	0.05	36.00	1.80
				TOTAL	52.12
				Add Water Charges @ 1%	.52
				TOTAL	52.64
				Add CPOH @ 15%	7.90
				TOTAL	60.54
				Cost of 1.0 cum	60.54
				Say	60.55

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	Cost index **37.29%**				22.58

	Total with Cost index				83.13

45 Specification Code: od326203/2021_2022

od326203/2021_2022 :Epoxy coated steel reinforcement for RCC work including straightening ,cutting ,bending ,placing in possition and binding all complete up to plinth level

*Details of cost for 1 Quintel
Epoxy coated deformed twisted steel bar =1q,waistage = 5%,Total steel= 1.05q*

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Epoxy coated deformed twisted steel bar	quintal	1.05000	5500.00	5775.00	
2205	Steel	tonne	0.10500	92.24	9.69	
9999	Sundries	L.S	26.00000	2.00	52.00	
MR	Blacksmith	Day	1.00000	487.00	487.00	
MR	Beldar	Day	1.00000	368.00	368.00	
MR	Bhisti	Day	0.90000	407.00	366.30	
9999	Sundries	L.S	26.91000	2.00	53.82	
				TOTAL	7111.81	
				Add Water Charges @ 1%	71.12	
				Add CPOH @ 15%	1077.44	
				cost for 100.0 kg	7111.81	
				cost for one kg	82.60	
				say	82.60	

Cost index **37.29 %**	.50
Total with Cost index	83.1

46 Specification Code: 4.12

4.12 Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification .

Code	Description	Unit	Quantity	Rate	Amount

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	Details of cost for per bag 50 kg. of cement MATERIAL: Approved water proofing materials according to the recommended proportions				
1213	Water proofing materials	kilogram	1.0	35.00	35.00
9988	Carriage and sundries Carriage of water proofing material and labour for mixing	L.S	3.64	2.00	7.28

TOTAL	42.28
Add Water Charges @ 1%	.42
TOTAL	42.70
Add CPOH @ 15%	6.41
TOTAL	49.11
Cost of 50.0 kg	49.11
Cost per kg	.98
Say	1.0

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	Cost index **37.29%**				.37
	Total with Cost index				1.37

47 Specification Code: 5.9.1

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.1 Foundations, footings, bases of columns, etc for mass concrete

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for footing size 2.7mx2.7mx 1.00m Contact area = 10.8sqm MATERIAL: Assuming shuttering material will become unserviceable after use of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	860.00	292.40
7326	Corner angle 45x45x5 mm 1.50 m long Qty taken for cost of using once = 4x0.85/40=0.085	each	0.085	240.00	20.40
7327	100 mm channel shoulder 2.5 m long Qty taken for cost of using once = 8x0.85/40=0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	76.00	25.84
7329	Single clip Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	59.00	10.03
7330	M.S. Tube 40 mm dia Qty taken for cost of using once = 10.8x0.85/40 = 0.2295	metre	0.2295	215.00	49.34
9999	Sundries-Assembly nuts 7 bolts Qty taken for cost of using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	0.75	738.00	553.50
0114	Beldar	Day	1.5	558.00	837.00

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9999	Sundries-Suttering oil	L.S	52.0	2.00	104.00
9999	Sundries-	L.S	26.0	2.00	52.00

TOTAL	2299.41
Add Water Charges @ 1%	22.99
TOTAL	2322.40
Add CPOH @ 15%	348.36
TOTAL	2670.76
Cost of 10.8 sqm	2670.76
Cost per sqm	247.29
Say	247.3

	Cost index **37.29%**				92.22
	Total with Cost index				339.52

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48 Specification Code: 5.9.2

SUBHEAD 5.0

REINFORCED CEMENT CONCRETE

5.9

Centering and shuttering including strutting, etc. and removal of form for:

5.9.2

Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 7.9m long and 1.00m high wall Area of contact 2x7.9x1.0 = 15.8 sqm MATERIAL: Assuming shuttering material will become unserviceable after us of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm 2x3x2x2 = 24 Nos. Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	860.00	438.60
7327	100 mm channel shoulder 2.5 m long 4x2 = 8 Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) 2x6x2 = 24 Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	76.00	38.76
7329	Single clip 2x3x2 = 12 Qty taken for cost of using once = 12x0.85/40 = 0.255	each	0.255	59.00	15.05
7330	M.S. Tube 40 mm dia 2x2x8m = 32m Qty taken for cost of using once = 32x0.85/40 = 0.68	metre	0.68	215.00	146.20
9999	Sundries-Qty taken for cost of using once = 1300x0.85/40 = 27.62	L.S	27.62	2.00	55.24
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	3.5	738.00	2583.00
0114	Beldar	Day	6.0	558.00	3348.00

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9999	Sundries- shuttering oil	L.S	78.0	2.00	156.00
9999	Sundries-	L.S	52.0	2.00	104.00
				TOTAL	7195.55
				Add Water Charges @ 1%	71.96
				TOTAL	7267.51
				Add CPOH @ 15%	1090.13
				Costof 15.8 Sq. m.	8357.64
				Cost per 1 Sq. m.	528.96
				Say	528.95

	Cost index **37.29%**				197.25
	Total with Cost index				726.2

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49 Specification Code: 13.7.1

13.7 12 mm cement plaster finished with a floating coat of neat cement of mix:

13.7.1 1:3 (1 cement : 3 fine sand)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:3 (1 cement : 3 fine sand				
3.3	Rate as per item Number3.3 of SH: Mortars MATERIAL:	cum	0.144	4183.05	602.36
0155	Mason (average)	Day	0.67	709.00	475.03
0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64

9999	Sundries-Scaffolding and sundries.	L.S	12.61	2.00	25.22
0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	Day	0.27	709.00	191.43
0115	Coolie	Day	0.27	558.00	150.66
9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12

TOTAL	2547.60
Add Water Charges @ 1%	25.48
TOTAL	2573.08
Add CPOH @ 15%	385.96
TOTAL	2959.04
Cost of 10.0 sqm	2959.04
Cost per sqm	295.90
Say	295.9

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	Cost index **37.29%**				110.34
	Total with Cost index				406.24

50 Specification Code: 13.52.2

13.52 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.

13.52.2 On concrete work

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm PRIMING COAT MATERIAL:				

0821	Distemper primer	Litre	0.84	70.00	58.80
9999	Sundries-Putty	L.S	13.52	2.00	27.04
9977	Carriage LABOUR:	L.S	0.52	2.00	1.04
0131	Painter	Day	0.25	679.00	169.75
0115	Coolie	Day	0.25	558.00	139.50
9999	Sundries-Brushes, sand paper etc.	L.S	2.73	2.00	5.46
9999	Sundries-EPOXY PAINTING| MATERIAL:	L.S	8.06	2.00	16.12
7239	Epoxy paint	Litre	1.21	230.00	278.30
9999	Sundries-Materials for filling in holes and cracks	L.S	6.76	2.00	13.52
9977	Carriage of materialLABOUR:	L.S	1.43	2.00	2.86
0131	Painter	Day	0.54	679.00	366.66
0115	Coolie	Day	0.54	558.00	301.32
9999	Sundries-Putty, brushes, sand paper etc.	L.S	10.79	2.00	21.58
9999	Sundries-	L.S	6.76	2.00	13.52

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TOTAL	1415.47
Add Water Charges @ 1%	14.15
TOTAL	1429.62
Add CPOH @ 15%	214.44
TOTAL	1644.06
Cost of 10.0 sqm	1644.06
Cost per sqm	164.41
Say	164.4

	Cost index **37.29%**				61.30

	Total with Cost index				225.7

51 Specification Code: 22.23.1

22.23 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.

22.23.1 For vertical surface two coats @0.70 kg per sqm

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 .00 sqm MATERIAL :				
0351	Integral cystalline slurry x .70kg / sq.mtr. = 1.40kg) LABOUR	kilogram	1.4	238.00	333.20
9999	Sundries-For application of waterproofing material	L.S	11.55	2.00	23.10
9999	Sundries-	L.S	1.15	2.00	2.30
9999	Sundries-of material and tools cost etc..	L.S	1.75	2.00	3.50
				TOTAL	362.10
				Add Water Charges @ 1%	3.62
				TOTAL	365.72

Add CPOH @ 15%	54.86
TOTAL	420.58
Cost of 1.0 sqm	420.58
Say	420.6

	Cost index **37.29%**				156.84
	Total with Cost index				577.44

52 Specification Code: 22.23.2

22.23 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.

22.23.2 For horizontal surface one coat @1.10 kg per sqm.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 .00 sqm MATERIAL :				
0351	Integral cystalline slurry (1 x 1.10kg / sq.mtr. = 1.10kg) LABOUR	kilogram	1.1	238.00	261.80

9999	Sundries-For application of waterproofing material	L.S	5.75	2.00	11.50
9999	Sundries-	L.S	1.15	2.00	2.30
9999	Sundries-of material and tools cost etc..	L.S	1.75	2.00	3.50

TOTAL	279.10
Add Water Charges @ 1%	2.79
TOTAL	281.89
Add CPOH @ 15%	42.28
TOTAL	324.17
Cost of 1.0 sqm	324.17
Cost per sqm	324.17
Say	324.15

	Cost index **37.29%**				120.88
	Total with Cost index				445.03

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6.TREATED WATER TANK

53 Specification Code: 2.6.1

2.6 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.

2.6.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. Average output of Hydraulic Excavator per hour = 30cum MACHINERY:				

0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.041	7000.00	287.00
0018	Hire and running charges of loader LABOUR:	Day	0.041	5000.00	205.00
0128	Mate Beldar/	Day	0.32	617.00	197.44
0115	Coolie	Day	1.2	558.00	669.60

TOTAL	1359.04
Add Water Charges @ 1%	13.59
TOTAL	1372.63
Add CPOH @ 15%	205.89
TOTAL	1578.52
Cost of 10.0 cum	1578.52
Cost per cum	157.85
Say	157.85

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	Cost index **37.29%**				58.86
	Total with Cost index				216.71

54 Specification Code: 4.1.5

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.5 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum				

0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.7	1350.00	945.00
0297	Stone Aggregate(single size): 10 mm nominal size nominal size	cum	0.24	1350.00	324.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.94	103.77	97.54
0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement (0.15674 cum)	tonne	0.22	4940.00	1086.80
2209	Carriage of Cement LABOUR:	tonne	0.22	92.24	20.29
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.52	2.00	27.04

TOTAL	4678.18
Add Water Charges @ 1%	46.78
TOTAL	4724.96
Add CPOH @ 15%	708.74
TOTAL	5433.70
Cost of 1.0 cum	5433.70
Say	5433.7

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	Cost index **37.29%**				2026.23
	Total with Cost index				7459.93

55 Specification Code: 5.37.2

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

5.37.2 All work above plinth level upto floor V level

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44

7318	Plasticizer / super plasticizer 0.5% of cement Production Cost, carriage to site, pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40
0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-Extra labour for lifting up to floor five level 0.75x 2.5 = 1.88	L.S	13.0	2.00	26.00
0115	Coolie	Day	1.88	558.00	1049.04

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TOTAL	7326.36
Add Water Charges @ 1%	73.26
TOTAL	7399.62
Add CPOH @ 15%	1109.94
TOTAL	8509.56
Cost of 1.0 cum	8509.56
Say	8509.55

	Cost index **37.29%**				3173.21

	Total with Cost index				11682.76

56 Specification Code: 5.34.1

5.34 Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.

5.34.1 Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum. Cement for M-30 mix = 0.340 t Cement for M-25 mix = 0.330 t Difference = 0.010 t				
0367	Portland Cement	tonne	0.01	4940.00	49.40
2209	Carriage of Cement Plasticizer for M-30 mix = 1.70 kg Plasticizer for M-25 mix = 1.65 kg Difference = 0.05 kg	tonne	0.01	92.24	0.92
7318	Plasticizer / super plasticizer	kilogram	0.05	36.00	1.80
				TOTAL	52.12
				Add Water Charges @ 1%	.52
				TOTAL	52.64
				Add CPOH @ 15%	7.90
				TOTAL	60.54
				Cost of 1.0 cum	60.54
				Say	60.55

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	Cost index **37.29%**				22.58

	Total with Cost index				83.13

57 Specification Code: od326203/2021_2022

od326203/2021_2022 :Epoxy coated steel reinforcement for RCC work including straightening ,cutting ,bending ,placing in possition and binding all complete up to plinth level

*Details of cost for 1 Quintel
Epoxy coated deformed twisted steel bar =1q,waistage = 5%,Total steel= 1.05q*

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Epoxy coated deformed twisted steel bar	quintal	1.05000	5500.00	5775.00	
2205	Steel	tonne	0.10500	92.24	9.69	
9999	Sundries	L.S	26.00000	2.00	52.00	
MR	Blacksmith	Day	1.00000	487.00	487.00	
MR	Beldar	Day	1.00000	368.00	368.00	
MR	Bhisti	Day	0.90000	407.00	366.30	
9999	Sundries	L.S	26.91000	2.00	53.82	
				TOTAL	7111.81	
				Add Water Charges @ 1%	71.12	
				Add CPOH @ 15%	1077.44	
				cost for 100.0 kg	7111.81	
				cost for one kg	82.60	
				say	82.60	

Cost index **37.29 %**	.50
Total with Cost index	83.1

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58 Specification Code: 4.12

4.12 Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification .

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for per bag 50 kg. of cement MATERIAL: Approved water proofing materials according to the recommended proportions				
1213	Water proofing materials	kilogram	1.0	35.00	35.00
9988	Carriage and sundries Carriage of water proofing material and labour for mixing	L.S	3.64	2.00	7.28

TOTAL	42.28
Add Water Charges @ 1%	.42
TOTAL	42.70
Add CPOH @ 15%	6.41
TOTAL	49.11
Cost of 50.0 kg	49.11
Cost per kg	.98
Say	1.0

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	Cost index **37.29%**				.37
	Total with Cost index				1.37

59 Specification Code: 5.9.1

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.1 Foundations, footings, bases of columns, etc for mass concrete

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for footing size 2.7mx2.7mx 1.00m Contact area = 10.8sqm MATERIAL: Assuming shuttering material will become unserviceable after use of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	860.00	292.40
7326	Corner angle 45x45x5 mm 1.50 m long Qty taken for cost of using once = 4x0.85/40=0.085	each	0.085	240.00	20.40
7327	100 mm channel shoulder 2.5 m long Qty taken for cost of using once = 8x0.85/40=0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	76.00	25.84
7329	Single clip Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	59.00	10.03
7330	M.S. Tube 40 mm dia Qty taken for cost of using once = 10.8x0.85/40 = 0.2295	metre	0.2295	215.00	49.34
9999	Sundries-Assembly nuts 7 bolts Qty taken for cost of using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	0.75	738.00	553.50
0114	Beldar	Day	1.5	558.00	837.00

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9999	Sundries-Suttering oil	L.S	52.0	2.00	104.00
9999	Sundries-	L.S	26.0	2.00	52.00

TOTAL	2299.41
Add Water Charges @ 1%	22.99
TOTAL	2322.40
Add CPOH @ 15%	348.36
TOTAL	2670.76
Cost of 10.8 sqm	2670.76
Cost per sqm	247.29
Say	247.3

	Cost index **37.29%**				92.22
	Total with Cost index				339.52

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60 Specification Code: 5.9.2

SUBHEAD 5.0

REINFORCED CEMENT CONCRETE

5.9

Centering and shuttering including strutting, etc. and removal of form for:

5.9.2

Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 7.9m long and 1.00m high wall Area of contact 2x7.9x1.0 = 15.8 sqm MATERIAL: Assuming shuttering material will become unserviceable after us of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm 2x3x2x2 = 24 Nos. Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	860.00	438.60
7327	100 mm channel shoulder 2.5 m long 4x2 = 8 Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) 2x6x2 = 24 Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	76.00	38.76
7329	Single clip 2x3x2 = 12 Qty taken for cost of using once = 12x0.85/40 = 0.255	each	0.255	59.00	15.05
7330	M.S. Tube 40 mm dia 2x2x8m = 32m Qty taken for cost of using once = 32x0.85/40 = 0.68	metre	0.68	215.00	146.20
9999	Sundries-Qty taken for cost of using once = 1300x0.85/40 = 27.62	L.S	27.62	2.00	55.24
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	3.5	738.00	2583.00
0114	Beldar	Day	6.0	558.00	3348.00

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9999	Sundries- shuttering oil	L.S	78.0	2.00	156.00
9999	Sundries-	L.S	52.0	2.00	104.00
				TOTAL	7195.55
				Add Water Charges @ 1%	71.96
				TOTAL	7267.51
				Add CPOH @ 15%	1090.13
				Costof 15.8 Sq. m.	8357.64
				Cost per 1 Sq. m.	528.96
				Say	528.95

	Cost index **37.29%**				197.25
	Total with Cost index				726.2

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61 Specification Code: 13.7.1

13.7 12 mm cement plaster finished with a floating coat of neat cement of mix:

13.7.1 1:3 (1 cement : 3 fine sand)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:3 (1 cement : 3 fine sand				
3.3	Rate as per item Number3.3 of SH: Mortars MATERIAL:	cum	0.144	4183.05	602.36
0155	Mason (average)	Day	0.67	709.00	475.03
0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64

9999	Sundries-Scaffolding and sundries.	L.S	12.61	2.00	25.22
0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	Day	0.27	709.00	191.43
0115	Coolie	Day	0.27	558.00	150.66
9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12

TOTAL	2547.60
Add Water Charges @ 1%	25.48
TOTAL	2573.08
Add CPOH @ 15%	385.96
TOTAL	2959.04
Cost of 10.0 sqm	2959.04
Cost per sqm	295.90
Say	295.9

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	Cost index **37.29%**				110.34
	Total with Cost index				406.24

62 Specification Code: 13.52.2

13.52 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.

13.52.2 On concrete work

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm PRIMING COAT MATERIAL:				

0821	Distemper primer	Litre	0.84	70.00	58.80
9999	Sundries-Putty	L.S	13.52	2.00	27.04
9977	Carriage LABOUR:	L.S	0.52	2.00	1.04
0131	Painter	Day	0.25	679.00	169.75
0115	Coolie	Day	0.25	558.00	139.50
9999	Sundries-Brushes, sand paper etc.	L.S	2.73	2.00	5.46
9999	Sundries-EPOXY PAINTING| MATERIAL:	L.S	8.06	2.00	16.12
7239	Epoxy paint	Litre	1.21	230.00	278.30
9999	Sundries-Materials for filling in holes and cracks	L.S	6.76	2.00	13.52
9977	Carriage of materialLABOUR:	L.S	1.43	2.00	2.86
0131	Painter	Day	0.54	679.00	366.66
0115	Coolie	Day	0.54	558.00	301.32
9999	Sundries-Putty, brushes, sand paper etc.	L.S	10.79	2.00	21.58
9999	Sundries-	L.S	6.76	2.00	13.52

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TOTAL	1415.47
Add Water Charges @ 1%	14.15
TOTAL	1429.62
Add CPOH @ 15%	214.44
TOTAL	1644.06
Cost of 10.0 sqm	1644.06
Cost per sqm	164.41
Say	164.4

	Cost index **37.29%**				61.30

	Total with Cost index				225.7

63 Specification Code: 22.23.1

22.23 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.

22.23.1 For vertical surface two coats @0.70 kg per sqm

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 .00 sqm MATERIAL :				
0351	Integral cystalline slurry x .70kg / sq.mtr. = 1.40kg) LABOUR	kilogram	1.4	238.00	333.20
9999	Sundries-For application of waterproofing material	L.S	11.55	2.00	23.10
9999	Sundries-	L.S	1.15	2.00	2.30
9999	Sundries-of material and tools cost etc..	L.S	1.75	2.00	3.50
				TOTAL	362.10
				Add Water Charges @ 1%	3.62
				TOTAL	365.72

Add CPOH @ 15%	54.86
TOTAL	420.58
Cost of 1.0 sqm	420.58
Say	420.6

	Cost index **37.29%**				156.84
	Total with Cost index				577.44

64 Specification Code: 22.23.2

22.23 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.

22.23.2 For horizontal surface one coat @1.10 kg per sqm.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 .00 sqm MATERIAL :				
0351	Integral cystalline slurry (1 x 1.10kg / sq.mtr. = 1.10kg) LABOUR	kilogram	1.1	238.00	261.80

9999	Sundries-For application of waterproofing material	L.S	5.75	2.00	11.50
9999	Sundries-	L.S	1.15	2.00	2.30
9999	Sundries-of material and tools cost etc..	L.S	1.75	2.00	3.50

TOTAL	279.10
Add Water Charges @ 1%	2.79
TOTAL	281.89
Add CPOH @ 15%	42.28
TOTAL	324.17
Cost of 1.0 sqm	324.17
Cost per sqm	324.17
Say	324.15

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	Cost index **37.29%**				120.88
	Total with Cost index				445.03

PRICE

7.SLUDGE SUMP

65 Specification Code: 2.6.1

2.6 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.

2.6.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. Average output of Hydraulic Excavator per hour = 30cum MACHINERY:				

0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.041	7000.00	287.00
0018	Hire and running charges of loader LABOUR:	Day	0.041	5000.00	205.00
0128	Mate Beldar/	Day	0.32	617.00	197.44
0115	Coolie	Day	1.2	558.00	669.60

TOTAL	1359.04
Add Water Charges @ 1%	13.59
TOTAL	1372.63
Add CPOH @ 15%	205.89
TOTAL	1578.52
Cost of 10.0 cum	1578.52
Cost per cum	157.85
Say	157.85

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	Cost index **37.29%**				58.86
	Total with Cost index				216.71

66 Specification Code: 2.26.1

2.26 Extra for every additional lift 1.5 m or part there of in excavation / banking excavated or stacked materials.

2.26.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum LABOUR:				
0128	Mate	Day	0.1	617.00	61.70

0114	Beldar	Day	1.1	558.00	613.80

TOTAL	675.50
Add Water Charges @ 1%	6.75
TOTAL	682.25
Add CPOH @ 15%	102.34
TOTAL	784.59
Cost of 10.0 cum	784.59
Cost per cum	78.46
Say	78.45

	Cost index **37.29%**				29.25
	Total with Cost index				107.7

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67 Specification Code: 4.1.5

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.5 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum				
0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.7	1350.00	945.00
0297	Stone Aggregate(single size): 10 mm nominal size nominal size	cum	0.24	1350.00	324.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.94	103.77	97.54

0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement (0.15674 cum)	tonne	0.22	4940.00	1086.80
2209	Carriage of Cement	tonne	0.22	92.24	20.29
	LABOUR:				
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.52	2.00	27.04

TOTAL	4678.18
Add Water Charges @ 1%	46.78
TOTAL	4724.96
Add CPOH @ 15%	708.74
TOTAL	5433.70
Cost of 1.0 cum	5433.70
Say	5433.7

Kerala Water Authority
PRICE

	Cost index **37.29%**				2026.23
	Total with Cost index				7459.93

68 Specification Code: 5.37.2

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in

transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

5.37.2 All work above plinth level upto floor V level

Kerala Water Authority
PRICE

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44
7318	Plasticizer / super plasticizer 0.5% of cement Production Cost, carriage to site, pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40
0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00

0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-Extra labour for lifting up to floor five level 0.75x 2.5 = 1.88	L.S	13.0	2.00	26.00
0115	Coolie	Day	1.88	558.00	1049.04

TOTAL	7326.36
Add Water Charges @ 1%	73.26
TOTAL	7399.62
Add CPOH @ 15%	1109.94
TOTAL	8509.56
Cost of 1.0 cum	8509.56
Say	8509.55

Kerala Water Authority
PRICE

	Cost index **37.29%**				3173.21
	Total with Cost index				11682.76

69 Specification Code: 5.37.1

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per

mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

5.37.1 All wiork upto plinth level

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44
7318	Plasticizer / super plasticizer 0.50% of cement Production Cost, carriage to site pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40
0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00

Kerala Water Authority
PRICE

0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.0	2.00	26.00

TOTAL	6277.32
Add Water Charges @ 1%	62.77
TOTAL	6340.09
Add CPOH @ 15%	951.01
TOTAL	7291.10
Cost of 1.0 cum	7291.10
Say	7291.1

Kerala Water Authority
PRICE

	Cost index **37.29%**				2718.85
	Total with Cost index				10009.95

70 Specification Code: 5.34.1

5.34 Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.

5.34.1 Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 1 cum. Cement for M-30 mix = 0.340 t Cement for M-25 mix = 0.330 t Difference = 0.010 t				
0367	Portland Cement	tonne	0.01	4940.00	49.40
2209	Carriage of Cement Plasticizer for M-30 mix = 1.70 kg Plasticizer for M-25 mix = 1.65 kg Difference = 0.05 kg	tonne	0.01	92.24	0.92
7318	Plasticizer / super plasticizer	kilogram	0.05	36.00	1.80

TOTAL	52.12
Add Water Charges @ 1%	.52
TOTAL	52.64
Add CPOH @ 15%	7.90
TOTAL	60.54
Cost of 1.0 cum	60.54
Say	60.55

Kerala Water Authority
PRICE

	Cost index **37.29%**				22.58
	Total with Cost index				83.13

71 Specification Code: od326203/2021_2022

od326203/2021_2022 :Epoxy coated steel reinforcement for RCC work including straightening ,cutting ,bending ,placing in possition and binding all complete up to plinth level

*Details of cost for 1 Quintel
Epoxy coated deformed twisted steel bar =1q,waistage = 5%,Total steel= 1.05q*

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Epoxy coated deformed twisted steel bar	quintal	1.05000	5500.00	5775.00	

2205	Steel	tonne	0.10500	92.24	9.69	

9999	Sundries	L.S	26.00000	2.00	52.00	
MR	Blacksmith	Day	1.00000	487.00	487.00	
MR	Beldar	Day	1.00000	368.00	368.00	
MR	Bhisti	Day	0.90000	407.00	366.30	
9999	Sundries	L.S	26.91000	2.00	53.82	
				TOTAL	7111.81	
				Add Water Charges @ 1%	71.12	
				Add CPOH @ 15%	1077.44	
				cost for 100.0 kg	7111.81	
				cost for one kg	82.60	
				say	82.60	

Cost index **37.29 %**	.50
Total with Cost index	83.1

Kerala Water Authority

72 Specification Code: 4.12

PRICE

4.12 Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification .

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for per bag 50 kg. of cement MATERIAL: Approved water proofing materials according to the recommended proportions				
1213	Water proofing materials	kilogram	1.0	35.00	35.00
9988	Carriage and sundries Carriage of water proofing material and labour for mixing	L.S	3.64	2.00	7.28
				TOTAL	42.28
				Add Water Charges @ 1%	.42

TOTAL	42.70
Add CPOH @ 15%	6.41
TOTAL	49.11
Cost of 50.0 kg	49.11
Cost per kg	.98
Say	1.0

	Cost index **37.29%**				.37
	Total with Cost index				1.37

73 Specification Code: 5.9.2

SUBHEAD 5.0

REINFORCED CEMENT CONCRETE

PRICE

5.9

Centering and shuttering including strutting, etc. and removal of form for:

5.9.2

Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 7.9m long and 1.00m high wall Area of contact 2x7.9x1.0 = 15.8 sqm MATERIAL: Assuming shuttering material will become unserviceable after us of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				

7319	wall form panel 1250x500 mm 2x3x2x2 = 24 Nos. Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	860.00	438.60
7327	100 mm channel shoulder 2.5 m long 4x2 = 8 Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) 2x6x2 = 24 Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	76.00	38.76
7329	Single clip 2x3x2 = 12 Qty taken for cost of using once = 12x0.85/40 = 0.255	each	0.255	59.00	15.05
7330	M.S. Tube 40 mm dia 2x2x8m = 32m Qty taken for cost of using once = 32x0.85/40 = 0.68	metre	0.68	215.00	146.20
9999	Sundries-Qty taken for cost of using once = 1300x0.85/40 = 27.62	L.S	27.62	2.00	55.24
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	3.5	738.00	2583.00
0114	Beldar	Day	6.0	558.00	3348.00
9999	Sundries- shuttering oil	L.S	78.0	2.00	156.00
9999	Sundries-	L.S	52.0	2.00	104.00
				TOTAL	7195.55
				Add Water Charges @ 1%	71.96
				TOTAL	7267.51
				Add CPOH @ 15%	1090.13

Kerala Water Authority
PRICE

Costof 15.8 Sq. m.	8357.64
Cost per 1 Sq. m.	528.96
Say	528.95

	Cost index **37.29%**				197.25
	Total with Cost index				726.2

74 Specification Code: 5.9.1

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.1 Foundations, footings, bases of columns, etc for mass concrete

Kerala Water Authority
PRICE

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for footing size 2.7mx2.7mx 1.00m Contact area = 10.8sqm MATERIAL: Assuming shuttering material will become unserviceable after use of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	860.00	292.40
7326	Corner angle 45x45x5 mm 1.50 m long Qty taken for cost of using once = 4x0.85/40=0.085	each	0.085	240.00	20.40
7327	100 mm channel shoulder 2.5 m long Qty taken for cost of using once = 8x0.85/40=0.17	each	0.17	910.00	154.70

7328	Double clip (bridge clip) Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	76.00	25.84
7329	Single clip Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	59.00	10.03
7330	M.S. Tube 40 mm dia Qty taken for cost of using once = 10.8x0.85/40 = 0.2295	metre	0.2295	215.00	49.34
9999	Sundries-Assembly nuts 7 bolts Qty taken for cost of using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	0.75	738.00	553.50
0114	Beldar	Day	1.5	558.00	837.00
9999	Sundries-Suttering oil	L.S	52.0	2.00	104.00
9999	Sundries-	L.S	26.0	2.00	52.00

Kerala Water Authority
PRICE

TOTAL	2299.41
Add Water Charges @ 1%	22.99
TOTAL	2322.40
Add CPOH @ 15%	348.36
TOTAL	2670.76
Cost of 10.8 sqm	2670.76
Cost per sqm	247.29
Say	247.3

	Cost index **37.29%**				92.22
	Total with Cost index				339.52

75 Specification Code: 5.9.3

SUBHEAD : **5.0**

REINFORCED CEMENT CONCRETE

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.3 Suspended floors, roofs, landings, balconies and access platform

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for a room 4.5x3 = 13.50 sqm height 3.5 m MATERIAL: Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost 1. Plates (size 0.75x0.60) Angle 40x40x5 mm 2x0.75 = 1.5 m 2x0.60 = 1.20 m = 2.70 m @ 3.00 kg/m = 8.10 kg sheet 1.6 mm thick 0.75x0.60 = 0.45 sqm 0.45 sqm @ 12.55 kg/sqm = 5.65 kg Weight of one plate = 13.75 kg Add for wastage @ 5% = 0.69 kg Total = 14.44 kg Total weight of all plates = 5x6x14.44= 433.20 kg. Qty taken for cost using once = 433.2x0.85/40 = 9.2055 kg				
10.1	Rate as per item Number10.1 of SH: Steel Work	kilogram	9.2055	74.70	687.65(A)
7342	Adjustable span ESO+SI (2.35-3.40) Qty taken for cost using once = 5x0.85/40 =0.1063	each	0.1063	1480.00	157.32

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PRICE

7343	Adjustable telescopic prop 3 m (2.02-3.75m) Qty taken for cost using once = 6x0.85/40 = 0.1275	each	0.1275	955.00	121.76
9999	Sundries - Assembly nut & nolts etc. Qty taken for cost using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9999	Sundries - Carriage LABOUR: Fitter (grade 1)	L.S	130.0	2.00	260.00
0116	Fitter(grade1)	Day	3.0	738.00	2214.00
0114	Beldar	Day	6.0	558.00	3348.00
9999	Sundries - Shuttering oil	L.S	78.0	2.00	156.00
9999	Sundries - paper tape etc	L.S	49.7	2.00	99.40

AddWater Charges @ 1% except on A ie on (7088.33-687.65=6400.68)	64.01
TOTAL	7152.34
AddCPOH @ 15% except on A ie on (7152.34-687.65=6464.69)	969.70
TOTAL	8122.27
Cost of 13.5 sqm	8122.27
Cost of 1 sqm	601.65
Say	601.65

Kerala Water Authority
PRICE

	Cost index **37.29%**				224.36
	Total with Cost index				826.01

76 Specification Code: 13.7.1

13.7 12 mm cement plaster finished with a floating coat of neat cement of mix:

13.7.1 1:3 (1 cement : 3 fine sand)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:3 (1 cement : 3 fine sand				
3.3	Rate as per item Number3.3 of SH: Mortars MATERIAL:	cum	0.144	4183.05	602.36
0155	Mason (average)	Day	0.67	709.00	475.03
0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64
9999	Sundries-Scaffolding and sundries.	L.S	12.61	2.00	25.22
0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	Day	0.27	709.00	191.43
0115	Coolie	Day	0.27	558.00	150.66
9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12
				TOTAL	2547.60
				Add Water Charges @ 1%	25.48
				TOTAL	2573.08
				Add CPOH @ 15%	385.96
				TOTAL	2959.04
				Cost of 10.0 sqm	2959.04
				Cost per sqm	295.90
				Say	295.9

Kerala Water Authority
PRICE

	Cost index **37.29%**				110.34
	Total with Cost index				406.24

8. SLUDGE THICKNER

77 Specification Code: 2.6.1

2.6 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.

2.6.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. Average output of Hydraulic Excavator per hour = 30cum MACHINERY:				
0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.041	7000.00	287.00
0018	Hire and running charges of loader LABOUR:	Day	0.041	5000.00	205.00
0128	Mate Beldar/	Day	0.32	617.00	197.44
0115	Coolie	Day	1.2	558.00	669.60
				TOTAL	1359.04
				Add Water Charges @ 1%	13.59
				TOTAL	1372.63
				Add CPOH @ 15%	205.89
				TOTAL	1578.52
				Cost of 10.0 cum	1578.52
				Cost per cum	157.85
				Say	157.85

Kerala Water Authority
PRICE

	Cost index **37.29%**				58.86
	Total with Cost index				216.71

78 Specification Code: 4.1.5

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.5 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum				
0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.7	1350.00	945.00
0297	Stone Aggregate(single size): 10 mm nominal size nominal size	cum	0.24	1350.00	324.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.94	103.77	97.54
0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement (0.15674 cum)	tonne	0.22	4940.00	1086.80
2209	Carriage of Cement LABOUR:	tonne	0.22	92.24	20.29
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90

Kerala Water Authority
PRICE

9999	Sundries-	L.S	13.52	2.00	27.04

TOTAL	4678.18
Add Water Charges @ 1%	46.78
TOTAL	4724.96
Add CPOH @ 15%	708.74
TOTAL	5433.70
Cost of 1.0 cum	5433.70
Say	5433.7

	Cost index **37.29%**				2026.23
	Total with Cost index				7459.93

79 Specification Code: 5.37.1

Kerala Water Authority
PRICE

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

5.37.1 All wiork upto plinth level

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				

0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44
7318	Plasticizer / super plasticizer 0.50% of cement Production Cost, carriage to site pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40
0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.0	2.00	26.00

TOTAL	6277.32
Add Water Charges @ 1%	62.77
TOTAL	6340.09

Kerala Water Authority
PRICE

Add CPOH @ 15%	951.01
TOTAL	7291.10
Cost of 1.0 cum	7291.10
Say	7291.1

	Cost index **37.29%**				2718.85
	Total with Cost index				10009.95

80 Specification Code: 5.34.1

5.34 Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.

5.34.1 Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).

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PRICE

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum. Cement for M-30 mix = 0.340 t Cement for M-25 mix = 0.330 t Difference = 0.010 t				
0367	Portland Cement	tonne	0.01	4940.00	49.40
2209	Carriage of Cement Plasticizer for M-30 mix = 1.70 kg Plasticizer for M-25 mix = 1.65 kg Difference = 0.05 kg	tonne	0.01	92.24	0.92
7318	Plasticizer / super plasticizer	kilogram	0.05	36.00	1.80
				TOTAL	52.12
				Add Water Charges @ 1%	.52
				TOTAL	52.64

Add CPOH @ 15%	7.90
TOTAL	60.54
Cost of 1.0 cum	60.54
Say	60.55

	Cost index **37.29%**				22.58
	Total with Cost index				83.13

81 Specification Code: od326203/2021_2022

od326203/2021_2022 :Epoxy coated steel reinforcement for RCC work including straightening ,cutting ,bending ,placing in possition and binding all complete up to plinth level

*Details of cost for 1 Quintel
Epoxy coated deformed twisted steel bar =1q,waistage = 5%,Total steel= 1.05q*

Kerala Water Authority
PRICE

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Epoxy coated deformed twisted steel bar	quintal	1.05000	5500.00	5775.00	
2205	Steel	tonne	0.10500	92.24	9.69	
9999	Sundries	L.S	26.00000	2.00	52.00	
MR	Blacksmith	Day	1.00000	487.00	487.00	
MR	Beldar	Day	1.00000	368.00	368.00	
MR	Bhisti	Day	0.90000	407.00	366.30	
9999	Sundries	L.S	26.91000	2.00	53.82	
				TOTAL	7111.81	
				Add Water Charges @ 1%	71.12	
				Add CPOH @ 15%	1077.44	
				cost for 100.0 kg	7111.81	
				cost for one kg	82.60	
				say	82.60	

Cost index **37.29 %**	.50
Total with Cost index	83.1

82 Specification Code: 4.12

4.12 Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification .

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for per bag 50 kg. of cement MATERIAL: Approved water proofing materials according to the recommended proportions				
1213	Water proofing materials	kilogram	1.0	35.00	35.00
9988	Carriage and sundries Carriage of water proofing material and labour for mixing	L.S	3.64	2.00	7.28
				TOTAL	42.28
				Add Water Charges @ 1%	.42
				TOTAL	42.70
				Add CPOH @ 15%	6.41
				TOTAL	49.11
				Cost of 50.0 kg	49.11
				Cost per kg	.98
				Say	1.0

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	Cost index **37.29%**				.37
	Total with Cost index				1.37

83 Specification Code: 5.9.1

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.1 Foundations, footings, bases of columns, etc for mass concrete

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for footing size 2.7mx2.7mx 1.00m Contact area = 10.8sqm MATERIAL: Assuming shuttering material will become unserviceable after use of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	860.00	292.40
7326	Corner angle 45x45x5 mm 1.50 m long Qty taken for cost of using once = 4x0.85/40=0.085	each	0.085	240.00	20.40
7327	100 mm channel shoulder 2.5 m long Qty taken for cost of using once = 8x0.85/40=0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	76.00	25.84
7329	Single clip Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	59.00	10.03
7330	M.S. Tube 40 mm dia Qty taken for cost of using once = 10.8x0.85/40 = 0.2295	metre	0.2295	215.00	49.34

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9999	Sundries-Assembly nuts 7 bolts Qty taken for cost of using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	0.75	738.00	553.50
0114	Beldar	Day	1.5	558.00	837.00
9999	Sundries-Suttering oil	L.S	52.0	2.00	104.00
9999	Sundries-	L.S	26.0	2.00	52.00

TOTAL	2299.41
Add Water Charges @ 1%	22.99
TOTAL	2322.40
Add CPOH @ 15%	348.36
TOTAL	2670.76
Cost of 10.8 sqm	2670.76
Cost per sqm	247.29
Say	247.3

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	Cost index **37.29%**				92.22
	Total with Cost index				339.52

84 Specification Code: 5.9.2

SUBHEAD 5.0

REINFORCED CEMENT CONCRETE

5.9

Centering and shuttering including strutting, etc. and removal of form for:

5.9.2

Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 7.9m long and 1.00m high wall Area of contact 2x7.9x1.0 = 15.8 sqm MATERIAL: Assuming shuttering material will become unserviceable after us of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm 2x3x2x2 = 24 Nos. Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	860.00	438.60
7327	100 mm channel shoulder 2.5 m long 4x2 = 8 Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) 2x6x2 = 24 Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	76.00	38.76
7329	Single clip 2x3x2 = 12 Qty taken for cost of using once = 12x0.85/40 = 0.255	each	0.255	59.00	15.05
7330	M.S. Tube 40 mm dia 2x2x8m = 32m Qty taken for cost of using once = 32x0.85/40 = 0.68	metre	0.68	215.00	146.20
9999	Sundries-Qty taken for cost of using once = 1300x0.85/40 = 27.62	L.S	27.62	2.00	55.24

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9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	3.5	738.00	2583.00
0114	Beldar	Day	6.0	558.00	3348.00
9999	Sundries- shuttering oil	L.S	78.0	2.00	156.00
9999	Sundries-	L.S	52.0	2.00	104.00
				TOTAL	7195.55
				Add Water Charges @ 1%	71.96
				TOTAL	7267.51
				Add CPOH @ 15%	1090.13
				Costof 15.8 Sq. m.	8357.64
				Cost per 1 Sq. m.	528.96
				Say	528.95

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PRICE

	Cost index **37.29%**				197.25
	Total with Cost index				726.2

85 Specification Code: 13.7.1

13.7 12 mm cement plaster finished with a floating coat of neat cement of mix:

13.7.1 1:3 (1 cement : 3 fine sand)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:3 (1 cement : 3 fine sand				

3.3	Rate as per item Number3.3 of SH: Mortars MATERIAL:	cum	0.144	4183.05	602.36
0155	Mason (average)	Day	0.67	709.00	475.03
0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64
9999	Sundries-Scaffolding and sundries.	L.S	12.61	2.00	25.22
0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	Day	0.27	709.00	191.43
0115	Coolie	Day	0.27	558.00	150.66
9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12

TOTAL	2547.60
Add Water Charges @ 1%	25.48
TOTAL	2573.08
Add CPOH @ 15%	385.96
TOTAL	2959.04
Cost of 10.0 sqm	2959.04
Cost per sqm	295.90
Say	295.9

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	Cost index **37.29%**				110.34
	Total with Cost index				406.24

86 Specification Code: 13.52.2

13.52 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.

13.52.2 On concrete work

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm PRIMING COAT MATERIAL:				
0821	Distemper primer	Litre	0.84	70.00	58.80
9999	Sundries-Putty	L.S	13.52	2.00	27.04
9977	Carriage LABOUR:	L.S	0.52	2.00	1.04
0131	Painter	Day	0.25	679.00	169.75
0115	Coolie	Day	0.25	558.00	139.50
9999	Sundries-Brushes, sand paper etc.	L.S	2.73	2.00	5.46
9999	Sundries-EPOXY PAINTING| MATERIAL:	L.S	8.06	2.00	16.12
7239	Epoxy paint	Litre	1.21	230.00	278.30
9999	Sundries-Materials for filling in holes and cracks	L.S	6.76	2.00	13.52
9977	Carriage of materialLABOUR:	L.S	1.43	2.00	2.86
0131	Painter	Day	0.54	679.00	366.66
0115	Coolie	Day	0.54	558.00	301.32
9999	Sundries-Putty, brushes, sand paper etc.	L.S	10.79	2.00	21.58
9999	Sundries-	L.S	6.76	2.00	13.52
				TOTAL	1415.47
				Add Water Charges @ 1%	14.15
				TOTAL	1429.62
				Add CPOH @ 15%	214.44
				TOTAL	1644.06

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Cost of 10.0 sqm	1644.06
Cost per sqm	164.41
Say	164.4

	Cost index **37.29%**				61.30
	Total with Cost index				225.7

87 Specification Code: 22.23.1

22.23 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.

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22.23.1 For vertical surface two coats @0.70 kg per sqm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 .00 sqm MATERIAL :				
0351	Integral cystalline slurry x .70kg / sq.mtr. = 1.40kg) LABOUR	kilogram	1.4	238.00	333.20

9999	Sundries-For application of waterproofing material	L.S	11.55	2.00	23.10
9999	Sundries-	L.S	1.15	2.00	2.30
9999	Sundries-of material and tools cost etc..	L.S	1.75	2.00	3.50

TOTAL	362.10
Add Water Charges @ 1%	3.62
TOTAL	365.72
Add CPOH @ 15%	54.86
TOTAL	420.58
Cost of 1.0 sqm	420.58
Say	420.6

	Cost index **37.29%**				156.84
	Total with Cost index				577.44

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88 Specification Code: 22.23.2

22.23

Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.

22.23.2 For horizontal surface one coat @1.10 kg per sqm.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 .00 sqm MATERIAL :				
0351	Integral cystalline slurry (1 x 1.10kg / sq.mtr. = 1.10kg) LABOUR	kilogram	1.1	238.00	261.80
9999	Sundries-For application of waterproofing material	L.S	5.75	2.00	11.50
9999	Sundries-	L.S	1.15	2.00	2.30
9999	Sundries-of material and tools cost etc..	L.S	1.75	2.00	3.50
				TOTAL	279.10
				Add Water Charges @ 1%	2.79
				TOTAL	281.89
				Add CPOH @ 15%	42.28
				TOTAL	324.17
				Cost of 1.0 sqm	324.17
				Cost per sqm	324.17
				Say	324.15

	Cost index **37.29%**				120.88
	Total with Cost index				445.03

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9. THICKENED SLUDGE SUMP

89 Specification Code: 2.6.1

2.6 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5

m, disposed earth to be levelled and neatly dressed.

2.6.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. Average output of Hydraulic Excavator per hour = 30cum MACHINERY:				
0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.041	7000.00	287.00
0018	Hire and running charges of loader LABOUR:	Day	0.041	5000.00	205.00
0128	Mate Beldar/	Day	0.32	617.00	197.44
0115	Coolie	Day	1.2	558.00	669.60
				TOTAL	1359.04
				Add Water Charges @ 1%	13.59
				TOTAL	1372.63
				Add CPOH @ 15%	205.89
				TOTAL	1578.52
				Cost of 10.0 cum	1578.52
				Cost per cum	157.85
				Say	157.85

	Cost index **37.29%**				58.86
	Total with Cost index				216.71

90 Specification Code: 2.26.1

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2.26 Extra for every additional lift 1.5 m or part there of in excavation / banking excavated or stacked materials.

2.26.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum LABOUR:				
0128	Mate	Day	0.1	617.00	61.70
0114	Beldar	Day	1.1	558.00	613.80
				TOTAL	675.50
				Add Water Charges @ 1%	6.75
				TOTAL	682.25
				Add CPOH @ 15%	102.34
				TOTAL	784.59
				Cost of 10.0 cum	784.59
				Cost per cum	78.46
				Say	78.45

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	Cost index **37.29%**				29.25
	Total with Cost index				107.7

91 Specification Code: 4.1.5

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.5 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum				

0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.7	1350.00	945.00
0297	Stone Aggregate(single size): 10 mm nominal size nominal size	cum	0.24	1350.00	324.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.94	103.77	97.54
0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement (0.15674 cum)	tonne	0.22	4940.00	1086.80
2209	Carriage of Cement LABOUR:	tonne	0.22	92.24	20.29
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.52	2.00	27.04

TOTAL	4678.18
Add Water Charges @ 1%	46.78
TOTAL	4724.96
Add CPOH @ 15%	708.74
TOTAL	5433.70
Cost of 1.0 cum	5433.70
Say	5433.7

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	Cost index **37.29%**				2026.23
	Total with Cost index				7459.93

92 Specification Code: 5.37.1

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

5.37.1 All wiork upto plinth level

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44

7318	Plasticizer / super plasticizer 0.50% of cement Production Cost, carriage to site pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40
0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.0	2.00	26.00

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TOTAL	6277.32
Add Water Charges @ 1%	62.77
TOTAL	6340.09
Add CPOH @ 15%	951.01
TOTAL	7291.10
Cost of 1.0 cum	7291.10
Say	7291.1

	Cost index **37.29%**				2718.85
	Total with Cost index				10009.95

93 Specification Code: 5.37.2

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

5.37.2 All work above plinth level upto floor V level

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44
7318	Plasticizer / super plasticizer 0.5% of cement Production Cost, carriage to site, pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40

0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-Extra labour for lifting up to floor five level 0.75x 2.5 = 1.88	L.S	13.0	2.00	26.00
0115	Coolie	Day	1.88	558.00	1049.04

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TOTAL	7326.36
Add Water Charges @ 1%	73.26
TOTAL	7399.62
Add CPOH @ 15%	1109.94
TOTAL	8509.56
Cost of 1.0 cum	8509.56
Say	8509.55

	Cost index **37.29%**				3173.21
	Total with Cost index				11682.76

od326203/2021_2022 :Epoxy coated steel reinforcement for RCC work including straightening ,cutting ,bending ,placing in possition and binding all complete up to plinth level

*Details of cost for 1 Quintel
Epoxy coated deformed twisted steel bar =1q,waistage = 5%,Total steel= 1.05q*

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Epoxy coated deformed twisted steel bar	quintal	1.05000	5500.00	5775.00	
2205	Steel	tonne	0.10500	92.24	9.69	
9999	Sundries	L.S	26.00000	2.00	52.00	
MR	Blacksmith	Day	1.00000	487.00	487.00	
MR	Beldar	Day	1.00000	368.00	368.00	
MR	Bhisti	Day	0.90000	407.00	366.30	
9999	Sundries	L.S	26.91000	2.00	53.82	
				TOTAL	7111.81	
				Add Water Charges @ 1%	71.12	
				Add CPOH @ 15%	1077.44	
				cost for 100.0 kg	7111.81	
				cost for one kg	82.60	
				say	82.60	

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Cost index **37.29 %**	.50
Total with Cost index	83.1

95 Specification Code: 4.12

4.12 Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification .

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for per bag 50 kg. of cement MATERIAL: Approved water proofing materials according to the recommended proportions				

1213	Water proofing materials	kilogram	1.0	35.00	35.00
9988	Carriage and sundries Carriage of water proofing material and labour for mixing	L.S	3.64	2.00	7.28

TOTAL	42.28
Add Water Charges @ 1%	.42
TOTAL	42.70
Add CPOH @ 15%	6.41
TOTAL	49.11
Cost of 50.0 kg	49.11
Cost per kg	.98
Say	1.0

	Cost index **37.29%**				.37
	Total with Cost index				1.37

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96 Specification Code: 5.9.1

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.1 Foundations, footings, bases of columns, etc for mass concrete

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for footing size 2.7mx2.7mx 1.00m Contact area = 10.8sqm MATERIAL: Assuming shuttering material will become unserviceable after use of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	860.00	292.40
7326	Corner angle 45x45x5 mm 1.50 m long Qty taken for cost of using once = 4x0.85/40=0.085	each	0.085	240.00	20.40
7327	100 mm channel shoulder 2.5 m long Qty taken for cost of using once = 8x0.85/40=0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	76.00	25.84
7329	Single clip Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	59.00	10.03
7330	M.S. Tube 40 mm dia Qty taken for cost of using once = 10.8x0.85/40 = 0.2295	metre	0.2295	215.00	49.34
9999	Sundries-Assembly nuts 7 bolts Qty taken for cost of using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	0.75	738.00	553.50
0114	Beldar	Day	1.5	558.00	837.00

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9999	Sundries-Suttering oil	L.S	52.0	2.00	104.00
9999	Sundries-	L.S	26.0	2.00	52.00

TOTAL	2299.41
Add Water Charges @ 1%	22.99
TOTAL	2322.40
Add CPOH @ 15%	348.36
TOTAL	2670.76
Cost of 10.8 sqm	2670.76
Cost per sqm	247.29
Say	247.3

	Cost index **37.29%**				92.22
	Total with Cost index				339.52

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97 Specification Code: 5.9.2

SUBHEAD 5.0

REINFORCED CEMENT CONCRETE

5.9

Centering and shuttering including strutting, etc. and removal of form for:

5.9.2

Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 7.9m long and 1.00m high wall Area of contact 2x7.9x1.0 = 15.8 sqm MATERIAL: Assuming shuttering material will become unserviceable after us of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm 2x3x2x2 = 24 Nos. Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	860.00	438.60
7327	100 mm channel shoulder 2.5 m long 4x2 = 8 Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) 2x6x2 = 24 Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	76.00	38.76
7329	Single clip 2x3x2 = 12 Qty taken for cost of using once = 12x0.85/40 = 0.255	each	0.255	59.00	15.05
7330	M.S. Tube 40 mm dia 2x2x8m = 32m Qty taken for cost of using once = 32x0.85/40 = 0.68	metre	0.68	215.00	146.20
9999	Sundries-Qty taken for cost of using once = 1300x0.85/40 = 27.62	L.S	27.62	2.00	55.24
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	3.5	738.00	2583.00
0114	Beldar	Day	6.0	558.00	3348.00

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9999	Sundries- shuttering oil	L.S	78.0	2.00	156.00
9999	Sundries-	L.S	52.0	2.00	104.00
				TOTAL	7195.55
				Add Water Charges @ 1%	71.96
				TOTAL	7267.51
				Add CPOH @ 15%	1090.13
				Costof 15.8 Sq. m.	8357.64
				Cost per 1 Sq. m.	528.96
				Say	528.95

	Cost index **37.29%**				197.25
	Total with Cost index				726.2

Kerala Water Authority
PRICE

98 Specification Code: 13.7.1

13.7 12 mm cement plaster finished with a floating coat of neat cement of mix:

13.7.1 1:3 (1 cement : 3 fine sand)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:3 (1 cement : 3 fine sand				
3.3	Rate as per item Number3.3 of SH: Mortars MATERIAL:	cum	0.144	4183.05	602.36
0155	Mason (average)	Day	0.67	709.00	475.03
0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64

9999	Sundries-Scaffolding and sundries.	L.S	12.61	2.00	25.22
0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	Day	0.27	709.00	191.43
0115	Coolie	Day	0.27	558.00	150.66
9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12

TOTAL	2547.60
Add Water Charges @ 1%	25.48
TOTAL	2573.08
Add CPOH @ 15%	385.96
TOTAL	2959.04
Cost of 10.0 sqm	2959.04
Cost per sqm	295.90
Say	295.9

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	Cost index **37.29%**				110.34
	Total with Cost index				406.24

99 Specification Code: 13.52.2

13.52 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.

13.52.2 On concrete work

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm PRIMING COAT MATERIAL:				

0821	Distemper primer	Litre	0.84	70.00	58.80
9999	Sundries-Putty	L.S	13.52	2.00	27.04
9977	Carriage LABOUR:	L.S	0.52	2.00	1.04
0131	Painter	Day	0.25	679.00	169.75
0115	Coolie	Day	0.25	558.00	139.50
9999	Sundries-Brushes, sand paper etc.	L.S	2.73	2.00	5.46
9999	Sundries-EPOXY PAINTING| MATERIAL:	L.S	8.06	2.00	16.12
7239	Epoxy paint	Litre	1.21	230.00	278.30
9999	Sundries-Materials for filling in holes and cracks	L.S	6.76	2.00	13.52
9977	Carriage of materialLABOUR:	L.S	1.43	2.00	2.86
0131	Painter	Day	0.54	679.00	366.66
0115	Coolie	Day	0.54	558.00	301.32
9999	Sundries-Putty, brushes, sand paper etc.	L.S	10.79	2.00	21.58
9999	Sundries-	L.S	6.76	2.00	13.52

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TOTAL	1415.47
Add Water Charges @ 1%	14.15
TOTAL	1429.62
Add CPOH @ 15%	214.44
TOTAL	1644.06
Cost of 10.0 sqm	1644.06
Cost per sqm	164.41
Say	164.4

	Cost index **37.29%**				61.30

	Total with Cost index				225.7

100 Specification Code: 22.23.1

22.23 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.

22.23.1 For vertical surface two coats @0.70 kg per sqm

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 .00 sqm MATERIAL :				
0351	Integral cystalline slurry x .70kg / sq.mtr. = 1.40kg) LABOUR	kilogram	1.4	238.00	333.20
9999	Sundries-For application of waterproofing material	L.S	11.55	2.00	23.10
9999	Sundries-	L.S	1.15	2.00	2.30
9999	Sundries-of material and tools cost etc..	L.S	1.75	2.00	3.50
				TOTAL	362.10
				Add Water Charges @ 1%	3.62
				TOTAL	365.72

Add CPOH @ 15%	54.86
TOTAL	420.58
Cost of 1.0 sqm	420.58
Say	420.6

	Cost index **37.29%**				156.84
	Total with Cost index				577.44

101 Specification Code: 22.23.2

22.23 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.

22.23.2 For horizontal surface one coat @1.10 kg per sqm.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 .00 sqm MATERIAL :				
0351	Integral cystalline slurry (1 x 1.10kg / sq.mtr. = 1.10kg) LABOUR	kilogram	1.1	238.00	261.80

9999	Sundries-For application of waterproofing material	L.S	5.75	2.00	11.50
9999	Sundries-	L.S	1.15	2.00	2.30
9999	Sundries-of material and tools cost etc..	L.S	1.75	2.00	3.50

TOTAL	279.10
Add Water Charges @ 1%	2.79
TOTAL	281.89
Add CPOH @ 15%	42.28
TOTAL	324.17
Cost of 1.0 sqm	324.17
Cost per sqm	324.17
Say	324.15

	Cost index **37.29%**				120.88
	Total with Cost index				445.03

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PRICE

10. CENTRATE SUMP

102 Specification Code: 2.6.1

2.6 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.

2.6.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. Average output of Hydraulic Excavator per hour = 30cum MACHINERY:				

0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.041	7000.00	287.00
0018	Hire and running charges of loader LABOUR:	Day	0.041	5000.00	205.00
0128	Mate Beldar/	Day	0.32	617.00	197.44
0115	Coolie	Day	1.2	558.00	669.60

TOTAL	1359.04
Add Water Charges @ 1%	13.59
TOTAL	1372.63
Add CPOH @ 15%	205.89
TOTAL	1578.52
Cost of 10.0 cum	1578.52
Cost per cum	157.85
Say	157.85

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	Cost index **37.29%**				58.86
	Total with Cost index				216.71

103 Specification Code: 2.26.1

2.26 Extra for every additional lift 1.5 m or part there of in excavation / banking excavated or stacked materials.

2.26.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum LABOUR:				
0128	Mate	Day	0.1	617.00	61.70

0114	Beldar	Day	1.1	558.00	613.80

TOTAL	675.50
Add Water Charges @ 1%	6.75
TOTAL	682.25
Add CPOH @ 15%	102.34
TOTAL	784.59
Cost of 10.0 cum	784.59
Cost per cum	78.46
Say	78.45

	Cost index **37.29%**				29.25
	Total with Cost index				107.7

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104 Specification Code: 4.1.5

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.5 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum				
0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.7	1350.00	945.00
0297	Stone Aggregate(single size): 10 mm nominal size nominal size	cum	0.24	1350.00	324.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.94	103.77	97.54

0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement (0.15674 cum)	tonne	0.22	4940.00	1086.80
2209	Carriage of Cement LABOUR:	tonne	0.22	92.24	20.29
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.52	2.00	27.04

TOTAL	4678.18
Add Water Charges @ 1%	46.78
TOTAL	4724.96
Add CPOH @ 15%	708.74
TOTAL	5433.70
Cost of 1.0 cum	5433.70
Say	5433.7

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	Cost index **37.29%**				2026.23
	Total with Cost index				7459.93

105 Specification Code: 5.37.1

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in

transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

5.37.1 All wiork upto plinth level

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44
7318	Plasticizer / super plasticizer 0.50% of cement Production Cost, carriage to site pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40
0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00

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0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.0	2.00	26.00

TOTAL	6277.32
Add Water Charges @ 1%	62.77
TOTAL	6340.09
Add CPOH @ 15%	951.01
TOTAL	7291.10
Cost of 1.0 cum	7291.10
Say	7291.1

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	Cost index **37.29%**				2718.85
	Total with Cost index				10009.95

106 Specification Code: 5.37.2

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in

recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

5.37.2 All work above plinth level upto floor V level

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44
7318	Plasticizer / super plasticizer 0.5% of cement Production Cost, carriage to site, pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40
0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00

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0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-Extra labour for lifting up to floor five level 0.75x 2.5 = 1.88	L.S	13.0	2.00	26.00
0115	Coolie	Day	1.88	558.00	1049.04

TOTAL	7326.36
Add Water Charges @ 1%	73.26
TOTAL	7399.62
Add CPOH @ 15%	1109.94
TOTAL	8509.56
Cost of 1.0 cum	8509.56
Say	8509.55

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PRICE

	Cost index **37.29%**				3173.21
	Total with Cost index				11682.76

107 Specification Code: 5.34.1

5.34 Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.

5.34.1 Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 1 cum. Cement for M-30 mix = 0.340 t Cement for M-25 mix = 0.330 t Difference = 0.010 t				
0367	Portland Cement	tonne	0.01	4940.00	49.40
2209	Carriage of Cement Plasticizer for M-30 mix = 1.70 kg Plasticizer for M-25 mix = 1.65 kg Difference = 0.05 kg	tonne	0.01	92.24	0.92
7318	Plasticizer / super plasticizer	kilogram	0.05	36.00	1.80

TOTAL	52.12
Add Water Charges @ 1%	.52
TOTAL	52.64
Add CPOH @ 15%	7.90
TOTAL	60.54
Cost of 1.0 cum	60.54
Say	60.55

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	Cost index **37.29%**				22.58
	Total with Cost index				83.13

108 Specification Code: od326206/2021_2022

od326206/2021_2022 :Extra for providing Sulphate resistant cement for structure above plinth level

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Sulphate resistant cement	tonne	0.34000	11550.00	3927.00	
MR	Portland cement	tonne	-0.34000	5700.00	-1938.00	

TOTAL	1989.00
Add Water Charges @ 1%	19.89
Add CPOH @ 15%	301.33
cost for one tonne	2310.22
say	2310.22

Cost index **37.29 %**	.00
Total with Cost index	2310.22

109 Specification Code: 5.22.6

5.22 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level

5.22.6 Thermo - Mechanically Treated bars of grade Fe-500D or more

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 quintal MATERIAL: Deformed twisted steel bars = 1.00 q Add 5% wastage = 0.05 Total = 1.05q				
1005	Twisted steel/deformed bars	quintal	1.05	4600.00	4830.00
2205	Carriage of Steel	tonne	0.105	92.24	9.69
9999	Sundries-Cover block LABOUR: For straightening, bending binding and placing in postion	L.S	26.0	2.00	52.00
0102	Blacksmith 1st class	Day	1.0	738.00	738.00
0114	Beldar	Day	1.0	558.00	558.00
9999	Sundries-	L.S	26.91	2.00	53.82
				TOTAL	6241.51
				Add Water Charges @ 1%	62.42

TOTAL	6303.93
Add CPOH @ 15%	945.59
TOTAL	7249.52
Cost of 100.0 kilogram	7249.52
Cost per kilogram	72.50
Say	72.5

	Cost index **37.29%**				27.04
	Total with Cost index				99.54

110 Specification Code: od326207/2021_2022

od326207/2021_2022 :Extra for providing Epoxy coating for Reinforcement bars

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Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Extra for providing Epoxy coating for Reinforcement bars	kg	1.00000	2.00	2.00	
				TOTAL	2.00	
				Add Water Charges @ 1%	.02	
				Add CPOH @ 15%	.30	
				cost for one kg	2.32	
				say	2.32	

Cost index **37.29 %**	.00
Total with Cost index	2.32

111 Specification Code: 5.9.1

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.1 Foundations, footings, bases of columns, etc for mass concrete

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for footing size 2.7mx2.7mx 1.00m Contact area = 10.8sqm MATERIAL: Assuming shuttering material will become unserviceable after use of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	860.00	292.40
7326	Corner angle 45x45x5 mm 1.50 m long Qty taken for cost of using once = 4x0.85/40=0.085	each	0.085	240.00	20.40
7327	100 mm channel shoulder 2.5 m long Qty taken for cost of using once = 8x0.85/40=0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	76.00	25.84
7329	Single clip Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	59.00	10.03
7330	M.S. Tube 40 mm dia Qty taken for cost of using once = 10.8x0.85/40 = 0.2295	metre	0.2295	215.00	49.34
9999	Sundries-Assembly nuts 7 bolts Qty taken for cost of using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20

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9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	0.75	738.00	553.50
0114	Beldar	Day	1.5	558.00	837.00
9999	Sundries-Suttering oil	L.S	52.0	2.00	104.00
9999	Sundries-	L.S	26.0	2.00	52.00

TOTAL	2299.41
Add Water Charges @ 1%	22.99
TOTAL	2322.40
Add CPOH @ 15%	348.36
TOTAL	2670.76
Cost of 10.8 sqm	2670.76
Cost per sqm	247.29
Say	247.3

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	Cost index **37.29%**				92.22
	Total with Cost index				339.52

112 Specification Code: 5.9.2

SUBHEAD 5.0

REINFORCED CEMENT CONCRETE

5.9

Centering and shuttering including strutting, etc. and removal of form for:

5.9.2

Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 7.9m long and 1.00m high wall Area of contact 2x7.9x1.0 = 15.8 sqm MATERIAL: Assuming shuttering material will become unserviceable after us of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm 2x3x2x2 = 24 Nos. Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	860.00	438.60
7327	100 mm channel shoulder 2.5 m long 4x2 = 8 Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) 2x6x2 = 24 Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	76.00	38.76
7329	Single clip 2x3x2 = 12 Qty taken for cost of using once = 12x0.85/40 = 0.255	each	0.255	59.00	15.05
7330	M.S. Tube 40 mm dia 2x2x8m = 32m Qty taken for cost of using once = 32x0.85/40 = 0.68	metre	0.68	215.00	146.20
9999	Sundries-Qty taken for cost of using once = 1300x0.85/40 = 27.62	L.S	27.62	2.00	55.24
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	3.5	738.00	2583.00
0114	Beldar	Day	6.0	558.00	3348.00

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9999	Sundries- shuttering oil	L.S	78.0	2.00	156.00
9999	Sundries-	L.S	52.0	2.00	104.00
				TOTAL	7195.55
				Add Water Charges @ 1%	71.96
				TOTAL	7267.51
				Add CPOH @ 15%	1090.13
				Costof 15.8 Sq. m.	8357.64
				Cost per 1 Sq. m.	528.96
				Say	528.95

	Cost index **37.29%**				197.25
	Total with Cost index				726.2

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113 Specification Code: 13.7.1

13.7 12 mm cement plaster finished with a floating coat of neat cement of mix:

13.7.1 1:3 (1 cement : 3 fine sand)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:3 (1 cement : 3 fine sand				
3.3	Rate as per item Number3.3 of SH: Mortars MATERIAL:	cum	0.144	4183.05	602.36
0155	Mason (average)	Day	0.67	709.00	475.03
0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64

9999	Sundries-Scaffolding and sundries.	L.S	12.61	2.00	25.22
0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	Day	0.27	709.00	191.43
0115	Coolie	Day	0.27	558.00	150.66
9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12

TOTAL	2547.60
Add Water Charges @ 1%	25.48
TOTAL	2573.08
Add CPOH @ 15%	385.96
TOTAL	2959.04
Cost of 10.0 sqm	2959.04
Cost per sqm	295.90
Say	295.9

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	Cost index **37.29%**				110.34
	Total with Cost index				406.24

114 Specification Code: 13.52.2

13.52 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.

13.52.2 On concrete work

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm PRIMING COAT MATERIAL:				

0821	Distemper primer	Litre	0.84	70.00	58.80
9999	Sundries-Putty	L.S	13.52	2.00	27.04
9977	Carriage LABOUR:	L.S	0.52	2.00	1.04
0131	Painter	Day	0.25	679.00	169.75
0115	Coolie	Day	0.25	558.00	139.50
9999	Sundries-Brushes, sand paper etc.	L.S	2.73	2.00	5.46
9999	Sundries-EPOXY PAINTING| MATERIAL:	L.S	8.06	2.00	16.12
7239	Epoxy paint	Litre	1.21	230.00	278.30
9999	Sundries-Materials for filling in holes and cracks	L.S	6.76	2.00	13.52
9977	Carriage of materialLABOUR:	L.S	1.43	2.00	2.86
0131	Painter	Day	0.54	679.00	366.66
0115	Coolie	Day	0.54	558.00	301.32
9999	Sundries-Putty, brushes, sand paper etc.	L.S	10.79	2.00	21.58
9999	Sundries-	L.S	6.76	2.00	13.52

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TOTAL	1415.47
Add Water Charges @ 1%	14.15
TOTAL	1429.62
Add CPOH @ 15%	214.44
TOTAL	1644.06
Cost of 10.0 sqm	1644.06
Cost per sqm	164.41
Say	164.4

	Cost index **37.29%**				61.30

	Total with Cost index				225.7

115 Specification Code: 22.23.1

22.23 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.

22.23.1 For vertical surface two coats @0.70 kg per sqm

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 .00 sqm MATERIAL :				
0351	Integral cystalline slurry x .70kg / sq.mtr. = 1.40kg) LABOUR	kilogram	1.4	238.00	333.20
9999	Sundries-For application of waterproofing material	L.S	11.55	2.00	23.10
9999	Sundries-	L.S	1.15	2.00	2.30
9999	Sundries-of material and tools cost etc..	L.S	1.75	2.00	3.50
				TOTAL	362.10
				Add Water Charges @ 1%	3.62
				TOTAL	365.72

Add CPOH @ 15%	54.86
TOTAL	420.58
Cost of 1.0 sqm	420.58
Say	420.6

	Cost index **37.29%**				156.84
	Total with Cost index				577.44

116 Specification Code: 22.23.2

22.23 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.

22.23.2 For horizontal surface one coat @1.10 kg per sqm.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 .00 sqm MATERIAL :				
0351	Integral cystalline slurry (1 x 1.10kg / sq.mtr. = 1.10kg) LABOUR	kilogram	1.1	238.00	261.80

9999	Sundries-For application of waterproofing material	L.S	5.75	2.00	11.50
9999	Sundries-	L.S	1.15	2.00	2.30
9999	Sundries-of material and tools cost etc..	L.S	1.75	2.00	3.50

TOTAL	279.10
Add Water Charges @ 1%	2.79
TOTAL	281.89
Add CPOH @ 15%	42.28
TOTAL	324.17
Cost of 1.0 sqm	324.17
Cost per sqm	324.17
Say	324.15

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	Cost index **37.29%**				120.88
	Total with Cost index				445.03

PRICE

117 Specification Code: 19.16

SUBHEAD : **19.0**

DRAINAGE

19.16 Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS: 10910 on 12 mm dia steeel bar conforming to IS:1786, having minimum cross section as 23 mm x 25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufactures permanent identification mark to be visible even after fixing including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1cement: 3 coarse sand: 6 graded

stone aggregate 20 mm nominal size)Complete as per design

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. Details:				
7354	Plastic encapsulated M.S. foor rest 30x20x15 cm	each	1.0	110.00	110.00
9988	Carriage and sundries Cement concrete 1:3:6 (0.30x0.20x15)=0.009 cum)	L.S	1.82	2.00	3.64
4.2.5	Rate as per item Number4.2.5 of SH: Concrete work LABOUR:	cum	0.009	6966.75	62.70(A)
0123	Mason (brick layer) Ist class	Day	0.02	738.00	14.76
0124	Mason (brick layer)2nd class	Day	0.2	679.00	135.80
0114	Beldar	Day	0.05	558.00	27.90
				AddWater Charges @ 1% except on A ie on (354.8-62.7=292.1)	2.92
				TOTAL	357.72
				AddCPOH @ 15% except on A ie on (357.72-62.7=295.02)	44.25
				TOTAL	401.95
				Cost of 1.0 each	401.95
				Cost of 1 each	401.95
				Say	401.95

	Cost index **37.29%**				149.89
	Total with Cost index				551.84

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PRICE

118 Specification Code: 100.36.1

100.36.1 Filling water with 5000 litre tankers fited in lorry and conveying water from a distance of 5 km (average) to the reservoir site and pumping the water into the reservoir of height not less than 3 m using 5 HP diesel engine pump set , hire for tanker lorry, tools and other appliences and cost of water etc. complete.
"(Ref. No. 000, Technical Circular)"

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 KL.				
KW8	Cost of Potable Water	Kilo litre	1.0	60.00	60.00
100.99.59	Rate as per item Number100.99.59 of SH: KWA Approved Data Charges for conveyance and pumping of water.	Kilo litre	1.0	73.20	73.20
				TOTAL	133.20
				Add Water Charges @ 1%	1.33
				TOTAL	134.53
				Add CPOH @ 15%	20.18
				TOTAL	154.71
				Cost of 1.0 Kilo litre	154.71
				Cost per Kilo litre	154.71
				Say	154.7

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	Cost index **37.29%**				31.70
	Total with Cost index				186.4

11. RCC PLAT FORM FOR VARIOUS MECHANICAL ITEMS AND MOTORS AND PIPE LAYING WORKS

119 Specification Code: 2.6.1

2.6 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.

2.6.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. Average output of Hydraulic Excavator per hour = 30cum MACHINERY:				
0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.041	7000.00	287.00
0018	Hire and running charges of loader LABOUR:	Day	0.041	5000.00	205.00
0128	Mate Beldar/	Day	0.32	617.00	197.44
0115	Coolie	Day	1.2	558.00	669.60
				TOTAL	1359.04
				Add Water Charges @ 1%	13.59
				TOTAL	1372.63
				Add CPOH @ 15%	205.89
				TOTAL	1578.52
				Cost of 10.0 cum	1578.52
				Cost per cum	157.85
				Say	157.85

	Cost index **37.29%**				58.86
	Total with Cost index				216.71

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PRICE

120 Specification Code: 4.1.8

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.8 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL:				
0293	Stone Aggregate(single size): 40 mm nominal size nominal size (0.70 cum -7.5% for voids i.e. 0.05 =0.65 cum)	cum	0.65	1300.00	845.00
0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.24	1350.00	324.00
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	0.65	112.79	73.31
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.24	103.77	24.90
0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement	tonne	0.17	4940.00	839.80
2209	Carriage of Cement LABOUR:	tonne	0.17	92.24	15.68
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90

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9999	Sundries-	L.S	13.52	2.00	27.04

TOTAL	4327.24
Add Water Charges @ 1%	43.27
TOTAL	4370.51
Add CPOH @ 15%	655.58
TOTAL	5026.09
Cost of 1.0 cum	5026.09
Say	5026.1

	Cost index **37.29%**				1874.23
	Total with Cost index				6900.33

121 Specification Code: 5.1.2

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5.1: Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:

5.1.2 1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75

2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement (0.2833 cum)	tonne	0.4	4940.00	1976.00
2209	Carriage of Cement	tonne	0.4	92.24	36.90
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	14.3	2.00	28.60

TOTAL	5768.78
Add Water Charges @ 1%	57.69
TOTAL	5826.47
Add CPOH @ 15%	873.97
TOTAL	6700.44
Cost of 1.0 cum	6700.44
Say	6700.45

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	Cost index **37.29%**				2498.60
	Total with Cost index				9199.05

122 Specification Code: 5.9.1

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.1 Foundations, footings, bases of columns, etc for mass concrete

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for footing size 2.7mx2.7mx 1.00m Contact area = 10.8sqm MATERIAL: Assuming shuttering material will become unserviceable after use of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	860.00	292.40
7326	Corner angle 45x45x5 mm 1.50 m long Qty taken for cost of using once = 4x0.85/40=0.085	each	0.085	240.00	20.40
7327	100 mm channel shoulder 2.5 m long Qty taken for cost of using once = 8x0.85/40=0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	76.00	25.84
7329	Single clip Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	59.00	10.03
7330	M.S. Tube 40 mm dia Qty taken for cost of using once = 10.8x0.85/40 = 0.2295	metre	0.2295	215.00	49.34
9999	Sundries-Assembly nuts 7 bolts Qty taken for cost of using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	0.75	738.00	553.50
0114	Beldar	Day	1.5	558.00	837.00

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9999	Sundries-Suttering oil	L.S	52.0	2.00	104.00
9999	Sundries-	L.S	26.0	2.00	52.00

TOTAL	2299.41
Add Water Charges @ 1%	22.99
TOTAL	2322.40
Add CPOH @ 15%	348.36
TOTAL	2670.76
Cost of 10.8 sqm	2670.76
Cost per sqm	247.29
Say	247.3

	Cost index **37.29%**				92.22
	Total with Cost index				339.52

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PRICE

123 Specification Code: 5.22.6

5.22 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level

5.22.6 Thermo - Mechanically Treated bars of grade Fe-500D or more

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 quintal MATERIAL: Deformed twisted steel bars = 1.00 q Add 5% wastage = 0.05 Total = 1.05q				
1005	Twisted steel/deformed bars	quintal	1.05	4600.00	4830.00
2205	Carriage of Steel	tonne	0.105	92.24	9.69

9999	Sundries-Cover block LABOUR: For straightening, bending binding and placing in postion	L.S	26.0	2.00	52.00
0102	Blacksmith 1st class	Day	1.0	738.00	738.00
0114	Beldar	Day	1.0	558.00	558.00
9999	Sundries-	L.S	26.91	2.00	53.82

TOTAL	6241.51
Add Water Charges @ 1%	62.42
TOTAL	6303.93
Add CPOH @ 15%	945.59
TOTAL	7249.52
Cost of 100.0 kilogram	7249.52
Cost per kilogram	72.50
Say	72.5

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	Cost index **37.29%**				27.04
	Total with Cost index				99.54

124 Specification Code: 100.1.1

SUBHEAD : **100.0**

KWA APPROVED DATA

100.1.1 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidatingeach deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :

All kinds of soil

(Ref. Item No. 2.10.1 of DSR)

Code	Description	Unit	Quantity	Rate	Amount
	Details of Cost For 100 m3 Materials				
2.8.1	Rate as per item Number2.8.1 of SH: Earth Work (DSR)	cum	100.0	219.00	21900.00(A)
2.25	Rate as per item Number2.25 of SH: Earth Work (DSR)	cum	100.0	190.70	19070.00(A)
				TOTAL	40970.00
				Cost of 100.0 cum	40970.00
				Cost of 1 cum	409.70
				Say	409.7

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	Cost index **37.29%**				152.78
	Total with Cost index				562.48

125 Specification Code: 18.73.5

SUBHEAD : **18.0**

WATER SUPPLY

18.73 Providing and laying Double Flanged (Screwed / Welded) Centrifugally (Spun) Ductile Iron Pipes of Class K - 9 conforming to IS: 8329 :

18.73.5 300 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 5 metre MATERIAL: 300 mm dia cast iron pipes double flanged Weight of 1m pipe = 76.400 kg Weight of 5m pipes 76.400x5 = 382.00 kg				
7690	Ductile Iron Pipe Class K-9 flanges and welding 300 mm dia	metre	5.0	3790.00	18950.00
2324	Carriage of Spun iron S & S pipes 300 mm dia Labour for laying	100 meter	5.0	1080.08	54.00
18.23	Rate as per item Number18.23 of SH: Water Supply	quintal	3.82	229.40	876.31(A)

AddWater Charges @ 1% except on A ie on (19880.31-876.31=19004.0)	190.04
TOTAL	20070.35
AddCPOH @ 15% except on A ie on (20070.35-876.31=19194.04)	2879.11
TOTAL	22949.50
Cost of 5.0 metre	22949.50
Cost of 1 metre	4589.90
Say	4589.9

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PRICE

	Cost index **37.29%**				1711.57
	Total with Cost index				6301.47

126 Specification Code: 18.72.19

SUBHEAD : **18.0**

WATER SUPPLY

18.72 Providing and laying S & S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS : 8329:

18.72.19 300 mm dia Ductile iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre. MATERIAL: 300mm dia. cast iron pipes (in 5.5 m lengths) Weight of 1 m pipe = 60.490 kg Weight of 10m pipes 60.490x10 = 604.90 kg				
7655	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 300 mm dia	metre	10.0	2750.00	27500.00
2324	Carriage of Spun iron S & S pipes 300 mm dia Labour for laying	100 meter	10.0	1080.08	108.01
18.23	Rate as per item Number18.23 of SH: Water Supply	quintal	6.049	229.40	1387.64(A)
				AddWater Charges @ 1% except on A ie on (28995.65-1387.64=27608.01)	276.08
				TOTAL	29271.73
				AddCPOH @ 15% except on A ie on (29271.73-1387.64=27884.09)	4182.61
				TOTAL	33454.50
				Cost of 10.0 metre	33454.50
				Cost of 1 metre	3345.45
				Say	3345.45

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	Cost index **37.29%**				1247.52
	Total with Cost index				4592.97

127 Specification Code: 18.70.5

18.70 Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:

18.70.5 300 mm dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 50 joints MATERIAL:				
7671	Rubber Gaskets conforming to I.S. 5382 of S.B.R quality 300 mm dia LABOUR:	each	50.0	110.00	5500.00
0116	Fitter(grade1)	Day	3.0	738.00	2214.00
0117	Assistant Fitter or 2nd class fitter	Day	3.0	679.00	2037.00
0114	Beldar	Day	6.0	558.00	3348.00
				TOTAL	13099.00
				Add Water Charges @ 1%	130.99
				TOTAL	13229.99
				Add CPOH @ 15%	1984.50
				TOTAL	15214.49
				Cost of 50.0 joint	15214.49
				Cost per joint	304.29
				Say	304.3

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PRICE

	Cost index **37.29%**				113.47
	Total with Cost index				417.77

128 Specification Code: 18.83.7

18.83 Labour for cutting C.I. pipe with steel saw.

18.83.7 300 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one cut LABOUR:				
0116	Fitter(grade1)	Day	0.3	738.00	221.40
0114	Beldar	Day	0.3	558.00	167.40
9999	Sundries-	L.S	9.88	2.00	19.76
				TOTAL	408.56
				Add Water Charges @ 1%	4.09
				TOTAL	412.65
				Add CPOH @ 15%	61.90
				TOTAL	474.55
				Cost of 1.0 Each Cut	474.55
				Cost per Each Cut	474.55
				Say	474.55

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	Cost index **37.29%**				176.96
	Total with Cost index				651.51

12 TREATED WATER CHANNEL

129 Specification Code: 2.8.1

2.8 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as

directed, within a lead of 50 m.

2.8.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. MACHINERY:				
0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.04125	7000.00	288.75
0018	Hire and running charges of loader LABOUR:	Day	0.04125	5000.00	206.25
0128	Mate	Day	0.4	617.00	246.80
0115	Coolie	Day	2.05	558.00	1143.90
				TOTAL	1885.70
				Add Water Charges @ 1%	18.86
				TOTAL	1904.56
				Add CPOH @ 15%	285.68
				TOTAL	2190.24
				Cost of 10.0 cum	2190.24
				Cost per cum	219.02
				Say	219.0

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	Cost index **37.29%**				81.67
	Total with Cost index				300.67

130 Specification Code: 4.1.8

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.8 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL:				
0293	Stone Aggregate(single size): 40 mm nominal size nominal size (0.70 cum -7.5% for voids i.e. 0.05 =0.65 cum)	cum	0.65	1300.00	845.00
0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.24	1350.00	324.00
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	0.65	112.79	73.31
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.24	103.77	24.90
0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement	tonne	0.17	4940.00	839.80
2209	Carriage of Cement LABOUR:	tonne	0.17	92.24	15.68
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.52	2.00	27.04
				TOTAL	4327.24
				Add Water Charges @ 1%	43.27

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TOTAL	4370.51
Add CPOH @ 15%	655.58
TOTAL	5026.09
Cost of 1.0 cum	5026.09
Say	5026.1

	Cost index **37.29%**				1874.23
	Total with Cost index				6900.33

131 Specification Code: 5.37.1

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

5.37.1 All wiork upto plinth level

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50

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0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44
7318	Plasticizer / super plasticizer 0.50% of cement Production Cost, carriage to site pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40
0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.0	2.00	26.00

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TOTAL	6277.32
Add Water Charges @ 1%	62.77
TOTAL	6340.09
Add CPOH @ 15%	951.01
TOTAL	7291.10

Cost of 1.0 cum	7291.10
Say	7291.1

	Cost index **37.29%**				2718.85
	Total with Cost index				10009.95

132 Specification Code: od326203/2021_2022

od326203/2021_2022 :Epoxy coated steel reinforcement for RCC work including straightening ,cutting ,bending ,placing in possition and binding all complete up to plinth level

*Details of cost for 1 Quintel
Epoxy coated deformed twisted steel bar =1q,waistage = 5%,Total steel= 1.05q*

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Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Epoxy coated deformed twisted steel bar	quintal	1.05000	5500.00	5775.00	
2205	Steel	tonne	0.10500	92.24	9.69	
9999	Sundries	L.S	26.00000	2.00	52.00	
MR	Blacksmith	Day	1.00000	487.00	487.00	
MR	Beldar	Day	1.00000	368.00	368.00	
MR	Bhisti	Day	0.90000	407.00	366.30	
9999	Sundries	L.S	26.91000	2.00	53.82	
				TOTAL	7111.81	
				Add Water Charges @ 1%	71.12	
				Add CPOH @ 15%	1077.44	
				cost for 100.0 kg	7111.81	
				cost for one kg	82.60	
				say	82.60	

Cost index **37.29 %**	.50
Total with Cost index	83.1

133 Specification Code: 4.12

4.12 Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification .

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for per bag 50 kg. of cement MATERIAL: Approved water proofing materials according to the recommended proportions				
1213	Water proofing materials	kilogram	1.0	35.00	35.00
9988	Carriage and sundries Carriage of water proofing material and labour for mixing	L.S	3.64	2.00	7.28
				TOTAL	42.28
				Add Water Charges @ 1%	.42
				TOTAL	42.70
				Add CPOH @ 15%	6.41
				TOTAL	49.11
				Cost of 50.0 kg	49.11
				Cost per kg	.98
				Say	1.0

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	Cost index **37.29%**				.37
	Total with Cost index				1.37

134 Specification Code: 5.9.2

SUBHEAD 5.0

REINFORCED CEMENT CONCRETE

5.9

Centering and shuttering including strutting, etc. and removal of form for:

5.9.2

Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 7.9m long and 1.00m high wall Area of contact 2x7.9x1.0 = 15.8 sqm MATERIAL: Assuming shuttering material will become unserviceable after us of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm 2x3x2x2 = 24 Nos. Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	860.00	438.60
7327	100 mm channel shoulder 2.5 m long 4x2 = 8 Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) 2x6x2 = 24 Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	76.00	38.76
7329	Single clip 2x3x2 = 12 Qty taken for cost of using once = 12x0.85/40 = 0.255	each	0.255	59.00	15.05

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7330	M.S. Tube 40 mm dia 2x2x8m = 32m Qty taken for cost of using once = 32x0.85/40 = 0.68	metre	0.68	215.00	146.20
9999	Sundries-Qty taken for cost of using once = 1300x0.85/40 = 27.62	L.S	27.62	2.00	55.24
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	3.5	738.00	2583.00
0114	Beldar	Day	6.0	558.00	3348.00
9999	Sundries- shuttering oil	L.S	78.0	2.00	156.00
9999	Sundries-	L.S	52.0	2.00	104.00
				TOTAL	7195.55
				Add Water Charges @ 1%	71.96
				TOTAL	7267.51
				Add CPOH @ 15%	1090.13
				Costof 15.8 Sq. m.	8357.64
				Cost per 1 Sq. m.	528.96
				Say	528.95

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	Cost index **37.29%**				197.25
	Total with Cost index				726.2

135 Specification Code: 22.23.1

22.23 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 :

2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.

22.23.1 For vertical surface two coats @0.70 kg per sqm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 .00 sqm MATERIAL :				
0351	Integral cystalline slurry x .70kg / sq.mtr. = 1.40kg) LABOUR	kilogram	1.4	238.00	333.20
9999	Sundries-For application of waterproofing material	L.S	11.55	2.00	23.10
9999	Sundries-	L.S	1.15	2.00	2.30
9999	Sundries-of material and tools cost etc..	L.S	1.75	2.00	3.50
				TOTAL	362.10
				Add Water Charges @ 1%	3.62
				TOTAL	365.72
				Add CPOH @ 15%	54.86
				TOTAL	420.58
				Cost of 1.0 sqm	420.58
				Say	420.6

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	Cost index **37.29%**				156.84
	Total with Cost index				577.44

136 Specification Code: 22.23.2

22.23 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.

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22.23.2 For horizontal surface one coat @1.10 kg per sqm.

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 .00 sqm MATERIAL :				
0351	Integral cystalline slurry (1 x 1.10kg / sq.mtr. = 1.10kg) LABOUR	kilogram	1.1	238.00	261.80
9999	Sundries-For application of waterproofing material	L.S	5.75	2.00	11.50
9999	Sundries-	L.S	1.15	2.00	2.30
9999	Sundries-of material and tools cost etc..	L.S	1.75	2.00	3.50
				TOTAL	279.10
				Add Water Charges @ 1%	2.79

TOTAL	281.89
Add CPOH @ 15%	42.28
TOTAL	324.17
Cost of 1.0 sqm	324.17
Cost per sqm	324.17
Say	324.15

	Cost index **37.29%**				120.88
	Total with Cost index				445.03

137 Specification Code: 13.7.1

13.7 12 mm cement plaster finished with a floating coat of neat cement of mix:

13.7.1 1:3 (1 cement : 3 fine sand)

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:3 (1 cement : 3 fine sand				
3.3	Rate as per item Number3.3 of SH: Mortars MATERIAL:	cum	0.144	4183.05	602.36
0155	Mason (average)	Day	0.67	709.00	475.03
0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64
9999	Sundries-Scaffolding and sundries.	L.S	12.61	2.00	25.22
0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	Day	0.27	709.00	191.43

0115	Coolie	Day	0.27	558.00	150.66
9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12

TOTAL	2547.60
Add Water Charges @ 1%	25.48
TOTAL	2573.08
Add CPOH @ 15%	385.96
TOTAL	2959.04
Cost of 10.0 sqm	2959.04
Cost per sqm	295.90
Say	295.9

	Cost index **37.29%**				110.34
	Total with Cost index				406.24

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138 Specification Code: 13.52.2

13.52 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.

13.52.2 On concrete work

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm PRIMING COAT MATERIAL:				
0821	Distemper primer	Litre	0.84	70.00	58.80
9999	Sundries-Putty	L.S	13.52	2.00	27.04
9977	Carriage LABOUR:	L.S	0.52	2.00	1.04

0131	Painter	Day	0.25	679.00	169.75
0115	Coolie	Day	0.25	558.00	139.50
9999	Sundries-Brushes, sand paper etc.	L.S	2.73	2.00	5.46
9999	Sundries-EPOXY PAINTING| MATERIAL:	L.S	8.06	2.00	16.12
7239	Epoxy paint	Litre	1.21	230.00	278.30
9999	Sundries-Materials for filling in holes and cracks	L.S	6.76	2.00	13.52
9977	Carriage of materialLABOUR:	L.S	1.43	2.00	2.86
0131	Painter	Day	0.54	679.00	366.66
0115	Coolie	Day	0.54	558.00	301.32
9999	Sundries-Putty, brushes, sand paper etc.	L.S	10.79	2.00	21.58
9999	Sundries-	L.S	6.76	2.00	13.52

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TOTAL	1415.47
Add Water Charges @ 1%	14.15
TOTAL	1429.62
Add CPOH @ 15%	214.44
TOTAL	1644.06
Cost of 10.0 sqm	1644.06
Cost per sqm	164.41
Say	164.4

	Cost index **37.29%**				61.30
	Total with Cost index				225.7

13. SLUDGE STORAGE YARD

139 Specification Code: 2.8.1

2.8 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.

2.8.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. MACHINERY:				
0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.04125	7000.00	288.75
0018	Hire and running charges of loader LABOUR:	Day	0.04125	5000.00	206.25
0128	Mate	Day	0.4	617.00	246.80
0115	Coolie	Day	2.05	558.00	1143.90
				TOTAL	1885.70
				Add Water Charges @ 1%	18.86
				TOTAL	1904.56
				Add CPOH @ 15%	285.68
				TOTAL	2190.24
				Cost of 10.0 cum	2190.24
				Cost per cum	219.02
				Say	219.0

	Cost index **37.29%**				81.67
	Total with Cost index				300.67

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140 Specification Code: 2.26.1

2.26 Extra for every additional lift 1.5 m or part there of in excavation / banking excavated or stacked materials.

2.26.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum LABOUR:				
0128	Mate	Day	0.1	617.00	61.70
0114	Beldar	Day	1.1	558.00	613.80
				TOTAL	675.50
				Add Water Charges @ 1%	6.75
				TOTAL	682.25
				Add CPOH @ 15%	102.34
				TOTAL	784.59
				Cost of 10.0 cum	784.59
				Cost per cum	78.46
				Say	78.45

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	Cost index **37.29%**				29.25
	Total with Cost index				107.7

141 Specification Code: 4.1.8

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.8 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 1 cum MATERIAL:				
0293	Stone Aggregate(single size): 40 mm nominal size nominal size (0.70 cum -7.5% for voids i.e. 0.05 =0.65 cum)	cum	0.65	1300.00	845.00
0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.24	1350.00	324.00
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	0.65	112.79	73.31
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.24	103.77	24.90
0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement	tonne	0.17	4940.00	839.80
2209	Carriage of Cement LABOUR:	tonne	0.17	92.24	15.68
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.52	2.00	27.04

TOTAL	4327.24
Add Water Charges @ 1%	43.27
TOTAL	4370.51
Add CPOH @ 15%	655.58

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TOTAL	5026.09
Cost of 1.0 cum	5026.09
Say	5026.1

	Cost index **37.29%**				1874.23
	Total with Cost index				6900.33

142 Specification Code: od326204/2021_2022

od326204/2021_2022 :Dry rubble masonary with hard stone in foundation and plinth including cost of all materials, labour etc upto plinth level (Modified the item 7.1.1)

Details of cost for 1 cum

Code	Description	Unit	Quantity	Rate	Amount	Remarks
1157	Stone for masonry work	cum	1.05000	1100.00	1155.00	
1154	Through and bond stone size 24 x 24 x 39cm	100 nos	7.00000	5000.00	350.00	
2215	Soling stone & masonry stone	cum	1.21000	122.08	147.72	
MR	Mason (For plain stone work)	Day	1.07000	448.00	479.36	
MR	Beldar	Day	1.07000	368.00	393.76	
MR	Coolie	Day	0.71000	368.00	261.28	
MR	Bhisti	Day	0.09000	407.00	36.63	
9999	Sundries	L.S	4.42000	2.00	8.84	
				TOTAL	2832.59	
				Add Water Charges @ 1%	28.33	
				Add CPOH @ 15%	429.14	
				cost for one cum	3290.05	
				say	3290.05	

Cost index **37.29 %**	719.66

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Total with Cost index	4009.71

143 Specification Code: 5.37.1

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

5.37.1 All wiork upto plinth level

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44

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7318	Plasticizer / super plasticizer 0.50% of cement Production Cost, carriage to site pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40
0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.0	2.00	26.00

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TOTAL	6277.32
Add Water Charges @ 1%	62.77
TOTAL	6340.09
Add CPOH @ 15%	951.01
TOTAL	7291.10
Cost of 1.0 cum	7291.10
Say	7291.1

	Cost index **37.29%**				2718.85
	Total with Cost index				10009.95

144 Specification Code: 5.3

5.3 Reinforced cement concrete work in beams, suspended floors, roofs, having slope up to 15^0 landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases up to floor five level excluding the cost of centering, shuttering, finishing and reinforcement, with1:1.5:3 (1 cement : 1.5 coarse sand (Zone III) : 3 graded stone aggregate 20 mm nominal size).

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum. MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement (0.2225 cum)	tonne	0.4	4940.00	1976.00
2209	Carriage of Cement LABOUR:	tonne	0.4	92.24	36.90
0155	Mason (average)	Day	0.24	709.00	170.16
0114	Beldar	Day	2.75	558.00	1534.50
0101	Bhisti	Day	0.9	617.00	555.30
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.08	800.00	64.00
0012	Vibrator (Needle type 40 mm)	Day	0.08	370.00	29.60

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9999	Sundries-Extra labour for lifting material upto floor V level: Coolie (2.5x0.75)	L.S	14.3	2.00	28.60
0115	Coolie	Day	1.88	558.00	1049.04

TOTAL	7297.65
Add Water Charges @ 1%	72.98
TOTAL	7370.63
Add CPOH @ 15%	1105.59
TOTAL	8476.22
Cost of 1.0 cum	8476.22
Cost per cum	8476.22
Say	8476.2

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	Cost index **37.29%**				3160.77
	Total with Cost index				11636.97

PRICE

145 Specification Code: 5.37.2

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is

payable/recoverable separately.

5.37.2 All work above plinth level upto floor V level

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44
7318	Plasticizer / super plasticizer 0.5% of cement Production Cost, carriage to site, pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40
0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30

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0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-Extra labour for lifting up to floor five level 0.75x 2.5 = 1.88	L.S	13.0	2.00	26.00
0115	Coolie	Day	1.88	558.00	1049.04

TOTAL	7326.36
Add Water Charges @ 1%	73.26
TOTAL	7399.62
Add CPOH @ 15%	1109.94
TOTAL	8509.56
Cost of 1.0 cum	8509.56
Say	8509.55

	Cost index **37.29%**				3173.21
	Total with Cost index				11682.76

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146 Specification Code: od326205/2021_2022

od326205/2021_2022 :Laterate masonry with neatly dressed laterate stone of size 40X20X15cm or nearest size in cement mortar 1:6 for superstructuree above plinth level up to
floor two level including all cost of materials, labour charges etc

Details of cost for 1 cum

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Laterite stone 40 x 20 x 15 cm	Nos	78.00000	46.00	3588.00	
MR	Cement Mortar 1:6	cum	0.08740	3217.50	281.21	
9999	Sundries	L.S	2.73000	2.00	5.46	
MR	Mason 1st class	Day	0.53000	487.00	258.11	

MR	Mason 2nd class	Day	0.53000	448.00	237.44	

MR	Coolie	Day	1.90000	368.00	699.20	
MR	Bhishti	Day	0.45000	407.00	183.15	
9999	Sundries	L.S	22.36000	2.00	44.72	
				TOTAL	5297.29	
				Add Water Charges @ 1%	52.97	
				Add CPOH @ 15%	802.54	
				cost for one cum	6152.80	
				say	6152.80	

Cost index **37.29 %**	21.73
Total with Cost index	6174.53

147 Specification Code: 5.22.6

5.22 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level

5.22.6 Thermo - Mechanically Treated bars of grade Fe-500D or more

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 quintal MATERIAL: Deformed twisted steel bars = 1.00 q Add 5% wastage = 0.05 Total = 1.05q				
1005	Twisted steel/deformed bars	quintal	1.05	4600.00	4830.00
2205	Carriage of Steel	tonne	0.105	92.24	9.69
9999	Sundries-Cover block LABOUR: For straightening, bending binding and placing in postion	L.S	26.0	2.00	52.00
0102	Blacksmith 1st class	Day	1.0	738.00	738.00
0114	Beldar	Day	1.0	558.00	558.00

9999	Sundries-	L.S	26.91	2.00	53.82

TOTAL	6241.51
Add Water Charges @ 1%	62.42
TOTAL	6303.93
Add CPOH @ 15%	945.59
TOTAL	7249.52
Cost of 100.0 kilogram	7249.52
Cost per kilogram	72.50
Say	72.5

	Cost index **37.29%**				27.04
	Total with Cost index				99.54

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148 Specification Code: 5.9.1

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.1 Foundations, footings, bases of columns, etc for mass concrete

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for footing size 2.7mx2.7mx 1.00m Contact area = 10.8sqm MATERIAL: Assuming shuttering material will become unserviceable after use of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				

7319	wall form panel 1250x500 mm Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	860.00	292.40
7326	Corner angle 45x45x5 mm 1.50 m long Qty taken for cost of using once = 4x0.85/40=0.085	each	0.085	240.00	20.40
7327	100 mm channel shoulder 2.5 m long Qty taken for cost of using once = 8x0.85/40=0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	76.00	25.84
7329	Single clip Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	59.00	10.03
7330	M.S. Tube 40 mm dia Qty taken for cost of using once = 10.8x0.85/40 = 0.2295	metre	0.2295	215.00	49.34
9999	Sundries-Assembly nuts 7 bolts Qty taken for cost of using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	0.75	738.00	553.50
0114	Beldar	Day	1.5	558.00	837.00
9999	Sundries-Suttering oil	L.S	52.0	2.00	104.00
9999	Sundries-	L.S	26.0	2.00	52.00

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TOTAL	2299.41
Add Water Charges @ 1%	22.99
TOTAL	2322.40
Add CPOH @ 15%	348.36

TOTAL	2670.76
Cost of 10.8 sqm	2670.76
Cost per sqm	247.29
Say	247.3

	Cost index **37.29%**				92.22
	Total with Cost index				339.52

149 Specification Code: 5.9.5

SUBHEAD : **5.0**

REINFORCED CEMENT CONCRETE

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.5 Lintels, beams, plinth beams, girders bressumers and cantilevers

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Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for a beam of 6 m clear span, 0.50 m deep 0.30 m wide and height 3.5 m from floor cubical contents 6.60x0.5x0.3 = 0.99 cum 1x1.30x6.00 = 7.80 sqm MATERIAL: Assuming shuttering will become unserviceable after use of 40 times Add maintenance charges @ 10% of cost of material Less salvage value of material after full use @25% of cost of material 1. Steel plats for side and bottom (plate size 1.20 x 0.50 m) Angle 40x40x5mm 2x1.20 = 2.40 m 3x0.50 = 1.50 m Total 3.90 m @ 3.00 kg/m = 11.70 kg sheet 1.6 mm thick 1.20 m x 0.50 m =0.60 sqm 0.60 sqm @ 12.55 kg/sqm. = 7.53 kg.Weight of one plate = 19.23 kg. Add for wastage 5% 0.96 kg. Total = 20.19 kg Total weight of all plates 3x5x20.19 = 302.85 kg Qty taken for cost of using once= 302.85 x 85/40 = 6.4356 kg				
10.1	Rate as per item Number10.1 of SH: Steel Work	kilogram	6.4356	74.70	480.74(A)
7343	Adjustable telescopic prop 3 m (2.02-3.75m) Qty taken for using once = 6x0.85/40 = 0.1275m	each	0.1275	955.00	121.76
7344	Beam clamp 300-380 mm (450-1070 mm) Qty taken for cost of using once = 5x0.85/40 = 0.1063 m	each set	0.1063	355.00	37.74

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9999	Sundries - Assembly nut & bolts etc. Qty taken for cost of using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9999	Sundries - Carriage LABOUR:	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	1.25	738.00	922.50
0114	Beldar	Day	2.5	558.00	1395.00
9999	Sundries - Shuttering oil	L.S	39.0	2.00	78.00
9999	Sundries - paper tape etc	L.S	24.61	2.00	49.22

AddWater Charges @ 1% except on A ie on (3285.16-480.74=2804.42)	28.04
TOTAL	3313.20
AddCPOH @ 15% except on A ie on (3313.2-480.74=2832.46)	424.87
TOTAL	3738.15
Cost of 7.8 sqm	3738.15
Cost of 1 sqm	479.25
Say	479.25

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	Cost index **37.29%**				178.71
	Total with Cost index				657.96

150 Specification Code: 5.9.6

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.6 Columns, Pillars, Piers, Abutments, Posts and Struts

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 4.5 sqm. Size of column 450x450mm and 2.5 m high Area of contact = 4x0.45x2.5 = 4.5 sqm MATERIAL:Assuming shuttering will become unserviceable after use of 40 times Add maintenance charges @ 10 % of cost of material Less salvage value of material after full use @ 25% of cost of material				
7331	Wall form panel 1250x450xmm Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	860.00	146.20
7332	Corner angle 45x45x5 mm 2.50 long Qty taken for cost of using once = 4x0.85/40 = 0.085	each	0.085	255.00	21.68
7333	Column clamp 450x1070 mm Qty taken for cost of using once = 5x0.85/40 = 0.1063	each	0.1063	965.00	102.58
7334	Prop 2 m (2-3.5m) Qty taken for cost of using once = 4x0.85/40 = 0.085	each	0.085	635.00	53.98
9999	Sundries-Qty taken for cost of using once = 1300x0.85/40 = 27.62	L.S	27.62	2.00	55.24
9977	Carriage LABOUR	L.S	52.0	2.00	104.00
0116	Fitter(grade1)	Day	1.0	738.00	738.00
0114	Beldar	Day	2.0	558.00	1116.00
9999	Sundries-Shuttering oil	L.S	39.0	2.00	78.00
9999	Sundries-Carriage	L.S	26.0	2.00	52.00

TOTAL	2467.68
Add Water Charges @ 1%	24.68
TOTAL	2492.36

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Add CPOH @ 15%	373.85
TOTAL	2866.21
Cost of 4.5 sqm	2866.21
Cost per sqm	636.94
Say	636.95

	Cost index **37.29%**				237.52
	Total with Cost index				874.47

151 Specification Code: 2.25

2.25 Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. LABOUR:				
0128	Mate	Day	0.2	617.00	123.40
0115	Coolie	Day	2.5	558.00	1395.00
0101	Bhisti	Day	0.2	617.00	123.40
				TOTAL	1641.80
				Add Water Charges @ 1%	16.42
				TOTAL	1658.22
				Add CPOH @ 15%	248.73
				TOTAL	1906.95
				Cost of 10.0 cum	1906.95
				Cost per cum	190.69
				Say	190.7

	Cost index **37.29%**				71.11
	Total with Cost index				261.81

152 Specification Code: 13.1.1

13.1 12 mm cement plaster of mix:

13.1.1 1:4 (1 cement : 4 fine sand)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:4(1 cement: 4 fine sand)				
3.4	Rate as per item Number3.4 of SH: Mortars	cum	0.144	3528.85	508.15
0155	Mason (average)	Day	0.67	709.00	475.03
0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64
9999	Sundries-	L.S	12.61	2.00	25.22
				TOTAL	1994.54
				Add Water Charges @ 1%	19.95
				TOTAL	2014.49
				Add CPOH @ 15%	302.17
				TOTAL	2316.66
				Cost of 10.0 sqm	2316.66
				Cost per sqm	231.67
				Say	231.65

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	Cost index **37.29%**				86.38
	Total with Cost index				318.03

153 Specification Code: 11.41.2

11.41 Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS : 15622, of approved make, in all colours and shades, laid on 20 mm thick cement mortar 1:4(1 cement : 4 coarse sand), including grouting the joints with white cement and matching pigments etc., complete.

11.41.2 Size of Tile 600 x 600 mm.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 sqm. MATERIAL: Vitrified floor tiles 60x60 cm size = 1.00 sqm Add for wastage & breakage @ 2.5 % = 0.025 sqm Total = 1.025 sqm				
8621	Vitrified floor tile 60x60 cm	sqm	1.025	659.72	676.21
9977	Carriage of tiles20 mm 'thick cement mortar 1:4 (1 cement : 4 coarse sand)	L.S	6.24	2.00	12.48
3.9	Rate as per item Number3.9 of SH: Mortars 20 mm thick cement mortar 1:4(1 cement: coarse sand)	cum	0.024	4010.35	96.25
9999	Sundries-Mortar for pointing in white cement Cement for slurry over bed @ 3.3 kg per sqm	L.S	3.64	2.00	7.28
0367	Portland Cement LABOUR:	tonne	0.0033	4940.00	16.30

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0123	Mason (brick layer) Ist class	Day	0.2	738.00	147.60
0115	Coolie	Day	0.2	558.00	111.60
9988	Carriage and sundries of cement etc	L.S	26.91	2.00	53.82

TOTAL	1121.54
Add Water Charges @ 1%	11.22
TOTAL	1132.76
Add CPOH @ 15%	169.91
TOTAL	1302.67
Cost of 1.0 sqm	1302.67
Cost per sqm	1302.67
Say	1302.65

	Cost index **37.29%**				485.76
	Total with Cost index				1788.41

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154 Specification Code: 13.1.2

13.1 12 mm cement plaster of mix:

13.1.2 1:6 (1 cement : 6 fine sand).

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm. MATERIAL: Cement mortar 1 : 6 (1 cement: 6 fine sand)				
3.6	Rate as per item Number3.6 of SH: Mortars LABOUR:	cum	0.144	2874.65	413.95
0155	Mason (average)	Day	0.67	709.00	475.03

0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64
9999	Sundries-Scaffolding and sundries	L.S	12.61	2.00	25.22

TOTAL	1900.34
Add Water Charges @ 1%	19.00
TOTAL	1919.34
Add CPOH @ 15%	287.90
TOTAL	2207.24
Cost of 10.0 sqm	2207.24
Cost per sqm	220.72
Say	220.7

	Cost index **37.29%**				82.30
	Total with Cost index				303.0

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PRICE

155 Specification Code: 13.43.1

13.43 Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface:

13.43.1 Water thinnable cement primer

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL:				
0808	Water thinnable cement primer for interior wall surface, having VOC content less than 50 gms/litre	Litre	0.7	50.00	35.00
9999	Sundries-Brushes, putty etc. LABOUR:	L.S	7.15	2.00	14.30

0131	Painter	Day	0.4	679.00	271.60
0115	Coolie	Day	0.2	558.00	111.60
9988	Carriage and sundries	L.S	8.06	2.00	16.12

TOTAL	448.62
Add Water Charges @ 1%	4.49
TOTAL	453.11
Add CPOH @ 15%	67.97
TOTAL	521.08
Cost of 10.0 sqm	521.08
Cost per sqm	52.11
Say	52.1

	Cost index **37.29%**				19.43
	Total with Cost index				71.53

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156 Specification Code: 13.82.2

13.82 Wall painting with acrylic emulsion paint, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture including applying additional coats wherever required, to achieve even shade and colour.

13.82.2 Two coats

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL:				
0803	Acrylic emulsion, having VOC content less than 50 gm/litre	Litre	0.84	94.00	78.96

9999	Sundries-For filling holes and cracks with putty etc	L.S	1.43	2.00	2.86
9977	Carriage of material LABOUR:	L.S	6.76	2.00	13.52
0131	Painter	Day	0.54	679.00	366.66
0115	Coolie	Day	0.54	558.00	301.32
9999	Sundries-Brushes, sand paper etc.	L.S	10.79	2.00	21.58
9999	Sundries-	L.S	6.76	2.00	13.52

TOTAL	798.42
Add Water Charges @ 1%	7.98
TOTAL	806.40
Add CPOH @ 15%	120.96
TOTAL	927.36
Cost of 10.0 sqm	927.36
Cost per sqm	92.74
Say	92.75

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	Cost index **37.29%**				34.59
	Total with Cost index				127.34

157 Specification Code: 10.3

SUBHEAD : **10.0**

STEEL WORK

10.3 Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2 mm and braced with flat iron diagonals 20x5 mm size, with top and bottom rail of T-iron 40x40x6 mm, with 40 mm dia steel pulleys, complete with bolts, nuts,locking arrangement, stoppers, handles, including applying a priming

coat of approved steel primer .

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for a gate 2.4m x1.5 m = 3.6 sqm. MATERIAL: M.S. channels 18 Nos. on both sides 20x10x2mm @ 0.56kg/m 2x18x2.4 = 86.40 m + Add wastage @ 10% = 8.64 Total = 95.04 m 95.04 m @ 56 kg /m = 53.22kg = 0.53 q				
1007	Structural steel such as tees, angles, channels and R.S. joists M.S. Tee - 40x40x6 mm for bottom - 1.5 70 m + for top = 1.725 m = 3.295 m Say 3.3 m 3.3 @ 3.5kg/m = 11.55 kg+ Add wastage @ 10% = 1.155 kg Total = 12.705 kg. Say 0.13 qtl	quintal	0.53	4600.00	2438.00
1007	Structural steel such as tees, angles, channels and R.S. joists 20mmx5mm flat iron diagonals 4 Nos. 4x32x0.5334= 68.275 m 68.275 m @ 0.8kg/m = 54.62 kg+ Add wastage @ 10% = 5.46 kg Total = 60.08kg = 0.60 qtl	quintal	0.13	4600.00	598.00
1008	Flats up to 10 mm in thickness	quintal	0.6	4500.00	2700.00
2205	Carriage of Steel Carriage of steel (0.053+0.013+0.060= 0.126 tonne)	tonne	0.126	92.24	11.62
9999	Sundries - Cost of rivets fixing hooks and washers	L.S	269.1	2.00	538.20

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9999	Sundries - Cost of locking arrangements and handles.	L.S	67.34	2.00	134.68
4013	Pulley 40 mm dia Priming coat- Channel-36x0.076x2.4 = 6.57 sqm.+ Tee 0.16x3.3 = 0.53 sqm. + Flats - 0.05x68 = 3.40 sqm. Total = 10.50sqm	each	10.0	30.00	300.00
13.50.3	Rate as per item Number13.50.3 of SH: Finishing LABOUR:	sqm	10.5	44.00	462.00(A)
0116	Fitter(grade1)	Day	3.0	738.00	2214.00
0102	Blacksmith 1st class	Day	6.0	738.00	4428.00
0103	Blacksmith 2nd class	Day	6.0	679.00	4074.00
0123	Mason (brick layer) Ist class	Day	0.5	738.00	369.00
0124	Mason (brick layer)2nd class	Day	0.5	679.00	339.50
0114	Beldar	Day	8.0	558.00	4464.00
9999	Sundries -	L.S	161.46	2.00	322.92

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AddWater Charges @ 1% except on A ie on (23393.92-462.0=22931.92)	229.32
TOTAL	23623.24
AddCPOH @ 15% except on A ie on (23623.24-462.0=23161.24)	3474.19
TOTAL	27097.38
Cost of 3.6 sqm	27097.38
Cost of 1 sqm	7527.05
Say	7527.05

	Cost index **37.29%**				2806.84

	Total with Cost index				10333.89

FOUNDATIONS-GENERATOR

158 Specification Code: 2.8.1

2.8 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.

2.8.1 All kinds of soil

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. MACHINERY:				
0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.04125	7000.00	288.75
0018	Hire and running charges of loader LABOUR:	Day	0.04125	5000.00	206.25
0128	Mate	Day	0.4	617.00	246.80
0115	Coolie	Day	2.05	558.00	1143.90
				TOTAL	1885.70
				Add Water Charges @ 1%	18.86
				TOTAL	1904.56
				Add CPOH @ 15%	285.68
				TOTAL	2190.24
				Cost of 10.0 cum	2190.24
				Cost per cum	219.02
				Say	219.0

	Cost index **37.29%**				81.67
	Total with Cost index				300.67

159 Specification Code: 4.1.8

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.8 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL:				
0293	Stone Aggregate(single size): 40 mm nominal size nominal size (0.70 cum -7.5% for voids i.e. 0.05 =0.65 cum)	cum	0.65	1300.00	845.00
0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.24	1350.00	324.00
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	0.65	112.79	73.31
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.24	103.77	24.90
0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement	tonne	0.17	4940.00	839.80
2209	Carriage of Cement LABOUR:	tonne	0.17	92.24	15.68
0155	Mason (average)	Day	0.1	709.00	70.90

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0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.52	2.00	27.04

TOTAL	4327.24
Add Water Charges @ 1%	43.27
TOTAL	4370.51
Add CPOH @ 15%	655.58
TOTAL	5026.09
Cost of 1.0 cum	5026.09
Say	5026.1

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	Cost index **37.29%**				1874.23
	Total with Cost index				6900.33

PRICE

160 Specification Code: 5.37.1

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

5.37.1 All wiork upto plinth level

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44
7318	Plasticizer / super plasticizer 0.50% of cement Production Cost, carriage to site pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40
0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90

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PRICE

9999	Sundries-	L.S	13.0	2.00	26.00

TOTAL	6277.32
Add Water Charges @ 1%	62.77
TOTAL	6340.09
Add CPOH @ 15%	951.01
TOTAL	7291.10
Cost of 1.0 cum	7291.10
Say	7291.1

	Cost index **37.29%**				2718.85
	Total with Cost index				10009.95

Kerala Water Authority

161 Specification Code: 5.22.6

PRICE

5.22 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level

5.22.6 Thermo - Mechanically Treated bars of grade Fe-500D or more

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 quintal MATERIAL: Deformed twisted steel bars = 1.00 q Add 5% wastage = 0.05 Total = 1.05q				
1005	Twisted steel/deformed bars	quintal	1.05	4600.00	4830.00
2205	Carriage of Steel	tonne	0.105	92.24	9.69

9999	Sundries-Cover block LABOUR: For straightening, bending binding and placing in postion	L.S	26.0	2.00	52.00
0102	Blacksmith 1st class	Day	1.0	738.00	738.00
0114	Beldar	Day	1.0	558.00	558.00
9999	Sundries-	L.S	26.91	2.00	53.82

TOTAL	6241.51
Add Water Charges @ 1%	62.42
TOTAL	6303.93
Add CPOH @ 15%	945.59
TOTAL	7249.52
Cost of 100.0 kilogram	7249.52
Cost per kilogram	72.50
Say	72.5

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PRICE

	Cost index **37.29%**				27.04
	Total with Cost index				99.54

162 Specification Code: 5.9.1

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.1 Foundations, footings, bases of columns, etc for mass concrete

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for footing size 2.7mx2.7mx 1.00m Contact area = 10.8sqm MATERIAL: Assuming shuttering material will become unserviceable after use of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	860.00	292.40
7326	Corner angle 45x45x5 mm 1.50 m long Qty taken for cost of using once = 4x0.85/40=0.085	each	0.085	240.00	20.40
7327	100 mm channel shoulder 2.5 m long Qty taken for cost of using once = 8x0.85/40=0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	76.00	25.84
7329	Single clip Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	59.00	10.03
7330	M.S. Tube 40 mm dia Qty taken for cost of using once = 10.8x0.85/40 = 0.2295	metre	0.2295	215.00	49.34
9999	Sundries-Assembly nuts 7 bolts Qty taken for cost of using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	0.75	738.00	553.50
0114	Beldar	Day	1.5	558.00	837.00

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9999	Sundries-Suttering oil	L.S	52.0	2.00	104.00
9999	Sundries-	L.S	26.0	2.00	52.00

TOTAL	2299.41
Add Water Charges @ 1%	22.99
TOTAL	2322.40
Add CPOH @ 15%	348.36
TOTAL	2670.76
Cost of 10.8 sqm	2670.76
Cost per sqm	247.29
Say	247.3

	Cost index **37.29%**				92.22
	Total with Cost index				339.52

Kerala Water Authority
PRICE

163 Specification Code: 13.52.2

13.52 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.

13.52.2 On concrete work

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm PRIMING COAT MATERIAL:				
0821	Distemper primer	Litre	0.84	70.00	58.80
9999	Sundries-Putty	L.S	13.52	2.00	27.04
9977	Carriage LABOUR:	L.S	0.52	2.00	1.04

0131	Painter	Day	0.25	679.00	169.75
0115	Coolie	Day	0.25	558.00	139.50
9999	Sundries-Brushes, sand paper etc.	L.S	2.73	2.00	5.46
9999	Sundries-EPOXY PAINTING| MATERIAL:	L.S	8.06	2.00	16.12
7239	Epoxy paint	Litre	1.21	230.00	278.30
9999	Sundries-Materials for filling in holes and cracks	L.S	6.76	2.00	13.52
9977	Carriage of materialLABOUR:	L.S	1.43	2.00	2.86
0131	Painter	Day	0.54	679.00	366.66
0115	Coolie	Day	0.54	558.00	301.32
9999	Sundries-Putty, brushes, sand paper etc.	L.S	10.79	2.00	21.58
9999	Sundries-	L.S	6.76	2.00	13.52

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PRICE

TOTAL	1415.47
Add Water Charges @ 1%	14.15
TOTAL	1429.62
Add CPOH @ 15%	214.44
TOTAL	1644.06
Cost of 10.0 sqm	1644.06
Cost per sqm	164.41
Say	164.4

	Cost index **37.29%**				61.30
	Total with Cost index				225.7

FILTER FOUNDATION

164 Specification Code: 2.8.1

2.8 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.

2.8.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. MACHINERY:				
0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.04125	7000.00	288.75
0018	Hire and running charges of loader LABOUR:	Day	0.04125	5000.00	206.25
0128	Mate	Day	0.4	617.00	246.80
0115	Coolie	Day	2.05	558.00	1143.90
				TOTAL	1885.70
				Add Water Charges @ 1%	18.86
				TOTAL	1904.56
				Add CPOH @ 15%	285.68
				TOTAL	2190.24
				Cost of 10.0 cum	2190.24
				Cost per cum	219.02
				Say	219.0

	Cost index **37.29%**				81.67
	Total with Cost index				300.67

Kerala Water Authority
PRICE

165 Specification Code: 4.1.8

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.8 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL:				
0293	Stone Aggregate(single size): 40 mm nominal size nominal size (0.70 cum -7.5% for voids i.e. 0.05 =0.65 cum)	cum	0.65	1300.00	845.00
0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.24	1350.00	324.00
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	0.65	112.79	73.31
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.24	103.77	24.90
0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement	tonne	0.17	4940.00	839.80
2209	Carriage of Cement LABOUR:	tonne	0.17	92.24	15.68
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90

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9999	Sundries-	L.S	13.52	2.00	27.04

TOTAL	4327.24
Add Water Charges @ 1%	43.27
TOTAL	4370.51
Add CPOH @ 15%	655.58
TOTAL	5026.09
Cost of 1.0 cum	5026.09
Say	5026.1

	Cost index **37.29%**				1874.23
	Total with Cost index				6900.33

166 Specification Code: 5.37.1

Kerala Water Authority
PRICE

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

5.37.1 All wiork upto plinth level

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				

0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44
7318	Plasticizer / super plasticizer 0.50% of cement Production Cost, carriage to site pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40
0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.0	2.00	26.00

TOTAL	6277.32
Add Water Charges @ 1%	62.77
TOTAL	6340.09

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PRICE

Add CPOH @ 15%	951.01
TOTAL	7291.10
Cost of 1.0 cum	7291.10
Say	7291.1

	Cost index **37.29%**				2718.85
	Total with Cost index				10009.95

167 Specification Code: 5.22.6

5.22 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level

5.22.6 Thermo - Mechanically Treated bars of grade Fe-500D or more

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PRICE

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 quintal MATERIAL: Deformed twisted steel bars = 1.00 q Add 5% wastage = 0.05 Total = 1.05q				
1005	Twisted steel/deformed bars	quintal	1.05	4600.00	4830.00
2205	Carriage of Steel	tonne	0.105	92.24	9.69
9999	Sundries-Cover block LABOUR: For straightening, bending binding and placing in postion	L.S	26.0	2.00	52.00
0102	Blacksmith 1st class	Day	1.0	738.00	738.00
0114	Beldar	Day	1.0	558.00	558.00
9999	Sundries-	L.S	26.91	2.00	53.82

TOTAL	6241.51
Add Water Charges @ 1%	62.42
TOTAL	6303.93
Add CPOH @ 15%	945.59
TOTAL	7249.52
Cost of 100.0 kilogram	7249.52
Cost per kilogram	72.50
Say	72.5

	Cost index **37.29%**				27.04
	Total with Cost index				99.54

168 Specification Code: 5.9.1

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5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.1 Foundations, footings, bases of columns, etc for mass concrete

PRICE

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for footing size 2.7mx2.7mx 1.00m Contact area = 10.8sqm MATERIAL: Assuming shuttering material will become unserviceable after use of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	860.00	292.40

7326	Corner angle 45x45x5 mm 1.50 m long Qty taken for cost of using once = 4x0.85/40=0.085	each	0.085	240.00	20.40
7327	100 mm channel shoulder 2.5 m long Qty taken for cost of using once = 8x0.85/40=0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	76.00	25.84
7329	Single clip Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	59.00	10.03
7330	M.S. Tube 40 mm dia Qty taken for cost of using once = 10.8x0.85/40 = 0.2295	metre	0.2295	215.00	49.34
9999	Sundries-Assembly nuts 7 bolts Qty taken for cost of using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	0.75	738.00	553.50
0114	Beldar	Day	1.5	558.00	837.00
9999	Sundries-Suttering oil	L.S	52.0	2.00	104.00
9999	Sundries-	L.S	26.0	2.00	52.00

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PRICE

TOTAL	2299.41
Add Water Charges @ 1%	22.99
TOTAL	2322.40
Add CPOH @ 15%	348.36
TOTAL	2670.76
Cost of 10.8 sqm	2670.76
Cost per sqm	247.29

Say	247.3

	Cost index **37.29%**				92.22
	Total with Cost index				339.52

169 Specification Code: 13.52.2

13.52 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.

13.52.2 On concrete work

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm PRIMING COAT MATERIAL:				
0821	Distemper primer	Litre	0.84	70.00	58.80
9999	Sundries-Putty	L.S	13.52	2.00	27.04
9977	Carriage LABOUR:	L.S	0.52	2.00	1.04
0131	Painter	Day	0.25	679.00	169.75
0115	Coolie	Day	0.25	558.00	139.50
9999	Sundries-Brushes, sand paper etc.	L.S	2.73	2.00	5.46
9999	Sundries-EPOXY PAINTING| MATERIAL:	L.S	8.06	2.00	16.12
7239	Epoxy paint	Litre	1.21	230.00	278.30
9999	Sundries-Materials for filling in holes and cracks	L.S	6.76	2.00	13.52
9977	Carriage of materialLABOUR:	L.S	1.43	2.00	2.86

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PRICE

0131	Painter	Day	0.54	679.00	366.66
0115	Coolie	Day	0.54	558.00	301.32
9999	Sundries-Putty, brushes, sand paper etc.	L.S	10.79	2.00	21.58
9999	Sundries-	L.S	6.76	2.00	13.52

TOTAL	1415.47
Add Water Charges @ 1%	14.15
TOTAL	1429.62
Add CPOH @ 15%	214.44
TOTAL	1644.06
Cost of 10.0 sqm	1644.06
Cost per sqm	164.41
Say	164.4

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	Cost index **37.29%**				61.30
	Total with Cost index				225.7

PRICE

PUMP HOUSE

170 Specification Code: 2.8.1

2.8 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.

2.8.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. MACHINERY:				

0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.04125	7000.00	288.75
0018	Hire and running charges of loader LABOUR:	Day	0.04125	5000.00	206.25
0128	Mate	Day	0.4	617.00	246.80
0115	Coolie	Day	2.05	558.00	1143.90

TOTAL	1885.70
Add Water Charges @ 1%	18.86
TOTAL	1904.56
Add CPOH @ 15%	285.68
TOTAL	2190.24
Cost of 10.0 cum	2190.24
Cost per cum	219.02
Say	219.0

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PRICE

	Cost index **37.29%**				81.67
	Total with Cost index				300.67

171 Specification Code: 7.1.1

7.1 Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) up to plinth level with:

7.1.1 Cement mortar 1:6 (1 cement : 6 coarse sand)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL				

1157	Stone for masonry work	cum	1.0	1100.00	1100.00
1154	Through and bond stone size 24 x 24 x 39cm CARRIAGE:	100 nos	7.0	5000.00	350.0
2215	Carriage of Soling stone & masonry stone 7.00x24cmx39cm = 0.16 cum 1.00 cum + 0.16 cum. = 1.16 cum Cement mortar 1:6 (1 cement : 6 Coarse sand)	cum	1.16	122.08	141.61
3.11	Rate as per item Number3.11 of SH: Mortars LABOUR:	cum	0.33	3356.15	1107.53
0125	Mason (for plain stone work) 2nd class	Day	1.07	679.00	726.53
0114	Beldar	Day	1.07	558.00	597.06
0115	Coolie	Day	0.71	558.00	396.18
0101	Bhisti	Day	0.09	617.00	55.53
9999	Sundries-Cement concrete 1:6:12	L.S	45.76	2.00	91.52
9999	Sundries-	L.S	4.42	2.00	8.84

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TOTAL	4574.80
Add Water Charges @ 1%	45.75
TOTAL	4620.55
Add CPOH @ 15%	693.08
TOTAL	5313.63
Cost of 1.0 cum	5313.63
Cost per cum	5313.63
Say	5313.65

	Cost index **37.29%**				1981.46
	Total with Cost index				7295.11

172 Specification Code: 5.3

5.3 Reinforced cement concrete work in beams, suspended floors, roofs, having slope up to 15^0 landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases up to floor five level excluding the cost of centering, shuttering, finishing and reinforcement, with1:1.5:3 (1 cement : 1.5 coarse sand (Zone III) : 3 graded stone aggregate 20 mm nominal size).

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum. MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement (0.2225 cum)	tonne	0.4	4940.00	1976.00
2209	Carriage of Cement LABOUR:	tonne	0.4	92.24	36.90
0155	Mason (average)	Day	0.24	709.00	170.16
0114	Beldar	Day	2.75	558.00	1534.50
0101	Bhisti	Day	0.9	617.00	555.30
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.08	800.00	64.00
0012	Vibrator (Needle type 40 mm)	Day	0.08	370.00	29.60

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9999	Sundries-Extra labour for lifting material upto floor V level: Coolie (2.5x0.75)	L.S	14.3	2.00	28.60
0115	Coolie	Day	1.88	558.00	1049.04

TOTAL	7297.65
Add Water Charges @ 1%	72.98
TOTAL	7370.63
Add CPOH @ 15%	1105.59
TOTAL	8476.22
Cost of 1.0 cum	8476.22
Cost per cum	8476.22
Say	8476.2

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	Cost index **37.29%**				3160.77
	Total with Cost index				11636.97

PRICE

173 Specification Code: od326205/2021_2022

od326205/2021_2022 :Laterate masonry with neatly dressed laterate stone of size 40X20X15cm or nearest size in cement mortar 1:6 for superstructuree above plinth level up to
floor two level including all cost of materials, labour charges etc

Details of cost for 1 cum

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Laterite stone 40 x 20 x 15 cm	Nos	78.00000	46.00	3588.00	
MR	Cement Mortar 1:6	cum	0.08740	3217.50	281.21	
9999	Sundries	L.S	2.73000	2.00	5.46	

MR	Mason 1st class	Day	0.53000	487.00	258.11	

MR	Mason 2nd class	Day	0.53000	448.00	237.44	
MR	Coolie	Day	1.90000	368.00	699.20	
MR	Bhishti	Day	0.45000	407.00	183.15	
9999	Sundries	L.S	22.36000	2.00	44.72	
				TOTAL	5297.29	
				Add Water Charges @ 1%	52.97	
				Add CPOH @ 15%	802.54	
				cost for one cum	6152.80	
				say	6152.80	

Cost index **37.29 %**	21.73
Total with Cost index	6174.53

174 Specification Code: 5.22.6

5.22 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level

5.22.6 Thermo - Mechanically Treated bars of grade Fe-500D or more

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 quintal MATERIAL: Deformed twisted steel bars = 1.00 q Add 5% wastage = 0.05 Total = 1.05q				
1005	Twisted steel/deformed bars	quintal	1.05	4600.00	4830.00
2205	Carriage of Steel	tonne	0.105	92.24	9.69
9999	Sundries-Cover block LABOUR: For straightening, bending binding and placing in postion	L.S	26.0	2.00	52.00
0102	Blacksmith 1st class	Day	1.0	738.00	738.00

0114	Beldar	Day	1.0	558.00	558.00
9999	Sundries-	L.S	26.91	2.00	53.82

TOTAL	6241.51
Add Water Charges @ 1%	62.42
TOTAL	6303.93
Add CPOH @ 15%	945.59
TOTAL	7249.52
Cost of 100.0 kilogram	7249.52
Cost per kilogram	72.50
Say	72.5

	Cost index **37.29%**				27.04
	Total with Cost index				99.54

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175 Specification Code: 5.9.3

SUBHEAD : **5.0**

REINFORCED CEMENT CONCRETE

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.3 Suspended floors, roofs, landings, balconies and access platform

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for a room 4.5x3 = 13.50 sqm height 3.5 m MATERIAL: Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost 1. Plates (size 0.75x0.60) Angle 40x40x5 mm 2x0.75 = 1.5 m 2x0.60 = 1.20 m = 2.70 m @ 3.00 kg/m = 8.10 kg sheet 1.6 mm thick 0.75x0.60 = 0.45 sqm 0.45 sqm @ 12.55 kg/sqm = 5.65 kg Weight of one plate = 13.75 kg Add for wastage @ 5% = 0.69 kg Total = 14.44 kg Total weight of all plates = 5x6x14.44= 433.20 kg. Qty taken for cost using once = 433.2x0.85/40 = 9.2055 kg				
10.1	Rate as per item Number10.1 of SH: Steel Work	kilogram	9.2055	74.70	687.65(A)
7342	Adjustable span ESO+SI (2.35-3.40) Qty taken for cost using once = 5x0.85/40 =0.1063	each	0.1063	1480.00	157.32
7343	Adjustable telescopic prop 3 m (2.02-3.75m) Qty taken for cost using once = 6x0.85/40 = 0.1275	each	0.1275	955.00	121.76
9999	Sundries - Assembly nut & nolts etc. Qty taken for cost using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9999	Sundries - Carriage LABOUR: Fitter (grade 1)	L.S	130.0	2.00	260.00

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0116	Fitter(grade1)	Day	3.0	738.00	2214.00
0114	Beldar	Day	6.0	558.00	3348.00
9999	Sundries - Shuttering oil	L.S	78.0	2.00	156.00
9999	Sundries - paper tape etc	L.S	49.7	2.00	99.40

AddWater Charges @ 1% except on A ie on (7088.33-687.65=6400.68)	64.01
TOTAL	7152.34
AddCPOH @ 15% except on A ie on (7152.34-687.65=6464.69)	969.70
TOTAL	8122.27
Cost of 13.5 sqm	8122.27
Cost of 1 sqm	601.65
Say	601.65

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	Cost index **37.29%**				224.36
	Total with Cost index				826.01

PRICE

176 Specification Code: 2.25

2.25 Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. LABOUR:				
0128	Mate	Day	0.2	617.00	123.40
0115	Coolie	Day	2.5	558.00	1395.00
0101	Bhisti	Day	0.2	617.00	123.40

TOTAL	1641.80
Add Water Charges @ 1%	16.42
TOTAL	1658.22
Add CPOH @ 15%	248.73
TOTAL	1906.95
Cost of 10.0 cum	1906.95
Cost per cum	190.69
Say	190.7

	Cost index **37.29%**				71.11
	Total with Cost index				261.81

177 Specification Code: 13.1.1

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13.1 12 mm cement plaster of mix:

13.1.1 1:4 (1 cement : 4 fine sand)

PRICE

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:4(1 cement: 4 fine sand)				
3.4	Rate as per item Number3.4 of SH: Mortars	cum	0.144	3528.85	508.15
0155	Mason (average)	Day	0.67	709.00	475.03
0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64
9999	Sundries-	L.S	12.61	2.00	25.22
				TOTAL	1994.54
				Add Water Charges @ 1%	19.95

TOTAL	2014.49
Add CPOH @ 15%	302.17
TOTAL	2316.66
Cost of 10.0 sqm	2316.66
Cost per sqm	231.67
Say	231.65

	Cost index **37.29%**				86.38
	Total with Cost index				318.03

178 Specification Code: 13.17

13.17 6 mm cement plaster 1:3 (1 cement : 3 fine sand) finished with a floating coat of neat cement and thick coat of Lime wash on top of walls when dry for bearing of R.C.C. slabs and beams.

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:3 (1 cement : 3 fine sand)				
3.3	Rate as per item Number3.3 of SH: Mortars LABOUR:	cum	0.072	4183.05	301.18
0155	Mason (average)	Day	0.51	709.00	361.59
0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64
9999	Sundries-Extra for removing burrs, cleaning with wire brushes, pock making with pointed tool etc. complete	L.S	13.39	2.00	26.78
9999	Sundries-Scaffolding and sundries.	L.S	11.7	2.00	23.40

0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	Day	0.27	709.00	191.43
0115	Coolie	Day	0.27	558.00	150.66
9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12
0776	Satna lime	quintal	0.01	370.00	3.70
9999	Sundries-Indigo gum etc.	L.S	2.08	2.00	4.16
9999	Sundries-Sundries, ladder etc.	L.S	0.52	2.00	1.04
0141	White Washer	Day	0.07	617.00	43.19
0115	Coolie	Day	0.07	558.00	39.06
9999	Sundries-	L.S	2.73	2.00	5.46

TOTAL	2254.55
Add Water Charges @ 1%	22.55
TOTAL	2277.10
Add CPOH @ 15%	341.57
TOTAL	2618.67
Cost of 10.0 sqm	2618.67
Cost per sqm	261.87
Say	261.85

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	Cost index **37.29%**				97.64
	Total with Cost index				359.49

179 Specification Code: 11.41.2

11.41 Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS : 15622, of approved make, in all colours and shades, laid on 20 mm thick

cement mortar 1:4(1 cement : 4 coarse sand), including grouting the joints with white cement and matching pigments etc., complete.

11.41.2 Size of Tile 600 x 600 mm.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 sqm. MATERIAL: Vitrified floor tiles 60x60 cm size = 1.00 sqm Add for wastage & breakage @ 2.5 % = 0.025 sqm Total = 1.025 sqm				
8621	Vitrified floor tile 60x60 cm	sqm	1.025	659.72	676.21
9977	Carriage of tiles20 mm 'thick cement mortar 1:4 (1 cement : 4 coarse sand)	L.S	6.24	2.00	12.48
3.9	Rate as per item Number3.9 of SH: Mortars 20 mm thick cement mortar 1:4(1 cement: coarse sand)	cum	0.024	4010.35	96.25
9999	Sundries-Mortar for pointing in white cement Cement for slurry over bed @ 3.3 kg per sqm	L.S	3.64	2.00	7.28
0367	Portland Cement LABOUR:	tonne	0.0033	4940.00	16.30
0123	Mason (brick layer) Ist class	Day	0.2	738.00	147.60
0115	Coolie	Day	0.2	558.00	111.60
9988	Carriage and sundries of cement etc	L.S	26.91	2.00	53.82
				TOTAL	1121.54
				Add Water Charges @ 1%	11.22
				TOTAL	1132.76

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Add CPOH @ 15%	169.91
TOTAL	1302.67
Cost of 1.0 sqm	1302.67
Cost per sqm	1302.67
Say	1302.65

	Cost index **37.29%**				485.76
	Total with Cost index				1788.41

180 Specification Code: 13.43.1

13.43 Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface:

13.43.1 Water thinnable cement primer

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL:				
0808	Water thinnable cement primer for interior wall surface, having VOC content less than 50 gms/litre	Litre	0.7	50.00	35.00
9999	Sundries-Brushes, putty etc. LABOUR:	L.S	7.15	2.00	14.30
0131	Painter	Day	0.4	679.00	271.60
0115	Coolie	Day	0.2	558.00	111.60
9988	Carriage and sundries	L.S	8.06	2.00	16.12
				TOTAL	448.62
				Add Water Charges @ 1%	4.49
				TOTAL	453.11

Add CPOH @ 15%	67.97
TOTAL	521.08
Cost of 10.0 sqm	521.08
Cost per sqm	52.11
Say	52.1

	Cost index **37.29%**				19.43
	Total with Cost index				71.53

181 Specification Code: 13.82.2

13.82 Wall painting with acrylic emulsion paint, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture including applying additional coats wherever required, to achieve even shade and colour.

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13.82.2 Two coats

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL:				
0803	Acrylic emulsion, having VOC content less than 50 gm/litre	Litre	0.84	94.00	78.96
9999	Sundries-For filling holes and cracks with putty etc	L.S	1.43	2.00	2.86
9977	Carriage of material LABOUR:	L.S	6.76	2.00	13.52
0131	Painter	Day	0.54	679.00	366.66
0115	Coolie	Day	0.54	558.00	301.32
9999	Sundries-Brushes, sand paper etc.	L.S	10.79	2.00	21.58

9999	Sundries-	L.S	6.76	2.00	13.52

TOTAL	798.42
Add Water Charges @ 1%	7.98
TOTAL	806.40
Add CPOH @ 15%	120.96
TOTAL	927.36
Cost of 10.0 sqm	927.36
Cost per sqm	92.74
Say	92.75

	Cost index **37.29%**				34.59
	Total with Cost index				127.34

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182 Specification Code: 10.3

PRICE

SUBHEAD : **10.0**

STEEL WORK

10.3 Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2 mm and braced with flat iron diagonals 20x5 mm size, with top and bottom rail of T-iron 40x40x6 mm, with 40 mm dia steel pulleys, complete with bolts, nuts,locking arrangement, stoppers, handles, including applying a priming coat of approved steel primer .

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for a gate 2.4m x1.5 m = 3.6 sqm. MATERIAL: M.S. channels 18 Nos. on both sides 20x10x2mm @ 0.56kg/m 2x18x2.4 = 86.40 m + Add wastage @ 10% = 8.64 Total = 95.04 m 95.04 m @ 56 kg /m = 53.22kg = 0.53 q				
1007	Structural steel such as tees, angles, channels and R.S. joists M.S. Tee - 40x40x6 mm for bottom - 1.5 70 m + for top = 1.725 m = 3.295 m Say 3.3 m 3.3 @ 3.5kg/m = 11.55 kg+ Add wastage @ 10% = 1.155 kg Total = 12.705 kg. Say 0.13 qtl	quintal	0.53	4600.00	2438.00
1007	Structural steel such as tees, angles, channels and R.S. joists 20mmx5mm flat iron diagonals 4 Nos. 4x32x0.5334= 68.275 m 68.275 m @ 0.8kg/m = 54.62 kg+ Add wastage @ 10% = 5.46 kg Total = 60.08kg = 0.60 qtl	quintal	0.13	4600.00	598.00
1008	Flats up to 10 mm in thickness	quintal	0.6	4500.00	2700.00
2205	Carriage of Steel Carriage of steel (0.053+0.013+0.060= 0.126 tonne)	tonne	0.126	92.24	11.62
9999	Sundries - Cost of rivets fixing hooks and washers	L.S	269.1	2.00	538.20
9999	Sundries - Cost of locking arrangements and handles.	L.S	67.34	2.00	134.68

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4013	Pulley 40 mm dia Priming coat- Channel-36x0.076x2.4 = 6.57 sqm.+ Tee 0.16x3.3 = 0.53 sqm. + Flats - 0.05x68 = 3.40 sqm. Total = 10.50sqm	each	10.0	30.00	300.00
13.50.3	Rate as per item Number13.50.3 of SH: Finishing LABOUR:	sqm	10.5	44.00	462.00(A)
0116	Fitter(grade1)	Day	3.0	738.00	2214.00
0102	Blacksmith 1st class	Day	6.0	738.00	4428.00
0103	Blacksmith 2nd class	Day	6.0	679.00	4074.00
0123	Mason (brick layer) Ist class	Day	0.5	738.00	369.00
0124	Mason (brick layer)2nd class	Day	0.5	679.00	339.50
0114	Beldar	Day	8.0	558.00	4464.00
9999	Sundries -	L.S	161.46	2.00	322.92

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AddWater Charges @ 1% except on A ie on (23393.92-462.0=22931.92)	229.32
TOTAL	23623.24
AddCPOH @ 15% except on A ie on (23623.24-462.0=23161.24)	3474.19
TOTAL	27097.38
Cost of 3.6 sqm	27097.38
Cost of 1 sqm	7527.05
Say	7527.05

	Cost index **37.29%**				2806.84
	Total with Cost index				10333.89

INTERNEL ROADS, WALKWAYS& STORM WATER DRAINS

183 Specification Code: 2.8.1

2.8 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.

2.8.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. MACHINERY:				
0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.04125	7000.00	288.75
0018	Hire and running charges of loader LABOUR:	Day	0.04125	5000.00	206.25
0128	Mate	Day	0.4	617.00	246.80
0115	Coolie	Day	2.05	558.00	1143.90
				TOTAL	1885.70
				Add Water Charges @ 1%	18.86
				TOTAL	1904.56
				Add CPOH @ 15%	285.68
				TOTAL	2190.24
				Cost of 10.0 cum	2190.24
				Cost per cum	219.02
				Say	219.0

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	Cost index **37.29%**				81.67

	Total with Cost index				300.67

184 Specification Code: 2.27

2.27 Supplying and filling in plinth with Jamuna sand under floors, including watering, ramming consolidating and dressing complete.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum MATERIAL:				
6501	Sand zone V (jamina)	cum	10.0	1225.00	12250.00
2335	Carriage of Jamuna sand LABOUR:	cum	10.0	103.77	1037.70
0114	Beldar	Day	0.89	558.00	496.62
0115	Coolie	Day	1.07	558.00	597.06
0101	Bhisti	Day	0.35	617.00	215.95
				TOTAL	14597.33
				Add Water Charges @ 1%	145.97
				TOTAL	14743.30
				Add CPOH @ 15%	2211.49
				TOTAL	16954.79
				Cost of 10.0 cum	16954.79
				Cost per cum	1695.48
				Say	1695.5

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	Cost index **37.29%**				632.25
	Total with Cost index				2327.75

185 Specification Code: od326202/2021_2022

od326202/2021_2022 :Providing and laying factory made chamfered edge Cement Concrete paver blocks medium traffic roads/parking etc, of required strength, thickness & size/
shape, made by table vibratory method using PU mould, laid in required colour & pattern over 40mm thick compacted bed of sand, and 75mm thick 6mm
brocken stones compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by
using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand. complete all
as per direction of Engineer-in-Charge.

Details of cost for 10 sqm

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Coloured interlocking cc paver block (m40) (10 cm thick)	sqm	10.00000	600.00	6000.00	
MR	Fine sand	cum	0.40000	760.00	304.00	
MR	Stone aggregate (6 mm)	cum	0.75000	1300.00	975.00	
2261	Fine sand (1 part badarpur sand : 2 parts jamuna sand	cum	0.65000	103.77	67.45	
2202	Stone aggregate below 40 mm nominal size	cum	0.80000	103.77	83.02	
MR	Mason (Brick layer) 1st class	Day	0.75000	487.00	365.25	
MR	Mason (Brick layer) 2nd class	Day	0.75000	448.00	336.00	
MR	Beldar	Day	1.20000	368.00	441.60	
MR	Coolie	Day	0.75000	368.00	276.00	
9999	Sundries	L.S	30.00000	2.00	60.00	
				TOTAL	8908.32	
				Add Water Charges @ 1%	89.08	
				Add CPOH @ 15%	1349.61	
				cost for one sqm	10347.01	
				say	10347.01	

Cost index **37.29 %**	91.16
Total with Cost index	10438.17

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186 Specification Code: 16.91.2

16.91 Providing and laying factory made chamfered edge Cement Concrete paver blocksin footpath, parks, lawns, drive ways or light traffic parking etc, of required strength,thickness & size/ shape, made by table vibratory method using PU mould, laid inrequired colour & pattern over 50mm thick compacted bed of sand, compacting andproper embedding/laying of inter locking paver blocks into the sand bedding layerthrough vibratory compaction by using plate vibrator, filling the joints with sand andcutting of paver blocks as per required size and pattern, finishing and sweepingextra sand. complete all as per direction of Engineer-in-Charge.

16.91.2 80 mm thick C.C. paver block of M-30 grade with approved color design and pattern.

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10.00 sqm. MATERIALS :				
8785	Interlocking C.C. paver block (80 mm thick, M-30)	sqm	10.0	470.00	4700.00
0982	Coarse sand (zone III)	cum	0.5	1350.00	675.00
2203	Carriage of Coarse sand	cum	0.5	103.77	51.89
0983	Fine sand (zone IV)	cum	0.15	900.00	135.00
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand Labour for Laying	cum	0.15	103.77	15.57
0123	Mason (brick layer) Ist class	Day	0.5	738.00	369.00
0124	Mason (brick layer)2nd class	Day	0.5	679.00	339.50
0114	Beldar	Day	1.0	558.00	558.00
0115	Coolie	Day	0.5	558.00	279.00
				TOTAL	7122.96
				Add Water Charges @ 1%	71.23
				TOTAL	7194.19
				Add CPOH @ 15%	1079.13

TOTAL	8273.32
Cost of 10.0 sqm	8273.32
Cost per sqm	827.33
Say	827.35

	Cost index **37.29%**				308.52
	Total with Cost index				1135.87

187 Specification Code: 16.63

SUBHEAD : **16.0**

ROAD WORK

16.63 Providing, laying and making kerb channel 30 cm wide and 50 mm thick with cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75 mm bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finishing the top smooth etc. complete and as per direction Engineer - in-Charge.

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost of 10 sqm MATERIAL:				
0287	Brick Aggregate (single size):40 mm nominal size	cum	1.0	650.00	650.00
2260	Carriage of Brick aggregate	cum	1.0	112.79	112.79
6501	Sand zone V (jamina)	cum	0.08	1225.00	98.00
2335	Carriage of Jamuna sand LABOUR: for spreading, ramming and consolidation	cum	0.08	103.77	8.30
0114	Beldar	Day	0.35	558.00	195.30

0115	Coolie	Day	0.26	558.00	145.08
0101	Bhisti Cement concrete - 1:3:6	Day	0.18	617.00	111.06
4.1.6	Rate as per item Number4.1.6 of SH: Concrete work	cum	0.5	5318.35	2659.18(A)

AddWater Charges @ 1% except on A ie on (3979.71-2659.18=1320.53)	13.21
TOTAL	3992.92
AddCPOH @ 15% except on A ie on (3992.92-2659.18=1333.7401)	200.06
TOTAL	4193.00
Cost of 10.0 sqm	4193.00
Cost of 1 sqm	419.30
Say	419.3

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	Cost index **37.29%**				156.36
	Total with Cost index				575.66

PRICE

188 Specification Code: 16.69

16.69

Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature jointed with cement mortar 1:3 (1 cement : 3 coarse sand) , including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5 mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-Charge)

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 100 metre i.e MATERIAL: 100x0.375x0.20 = 7.50 cum No. of kerb sotnes = 100/0.405 = 247 Nos Precast C.C. Kerb stone M-25 = 247 x 0.40x0.375x0.20 = 7.41 cum				
8686	Precast C.C. Kerb stone M-25 Mortar 1:3 for fixing joints = 246x[(0.115+0.20)/2]x 0.375 x 0.005 = 0.073 cum CM 1:3 (1 cement : 3 coarse sand)	cum	7.41	5500.00	40755.00
3.8	Rate as per item Number3.8 of SH: Mortars Labour for fixing of kerb stone	cum	0.073	4664.55	340.51
0123	Mason (brick layer) Ist class	Day	2.5	738.00	1845.00
0124	Mason (brick layer)2nd class	Day	2.5	679.00	1697.50
0114	Beldar	Day	2.5	558.00	1395.00
0115	Coolie	Day	1.65	558.00	920.70

Kerala Water Authority
PRICE

TOTAL	46953.71
Add Water Charges @ 1%	469.54
TOTAL	47423.25
Add CPOH @ 15%	7113.49
TOTAL	54536.74
Cost of 7.5 cum	54536.74
Cost per cum	7271.57
Say	7271.55

	Cost index **37.29%**				2711.56
	Total with Cost index				9983.11

189 Specification Code: 16.59.1

SUBHEAD : **16.0**

ROAD WORK

16.59 Manufacturing, supplying and fixing retro reflective sign boards made up of 2 mmthick aluminium sheet, face to be fully covered with high intensity encapsulatedtype heat activated retro reflective sheeting conforming to type - IV of ASTM-D4956-01 in blue and silver white or other colour combination including subjectmatter, message (bi-lingual), symbols and borders etc. as per IRC: 67-2001, pastedon substrate by an adhesive backing which shall be activated by applying heatand pressure conforming to class-2 of ASTM-D-4956-01 and fixing the same withsuitable sized aluminium alloy rivets @ 20 cm c/c to back support frame of M.S.angle iron of size 25x25x3 mm along with theft resistant measures, mounted andfixed with 2 Nos M.S. angles of size 35x35x5 mm to a vertical post made up to M.S.Tee section ISMT 50x50x6 mm welded with base plate of size 100x100x 5 mm at thebottom end and including making holes in pipes, angles flats, providing & fixingM.S. message plate of required size, steel work to be painted with two or morecoats of synthetic enamel paint of required shade and of approved brand &manufacture over priming coat of zinc chromate yellow primer (vertical MS-Teesupport to be painted in black and white colours). Backside of aluminium sheet tobe painted with two or more coats of epoxy paint over and including appropriatepriming coat including all leads and lifts etc. complete as per drawing , specification and direction of Engineer-in-Charge.

16.59.1 Mandatory / Regulatory sign boards of 900 mm diametre with support length of 3750 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no of 0.636 sqm MATERIAL: 3.14/4x(0.90x0.90) = 0.636 sqm Aluminium sheet 2 mm thick ass 10% wastage = 0.064 i.e. 0.700 sqm @ 5.60 kg / sqm = 3.92 kg				

Kerala Water Authority PRICE

2704	Aluminium Strip 40 mm wide and 2 mm thick	kilogram	3.92	240.00	940.80
2302	Carriage of G.I. Sheet and accessories 3.92kg or 0.00392 MT High intensity retro reflective sheet = 0.70 sqm High intensity sheet for lettering / sign and boarder etc. Taking 40% = 0.28 sqm Total = 0.70 + 0.28 = 0.98	tonne	0.00392	92.24	0.36
8690	High intensity retro- reflective sheet Supporting frame 25x25x3 mm for 900 mm dia board: 3.14 D = 3.141 x 0.90 = 2.83 metre @ 1.10kg /m = 3.11 kg Angle iron 35x35x5 mm for fixing the support frame with vertical Tee -iron support post = 2x0.05 = 0.10 m @ 2.6 kg/m = 0.26kg Vertical post of M.S. tee of section ISNT 50x50x6 mm = 3.75 metre @ 4.50 kg/m = 16.88 kg Base plate to be welded at bottom end of tee (As hold fast) (100x100x5mm) x 7850/69) = 0.39 kg Total 3.11 +0.26 +16.88 +0.39 = 20.64 kg Total = 20.64 +1.03 = 21.67 kg.	sqm	0.98	1300.00	1274.00
10.2	Rate as per item Number10.2 of SH: Steel Work LABOUR:	kg	21.67	88.35	1914.54(A)
0128	Mate	Day	0.01	617.00	6.17
0114	Beldar	Day	0.25	558.00	139.50

Kerala Water Authority
PRICE

9999	Sundries - Cost of material for drilling holes, nut bolts & rivets, Fabrication etc. Painting with synthetic enamel paint on steel work support frame 25x25x3 mm = 2.83 x 0.10 = 0.283 sqm Fixing angle 35x35x5 mm = 2x0.50x0.14= 0.01 sqm Vertical post Tee 50x50x6 mm = 3.75 x 0.20 = 0.750 sqm Baseplate area = 2x[0.10x0.10] = 0.02 4x0.10x0.005 = 0.002 Total = 1069 sqm	L.S	65.0	2.00	130.00
13.61.1	Rate as per item Number13.61.1 of SH: Finishing Painting with epoxy paint on back side of aluminium sheet.	sqm	1.07	105.50	112.89(A)
13.52.1	Rate as per item Number13.52.1 of SH: Finishing	sqm	0.636	164.70	104.75(A)
9999	Sundries - and hold Fast etc	L.S	78.0	2.00	156.00

Kerala Water Authority
PRICE

AddWater Charges @ 1% except on A ie on (4779.01-2132.1802=2646.8298)	26.47
TOTAL	4805.48
AddCPOH @ 15% except on A ie on (4805.48-2132.1802=2673.2998)	400.99
TOTAL	5206.45
Cost of 1.0 each	5206.45
Say	5206.45

	Cost index **37.29%**				1941.50
	Total with Cost index				7147.95

190 Specification Code: 16.59.2

SUBHEAD : **16.0**

ROAD WORK

16.59 Manufacturing, supplying and fixing retro reflective sign boards made up of 2 mmthick aluminium sheet, face to be fully covered with high intensity encapsulatedtype heat activated retro reflective sheeting conforming to type - IV of ASTM-D4956-01 in blue and silver white or other colour combination including subjectmatter, message (bi-lingual), symbols and borders etc. as per IRC: 67-2001, pastedon substrate by an adhesive backing which shall be activated by applying heatand pressure conforming to class-2 of ASTM-D-4956-01 and fixing the same withsuitable sized aluminium alloy rivets @ 20 cm c/c to back support frame of M.S.angle iron of size 25x25x3 mm along with theft resistant measures, mounted andfixed with 2 Nos M.S. angles of size 35x35x5 mm to a vertical post made up to M.S.Tee section ISMT 50x50x6 mm welded with base plate of size 100x100x 5 mm at thebottom end and including making holes in pipes, angles flats, providing & fixingM.S. message plate of required size, steel work to be painted with two or morecoats of synthetic enamel paint of required shade and of approved brand &manufacture over priming coat of zinc chromate yellow primer (vertical MS-Teesupport to be painted in black and white colours). Backside of aluminium sheet tobe painted with two or more coats of epoxy paint over and including appropriatepriming coat including all leads and lifts etc. complete as per drawing , specification and direction of Engineer-in-Charge.

16.59.2 Cautionary / warning sign boards of equilateral triangular shape having each side of 900 mm with support length of 3650 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 board of 0.35 sqm MATERIAL: Area of aluminium sheet 2 mm thick = 1/2x(0.90x0.78) = 0.35 sqm add 10% wastage = 0.04 Total = 0.39sqm @ 5.60kg/sqm = 2.18kg				

Kerala Water Authority PRICE

2704	Aluminium Strip 40 mm wide and 2 mm thick	kilogram	2.18	240.00	523.20
2302	Carriage of G.I. Sheet and accessories Carriage of 2.18kg or 0.00218 MT High intensity retro reflective sheet = 0.39 sqm High intensity sheet for lettering / sign / symbol / border etc. Taking 40% area = 0.16sqm Total = 0.39 + 0.16 = 0.55 sqm	tonne	0.00218	92.24	0.20
8690	High intensity retro- reflective sheet Angle iron frame 25x25x3mm 3x0.90=2.70 metre @ 1.10kg/m=2.97kg Angle iron 35x35x5 mm for fixing the support frame to Tee- iron support post 2x0.05=0.10m @ 2.6kg/m = 0.26kg Vertical post of M.S. tee of section ISNT 50x50x6mm = 1x3.65 = 3.65m @ 4.50kg/m = 16.43kg Base plate 100x100x5mm connected to bottom end of vertical tee. 0.10x0.10x0.005x7850kg = 0.39kg Total = 2.97 + 0.26 + 16.43 + 0.39 = 20.05kg Add wastage @5% = 1.00 Total = 20.05 + 1.00 = 21.05kg	sqm	0.55	1300.00	715.00
10.2	Rate as per item Number10.2 of SH: Steel Work LABOUR:	kg	21.05	88.35	1859.77(A)
0128	Mate	Day	0.01	617.00	6.17
0114	Beldar	Day	0.25	558.00	139.50

Kerala Water Authority
PRICE

9999	Sundries - Cost of material for drilling holes, nut bolts & rivets, Fabrication etc. Painting with synthetic enamel paint on angle iron support frame 25x25x3mm = 1x2.7x0.10=0.27 sqm Angle 35x35x5mm = 2x0.50x0.14 = 0.014 sqm Tee 50x50x6mm = 1x3.65x0.20 = 0.73 sqm Base plate to be welded at bottom end of Tee 100x100x5mm = 0.022 sqm Total = 1.036 sqm	L.S	65.0	2.00	130.00
13.61.1	Rate as per item Number13.61.1 of SH: Finishing Painting with epoxy paint on back side of aluminium sheet 0.35 sqm	sqm	1.036	105.50	109.30(A)
13.52.1	Rate as per item Number13.52.1 of SH: Finishing	sqm	0.35	164.70	57.65(A)
9999	Sundries - and hold fast etc	L.S	65.0	2.00	130.00

Karachi Water Authority
PRICE

AddWater Charges @ 1% except on A ie on (3670.79-2026.7201=1644.07)	16.44
TOTAL	3687.23
AddCPOH @ 15% except on A ie on (3687.23-2026.7201=1660.5099)	249.08
TOTAL	3936.30
Cost of 1.0 each	3936.30
Cost of 1 each	3936.30
Say	3936.3

	Cost index **37.29%**				1467.85
	Total with Cost index				5404.15

191 Specification Code: 2.7.1

2.7 Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.

2.7.1 Ordinary rock

Kerala Water Authority
PRICE

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. MACHINERY:				
0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.063	7000.00	441.00
0017	Hire and running charges of tipper	Day	0.063	1700.00	107.10
0132	Rock Excavator	Day	0.705	558.00	393.39
0133	Rock Breaker	Day	1.59	558.00	887.22
0134	Rock Hole Driller	Day	0.355	558.00	198.09
0114	Beldar	Day	0.5	558.00	279.00
0115	Coolie	Day	0.55	558.00	306.90
9999	Sundries-	L.S	10.79	2.00	21.58
				TOTAL	2634.28
				Add Water Charges @ 1%	26.34
				TOTAL	2660.62
				Add CPOH @ 15%	399.09
				TOTAL	3059.71
				Cost of 10.0 cum	3059.71
				Cost per cum	305.97

	Say	305.95

	Cost index **37.29%**				114.09
	Total with Cost index				420.04

192 Specification Code: 5.37.1

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

Kerala Water Authority PRICE

5.37.1 All wiork upto plinth level

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10

0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44
7318	Plasticizer / super plasticizer 0.50% of cement Production Cost, carriage to site pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40
0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.0	2.00	26.00

Kerala Water Authority
PRICE

TOTAL	6277.32
Add Water Charges @ 1%	62.77
TOTAL	6340.09
Add CPOH @ 15%	951.01
TOTAL	7291.10
Cost of 1.0 cum	7291.10
Say	7291.1

	Cost index **37.29%**				2718.85

	Total with Cost index				10009.95

193 Specification Code: 5.22.6

5.22 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level

5.22.6 Thermo - Mechanically Treated bars of grade Fe-500D or more

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 quintal MATERIAL: Deformed twisted steel bars = 1.00 q Add 5% wastage = 0.05 Total = 1.05q				
1005	Twisted steel/deformed bars	quintal	1.05	4600.00	4830.00
2205	Carriage of Steel	tonne	0.105	92.24	9.69
9999	Sundries-Cover block LABOUR: For straightening, bending binding and placing in postion	L.S	26.0	2.00	52.00
0102	Blacksmith 1st class	Day	1.0	738.00	738.00
0114	Beldar	Day	1.0	558.00	558.00
9999	Sundries-	L.S	26.91	2.00	53.82
				TOTAL	6241.51
				Add Water Charges @ 1%	62.42
				TOTAL	6303.93
				Add CPOH @ 15%	945.59
				TOTAL	7249.52
				Cost of 100.0 kilogram	7249.52
				Cost per kilogram	72.50

Kerala Water Authority
PRICE

				Say	72.5

	Cost index **37.29%**				27.04
	Total with Cost index				99.54

194 Specification Code: 4.12

4.12 Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification .

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for per bag 50 kg. of cement MATERIAL: Approved water proofing materials according to the recommended proportions				
1213	Water proofing materials	kilogram	1.0	35.00	35.00
9988	Carriage and sundries Carriage of water proofing material and labour for mixing	L.S	3.64	2.00	7.28
				TOTAL	42.28
				Add Water Charges @ 1%	.42
				TOTAL	42.70
				Add CPOH @ 15%	6.41
				TOTAL	49.11
				Cost of 50.0 kg	49.11
				Cost per kg	.98
				Say	1.0

Kerala Water Authority PRICE

	Cost index **37.29%**				.37
	Total with Cost index				1.37

195 Specification Code: 5.9.2

SUBHEAD 5.0

REINFORCED CEMENT CONCRETE

5.9

Centering and shuttering including strutting, etc. and removal of form for:

5.9.2

Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 7.9m long and 1.00m high wall Area of contact 2x7.9x1.0 = 15.8 sqm MATERIAL: Assuming shuttering material will become unserviceable after us of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm 2x3x2x2 = 24 Nos. Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	860.00	438.60
7327	100 mm channel shoulder 2.5 m long 4x2 = 8 Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) 2x6x2 = 24 Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	76.00	38.76

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7329	Single clip 2x3x2 = 12 Qty taken for cost of using once = 12x0.85/40 = 0.255	each	0.255	59.00	15.05
7330	M.S. Tube 40 mm dia 2x2x8m = 32m Qty taken for cost of using once = 32x0.85/40 = 0.68	metre	0.68	215.00	146.20
9999	Sundries-Qty taken for cost of using once = 1300x0.85/40 = 27.62	L.S	27.62	2.00	55.24
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	3.5	738.00	2583.00
0114	Beldar	Day	6.0	558.00	3348.00
9999	Sundries- shuttering oil	L.S	78.0	2.00	156.00
9999	Sundries-	L.S	52.0	2.00	104.00
				TOTAL	7195.55
				Add Water Charges @ 1%	71.96
				TOTAL	7267.51
				Add CPOH @ 15%	1090.13
				Costof 15.8 Sq. m.	8357.64
				Cost per 1 Sq. m.	528.96
				Say	528.95

Kerala Water Authority
PRICE

	Cost index **37.29%**				197.25
	Total with Cost index				726.2

CENTRIFUGE BUILDING

196 Specification Code: 2.8.1

2.8 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.

2.8.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. MACHINERY:				
0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.04125	7000.00	288.75
0018	Hire and running charges of loader LABOUR:	Day	0.04125	5000.00	206.25
0128	Mate	Day	0.4	617.00	246.80
0115	Coolie	Day	2.05	558.00	1143.90
				TOTAL	1885.70
				Add Water Charges @ 1%	18.86
				TOTAL	1904.56
				Add CPOH @ 15%	285.68
				TOTAL	2190.24
				Cost of 10.0 cum	2190.24
				Cost per cum	219.02
				Say	219.0

	Cost index **37.29%**				81.67
	Total with Cost index				300.67

Kerala Water Authority
PRICE

197 Specification Code: 2.26.1

2.26 Extra for every additional lift 1.5 m or part there of in excavation / banking excavated or stacked materials.

2.26.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum LABOUR:				
0128	Mate	Day	0.1	617.00	61.70
0114	Beldar	Day	1.1	558.00	613.80
				TOTAL	675.50
				Add Water Charges @ 1%	6.75
				TOTAL	682.25
				Add CPOH @ 15%	102.34
				TOTAL	784.59
				Cost of 10.0 cum	784.59
				Cost per cum	78.46
				Say	78.45

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	Cost index **37.29%**				29.25
	Total with Cost index				107.7

198 Specification Code: 4.1.8

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.8 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL:				
0293	Stone Aggregate(single size): 40 mm nominal size nominal size (0.70 cum -7.5% for voids i.e. 0.05 =0.65 cum)	cum	0.65	1300.00	845.00
0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.24	1350.00	324.00
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	0.65	112.79	73.31
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.24	103.77	24.90
0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement	tonne	0.17	4940.00	839.80
2209	Carriage of Cement	tonne	0.17	92.24	15.68
	LABOUR:				
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.52	2.00	27.04

TOTAL	4327.24
Add Water Charges @ 1%	43.27
TOTAL	4370.51

Kerala Water Authority
PRICE

Add CPOH @ 15%	655.58
TOTAL	5026.09
Cost of 1.0 cum	5026.09
Say	5026.1

	Cost index **37.29%**				1874.23
	Total with Cost index				6900.33

199 Specification Code: 5.37.1

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

5.37.1 All wiork upto plinth level

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00

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2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44
7318	Plasticizer / super plasticizer 0.50% of cement Production Cost, carriage to site pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40
0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.0	2.00	26.00

Kerala Water Authority
PRICE

TOTAL	6277.32
Add Water Charges @ 1%	62.77
TOTAL	6340.09
Add CPOH @ 15%	951.01
TOTAL	7291.10
Cost of 1.0 cum	7291.10
Say	7291.1

	Cost index **37.29%**				2718.85
	Total with Cost index				10009.95

200 Specification Code: 5.3

5.3 Reinforced cement concrete work in beams, suspended floors, roofs, having slope up to 15^0 landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases up to floor five level excluding the cost of centering, shuttering, finishing and reinforcement, with1:1.5:3 (1 cement : 1.5 coarse sand (Zone III) : 3 graded stone aggregate 20 mm nominal size).

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum. MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement (0.2225 cum)	tonne	0.4	4940.00	1976.00
2209	Carriage of Cement LABOUR:	tonne	0.4	92.24	36.90
0155	Mason (average)	Day	0.24	709.00	170.16
0114	Beldar	Day	2.75	558.00	1534.50
0101	Bhisti	Day	0.9	617.00	555.30

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0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.08	800.00	64.00
0012	Vibrator (Needle type 40 mm)	Day	0.08	370.00	29.60
9999	Sundries-Extra labour for lifting material upto floor V level: Coolie (2.5x0.75)	L.S	14.3	2.00	28.60
0115	Coolie	Day	1.88	558.00	1049.04

TOTAL	7297.65
Add Water Charges @ 1%	72.98
TOTAL	7370.63
Add CPOH @ 15%	1105.59
TOTAL	8476.22
Cost of 1.0 cum	8476.22
Cost per cum	8476.22
Say	8476.2

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	Cost index **37.29%**				3160.77
	Total with Cost index				11636.97

201 Specification Code: 5.37.2

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of

concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

5.37.2 All work above plinth level upto floor V level

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44
7318	Plasticizer / super plasticizer 0.5% of cement Production Cost, carriage to site, pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40
0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00
0155	Mason (average)	Day	0.17	709.00	120.53

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0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-Extra labour for lifting up to floor five level 0.75x 2.5 = 1.88	L.S	13.0	2.00	26.00
0115	Coolie	Day	1.88	558.00	1049.04

TOTAL	7326.36
Add Water Charges @ 1%	73.26
TOTAL	7399.62
Add CPOH @ 15%	1109.94
TOTAL	8509.56
Cost of 1.0 cum	8509.56
Say	8509.55

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	Cost index **37.29%**				3173.21
	Total with Cost index				11682.76

202 Specification Code: od326205/2021_2022

od326205/2021_2022 :Laterate masonry with neatly dressed laterate stone of size 40X20X15cm or nearest size in cement mortar 1:6 for superstructuree above plinth level up to
floor two level including all cost of materials, labour charges etc

Details of cost for 1 cum

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Laterite stone 40 x 20 x 15 cm	Nos	78.00000	46.00	3588.00	
MR	Cement Mortar 1:6	cum	0.08740	3217.50	281.21	

9999	Sundries	L.S	2.73000	2.00	5.46	

MR	Mason 1st class	Day	0.53000	487.00	258.11	
MR	Mason 2nd class	Day	0.53000	448.00	237.44	
MR	Coolie	Day	1.90000	368.00	699.20	
MR	Bhishti	Day	0.45000	407.00	183.15	
9999	Sundries	L.S	22.36000	2.00	44.72	
				TOTAL	5297.29	
				Add Water Charges @ 1%	52.97	
				Add CPOH @ 15%	802.54	
				cost for one cum	6152.80	
				say	6152.80	

Cost index **37.29 %**	21.73
Total with Cost index	6174.53

203 Specification Code: 5.22.6

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5.22 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level

5.22.6 Thermo - Mechanically Treated bars of grade Fe-500D or more

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 quintal MATERIAL: Deformed twisted steel bars = 1.00 q Add 5% wastage = 0.05 Total = 1.05q				
1005	Twisted steel/deformed bars	quintal	1.05	4600.00	4830.00
2205	Carriage of Steel	tonne	0.105	92.24	9.69
9999	Sundries-Cover block LABOUR: For straightening, bending binding and placing in postion	L.S	26.0	2.00	52.00

0102	Blacksmith 1st class	Day	1.0	738.00	738.00
0114	Beldar	Day	1.0	558.00	558.00
9999	Sundries-	L.S	26.91	2.00	53.82

TOTAL	6241.51
Add Water Charges @ 1%	62.42
TOTAL	6303.93
Add CPOH @ 15%	945.59
TOTAL	7249.52
Cost of 100.0 kilogram	7249.52
Cost per kilogram	72.50
Say	72.5

	Cost index **37.29%**				27.04
	Total with Cost index				99.54

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204 Specification Code: 5.9.1

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.1 Foundations, footings, bases of columns, etc for mass concrete

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for footing size 2.7mx2.7mx 1.00m Contact area = 10.8sqm MATERIAL: Assuming shuttering material will become unserviceable after use of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				

7319	wall form panel 1250x500 mm Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	860.00	292.40
7326	Corner angle 45x45x5 mm 1.50 m long Qty taken for cost of using once = 4x0.85/40=0.085	each	0.085	240.00	20.40
7327	100 mm channel shoulder 2.5 m long Qty taken for cost of using once = 8x0.85/40=0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	76.00	25.84
7329	Single clip Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	59.00	10.03
7330	M.S. Tube 40 mm dia Qty taken for cost of using once = 10.8x0.85/40 = 0.2295	metre	0.2295	215.00	49.34
9999	Sundries-Assembly nuts 7 bolts Qty taken for cost of using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	0.75	738.00	553.50
0114	Beldar	Day	1.5	558.00	837.00
9999	Sundries-Suttering oil	L.S	52.0	2.00	104.00
9999	Sundries-	L.S	26.0	2.00	52.00

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TOTAL	2299.41
Add Water Charges @ 1%	22.99
TOTAL	2322.40
Add CPOH @ 15%	348.36

TOTAL	2670.76
Cost of 10.8 sqm	2670.76
Cost per sqm	247.29
Say	247.3

	Cost index **37.29%**				92.22
	Total with Cost index				339.52

205 Specification Code: 5.9.5

SUBHEAD : **5.0**

REINFORCED CEMENT CONCRETE

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.5 Lintels, beams, plinth beams, girders bressumers and cantilevers

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Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for a beam of 6 m clear span, 0.50 m deep 0.30 m wide and height 3.5 m from floor cubical contents 6.60x0.5x0.3 = 0.99 cum 1x1.30x6.00 = 7.80 sqm MATERIAL: Assuming shuttering will become unserviceable after use of 40 times Add maintenance charges @ 10% of cost of material Less salvage value of material after full use @25% of cost of material 1. Steel plats for side and bottom (plate size 1.20 x 0.50 m) Angle 40x40x5mm 2x1.20 = 2.40 m 3x0.50 = 1.50 m Total 3.90 m @ 3.00 kg/m = 11.70 kg sheet 1.6 mm thick 1.20 m x 0.50 m =0.60 sqm 0.60 sqm @ 12.55 kg/sqm. = 7.53 kg.Weight of one plate = 19.23 kg. Add for wastage 5% 0.96 kg. Total = 20.19 kg Total weight of all plates 3x5x20.19 = 302.85 kg Qty taken for cost of using once= 302.85 x 85/40 = 6.4356 kg				
10.1	Rate as per item Number10.1 of SH: Steel Work	kilogram	6.4356	74.70	480.74(A)
7343	Adjustable telescopic prop 3 m (2.02-3.75m) Qty taken for using once = 6x0.85/40 = 0.1275m	each	0.1275	955.00	121.76
7344	Beam clamp 300-380 mm (450-1070 mm) Qty taken for cost of using once = 5x0.85/40 = 0.1063 m	each set	0.1063	355.00	37.74

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9999	Sundries - Assembly nut & bolts etc. Qty taken for cost of using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9999	Sundries - Carriage LABOUR:	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	1.25	738.00	922.50
0114	Beldar	Day	2.5	558.00	1395.00
9999	Sundries - Shuttering oil	L.S	39.0	2.00	78.00
9999	Sundries - paper tape etc	L.S	24.61	2.00	49.22

AddWater Charges @ 1% except on A ie on (3285.16-480.74=2804.42)	28.04
TOTAL	3313.20
AddCPOH @ 15% except on A ie on (3313.2-480.74=2832.46)	424.87
TOTAL	3738.15
Cost of 7.8 sqm	3738.15
Cost of 1 sqm	479.25
Say	479.25

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	Cost index **37.29%**				178.71
	Total with Cost index				657.96

206 Specification Code: 5.9.6

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.6 Columns, Pillars, Piers, Abutments, Posts and Struts

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 4.5 sqm. Size of column 450x450mm and 2.5 m high Area of contact = 4x0.45x2.5 = 4.5 sqm MATERIAL:Assuming shuttering will become unserviceable after use of 40 times Add maintenance charges @ 10 % of cost of material Less salvage value of material after full use @ 25% of cost of material				
7331	Wall form panel 1250x450xmm Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	860.00	146.20
7332	Corner angle 45x45x5 mm 2.50 long Qty taken for cost of using once = 4x0.85/40 = 0.085	each	0.085	255.00	21.68
7333	Column clamp 450x1070 mm Qty taken for cost of using once = 5x0.85/40 = 0.1063	each	0.1063	965.00	102.58
7334	Prop 2 m (2-3.5m) Qty taken for cost of using once = 4x0.85/40 = 0.085	each	0.085	635.00	53.98
9999	Sundries-Qty taken for cost of using once = 1300x0.85/40 = 27.62	L.S	27.62	2.00	55.24
9977	Carriage LABOUR	L.S	52.0	2.00	104.00
0116	Fitter(grade1)	Day	1.0	738.00	738.00
0114	Beldar	Day	2.0	558.00	1116.00
9999	Sundries-Shuttering oil	L.S	39.0	2.00	78.00
9999	Sundries-Carriage	L.S	26.0	2.00	52.00

TOTAL	2467.68
Add Water Charges @ 1%	24.68
TOTAL	2492.36

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Add CPOH @ 15%	373.85
TOTAL	2866.21
Cost of 4.5 sqm	2866.21
Cost per sqm	636.94
Say	636.95

	Cost index **37.29%**				237.52
	Total with Cost index				874.47

207 Specification Code: 5.9.3

SUBHEAD : **5.0**

REINFORCED CEMENT CONCRETE

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.3 Suspended floors, roofs, landings, balconies and access platform

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Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for a room 4.5x3 = 13.50 sqm height 3.5 m MATERIAL: Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost 1. Plates (size 0.75x0.60) Angle 40x40x5 mm 2x0.75 = 1.5 m 2x0.60 = 1.20 m = 2.70 m @ 3.00 kg/m = 8.10 kg sheet 1.6 mm thick 0.75x0.60 = 0.45 sqm 0.45 sqm @ 12.55 kg/sqm = 5.65 kg Weight of one plate = 13.75 kg Add for wastage @ 5% = 0.69 kg Total = 14.44 kg Total weight of all plates = 5x6x14.44= 433.20 kg. Qty taken for cost using once = 433.2x0.85/40 = 9.2055 kg				
10.1	Rate as per item Number10.1 of SH: Steel Work	kilogram	9.2055	74.70	687.65(A)
7342	Adjustable span ESO+SI (2.35-3.40) Qty taken for cost using once = 5x0.85/40 =0.1063	each	0.1063	1480.00	157.32
7343	Adjustable telescopic prop 3 m (2.02-3.75m) Qty taken for cost using once = 6x0.85/40 = 0.1275	each	0.1275	955.00	121.76
9999	Sundries - Assembly nut & nolts etc. Qty taken for cost using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9999	Sundries - Carriage LABOUR: Fitter (grade 1)	L.S	130.0	2.00	260.00

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0116	Fitter(grade1)	Day	3.0	738.00	2214.00
0114	Beldar	Day	6.0	558.00	3348.00
9999	Sundries - Shuttering oil	L.S	78.0	2.00	156.00
9999	Sundries - paper tape etc	L.S	49.7	2.00	99.40

AddWater Charges @ 1% except on A ie on (7088.33-687.65=6400.68)	64.01
TOTAL	7152.34
AddCPOH @ 15% except on A ie on (7152.34-687.65=6464.69)	969.70
TOTAL	8122.27
Cost of 13.5 sqm	8122.27
Cost of 1 sqm	601.65
Say	601.65

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	Cost index **37.29%**				224.36
	Total with Cost index				826.01

208 Specification Code: 2.25

2.25 Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. LABOUR:				
0128	Mate	Day	0.2	617.00	123.40
0115	Coolie	Day	2.5	558.00	1395.00
0101	Bhisti	Day	0.2	617.00	123.40

TOTAL	1641.80
Add Water Charges @ 1%	16.42
TOTAL	1658.22
Add CPOH @ 15%	248.73
TOTAL	1906.95
Cost of 10.0 cum	1906.95
Cost per cum	190.69
Say	190.7

	Cost index **37.29%**				71.11
	Total with Cost index				261.81

209 Specification Code: 13.1.1

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13.1 12 mm cement plaster of mix:

13.1.1 1:4 (1 cement : 4 fine sand)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:4(1 cement: 4 fine sand)				
3.4	Rate as per item Number3.4 of SH: Mortars	cum	0.144	3528.85	508.15
0155	Mason (average)	Day	0.67	709.00	475.03
0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64
9999	Sundries-	L.S	12.61	2.00	25.22
				TOTAL	1994.54
				Add Water Charges @ 1%	19.95

TOTAL	2014.49
Add CPOH @ 15%	302.17
TOTAL	2316.66
Cost of 10.0 sqm	2316.66
Cost per sqm	231.67
Say	231.65

	Cost index **37.29%**				86.38
	Total with Cost index				318.03

210 Specification Code: 13.17

13.17 6 mm cement plaster 1:3 (1 cement : 3 fine sand) finished with a floating coat of neat cement and thick coat of Lime wash on top of walls when dry for bearing of R.C.C. slabs and beams.

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:3 (1 cement : 3 fine sand)				
3.3	Rate as per item Number3.3 of SH: Mortars LABOUR:	cum	0.072	4183.05	301.18
0155	Mason (average)	Day	0.51	709.00	361.59
0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64
9999	Sundries-Extra for removing burrs, cleaning with wire brushes, pock making with pointed tool etc. complete	L.S	13.39	2.00	26.78
9999	Sundries-Scaffolding and sundries.	L.S	11.7	2.00	23.40

0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	Day	0.27	709.00	191.43
0115	Coolie	Day	0.27	558.00	150.66
9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12
0776	Satna lime	quintal	0.01	370.00	3.70
9999	Sundries-Indigo gum etc.	L.S	2.08	2.00	4.16
9999	Sundries-Sundries, ladder etc.	L.S	0.52	2.00	1.04
0141	White Washer	Day	0.07	617.00	43.19
0115	Coolie	Day	0.07	558.00	39.06
9999	Sundries-	L.S	2.73	2.00	5.46

TOTAL	2254.55
Add Water Charges @ 1%	22.55
TOTAL	2277.10
Add CPOH @ 15%	341.57
TOTAL	2618.67
Cost of 10.0 sqm	2618.67
Cost per sqm	261.87
Say	261.85

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	Cost index **37.29%**				97.64
	Total with Cost index				359.49

211 Specification Code: 11.41.2

11.41 Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS : 15622, of approved make, in all colours and shades, laid on 20 mm thick

cement mortar 1:4(1 cement : 4 coarse sand), including grouting the joints with white cement and matching pigments etc., complete.

11.41.2 Size of Tile 600 x 600 mm.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 sqm. MATERIAL: Vitrified floor tiles 60x60 cm size = 1.00 sqm Add for wastage & breakage @ 2.5 % = 0.025 sqm Total = 1.025 sqm				
8621	Vitrified floor tile 60x60 cm	sqm	1.025	659.72	676.21
9977	Carriage of tiles20 mm 'thick cement mortar 1:4 (1 cement : 4 coarse sand)	L.S	6.24	2.00	12.48
3.9	Rate as per item Number3.9 of SH: Mortars 20 mm thick cement mortar 1:4(1 cement: coarse sand)	cum	0.024	4010.35	96.25
9999	Sundries-Mortar for pointing in white cement Cement for slurry over bed @ 3.3 kg per sqm	L.S	3.64	2.00	7.28
0367	Portland Cement LABOUR:	tonne	0.0033	4940.00	16.30
0123	Mason (brick layer) Ist class	Day	0.2	738.00	147.60
0115	Coolie	Day	0.2	558.00	111.60
9988	Carriage and sundries of cement etc	L.S	26.91	2.00	53.82
				TOTAL	1121.54
				Add Water Charges @ 1%	11.22
				TOTAL	1132.76

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Add CPOH @ 15%	169.91
TOTAL	1302.67
Cost of 1.0 sqm	1302.67
Cost per sqm	1302.67
Say	1302.65

	Cost index **37.29%**				485.76
	Total with Cost index				1788.41

212 Specification Code: 13.8.1

13.8 15 mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix:

13.8.1 1:3 (1 Cement : 3 fine sand)

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1 : 3 (1 cement : 3 fine sand)				
3.3	Rate as per item Number3.3 of SH: Mortars LABOUR:	cum	0.172	4183.05	719.48
0155	Mason (average)	Day	0.8	709.00	567.20
0115	Coolie	Day	0.88	558.00	491.04
0101	Bhisti	Day	0.99	617.00	610.83
9999	Sundries-Scaffolding and sundries.	L.S	12.61	2.00	25.22
0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84

0155	Mason (average)	Day	0.27	709.00	191.43
0115	Coolie	Day	0.27	558.00	150.66
9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12

TOTAL	2872.62
Add Water Charges @ 1%	28.73
TOTAL	2901.35
Add CPOH @ 15%	435.20
TOTAL	3336.55
Cost of 10.0 sqm	3336.55
Cost per sqm	333.66
Say	333.65

	Cost index **37.29%**				124.42
	Total with Cost index				458.07

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213 Specification Code: 11.43

11.43 Fixing glazed/ Ceramic/ Vitrified floor tiles with cement based high polymer modified quick-set tile adhesive (Water based) conforming to IS : 15477, in average 3 mm thickness.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 sqm MATERIAL:				
8731	High polymer modified quickset tile adhesive	kg	5.0	9.00	45.00
9999	Sundries-Mortar for pointing in white cement LABOUR:	L.S	40.43	2.00	80.86
0123	Mason (brick layer) Ist class	Day	0.2	738.00	147.60

0115	Coolie	Day	0.2	558.00	111.60
9988	Carriage and sundries of cement etc	L.S	26.91	2.00	53.82

TOTAL	438.88
Add Water Charges @ 1%	4.39
TOTAL	443.27
Add CPOH @ 15%	66.49
TOTAL	509.76
Cost of 1.0 sqm	509.76
Cost per sqm	509.76
Say	509.75

	Cost index **37.29%**				190.09
	Total with Cost index				699.84

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214 Specification Code: 13.82.2

13.82 Wall painting with acrylic emulsion paint, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture including applying additional coats wherever required, to achieve even shade and colour.

13.82.2 Two coats

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL:				
0803	Acrylic emulsion, having VOC content less than 50 gm/litre	Litre	0.84	94.00	78.96
9999	Sundries-For filling holes and cracks with putty etc	L.S	1.43	2.00	2.86

9977	Carriage of material LABOUR:	L.S	6.76	2.00	13.52
0131	Painter	Day	0.54	679.00	366.66
0115	Coolie	Day	0.54	558.00	301.32
9999	Sundries-Brushes, sand paper etc.	L.S	10.79	2.00	21.58
9999	Sundries-	L.S	6.76	2.00	13.52

TOTAL	798.42
Add Water Charges @ 1%	7.98
TOTAL	806.40
Add CPOH @ 15%	120.96
TOTAL	927.36
Cost of 10.0 sqm	927.36
Cost per sqm	92.74
Say	92.75

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	Cost index **37.29%**				34.59
	Total with Cost index				127.34

215 Specification Code: 10.3

SUBHEAD : **10.0**

STEEL WORK

10.3 Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2 mm and braced with flat iron diagonals 20x5 mm size, with top and bottom rail of T-iron 40x40x6 mm, with 40 mm dia steel pulleys, complete with bolts, nuts,locking arrangement, stoppers, handles, including applying a priming coat of approved steel primer .

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for a gate 2.4m x1.5 m = 3.6 sqm. MATERIAL: M.S. channels 18 Nos. on both sides 20x10x2mm @ 0.56kg/m 2x18x2.4 = 86.40 m + Add wastage @ 10% = 8.64 Total = 95.04 m 95.04 m @ 56 kg /m = 53.22kg = 0.53 q				
1007	Structural steel such as tees, angles, channels and R.S. joists M.S. Tee - 40x40x6 mm for bottom - 1.5 70 m + for top = 1.725 m = 3.295 m Say 3.3 m 3.3 @ 3.5kg/m = 11.55 kg+ Add wastage @ 10% = 1.155 kg Total = 12.705 kg. Say 0.13 qtl	quintal	0.53	4600.00	2438.00
1007	Structural steel such as tees, angles, channels and R.S. joists 20mmx5mm flat iron diagonals 4 Nos. 4x32x0.5334= 68.275 m 68.275 m @ 0.8kg/m = 54.62 kg+ Add wastage @ 10% = 5.46 kg Total = 60.08kg = 0.60 qtl	quintal	0.13	4600.00	598.00
1008	Flats up to 10 mm in thickness	quintal	0.6	4500.00	2700.00
2205	Carriage of Steel Carriage of steel (0.053+0.013+0.060= 0.126 tonne)	tonne	0.126	92.24	11.62
9999	Sundries - Cost of rivets fixing hooks and washers	L.S	269.1	2.00	538.20
9999	Sundries - Cost of locking arrangements and handles.	L.S	67.34	2.00	134.68

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4013	Pulley 40 mm dia Priming coat- Channel-36x0.076x2.4 = 6.57 sqm.+ Tee 0.16x3.3 = 0.53 sqm. + Flats - 0.05x68 = 3.40 sqm. Total = 10.50sqm	each	10.0	30.00	300.00
13.50.3	Rate as per item Number13.50.3 of SH: Finishing LABOUR:	sqm	10.5	44.00	462.00(A)
0116	Fitter(grade1)	Day	3.0	738.00	2214.00
0102	Blacksmith 1st class	Day	6.0	738.00	4428.00
0103	Blacksmith 2nd class	Day	6.0	679.00	4074.00
0123	Mason (brick layer) Ist class	Day	0.5	738.00	369.00
0124	Mason (brick layer)2nd class	Day	0.5	679.00	339.50
0114	Beldar	Day	8.0	558.00	4464.00
9999	Sundries -	L.S	161.46	2.00	322.92

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AddWater Charges @ 1% except on A ie on (23393.92-462.0=22931.92)	229.32
TOTAL	23623.24
AddCPOH @ 15% except on A ie on (23623.24-462.0=23161.24)	3474.19
TOTAL	27097.38
Cost of 3.6 sqm	27097.38
Cost of 1 sqm	7527.05
Say	7527.05

	Cost index **37.29%**				2806.84
	Total with Cost index				10333.89

19. LAND SCAPING & AFFORESTATION (DSR for horticulture)

216 Specification Code: od342769/2021_2022

od342769/2021_2022 :Trenching in ordinary soil up to a depth of 60 cm including removal and stacking of serviceable
materials and then disposing of surplus soil, by spreading and neatly leveling within a lead of 50 m
and making up the trenched area to proper levels by filling with earth or earth mixed with sludge
or / and manure before and after flooding trench with water (excluding cost of imported earth,
sludge or manure).

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Lawn area (800sqm)	cum	1.00000	66.98	66.98	
				TOTAL	66.98	
				Add Water Charges @ 1%	.67	
				Add CPOH @ 15%	10.15	
				cost for one cum	77.80	
				say	77.80	

	Cost index **37.29 %**	.00
	Total with Cost index	77.8

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217 Specification Code: od342772/2021_2022

od342772/2021_2022 :Supplying and stacking of good earth at site including royalty and carriage upto 5 km complete
(earth measured in stacks will be reduced by 20% for payment).

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	50% of excavated earth	cum	1.00000	485.79	485.79	
				TOTAL	485.79	
				Add Water Charges @ 1%	4.86	
				Add CPOH @ 15%	73.60	
				cost for one cum	564.25	
				say	564.25	

Cost index **37.29 %**	.00
Total with Cost index	564.25

218 Specification Code: od342801/2021_2022

od342801/2021_2022 :Supplying and stacking at site dump manure from approved source, including carriage upto 5 km
complete (manure measured in stacks will be reduced by 8% for payment)

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	50% Excavated earth	cum	1.00000	305.53	305.53	
				TOTAL	305.53	
				Add Water Charges @ 1%	3.06	
				Add CPOH @ 15%	46.29	
				cost for one cum	354.87	
				say	354.87	

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Cost index **37.29 %**	.00
Total with Cost index	354.87

219 Specification Code: od342805/2021_2022

od342805/2021_2022 :Mixing earth and sludge or manure in the required proportion specified or directed by the Officerin-charge

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Lawn area	cum	1.00000	31.19	31.19	
				TOTAL	31.19	
				Add Water Charges @ 1%	.31	
				Add CPOH @ 15%	4.73	
				cost for one cum	36.23	
				say	36.23	

Cost index **37.29 %**	.00
Total with Cost index	36.23

220 Specification Code: od342856/2021_2022

od342856/2021_2022 :Spreading of sludge, dump manure and/or good earth in required thickness as per direction of
officer-in-charge (cost of sludge, dump manure and/ or good earth to be paid separately).

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Lawn area	cum	1.00000	45.21	45.21	
				TOTAL	45.21	
				Add Water Charges @ 1%	.45	
				Add CPOH @ 15%	6.85	
				cost for one cum	52.51	
				say	52.51	

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Cost index **37.29 %**	.00
Total with Cost index	52.51

221 Specification Code: od342860/2021_2022

od342860/2021_2022 :Providing and laying Neelgiri/Mexican grass turf with earth 50mm to 60mm thickness of existing
ground prepared with proper level and ramming with tools wooden (Dhurmos) and than rolling
the surface with light roller make the surface smoothen and light waterning with sprinkler and
maintenance for 30 days or more till the grass establish properly, as per direction of officer-incharge.

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Lawn area	cum	1.00000	297.86	297.86	
				TOTAL	297.86	
				Add Water Charges @ 1%	2.98	
				Add CPOH @ 15%	45.13	

cost for one cum	345.96
say	345.96

Cost index **37.29 %**	.00
Total with Cost index	345.96

222 Specification Code: od342863/2021_2022

od342863/2021_2022 :Digging holes in ordinary soil and refilling the same with the excavated earth mixed with manure
or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20% :
1 part of stacked volume of manure after reduction by 8%) flooding with water, dressing including
removal of rubbish and surplus earth, if any, with all leads and lifts (cost of manure, sludge or extra
good earth if needed to be paid for separately) :Holes 45 cm dia, and 45 cm deep

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	LS	No	1.00000	19.57	19.57	
				TOTAL	19.57	
				Add Water Charges @ 1%	.20	
				Add CPOH @ 15%	2.96	
				cost for one No	22.73	
				say	22.73	

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Cost index **37.29 %**	.00
Total with Cost index	22.73

223 Specification Code: od342865/2021_2022

od342865/2021_2022 :Providing and fixing M.S. flat iron tree guard 60 cm dia and 2 m high, above ground consisting 4
nos 25 x 6 mm, 2.25 m long and 8 nos 25 x 3 mm 2 m long verticals M.S. flats, riveted to 3 nos 25 x
6 mm M.S. flat iron rings in two halves, fixing together at site with required six numbers of 8 mm
dia and 30 mm long bolts, including painting two coats with synthetic enamel paint of approved
brand and manufacture over a coat of primer. One name plate of 1 mm thick M.S. sheet of size
250x100 mm shall be welded to the tree guard near the middle height and lettered CPWD / PWD/
any other approved name. The tree guard shall be suitably fixed to the

ground by embedding four
legs of tree guard in pits of suitable dia and to a depth of 25 cm, refilling the pits with soil and
ramming, complete in all respect as per satisfaction and direction of Officer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	LS	No	1.00000	4435.21	4435.21	
				TOTAL	4435.21	
				Add Water Charges @ 1%	44.35	
				Add CPOH @ 15%	671.93	
				cost for one No	5151.50	
				say	5151.50	

Cost index **37.29 %**	.00
Total with Cost index	5151.5

224 Specification Code: od342885/2021_2022

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od342885/2021_2022 :Supply and stacking of Azadirachta indica (Neem) plant of height 120130cm in big polybag of size
25 cm as per direction of the officer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	LS	No	1.00000	87.65	87.65	
				TOTAL	87.65	
				Add Water Charges @ 1%	.88	
				Add CPOH @ 15%	13.28	
				cost for one No	101.81	
				say	101.81	

Cost index **37.29 %**	.00
Total with Cost index	101.81

225 Specification Code: od342888/2021_2022

od342888/2021_2022 :Supply and stacking of Delonix regia (Gulmohar) plant of height 150-165 cm. in big poly bags of
size 25 cm as per direction of the officer-in-charge

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	LS	No	1.00000	87.65	87.65	
				TOTAL	87.65	
				Add Water Charges @ 1%	.88	
				Add CPOH @ 15%	13.28	
				cost for one No	101.81	
				say	101.81	

Cost index **37.29 %**	.00
Total with Cost index	101.81

226 Specification Code: od342889/2021_2022

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od342889/2021_2022 :Supply and stacking of Ficus benjamina (green) plant of height 120-135 cm. with 6-8 branches and
lush green foliage in g. bags of size 25 cm as per direction of the officer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	LS	No	1.00000	146.08	146.08	
				TOTAL	146.08	
				Add Water Charges @ 1%	1.46	
				Add CPOH @ 15%	22.13	
				cost for one No	169.67	
				say	169.67	

Cost index **37.29 %**	.00
Total with Cost index	169.67

227 Specification Code: od342899/2021_2022

od342899/2021_2022 :Supply and stacking of Plumeria acutifolia plant of height 150-165 cm. with 3-4 branches in big size
HDPE bag as per direction of the officer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	LS	No	1.00000	292.16	292.16	
				TOTAL	292.16	
				Add Water Charges @ 1%	2.92	
				Add CPOH @ 15%	44.26	
				cost for one No	339.34	
				say	339.34	

Cost index **37.29 %**	.00
Total with Cost index	339.34

228 Specification Code: od342914/2021_2022

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od342914/2021_2022 :Supply and stacking of Lagerstroemia flosreginae plant of height 150-165 cm.in big poly bag of size
25 cm as per direction of the officer-in-charge.

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Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	LS	No	1.00000	175.30	175.30	
				TOTAL	175.30	
				Add Water Charges @ 1%	1.75	
				Add CPOH @ 15%	26.56	
				cost for one No	203.61	
				say	203.61	

Cost index **37.29 %**	.00
Total with Cost index	203.61

229 Specification Code: od342916/2021_2022

od342916/2021_2022 :Plantation of Trees, Shrubs, and Hedge at site i/c watering and removal of unserveiceable material's as per direction of officer in charge (excluding cast of plant & water)

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	LS	No	1.00000	6.21	6.21	
				TOTAL	6.21	
				Add Water Charges @ 1%	.06	
				Add CPOH @ 15%	.94	
				cost for one No	7.21	
				say	7.21	

Cost index **37.29 %**	.00
Total with Cost index	7.21

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20. Receiving chamber, screen channel and grit chamber and parshall flume

230 Specification Code: 2.6.1

2.6 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.

2.6.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. Average output of Hydraulic Excavator per hour = 30cum MACHINERY:				
0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.041	7000.00	287.00
0018	Hire and running charges of loader LABOUR:	Day	0.041	5000.00	205.00

0128	Mate Beldar/	Day	0.32	617.00	197.44
0115	Coolie	Day	1.2	558.00	669.60

TOTAL	1359.04
Add Water Charges @ 1%	13.59
TOTAL	1372.63
Add CPOH @ 15%	205.89
TOTAL	1578.52
Cost of 10.0 cum	1578.52
Cost per cum	157.85
Say	157.85

	Cost index **37.29%**				58.86
	Total with Cost index				216.71

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231 Specification Code: 2.26.1

2.26 Extra for every additional lift 1.5 m or part there of in excavation / banking excavated or stacked materials.

2.26.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum LABOUR:				
0128	Mate	Day	0.1	617.00	61.70
0114	Beldar	Day	1.1	558.00	613.80
				TOTAL	675.50
				Add Water Charges @ 1%	6.75
				TOTAL	682.25

Add CPOH @ 15%	102.34
TOTAL	784.59
Cost of 10.0 cum	784.59
Cost per cum	78.46
Say	78.45

	Cost index **37.29%**				29.25
	Total with Cost index				107.7

232 Specification Code: 4.1.8

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.8 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL:				
0293	Stone Aggregate(single size): 40 mm nominal size nominal size (0.70 cum -7.5% for voids i.e. 0.05 =0.65 cum)	cum	0.65	1300.00	845.00
0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.24	1350.00	324.00
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	0.65	112.79	73.31
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.24	103.77	24.90

0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement	tonne	0.17	4940.00	839.80
2209	Carriage of Cement	tonne	0.17	92.24	15.68
	LABOUR:				
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.52	2.00	27.04

TOTAL	4327.24
Add Water Charges @ 1%	43.27
TOTAL	4370.51
Add CPOH @ 15%	655.58
TOTAL	5026.09
Cost of 1.0 cum	5026.09
Say	5026.1

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	Cost index **37.29%**				1874.23
	Total with Cost index				6900.33

233 Specification Code: 5.37.1

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per

mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

5.37.1 All wiork upto plinth level

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44
7318	Plasticizer / super plasticizer 0.50% of cement Production Cost, carriage to site pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40
0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00

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0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.0	2.00	26.00

TOTAL	6277.32
Add Water Charges @ 1%	62.77
TOTAL	6340.09
Add CPOH @ 15%	951.01
TOTAL	7291.10
Cost of 1.0 cum	7291.10
Say	7291.1

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	Cost index **37.29%**				2718.85
	Total with Cost index				10009.95

234 Specification Code: 5.37.2

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in

recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

5.37.2 All work above plinth level upto floor V level

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44
7318	Plasticizer / super plasticizer 0.5% of cement Production Cost, carriage to site, pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40
0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00

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0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-Extra labour for lifting up to floor five level 0.75x 2.5 = 1.88	L.S	13.0	2.00	26.00
0115	Coolie	Day	1.88	558.00	1049.04

TOTAL	7326.36
Add Water Charges @ 1%	73.26
TOTAL	7399.62
Add CPOH @ 15%	1109.94
TOTAL	8509.56
Cost of 1.0 cum	8509.56
Say	8509.55

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	Cost index **37.29%**				3173.21
	Total with Cost index				11682.76

235 Specification Code: 5.22.6

5.22 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level

5.22.6 Thermo - Mechanically Treated bars of grade Fe-500D or more

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 1 quintal MATERIAL: Deformed twisted steel bars = 1.00 q Add 5% wastage = 0.05 Total = 1.05q				
1005	Twisted steel/deformed bars	quintal	1.05	4600.00	4830.00
2205	Carriage of Steel	tonne	0.105	92.24	9.69
9999	Sundries-Cover block LABOUR: For straightening, bending binding and placing in postion	L.S	26.0	2.00	52.00
0102	Blacksmith 1st class	Day	1.0	738.00	738.00
0114	Beldar	Day	1.0	558.00	558.00
9999	Sundries-	L.S	26.91	2.00	53.82

TOTAL	6241.51
Add Water Charges @ 1%	62.42
TOTAL	6303.93
Add CPOH @ 15%	945.59
TOTAL	7249.52
Cost of 100.0 kilogram	7249.52
Cost per kilogram	72.50
Say	72.5

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	Cost index **37.29%**				27.04
	Total with Cost index				99.54

236 Specification Code: 5.9.1

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.1 Foundations, footings, bases of columns, etc for mass concrete

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for footing size 2.7mx2.7mx 1.00m Contact area = 10.8sqm MATERIAL: Assuming shuttering material will become unserviceable after use of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	860.00	292.40
7326	Corner angle 45x45x5 mm 1.50 m long Qty taken for cost of using once = 4x0.85/40=0.085	each	0.085	240.00	20.40
7327	100 mm channel shoulder 2.5 m long Qty taken for cost of using once = 8x0.85/40=0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	76.00	25.84
7329	Single clip Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	59.00	10.03
7330	M.S. Tube 40 mm dia Qty taken for cost of using once = 10.8x0.85/40 = 0.2295	metre	0.2295	215.00	49.34
9999	Sundries-Assembly nuts 7 bolts Qty taken for cost of using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20

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9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	0.75	738.00	553.50
0114	Beldar	Day	1.5	558.00	837.00
9999	Sundries-Suttering oil	L.S	52.0	2.00	104.00
9999	Sundries-	L.S	26.0	2.00	52.00

TOTAL	2299.41
Add Water Charges @ 1%	22.99
TOTAL	2322.40
Add CPOH @ 15%	348.36
TOTAL	2670.76
Cost of 10.8 sqm	2670.76
Cost per sqm	247.29
Say	247.3

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PRICE

	Cost index **37.29%**				92.22
	Total with Cost index				339.52

237 Specification Code: 5.9.5

SUBHEAD : **5.0**

REINFORCED CEMENT CONCRETE

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.5 Lintels, beams, plinth beams, girders bressumers and cantilevers

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for a beam of 6 m clear span, 0.50 m deep 0.30 m wide and height 3.5 m from floor cubical contents 6.60x0.5x0.3 = 0.99 cum 1x1.30x6.00 = 7.80 sqm MATERIAL: Assuming shuttering will become unserviceable after use of 40 times Add maintenance charges @ 10% of cost of material Less salvage value of material after full use @25% of cost of material 1. Steel plats for side and bottom (plate size 1.20 x 0.50 m) Angle 40x40x5mm 2x1.20 = 2.40 m 3x0.50 = 1.50 m Total 3.90 m @ 3.00 kg/m = 11.70 kg sheet 1.6 mm thick 1.20 m x 0.50 m =0.60 sqm 0.60 sqm @ 12.55 kg/sqm. = 7.53 kg.Weight of one plate = 19.23 kg. Add for wastage 5% 0.96 kg. Total = 20.19 kg Total weight of all plates 3x5x20.19 = 302.85 kg Qty taken for cost of using once= 302.85 x 85/40 = 6.4356 kg				
10.1	Rate as per item Number10.1 of SH: Steel Work	kilogram	6.4356	74.70	480.74(A)
7343	Adjustable telescopic prop 3 m (2.02-3.75m) Qty taken for using once = 6x0.85/40 = 0.1275m	each	0.1275	955.00	121.76
7344	Beam clamp 300-380 mm (450-1070 mm) Qty taken for cost of using once = 5x0.85/40 = 0.1063 m	each set	0.1063	355.00	37.74

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9999	Sundries - Assembly nut & bolts etc. Qty taken for cost of using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9999	Sundries - Carriage LABOUR:	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	1.25	738.00	922.50
0114	Beldar	Day	2.5	558.00	1395.00
9999	Sundries - Shuttering oil	L.S	39.0	2.00	78.00
9999	Sundries - paper tape etc	L.S	24.61	2.00	49.22

AddWater Charges @ 1% except on A ie on (3285.16-480.74=2804.42)	28.04
TOTAL	3313.20
AddCPOH @ 15% except on A ie on (3313.2-480.74=2832.46)	424.87
TOTAL	3738.15
Cost of 7.8 sqm	3738.15
Cost of 1 sqm	479.25
Say	479.25

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PRICE

	Cost index **37.29%**				178.71
	Total with Cost index				657.96

238 Specification Code: 5.9.6

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.6 Columns, Pillars, Piers, Abutments, Posts and Struts

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 4.5 sqm. Size of column 450x450mm and 2.5 m high Area of contact = 4x0.45x2.5 = 4.5 sqm MATERIAL:Assuming shuttering will become unserviceable after use of 40 times Add maintenance charges @ 10 % of cost of material Less salvage value of material after full use @ 25% of cost of material				
7331	Wall form panel 1250x450xmm Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	860.00	146.20
7332	Corner angle 45x45x5 mm 2.50 long Qty taken for cost of using once = 4x0.85/40 = 0.085	each	0.085	255.00	21.68
7333	Column clamp 450x1070 mm Qty taken for cost of using once = 5x0.85/40 = 0.1063	each	0.1063	965.00	102.58
7334	Prop 2 m (2-3.5m) Qty taken for cost of using once = 4x0.85/40 = 0.085	each	0.085	635.00	53.98
9999	Sundries-Qty taken for cost of using once = 1300x0.85/40 = 27.62	L.S	27.62	2.00	55.24
9977	Carriage LABOUR	L.S	52.0	2.00	104.00
0116	Fitter(grade1)	Day	1.0	738.00	738.00
0114	Beldar	Day	2.0	558.00	1116.00
9999	Sundries-Shuttering oil	L.S	39.0	2.00	78.00
9999	Sundries-Carriage	L.S	26.0	2.00	52.00

TOTAL	2467.68
Add Water Charges @ 1%	24.68
TOTAL	2492.36

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Add CPOH @ 15%	373.85
TOTAL	2866.21
Cost of 4.5 sqm	2866.21
Cost per sqm	636.94
Say	636.95

	Cost index **37.29%**				237.52
	Total with Cost index				874.47

239 Specification Code: 13.7.1

13.7 12 mm cement plaster finished with a floating coat of neat cement of mix:

13.7.1 1:3 (1 cement : 3 fine sand)

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:3 (1 cement : 3 fine sand				
3.3	Rate as per item Number3.3 of SH: Mortars MATERIAL:	cum	0.144	4183.05	602.36
0155	Mason (average)	Day	0.67	709.00	475.03
0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64
9999	Sundries-Scaffolding and sundries.	L.S	12.61	2.00	25.22
0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	Day	0.27	709.00	191.43
0115	Coolie	Day	0.27	558.00	150.66

9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12

TOTAL	2547.60
Add Water Charges @ 1%	25.48
TOTAL	2573.08
Add CPOH @ 15%	385.96
TOTAL	2959.04
Cost of 10.0 sqm	2959.04
Cost per sqm	295.90
Say	295.9

	Cost index **37.29%**				110.34
	Total with Cost index				406.24

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240 Specification Code: 13.52.2

13.52 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.

13.52.2 On concrete work

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm PRIMING COAT MATERIAL:				
0821	Distemper primer	Litre	0.84	70.00	58.80
9999	Sundries-Putty	L.S	13.52	2.00	27.04
9977	Carriage LABOUR:	L.S	0.52	2.00	1.04
0131	Painter	Day	0.25	679.00	169.75

0115	Coolie	Day	0.25	558.00	139.50
9999	Sundries-Brushes, sand paper etc.	L.S	2.73	2.00	5.46
9999	Sundries-EPOXY PAINTING| MATERIAL:	L.S	8.06	2.00	16.12
7239	Epoxy paint	Litre	1.21	230.00	278.30
9999	Sundries-Materials for filling in holes and cracks	L.S	6.76	2.00	13.52
9977	Carriage of materialLABOUR:	L.S	1.43	2.00	2.86
0131	Painter	Day	0.54	679.00	366.66
0115	Coolie	Day	0.54	558.00	301.32
9999	Sundries-Putty, brushes, sand paper etc.	L.S	10.79	2.00	21.58
9999	Sundries-	L.S	6.76	2.00	13.52

TOTAL	1415.47
Add Water Charges @ 1%	14.15
TOTAL	1429.62
Add CPOH @ 15%	214.44
TOTAL	1644.06
Cost of 10.0 sqm	1644.06
Cost per sqm	164.41
Say	164.4

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	Cost index **37.29%**				61.30
	Total with Cost index				225.7

241 Specification Code: 5.34.1

5.34 Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.

5.34.1 Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum. Cement for M-30 mix = 0.340 t Cement for M-25 mix = 0.330 t Difference = 0.010 t				
0367	Portland Cement	tonne	0.01	4940.00	49.40
2209	Carriage of Cement Plasticizer for M-30 mix = 1.70 kg Plasticizer for M-25 mix = 1.65 kg Difference = 0.05 kg	tonne	0.01	92.24	0.92
7318	Plasticizer / super plasticizer	kilogram	0.05	36.00	1.80
				TOTAL	52.12
				Add Water Charges @ 1%	.52
				TOTAL	52.64
				Add CPOH @ 15%	7.90
				TOTAL	60.54
				Cost of 1.0 cum	60.54
				Say	60.55

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	Cost index **37.29%**				22.58
	Total with Cost index				83.13

242 Specification Code: 5.22.5

5.22 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level

5.22.5 Hard drawn steel wire fabric

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 quintal MATERIAL: Hard drawn steel wire fabric 100kg/7.75 kg = 12.903 sqm Wastage 5% = 0.64 sqm Total = 13.548 sqm				
1021	Hard drawn steel wire fabric	sqm	13.548	430.00	5825.64
2205	Carriage of Steel	tonne	0.105	92.24	9.69
9999	Sundries-Cover block LABOUR: For cutting and laying in position	L.S	26.0	2.00	52.00
0103	Blacksmith 2nd class	Day	0.2	679.00	135.80
0114	Beldar	Day	1.5	558.00	837.00
9999	Sundries-and binding wire	L.S	13.52	2.00	27.04
				TOTAL	6887.17
				Add Water Charges @ 1%	68.87
				TOTAL	6956.04
				Add CPOH @ 15%	1043.41
				TOTAL	7999.45
				Cost of 100.0 kilogram	7999.45
				Cost per kilogram	79.99
				Say	80.0

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PRICE

	Cost index **37.29%**				29.83
	Total with Cost index				109.83

243 Specification Code: 4.12

4.12 Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification .

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for per bag 50 kg. of cement MATERIAL: Approved water proofing materials according to the recommended proportions				
1213	Water proofing materials	kilogram	1.0	35.00	35.00
9988	Carriage and sundries Carriage of water proofing material and labour for mixing	L.S	3.64	2.00	7.28
				TOTAL	42.28
				Add Water Charges @ 1%	.42
				TOTAL	42.70
				Add CPOH @ 15%	6.41
				TOTAL	49.11
				Cost of 50.0 kg	49.11
				Cost per kg	.98
				Say	1.0

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PRICE

	Cost index **37.29%**				.37
	Total with Cost index				1.37

244 Specification Code: 5.9.2

SUBHEAD 5.0

REINFORCED CEMENT CONCRETE

5.9

Centering and shuttering including strutting, etc. and removal of form for:

5.9.2

Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 7.9m long and 1.00m high wall Area of contact 2x7.9x1.0 = 15.8 sqm MATERIAL: Assuming shuttering material will become unserviceable after us of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm 2x3x2x2 = 24 Nos. Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	860.00	438.60
7327	100 mm channel shoulder 2.5 m long 4x2 = 8 Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) 2x6x2 = 24 Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	76.00	38.76
7329	Single clip 2x3x2 = 12 Qty taken for cost of using once = 12x0.85/40 = 0.255	each	0.255	59.00	15.05

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7330	M.S. Tube 40 mm dia 2x2x8m = 32m Qty taken for cost of using once = 32x0.85/40 = 0.68	metre	0.68	215.00	146.20
9999	Sundries-Qty taken for cost of using once = 1300x0.85/40 = 27.62	L.S	27.62	2.00	55.24
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	3.5	738.00	2583.00
0114	Beldar	Day	6.0	558.00	3348.00
9999	Sundries- shuttering oil	L.S	78.0	2.00	156.00
9999	Sundries-	L.S	52.0	2.00	104.00
				TOTAL	7195.55
				Add Water Charges @ 1%	71.96
				TOTAL	7267.51
				Add CPOH @ 15%	1090.13
				Costof 15.8 Sq. m.	8357.64
				Cost per 1 Sq. m.	528.96
				Say	528.95

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PRICE

	Cost index **37.29%**				197.25
	Total with Cost index				726.2

245 Specification Code: 5.9.3

SUBHEAD : **5.0**

REINFORCED CEMENT CONCRETE

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.3 Suspended floors, roofs, landings, balconies and access platform

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for a room 4.5x3 = 13.50 sqm height 3.5 m MATERIAL: Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost 1. Plates (size 0.75x0.60) Angle 40x40x5 mm 2x0.75 = 1.5 m 2x0.60 = 1.20 m = 2.70 m @ 3.00 kg/m = 8.10 kg sheet 1.6 mm thick 0.75x0.60 = 0.45 sqm 0.45 sqm @ 12.55 kg/sqm = 5.65 kg Weight of one plate = 13.75 kg Add for wastage @ 5% = 0.69 kg Total = 14.44 kg Total weight of all plates = 5x6x14.44= 433.20 kg. Qty taken for cost using once = 433.2x0.85/40 = 9.2055 kg				
10.1	Rate as per item Number10.1 of SH: Steel Work	kilogram	9.2055	74.70	687.65(A)
7342	Adjustable span ESO+SI (2.35-3.40) Qty taken for cost using once = 5x0.85/40 =0.1063	each	0.1063	1480.00	157.32
7343	Adjustable telescopic prop 3 m (2.02-3.75m) Qty taken for cost using once = 6x0.85/40 = 0.1275	each	0.1275	955.00	121.76

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9999	Sundries - Assembly nut & nolts etc. Qty taken for cost using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9999	Sundries - Carriage LABOUR: Fitter (grade 1)	L.S	130.0	2.00	260.00
0116	Fitter(grade1)	Day	3.0	738.00	2214.00
0114	Beldar	Day	6.0	558.00	3348.00
9999	Sundries - Shuttering oil	L.S	78.0	2.00	156.00
9999	Sundries - paper tape etc	L.S	49.7	2.00	99.40

AddWater Charges @ 1% except on A ie on (7088.33-687.65=6400.68)	64.01
TOTAL	7152.34
AddCPOH @ 15% except on A ie on (7152.34-687.65=6464.69)	969.70
TOTAL	8122.27
Cost of 13.5 sqm	8122.27
Cost of 1 sqm	601.65
Say	601.65

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	Cost index **37.29%**				224.36
	Total with Cost index				826.01

246 Specification Code: 22.23.1

22.23 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1

(3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.

22.23.1 For vertical surface two coats @0.70 kg per sqm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 .00 sqm MATERIAL :				
0351	Integral cystalline slurry x .70kg / sq.mtr. = 1.40kg) LABOUR	kilogram	1.4	238.00	333.20
9999	Sundries-For application of waterproofing material	L.S	11.55	2.00	23.10
9999	Sundries-	L.S	1.15	2.00	2.30
9999	Sundries-of material and tools cost etc..	L.S	1.75	2.00	3.50
				TOTAL	362.10
				Add Water Charges @ 1%	3.62
				TOTAL	365.72
				Add CPOH @ 15%	54.86
				TOTAL	420.58
				Cost of 1.0 sqm	420.58
				Say	420.6

	Cost index **37.29%**				156.84

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	Total with Cost index				577.44

247 Specification Code: 22.23.2

22.23 Providing and applying integral crystalline slurry of hydrophilic in nature forwaterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 partsintegral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 partsintegral crystalline slurry : 1 part water) for horizontal surfaces and applying thesame from negative (internal) side with the help of synthetic fiber brush. The materialshall meet the requirements as specified in ACI-212-3R-2010 i.e by reducingpermeability of concrete by more than 90% compared with control concrete as perDIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystallineslurry shall be capable of self-healing of cracks up to a width of 0.50mm. The workshall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against anyleakage.

22.23.2 For horizontal surface one coat @1.10 kg per sqm.

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 .00 sqm MATERIAL :				
0351	Integral cystalline slurry (1 x 1.10kg / sq.mtr. = 1.10kg) LABOUR	kilogram	1.1	238.00	261.80
9999	Sundries-For application of waterproofing material	L.S	5.75	2.00	11.50
9999	Sundries-	L.S	1.15	2.00	2.30
9999	Sundries-of material and tools cost etc..	L.S	1.75	2.00	3.50
				TOTAL	279.10
				Add Water Charges @ 1%	2.79
				TOTAL	281.89

Add CPOH @ 15%	42.28
TOTAL	324.17
Cost of 1.0 sqm	324.17
Cost per sqm	324.17
Say	324.15

	Cost index **37.29%**				120.88
	Total with Cost index				445.03

248 Specification Code: 13.7.2

13.7 12 mm cement plaster finished with a floating coat of neat cement of mix:

13.7.2 1:4 (1 cement : 4 fine sand)

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1 : 4 (1 cement : 4 fine sand)				
3.4	Rate as per item Number3.4 of SH: Mortars LABOUR:	cum	0.144	3528.85	508.15
0155	Mason (average)	Day	0.67	709.00	475.03
0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64
9999	Sundries-Scaffolding and sundries.	L.S	12.61	2.00	25.22
0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	Day	0.27	709.00	191.43

0115	Coolie	Day	0.27	558.00	150.66
9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12

TOTAL	2453.39
Add Water Charges @ 1%	24.53
TOTAL	2477.92
Add CPOH @ 15%	371.69
TOTAL	2849.61
Cost of 10.0 sqm	2849.61
Cost per sqm	284.96
Say	284.95

	Cost index **37.29%**				106.26
	Total with Cost index				391.21

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PRICE

249 Specification Code: 13.52.1

13.52 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.

13.52.1 On steel work

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL:				
4202	Red oxide Zinc chromate primer	Litre	0.75	110.00	82.50
9999	Sundries-Putty	L.S	2.73	2.00	5.46
9977	Carriage LABOUR:	L.S	0.39	2.00	0.78
0131	Painter	Day	0.25	679.00	169.75

0115	Coolie	Day	0.25	558.00	139.50
9999	Sundries-Brushes, sand paper etc.	L.S	5.46	2.00	10.92
9999	Sundries-EPOXY PAINTING MATERIAL:	L.S	10.66	2.00	21.32
7239	Epoxy paint	Litre	1.25	230.00	287.50
9977	Carriage of materialLABOUR:	L.S	1.43	2.00	2.86
0131	Painter	Day	0.54	679.00	366.66
0115	Coolie	Day	0.54	558.00	301.32
9999	Sundries-Putty, brushes, sand paper etc.	L.S	6.76	2.00	13.52
9999	Sundries-	L.S	8.06	2.00	16.12

TOTAL	1418.21
Add Water Charges @ 1%	14.18
TOTAL	1432.39
Add CPOH @ 15%	214.86
TOTAL	1647.25
Cost of 10.0 sqm	1647.25
Cost per sqm	164.72
Say	164.7

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	Cost index **37.29%**				61.42
	Total with Cost index				226.12

DATA ANALYSIS COTREATMENT

Receiving Chamber

1 Specification Code: 2.6.1

2.6 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.

2.6.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. Average output of Hydraulic Excavator per hour = 30cum MACHINERY:				
0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.041	7000.00	287.00
0018	Hire and running charges of loader LABOUR:	Day	0.041	5000.00	205.00
0128	Mate Beldar/	Day	0.32	617.00	197.44
0115	Coolie	Day	1.2	558.00	669.60
				TOTAL	1359.04
				Add Water Charges @ 1%	13.59
				TOTAL	1372.63
				Add CPOH @ 15%	205.89
				TOTAL	1578.52
				Cost of 10.0 cum	1578.52
				Cost per cum	157.85
				Say	157.85

	Cost index **37.29%**				58.86
	Total with Cost index				216.71

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2 Specification Code: 4.1.5

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.5 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum				
0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.7	1350.00	945.00
0297	Stone Aggregate(single size): 10 mm nominal size nominal size	cum	0.24	1350.00	324.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.94	103.77	97.54
0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement (0.15674 cum)	tonne	0.22	4940.00	1086.80
2209	Carriage of Cement	tonne	0.22	92.24	20.29
	LABOUR:				
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.52	2.00	27.04
				TOTAL	4678.18
				Add Water Charges @ 1%	46.78

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TOTAL	4724.96
Add CPOH @ 15%	708.74
TOTAL	5433.70
Cost of 1.0 cum	5433.70
Say	5433.7

	Cost index **37.29%**				2026.23
	Total with Cost index				7459.93

3 Specification Code: 5.37.2

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

5.37.2 All work above plinth level upto floor V level

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50

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0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44
7318	Plasticizer / super plasticizer 0.5% of cement Production Cost, carriage to site, pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40
0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-Extra labour for lifting up to floor five level 0.75x 2.5 = 1.88	L.S	13.0	2.00	26.00
0115	Coolie	Day	1.88	558.00	1049.04

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TOTAL	7326.36
Add Water Charges @ 1%	73.26
TOTAL	7399.62

Add CPOH @ 15%	1109.94
TOTAL	8509.56
Cost of 1.0 cum	8509.56
Say	8509.55

	Cost index **37.29%**				3173.21
	Total with Cost index				11682.76

4 Specification Code: 5.9.2

SUBHEAD 5.0

REINFORCED CEMENT CONCRETE

5.9

Centering and shuttering including strutting, etc. and removal of form for:

5.9.2

Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 7.9m long and 1.00m high wall Area of contact 2x7.9x1.0 = 15.8 sqm MATERIAL: Assuming shuttering material will become unserviceable after us of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				

7319	wall form panel 1250x500 mm 2x3x2x2 = 24 Nos. Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	860.00	438.60
7327	100 mm channel shoulder 2.5 m long 4x2 = 8 Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) 2x6x2 = 24 Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	76.00	38.76
7329	Single clip 2x3x2 = 12 Qty taken for cost of using once = 12x0.85/40 = 0.255	each	0.255	59.00	15.05
7330	M.S. Tube 40 mm dia 2x2x8m = 32m Qty taken for cost of using once = 32x0.85/40 = 0.68	metre	0.68	215.00	146.20
9999	Sundries-Qty taken for cost of using once = 1300x0.85/40 = 27.62	L.S	27.62	2.00	55.24
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	3.5	738.00	2583.00
0114	Beldar	Day	6.0	558.00	3348.00
9999	Sundries- shuttering oil	L.S	78.0	2.00	156.00
9999	Sundries-	L.S	52.0	2.00	104.00
				TOTAL	7195.55
				Add Water Charges @ 1%	71.96
				TOTAL	7267.51
				Add CPOH @ 15%	1090.13

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PRICE

Costof 15.8 Sq. m.	8357.64
Cost per 1 Sq. m.	528.96
Say	528.95

	Cost index **37.29%**				197.25
	Total with Cost index				726.2

5 Specification Code: 5.22.6

5.22 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level

5.22.6 Thermo - Mechanically Treated bars of grade Fe-500D or more

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PRICE

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 quintal MATERIAL: Deformed twisted steel bars = 1.00 q Add 5% wastage = 0.05 Total = 1.05q				
1005	Twisted steel/deformed bars	quintal	1.05	4600.00	4830.00
2205	Carriage of Steel	tonne	0.105	92.24	9.69
9999	Sundries-Cover block LABOUR: For straightening, bending binding and placing in postion	L.S	26.0	2.00	52.00
0102	Blacksmith 1st class	Day	1.0	738.00	738.00
0114	Beldar	Day	1.0	558.00	558.00
9999	Sundries-	L.S	26.91	2.00	53.82
				TOTAL	6241.51
				Add Water Charges @ 1%	62.42

TOTAL	6303.93
Add CPOH @ 15%	945.59
TOTAL	7249.52
Cost of 100.0 kilogram	7249.52
Cost per kilogram	72.50
Say	72.5

	Cost index **37.29%**				27.04
	Total with Cost index				99.54

6 Specification Code: 13.7.1

13.7 12 mm cement plaster finished with a floating coat of neat cement of mix:

13.7.1 1:3 (1 cement : 3 fine sand)

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PRICE

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:3 (1 cement : 3 fine sand				
3.3	Rate as per item Number3.3 of SH: Mortars MATERIAL:	cum	0.144	4183.05	602.36
0155	Mason (average)	Day	0.67	709.00	475.03
0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64
9999	Sundries-Scaffolding and sundries.	L.S	12.61	2.00	25.22
0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	Day	0.27	709.00	191.43

0115	Coolie	Day	0.27	558.00	150.66
9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12

TOTAL	2547.60
Add Water Charges @ 1%	25.48
TOTAL	2573.08
Add CPOH @ 15%	385.96
TOTAL	2959.04
Cost of 10.0 sqm	2959.04
Cost per sqm	295.90
Say	295.9

	Cost index **37.29%**				110.34
	Total with Cost index				406.24

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PRICE

DILUTION CHAMBER

7 Specification Code: 2.6.1

2.6 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.

2.6.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. Average output of Hydraulic Excavator per hour = 30cum MACHINERY:				
0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.041	7000.00	287.00

0018	Hire and running charges of loader LABOUR:	Day	0.041	5000.00	205.00
0128	Mate Beldar/	Day	0.32	617.00	197.44
0115	Coolie	Day	1.2	558.00	669.60

TOTAL	1359.04
Add Water Charges @ 1%	13.59
TOTAL	1372.63
Add CPOH @ 15%	205.89
TOTAL	1578.52
Cost of 10.0 cum	1578.52
Cost per cum	157.85
Say	157.85

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	Cost index **37.29%**				58.86
	Total with Cost index				216.71

PRICE

8 Specification Code: 4.1.5

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.5 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum				
0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.7	1350.00	945.00

0297	Stone Aggregate(single size): 10 mm nominal size nominal size	cum	0.24	1350.00	324.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.94	103.77	97.54
0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement (0.15674 cum)	tonne	0.22	4940.00	1086.80
2209	Carriage of Cement LABOUR:	tonne	0.22	92.24	20.29
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.52	2.00	27.04

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TOTAL	4678.18
Add Water Charges @ 1%	46.78
TOTAL	4724.96
Add CPOH @ 15%	708.74
TOTAL	5433.70
Cost of 1.0 cum	5433.70
Say	5433.7

	Cost index **37.29%**				2026.23
	Total with Cost index				7459.93

9 Specification Code: 5.37.2

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

5.37.2 All work above plinth level upto floor V level

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44
7318	Plasticizer / super plasticizer 0.5% of cement Production Cost, carriage to site, pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40

0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-Extra labour for lifting up to floor five level 0.75x 2.5 = 1.88	L.S	13.0	2.00	26.00
0115	Coolie	Day	1.88	558.00	1049.04

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PRICE

TOTAL	7326.36
Add Water Charges @ 1%	73.26
TOTAL	7399.62
Add CPOH @ 15%	1109.94
TOTAL	8509.56
Cost of 1.0 cum	8509.56
Say	8509.55

	Cost index **37.29%**				3173.21
	Total with Cost index				11682.76

10 Specification Code: 5.9.2

SUBHEAD 5.0

REINFORCED CEMENT CONCRETE

5.9

Centering and shuttering including strutting, etc. and removal of form for:

5.9.2

Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 7.9m long and 1.00m high wall Area of contact 2x7.9x1.0 = 15.8 sqm MATERIAL: Assuming shuttering material will become unserviceable after us of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm 2x3x2x2 = 24 Nos. Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	860.00	438.60
7327	100 mm channel shoulder 2.5 m long 4x2 = 8 Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) 2x6x2 = 24 Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	76.00	38.76
7329	Single clip 2x3x2 = 12 Qty taken for cost of using once = 12x0.85/40 = 0.255	each	0.255	59.00	15.05

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7330	M.S. Tube 40 mm dia 2x2x8m = 32m Qty taken for cost of using once = 32x0.85/40 = 0.68	metre	0.68	215.00	146.20
9999	Sundries-Qty taken for cost of using once = 1300x0.85/40 = 27.62	L.S	27.62	2.00	55.24
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	3.5	738.00	2583.00
0114	Beldar	Day	6.0	558.00	3348.00
9999	Sundries- shuttering oil	L.S	78.0	2.00	156.00
9999	Sundries-	L.S	52.0	2.00	104.00
				TOTAL	7195.55
				Add Water Charges @ 1%	71.96
				TOTAL	7267.51
				Add CPOH @ 15%	1090.13
				Costof 15.8 Sq. m.	8357.64
				Cost per 1 Sq. m.	528.96
				Say	528.95

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	Cost index **37.29%**				197.25
	Total with Cost index				726.2

11 Specification Code: 5.22.6

5.22 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level

5.22.6 Thermo - Mechanically Treated bars of grade Fe-500D or more

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 quintal MATERIAL: Deformed twisted steel bars = 1.00 q Add 5% wastage = 0.05 Total = 1.05q				
1005	Twisted steel/deformed bars	quintal	1.05	4600.00	4830.00
2205	Carriage of Steel	tonne	0.105	92.24	9.69
9999	Sundries-Cover block LABOUR: For straightening, bending binding and placing in postion	L.S	26.0	2.00	52.00
0102	Blacksmith 1st class	Day	1.0	738.00	738.00
0114	Beldar	Day	1.0	558.00	558.00
9999	Sundries-	L.S	26.91	2.00	53.82
				TOTAL	6241.51
				Add Water Charges @ 1%	62.42
				TOTAL	6303.93
				Add CPOH @ 15%	945.59
				TOTAL	7249.52
				Cost of 100.0 kilogram	7249.52
				Cost per kilogram	72.50
				Say	72.5

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	Cost index **37.29%**				27.04
	Total with Cost index				99.54

12 Specification Code: 13.7.1

13.7 12 mm cement plaster finished with a floating coat of neat cement of mix:

13.7.1 1:3 (1 cement : 3 fine sand)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:3 (1 cement : 3 fine sand				
3.3	Rate as per item Number3.3 of SH: Mortars MATERIAL:	cum	0.144	4183.05	602.36
0155	Mason (average)	Day	0.67	709.00	475.03
0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64
9999	Sundries-Scaffolding and sundries.	L.S	12.61	2.00	25.22
0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	Day	0.27	709.00	191.43
0115	Coolie	Day	0.27	558.00	150.66
9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12
				TOTAL	2547.60
				Add Water Charges @ 1%	25.48
				TOTAL	2573.08
				Add CPOH @ 15%	385.96
				TOTAL	2959.04
				Cost of 10.0 sqm	2959.04
				Cost per sqm	295.90
				Say	295.9

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PRICE

	Cost index **37.29%**				110.34
	Total with Cost index				406.24

OIL AND GREASE TRAP

13 Specification Code: 2.6.1

2.6 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.

2.6.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. Average output of Hydraulic Excavator per hour = 30cum MACHINERY:				
0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.041	7000.00	287.00
0018	Hire and running charges of loader LABOUR:	Day	0.041	5000.00	205.00
0128	Mate Beldar/	Day	0.32	617.00	197.44
0115	Coolie	Day	1.2	558.00	669.60
				TOTAL	1359.04
				Add Water Charges @ 1%	13.59
				TOTAL	1372.63
				Add CPOH @ 15%	205.89
				TOTAL	1578.52
				Cost of 10.0 cum	1578.52
				Cost per cum	157.85

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PRICE

Say	157.85

	Cost index **37.29%**				58.86
	Total with Cost index				216.71

14 Specification Code: 4.1.5

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.5 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum				
0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.7	1350.00	945.00
0297	Stone Aggregate(single size): 10 mm nominal size nominal size	cum	0.24	1350.00	324.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.94	103.77	97.54
0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement (0.15674 cum)	tonne	0.22	4940.00	1086.80
2209	Carriage of Cement	tonne	0.22	92.24	20.29
	LABOUR:				
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90

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0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.52	2.00	27.04

TOTAL	4678.18
Add Water Charges @ 1%	46.78
TOTAL	4724.96
Add CPOH @ 15%	708.74
TOTAL	5433.70
Cost of 1.0 cum	5433.70
Say	5433.7

	Cost index **37.29%**				2026.23
	Total with Cost index				7459.93

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PRICE

15 Specification Code: 5.37.2

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

5.37.2 All work above plinth level upto floor V level

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44
7318	Plasticizer / super plasticizer 0.5% of cement Production Cost, carriage to site, pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40
0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90

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9999	Sundries-Extra labour for lifting up to floor five level 0.75x 2.5 = 1.88	L.S	13.0	2.00	26.00
0115	Coolie	Day	1.88	558.00	1049.04

TOTAL	7326.36
Add Water Charges @ 1%	73.26
TOTAL	7399.62
Add CPOH @ 15%	1109.94
TOTAL	8509.56
Cost of 1.0 cum	8509.56
Say	8509.55

	Cost index **37.29%**				3173.21
	Total with Cost index				11682.76

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PRICE

16 Specification Code: 5.9.2

SUBHEAD 5.0

REINFORCED CEMENT CONCRETE

5.9

Centering and shuttering including strutting, etc. and removal of form for:

5.9.2

Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 7.9m long and 1.00m high wall Area of contact 2x7.9x1.0 = 15.8 sqm MATERIAL: Assuming shuttering material will become unserviceable after us of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm 2x3x2x2 = 24 Nos. Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	860.00	438.60
7327	100 mm channel shoulder 2.5 m long 4x2 = 8 Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) 2x6x2 = 24 Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	76.00	38.76
7329	Single clip 2x3x2 = 12 Qty taken for cost of using once = 12x0.85/40 = 0.255	each	0.255	59.00	15.05
7330	M.S. Tube 40 mm dia 2x2x8m = 32m Qty taken for cost of using once = 32x0.85/40 = 0.68	metre	0.68	215.00	146.20
9999	Sundries-Qty taken for cost of using once = 1300x0.85/40 = 27.62	L.S	27.62	2.00	55.24
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	3.5	738.00	2583.00
0114	Beldar	Day	6.0	558.00	3348.00

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9999	Sundries- shuttering oil	L.S	78.0	2.00	156.00
9999	Sundries-	L.S	52.0	2.00	104.00
				TOTAL	7195.55
				Add Water Charges @ 1%	71.96
				TOTAL	7267.51
				Add CPOH @ 15%	1090.13
				Costof 15.8 Sq. m.	8357.64
				Cost per 1 Sq. m.	528.96
				Say	528.95

	Cost index **37.29%**				197.25
	Total with Cost index				726.2

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PRICE

17 Specification Code: 5.22.6

5.22 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level

5.22.6 Thermo - Mechanically Treated bars of grade Fe-500D or more

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 quintal MATERIAL: Deformed twisted steel bars = 1.00 q Add 5% wastage = 0.05 Total = 1.05q				
1005	Twisted steel/deformed bars	quintal	1.05	4600.00	4830.00
2205	Carriage of Steel	tonne	0.105	92.24	9.69

9999	Sundries-Cover block LABOUR: For straightening, bending binding and placing in postion	L.S	26.0	2.00	52.00
0102	Blacksmith 1st class	Day	1.0	738.00	738.00
0114	Beldar	Day	1.0	558.00	558.00
9999	Sundries-	L.S	26.91	2.00	53.82

TOTAL	6241.51
Add Water Charges @ 1%	62.42
TOTAL	6303.93
Add CPOH @ 15%	945.59
TOTAL	7249.52
Cost of 100.0 kilogram	7249.52
Cost per kilogram	72.50
Say	72.5

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PRICE

	Cost index **37.29%**				27.04
	Total with Cost index				99.54

18 Specification Code: 13.7.1

13.7 12 mm cement plaster finished with a floating coat of neat cement of mix:

13.7.1 1:3 (1 cement : 3 fine sand)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:3 (1 cement : 3 fine sand				

3.3	Rate as per item Number3.3 of SH: Mortars MATERIAL:	cum	0.144	4183.05	602.36
0155	Mason (average)	Day	0.67	709.00	475.03
0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64
9999	Sundries-Scaffolding and sundries.	L.S	12.61	2.00	25.22
0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	Day	0.27	709.00	191.43
0115	Coolie	Day	0.27	558.00	150.66
9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12

TOTAL	2547.60
Add Water Charges @ 1%	25.48
TOTAL	2573.08
Add CPOH @ 15%	385.96
TOTAL	2959.04
Cost of 10.0 sqm	2959.04
Cost per sqm	295.90
Say	295.9

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	Cost index **37.29%**				110.34
	Total with Cost index				406.24

SCREEN CHAMBER

19 Specification Code: 2.6.1

2.6 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm

on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.

2.6.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. Average output of Hydraulic Excavator per hour = 30cum MACHINERY:				
0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.041	7000.00	287.00
0018	Hire and running charges of loader LABOUR:	Day	0.041	5000.00	205.00
0128	Mate Beldar/	Day	0.32	617.00	197.44
0115	Coolie	Day	1.2	558.00	669.60
				TOTAL	1359.04
				Add Water Charges @ 1%	13.59
				TOTAL	1372.63
				Add CPOH @ 15%	205.89
				TOTAL	1578.52
				Cost of 10.0 cum	1578.52
				Cost per cum	157.85
				Say	157.85

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	Cost index **37.29%**				58.86
	Total with Cost index				216.71

20 Specification Code: 4.1.5

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.5 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum				
0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.7	1350.00	945.00
0297	Stone Aggregate(single size): 10 mm nominal size nominal size	cum	0.24	1350.00	324.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.94	103.77	97.54
0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement (0.15674 cum)	tonne	0.22	4940.00	1086.80
2209	Carriage of Cement	tonne	0.22	92.24	20.29
	LABOUR:				
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.52	2.00	27.04
				TOTAL	4678.18
				Add Water Charges @ 1%	46.78
				TOTAL	4724.96

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Add CPOH @ 15%	708.74
TOTAL	5433.70
Cost of 1.0 cum	5433.70
Say	5433.7

	Cost index **37.29%**				2026.23
	Total with Cost index				7459.93

21 Specification Code: 5.37.2

5.37 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.

5.37.2 All work above plinth level upto floor V level

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00

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2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement	tonne	0.33	4940.00	1630.20
2209	Carriage of Cement	tonne	0.33	92.24	30.44
7318	Plasticizer / super plasticizer 0.5% of cement Production Cost, carriage to site, pumping to respective floors and laying in position	kilogram	1.65	36.00	59.40
0004	Production cost of concrete by batch mix plant	cum	1.0	350.00	350.00
0029	Carriage of concrete by transit mixer	cum per km	10.0	30.00	300.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. Labour for pouring, consolidating and curing	cum	1.0	210.00	210.00
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-Extra labour for lifting up to floor five level 0.75x 2.5 = 1.88	L.S	13.0	2.00	26.00
0115	Coolie	Day	1.88	558.00	1049.04

TOTAL	7326.36
Add Water Charges @ 1%	73.26
TOTAL	7399.62
Add CPOH @ 15%	1109.94

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TOTAL	8509.56
Cost of 1.0 cum	8509.56
Say	8509.55

	Cost index **37.29%**				3173.21
	Total with Cost index				11682.76

22 Specification Code: 5.22.6

5.22 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level

5.22.6 Thermo - Mechanically Treated bars of grade Fe-500D or more

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 quintal MATERIAL: Deformed twisted steel bars = 1.00 q Add 5% wastage = 0.05 Total = 1.05q				
1005	Twisted steel/deformed bars	quintal	1.05	4600.00	4830.00
2205	Carriage of Steel	tonne	0.105	92.24	9.69
9999	Sundries-Cover block LABOUR: For straightening, bending binding and placing in postion	L.S	26.0	2.00	52.00
0102	Blacksmith 1st class	Day	1.0	738.00	738.00
0114	Beldar	Day	1.0	558.00	558.00
9999	Sundries-	L.S	26.91	2.00	53.82
				TOTAL	6241.51

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Add Water Charges @ 1%	62.42
TOTAL	6303.93
Add CPOH @ 15%	945.59
TOTAL	7249.52
Cost of 100.0 kilogram	7249.52
Cost per kilogram	72.50
Say	72.5

	Cost index **37.29%**				27.04
	Total with Cost index				99.54

23 Specification Code: 5.9.2

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SUBHEAD 5.0

REINFORCED CEMENT CONCRETE

5.9

Centering and shuttering including strutting, etc. and removal of form for:

5.9.2

Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 7.9m long and 1.00m high wall Area of contact 2x7.9x1.0 = 15.8 sqm MATERIAL: Assuming shuttering material will become unserviceable after us of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				

7319	wall form panel 1250x500 mm 2x3x2x2 = 24 Nos. Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	860.00	438.60
7327	100 mm channel shoulder 2.5 m long 4x2 = 8 Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) 2x6x2 = 24 Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	76.00	38.76
7329	Single clip 2x3x2 = 12 Qty taken for cost of using once = 12x0.85/40 = 0.255	each	0.255	59.00	15.05
7330	M.S. Tube 40 mm dia 2x2x8m = 32m Qty taken for cost of using once = 32x0.85/40 = 0.68	metre	0.68	215.00	146.20
9999	Sundries-Qty taken for cost of using once = 1300x0.85/40 = 27.62	L.S	27.62	2.00	55.24
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	3.5	738.00	2583.00
0114	Beldar	Day	6.0	558.00	3348.00
9999	Sundries- shuttering oil	L.S	78.0	2.00	156.00
9999	Sundries-	L.S	52.0	2.00	104.00
				TOTAL	7195.55
				Add Water Charges @ 1%	71.96
				TOTAL	7267.51
				Add CPOH @ 15%	1090.13

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Costof 15.8 Sq. m.	8357.64
Cost per 1 Sq. m.	528.96
Say	528.95

	Cost index **37.29%**				197.25
	Total with Cost index				726.2

24 Specification Code: 13.7.1

13.7 12 mm cement plaster finished with a floating coat of neat cement of mix:

13.7.1 1:3 (1 cement : 3 fine sand)

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:3 (1 cement : 3 fine sand				
3.3	Rate as per item Number3.3 of SH: Mortars MATERIAL:	cum	0.144	4183.05	602.36
0155	Mason (average)	Day	0.67	709.00	475.03
0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64
9999	Sundries-Scaffolding and sundries.	L.S	12.61	2.00	25.22
0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	Day	0.27	709.00	191.43
0115	Coolie	Day	0.27	558.00	150.66
9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12
				TOTAL	2547.60

Add Water Charges @ 1%	25.48
TOTAL	2573.08
Add CPOH @ 15%	385.96
TOTAL	2959.04
Cost of 10.0 sqm	2959.04
Cost per sqm	295.90
Say	295.9

	Cost index **37.29%**				110.34
	Total with Cost index				406.24

Other Ancillary units

25 Specification Code: od316060/2021_2022

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od316060/2021_2022 :Other Ancillary Units

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Space for co-composting	sqm	200.00000	2800.00	560000.00	
MR	Shed for SDB @50%	sqm	240.00000	2200.00	528000.00	
				TOTAL	1088000.00	
				Add Water Charges @ 1%	10880.00	
				Add CPOH @ 15%	164832.00	
				cost for one sqm	1263712.00	
				say	1263712.00	

Cost index **37.29 %**	.00
Total with Cost index	1263712.0

26 Specification Code: od316710/2021_2022

od316710/2021_2022 :Supplying and erection of 10 HP submerssible pump set

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Supply an Electrically operated brand new submerssible pumpset (approved brand) for erection in the bore well of size 200 mm diameter with accessories from reputed brand such as Kirloskar. /Jyothi/ Decan/LUBI make capable of 350 Lpm discharge against a total head of 90 m with deliviary head size 65 mm suitable to couple electrical motor Ac. 400/440V, 50 cycle .The pump shaft should be stainless steel with bronz impeller the cost including all taxes and duties, and conveyance charge.	No	1.00000	60000.00	60000.00	
MR	Supply of best quality 4Sqmm,3 core copper cable of ISI mark.	metre	140.00000	140.00	19600.00	
MR	Supply of 80mm GI/UPVC CLASS B PIPE make by Zenith / Tata /UPVC	metre	66.00000	800.00	52800.00	
MR	Supply of brand new star delta type Auto transformer starter suitable for 15 HP motorSupply of 2 nos Sluice Valve of size 80 mm best quality ISI Mark with two numbers MS flange IR sheet, nut, bolt etc. complete	No	1.00000	8500.00	8500.00	
MR	Supply of 2 nos Sluice Valve of size 80 mm best quality ISI Mark with two numbers MS flange IR sheet, nut, bolt etc. complete	No	2.00000	6000.00	12000.00	
MR	Supply of 80 mm Reflex Valve ISI Mark best quality with two numbers MS flange IR sheet, nut, bolt etc. complete	No	1.00000	6000.00	6000.00	
MR	Supplying and fitting cost of MS pannel board of size 1.5 m x 1m, main switch 100am , volt meter, ameeter, sutable size cappaciter ,Fuse unit 3Nos,Single phase priventer 1 no, pilot lamp 1set etc best quality with I S I mark as per the direction	No	1.00000	10000.00	10000.00	

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MR	Erection charges of pump and motor in the bore well coupled with using Nilon rope required length,erecting to relavant rule neat and good condition and trial running the pumpset etc complete.	set	1.00000	8500.00	8500.00	
MR	Fabricating and supplying 80 mm GI Pumping main from top of the tube well to 110 mm pvc existing distribution line including providing Tee joint,3 Nos of 80 mm G I bent ,5 Nos MS flange for fitting controll valves and fountation to the top of the well mouth using 80 mm GI pipe suitable to proper horizontal alignment , welding together to water tight joint including earth work excavation cost of all materials , labour charges ,hire charges of welding machine, cutting / grinding machine etc.	set	1.00000	13917.00	13917.00	
MR	Supplying and fitting 100AMPS ELCB system of reputed brand as per direction from KSEB rules	No	1.00000	5000.00	5000.00	
					TOTAL	196317.00
					Add Water Charges @ 1%	1963.17
					Add CPOH @ 15%	29742.03
					cost for one No	228022.20
					say	228022.20

Cost index **37.29 %**	.00
Total with Cost index	228022.2

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DATA ANALYSIS
PILE

1. PILE FOUNDATION

1 Specification Code: 20.2A.1

SUBHEAD : **20.0**

PILE WORK

20.2A Boring, providing and installation bored cast-in-situ reinforced cement concrete piles of garde M-25 ofspecified diameter and length below pile cap, to carry a safe working load not less than specified,excluding the cost of steel reinforcement but including the cost of boring with bentonite solution andtemporary casing of appropriate length for setting out and removal of same and the length of the pile tobe embedded in the pile cap etc. by Crawler mounted, telescopic boom hydraulic pilling Rig all complete,including removal of excavated earth with all its lifts and leads (length of pile for payment shall bemeasured up to bottom of pile cap).Note: Truck Mounted rotary/TMR/Tube well boring machine shall not be used.

20.2A.1 600 mm dia piles

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 20 m length of pile MATERIAL: Concrete 3.14/4x0.60x20 = 5.65 cum				
5.33.1	Rate as per item Number5.33.1 of SH: Reinforced Cement Concrete	cum	5.65	6942.65	39225.97(A)
7183	Bentonite	tonne	0.33	2960.00	976.80
9999	Sundries - MACHINERY:	L.S	317.43	2.00	634.86
0024	Hire and running charges of hydraulic piling with power unit etc. including complete accessories and shifting at site	Day	0.75	30000.00	22500.00
0025	Hire and running charges of light crane	Day	0.06	3000.00	180.00
0026	Hire and running charges of bentonite pump	Day	0.38	3500.00	1330.00
0017	Hire and running charges of tipper	Day	0.3	1700.00	510.00
0018	Hire and running charges of loader LABOUR: Work supervisor	Day	0.3	5000.00	1500.00
0130	Mistry	Day	0.12	738.00	88.56

0114	Beldar	Day	3.0	558.00	1674.00

AddWater Charges @ 1% except on A ie on (68620.19-39225.97=29394.22)	293.94
TOTAL	68914.13
AddCPOH @ 15% except on A ie on (68914.13-39225.97=29688.162)	4453.22
TOTAL	73367.00
Cost of 20.0 metre	73367.00
Cost of 1 metre	3668.35
Say	3668.35

	Cost index **37.29%**				1367.93
	Total with Cost index				5036.28

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2 Specification Code: 20.6.2.1

20.6 Vertical load testing of piles in accordance with IS 2911(Part IV) including installation of loading platform and preparation of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & the direction of engineer -in-Charge.

20.6.2 Single pile above 50 tonne and upto 100 tonne capacity

20.6.2.1 Initial test

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 test				

7247	Vertical load testing (INITIAL) of piles in accordance with IS : 2911(Part -IV) including installation of loading platform and preparation of pile head or construction of test cap and dismantling of test cap after test etc. compete as per specification & above 50MT and up to 100 MT 50 tonne	per test	1.0	45000.00	45000.00

TOTAL	45000.00
Add Water Charges @ 1%	450.00
TOTAL	45450.00
Add CPOH @ 15%	6817.50
TOTAL	52267.50
Cost of 1.0 per test	52267.50
Say	52267.5

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	Cost index **37.29%**				19490.55
	Total with Cost index				71758.05

3 Specification Code: 5.22.6

5.22 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level

5.22.6 Thermo - Mechanically Treated bars of grade Fe-500D or more

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 1 quintal MATERIAL: Deformed twisted steel bars = 1.00 q Add 5% wastage = 0.05 Total = 1.05q				
1005	Twisted steel/deformed bars	quintal	1.05	4600.00	4830.00
2205	Carriage of Steel	tonne	0.105	92.24	9.69
9999	Sundries-Cover block LABOUR: For straightening, bending binding and placing in postion	L.S	26.0	2.00	52.00
0102	Blacksmith 1st class	Day	1.0	738.00	738.00
0114	Beldar	Day	1.0	558.00	558.00
9999	Sundries-	L.S	26.91	2.00	53.82

TOTAL	6241.51
Add Water Charges @ 1%	62.42
TOTAL	6303.93
Add CPOH @ 15%	945.59
TOTAL	7249.52
Cost of 100.0 kilogram	7249.52
Cost per kilogram	72.50
Say	72.5

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	Cost index **37.29%**				27.04
	Total with Cost index				99.54

4 Specification Code: od326209/2021_2022

od326209/2021_2022 :Extra for providing Epoxy coating for Reinforcement bars

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Extra for providing Epoxy coating for Reinforcement bars	kg	1.00000	2.00	2.00	
				TOTAL	2.00	
				Add Water Charges @ 1%	.02	
				Add CPOH @ 15%	.30	
				cost for one kg	2.32	
				say	2.32	

Cost index **37.29 %**	.00
Total with Cost index	2.32

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DATA ANALYSIS SUPPLY OF PUMPS AND OTHER MATERIALS

1. SUPPLY OF PUMPS & OTHER MATERIALS FOR MBBR

1 Specification Code: od324490/2021_2022

od324490/2021_2022 :Supply , erection , testing and commissioning of new generation non clog submersible motor pump set having suitable discharge and head including all accessories such as cost of pannel board with ammeter ,volt meter ,phase indicating lamps ,change over switch ,main switch, cost of soft starter ,cable from pannel board to starter , starter to motor ,capacitors suction pipe ,foot valve , non return valve ,suction and delivery pipe of required length , pressure gauge ,earthing and wiring material etc.

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Supply , erection , testing and commissioning of new generation non clog submersible motor pump	Nos	1.00000	500.00	500.00	
				TOTAL	500.00	
				Add Water Charges @ 1%	5.00	
				Add CPOH @ 15%	75.75	
				cost for one No	580.75	
				say	580.75	

Cost index **37.29 %**	.00
Total with Cost index	580.75

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2 Specification Code: od324492/2021_2022

od324492/2021_2022 :Mixing equipment -Supply,erection,testing znd commissionig of direct driven floating mixers of approximately 4HP or as required with the rotation arm for rated continuous duty mixing and efficiencycomplete with 3 phase motor,including rotory paddles,gear box,cables,wall mooring and anchoring system with all electro mechanical equipments etc complete for the denitrification tank of the proposed 5MLD STP.Electrical control panel shall be supplied with the pump as per the specification in the electrical BOQ or directed as per the department officers-Capacity 400 m3/hr,Motor4 HP three phase

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Mixing equipment	No	1.00000	120000.00	120000.00	
				TOTAL	120000.00	
				Add Water Charges @ 1%	1200.00	
				Add CPOH @ 15%	18180.00	

cost for one No	139380.00
say	139380.00

Cost index **37.29 %**	.00
Total with Cost index	139380.0

3 Specification Code: od324493/2021_2022

od324493/2021_2022 :Filter feed pump- Supplying and fixing of mono block centrifugal pump,for rated continuous duty and best efficiency CI construction ,CI Impeller,complete with 3 phase motor,FRP motorncover,pressure gauge,operation on 415+/-10% volts,50 Hz,AC power supply etc including sluice valves,pressure gauges,NRVs with DI/I/Pipes connecting common delivery suitable for complete in all respects as required by the standard specifications and shall suit following capacities complete with all accessories as per technical specification .Pumps shall have dry run protection $high/low level alarm.Electrical control panel shall be supplied with the pump as per specification in the electrical BOQ.Capacity 250m/hrHead-30m

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Supplying and fixing of mono block centrifugal pump	No	1.00000	750000.00	750000.00	
				TOTAL	750000.00	
				Add Water Charges @ 1%	7500.00	
				Add CPOH @ 15%	113625.00	
				cost for one No	871125.00	
				say	871125.00	

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Cost index **37.29 %**	.00
Total with Cost index	871125.0

4 Specification Code: od324494/2021_2022

od324494/2021_2022 :Air blower- Supply,erection,testing and commisioning of twin lobe air blower for indoor application complete with acoustic canopy,air filter ,motor of 1500 rpm,pulleys,pressure gauge ,pressure relief valve,acoustic hood,suction silencer with suitable flanges ,common motor and compressor base frame with motor

belt tightening specification as directed by engineer in charge Capacity-1800 m/hr Pressure - 0.6kg/sqcm Motor :3 phase with IP68 Protection (2W+1S)^n

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Supply ,erection,testing and commissioning of twin lobe air blower	No	1.00000	495000.00	495000.00	
				TOTAL	495000.00	
				Add Water Charges @ 1%	4950.00	
				Add CPOH @ 15%	74992.50	
				cost for one No	574942.50	
				say	574942.50	

Cost index **37.29 %**	.00
Total with Cost index	574942.5

5 Specification Code: od324496/2021_2022

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od324496/2021_2022 :Bubble Diffuser for Equalisation tank Supplying at site ,erection ,testing $commissioning of coarse bubble diffuser (retrievable type using rope and pulley) for the aeration system of the equailisation tank with diffusers of sufficient size and length made of EPDM make with SS tee 1mmx1mm.SS lifting hook 8mm,SS foundation bolt 6mm,SS C clamp suitable for 1mm OD hose.PP Rope,PPswivel nut .PPsleeve,Slicone washer,SShose clamp,RCC block complete at a minimum rating of 95m/hras per technical specification / directed by engineer in charge

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Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Supplying at site,erection,testing and commissioning of coarse bubble diffuser	No	1.00000	69500.00	69500.00	
				TOTAL	69500.00	
				Add Water Charges @ 1%	695.00	
				Add CPOH @ 15%	10529.25	
				cost for one No	80724.25	
				say	80724.25	

Cost index **37.29 %**	.00

Total with Cost index	80724.25

6 Specification Code: od324497/2021_2022

od324497/2021_2022 :Air grid pipe
Supply and erection of air pipes(HDPE)into valves and other accessories as required for blowers to varioustanks as a complete unit

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Supply and installation of air pipes (HDPE)into valves and other accessories as required for the blowers to various tanks as a complete unit	set	1.00000	150000.00	150000.00	
				TOTAL	150000.00	
				Add Water Charges @ 1%	1500.00	
				Add CPOH @ 15%	22725.00	
				cost for one set	174225.00	
				say	174225.00	

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Cost index **37.29 %**	.00
Total with Cost index	174225.0

7 Specification Code: od324498/2021_2022

od324498/2021_2022 :Supply MBBR Media (size dia 25x4mm,hole numbers:64.Efficient surface area - 1200m2/m3.density 0.96-0.98 g/cc,packing numbers >2,10000/m3.porosity >85%membrane forming ,Time-3-15 days,lifespan>15 years ,BOD Oxidation efficiency:2500-20,000 rpm,CODoxidation efficiency:2500-20,000 ppm,COD oxidation efficiency:2500-25000ppm

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	MBBR Media	cum	1.00000	30000.00	30000.00	
				TOTAL	30000.00	
				Add Water Charges @ 1%	300.00	

Add CPOH @ 15%	4545.00
cost for one cum	34845.00
say	34845.00

Cost index **37.29 %**	.00
Total with Cost index	34845.0

8 Specification Code: od324499/2021_2022

od324499/2021_2022 :Gas chlorinator system
Supply at site,erection,testing and commissioning of electronic chlorine dosing system with all wetted parts in PP construction suitable for pumping chlorine gas including booster pumps,valves,suctions and delivery lines using heavy duty PVC tubes,gas line diffusers,emergency repairskit,FRP motor cover etccomplete with all accessories,Capacity500 gm to 1 kg/hr with 2 Nos of chlorine tonners

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Supply at site,erection,testing and commissioning of electronic chlorine dosing system	set	1.00000	400000.00	400000.00	
				TOTAL	400000.00	
				Add Water Charges @ 1%	4000.00	
				Add CPOH @ 15%	60600.00	
				cost for one set	464600.00	
				say	464600.00	

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Cost index **37.29 %**	.00
Total with Cost index	464600.0

9 Specification Code: od324500/2021_2022

od324500/2021_2022 :Electromagnetic flow meter
Supply ,installation,testing and commissioning of electro magnetic/ ultra sonic D/F permanent conduit flow meter with flow recorder,digital flow indicator,flow integrator with sensors,7 digit totaliser,transmittal and digital display arrangements and all accessories including housing arrangements,internal data logger, to save up to 2000 lines of data etc complete to fix as per the specifications.Flow

range 0f 10 to 600 LPS, one displayshall be installed at the main control centre

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Electromagnetic flow meter Supply ,installation,testing and commissioning of electro magnetic/ ultra sonic D/F permanent conduit flow meter	No	1.00000	75000.00	75000.00	
				TOTAL	75000.00	
				Add Water Charges @ 1%	750.00	
				Add CPOH @ 15%	11362.50	
				cost for one No	87112.50	
				say	87112.50	

Cost index **37.29 %**	.00
Total with Cost index	87112.5

10 Specification Code: od324501/2021_2022

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od324501/2021_2022 :Lifting mechanism for air grid Supply,installation &commissioning of the manually operating chain pulley mechanism to lift the equipment fromheight not less than 5m including all equipments, foundation etc

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Lifting mechanism for air grid Supply,installation &commissioning of the manually operating chain pulley mechanism to lift the equipment	No	1.00000	10000.00	10000.00	
				TOTAL	10000.00	
				Add Water Charges @ 1%	100.00	
				Add CPOH @ 15%	1515.00	
				cost for one No	11615.00	
				say	11615.00	

Cost index **37.29 %**	.00

Total with Cost index	11615.0

11 Specification Code: od324502/2021_2022

od324502/2021_2022 :SS GATES
Supplying at site,installation testing and commissioning of all materials,fabricating,fixing and commissioning ofspindle operated open channel sluice gates/shutter of DI make with a peakflow of 145LPS and velocity less than1 m/s at the inlet & outlet of screen channel to suit thechannel sizes as per the drawings,tender specifications and as directed by engineer in charge

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	SS GATES Supplying at site,installation testing and commissioning of all materials,	No	1.00000	15000.00	15000.00	
				TOTAL	15000.00	
				Add Water Charges @ 1%	150.00	
				Add CPOH @ 15%	2272.50	
				cost for one No	17422.50	
				say	17422.50	

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Cost index **37.29 %**	.00
Total with Cost index	17422.5

12 Specification Code: od324503/2021_2022

od324503/2021_2022 :SUDGE THICKENER MECHANISM
Supplying all materials,fabricating,fixing and commissioning of Bridge mounted central driven type sludge thickening mechanism for the full diameter of sludge thickener tank as per drawing includingall feed well,drive and rake mechanism with removable scrappers with sufficient 3 phase motor and gears etc as per tender specification and as directed by engineer in charge

Code	Description	Unit	Quantity	Rate	Amount	Remarks

MR	SUDGE THICKENER MECHANISM Supplying all materials,fabricating,fixing and commissioning of Bridge mounted central driven type sludge thickening mechanism for the full diameter of sludge thickener tank	No	1.00000	270000.00	270000.00	

TOTAL	270000.00
Add Water Charges @ 1%	2700.00
Add CPOH @ 15%	40905.00
cost for one No	313605.00
say	313605.00

Cost index **37.29 %**	.00
Total with Cost index	313605.0

13 Specification Code: od324504/2021_2022

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od324504/2021_2022 :Poly Electrolyte dosing system
Supplying and fixing of electronic dosimg pump with all wetted parts in PP construction suitable for pumping poly electrolyte solution including cost of suitable agitators,control gears, valve,suction and delivery lines using heavyduty PVC tubes,HD,FRP motor cover etc and complete with all accessoriesto prepare 5% solution of 0.2kg/hr

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Poly Electrolyte dosing system Supplying and fixing of electronic dosimg pump with all wetted parts in PP construction suitable for pumping poly electrolyte solution including cost of suitable agitators,control gears, valve,suction and delivery lines using heavyduty PVC tubes	No	1.00000	80000.00	80000.00	
				TOTAL	80000.00	
				Add Water Charges @ 1%	800.00	
				Add CPOH @ 15%	12120.00	
				cost for one No	92920.00	
				say	92920.00	

Cost index **37.29 %**	.00
Total with Cost index	92920.0

14 Specification Code: od324505/2021_2022

od324505/2021_2022 :High Pressure Jet Pump
Supply and commissioning of portable high pressure water pumps(along with 500 litre water tanks to supply water to all pumps)all mounted on a suitable medium vehicle platform for clearing wells,pumps and other equipments using high pressure gauges,safety arrangements etccomplete as per standards

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	High Pressure Jet Pump Supply and commissioning of portable high pressure water pumps	No	1.00000	30000.00	30000.00	
				TOTAL	30000.00	
				Add Water Charges @ 1%	300.00	
				Add CPOH @ 15%	4545.00	
				cost for one No	34845.00	
				say	34845.00	

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Cost index **37.29 %**	.00
Total with Cost index	34845.0

15 Specification Code: od324506/2021_2022

od324506/2021_2022 :Portable Hoist-500 kg
Supply and commissioningof portable monkey type hoist with capacity up to 500 kgwith lifting height of 6m,5 HPMotor415V50HZall mounted on a suitable medium vehicle platform for easy shifting of equipments and materials whenever required with complete setas per standards

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Portable Hoist-500 kg Supply and commissioningof portable monkey type hoist with capacity up to 500 kg	No	1.00000	90000.00	90000.00	

TOTAL	90000.00
Add Water Charges @ 1%	900.00
Add CPOH @ 15%	13635.00
cost for one No	104535.00
say	104535.00

Cost index **37.29 %**	.00
Total with Cost index	104535.0

16 Specification Code: od324507/2021_2022

od324507/2021_2022 :Wheel Barrow
Supply of three wheel type wheel barrow of capacity 200 ltrs

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Wheel Barrow Supply of three wheel type wheel barrow of capacity 200 ltrs	No	1.00000	25000.00	25000.00	
				TOTAL	25000.00	
				Add Water Charges @ 1%	250.00	
				Add CPOH @ 15%	3787.50	
				cost for one No	29037.50	
				say	29037.50	

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Cost index **37.29 %**	.00
Total with Cost index	29037.5

17 Specification Code: od324508/2021_2022

od324508/2021_2022 :Plate Settler
Supplying and fixing SS plate SS306 for using plate settler (size 100 cmx90 cmx2,5mm) suitable for use in the water and wastetreatment plants to improve the quantity and qualityof sewerage treatment plants to improve the quantity and quality of sewerage treatmentas per the direction of engineers

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Size100 cmx90 cmx2.5mm ss plate20 kg/m2=0.9m2	kg	0.90000	265.00	238.50	
MR	5% for wastages	L.S	0.05000	238.50	11.93	
9999	Sundries	L.S	20.00000	2.00	40.00	
0116	Fitter(grade1)	Day	0.25000	738.00	184.50	
0115	Coolie	Day	0.12000	558.00	66.96	
9999	Sundries	L.S	12.50000	2.00	25.00	
				TOTAL	566.89	
				Add Water Charges @ 1%	5.67	
				Add CPOH @ 15%	85.88	
				cost for one No	658.44	
				say	658.44	

Cost index **37.29 %**	137.07
Total with Cost index	795.51

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18 Specification Code: od324509/2021_2022

od324509/2021_2022 :Aluminum Ladder
Supply, installation of aluminium with caging on each elevated structures of required height as per the drawing or as directed by engineer in charge

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Supply, installation of aluminium with caging on each elevated structures of required height as per the drawing or as directed by engineer in charge	No	1.00000	6000.00	6000.00	
				TOTAL	6000.00	
				Add Water Charges @ 1%	60.00	
				Add CPOH @ 15%	909.00	
				cost for one No	6969.00	
				say	6969.00	

Cost index **37.29 %**	.00
Total with Cost index	6969.0

19 Specification Code: od324510/2021_2022

od324510/2021_2022 :FRP Ladder
Supply installation of FRP ladders with caging on each elevated structures of required height as per the drawings or as directed by engineer in charge

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Supply installation of FRP ladders with caging on each elevated structures of required height as per the drawings or as directed by engineer in charge	No	1.00000	30000.00	30000.00	
				TOTAL	30000.00	
				Add Water Charges @ 1%	300.00	
				Add CPOH @ 15%	4545.00	
				cost for one No	34845.00	
				say	34845.00	

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Cost index **37.29 %**	.00
Total with Cost index	34845.0

20 Specification Code: od324511/2021_2022

od324511/2021_2022 :Monorail crane
Supply,installation and commissioning in position mechanically operated mono rail craneof load bearing capacity of2 tonnes suitable for operation on 415+/-10% volts.50 HZ,AC power supplyetc with 6m lift &spanupto 20m complete in all respects as required by standards complete with all accessories as per specification

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	 Supply,installation and commissioning in position mechanically operated mono rail craneof load bearing capacity of2 tonnes	No	1.00000	350000.00	350000.00	

TOTAL	350000.00
Add Water Charges @ 1%	3500.00
Add CPOH @ 15%	53025.00
cost for one No	406525.00
say	406525.00

Cost index **37.29 %**	.00
Total with Cost index	406525.0

21 Specification Code: od324512/2021_2022

od324512/2021_2022 :Pessure sand filter
Supply at site erection and commissioning of pressure sand filter vertical type pressure vessel fabricated with MS construction with epoxy coatinginside and anti corrosive treatment outside,2 coatsof paint outside withstand a minimum test pressure of 7 kg/cm with an operating pressure of 3.5 kg/cm complete with valves and dual filter media including graded pabble and sand and antracite.frontal piping.butterflyvalves.internals.pressure gauges.strainers.supporting structures etc and all other accessories tested twice complete as per specification or as directed by engineer in charge

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Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Pessure sand filter Supply at site erection and commissioning of pressure sand filter vertical type pressure vessel fabricated with MS construction with epoxy coatinginside and anti corrosive treatment outside,2 coatsof paint outside	No	1.00000	450000.00	450000.00	
				TOTAL	450000.00	
				Add Water Charges @ 1%	4500.00	
				Add CPOH @ 15%	68175.00	
				cost for one No	522675.00	
				say	522675.00	

Cost index **37.29 %**	.00
Total with Cost index	522675.0

22 Specification Code: od324513/2021_2022

od324513/2021_2022 :Activated carbon filter
Supply at site erection and commissioning of activated carbon filter vertical type pressure vessel fabricated with MS construction with epoxy coatinginside and anti corrosive treatment outside,2 coatsof paint outside withstand a minimum test pressure of 7 kg/cm with an operating pressure of 3.5 kg/cm complete with valves and filter media including activated carbon of approved grade and quality.frontal piping.butterflyvalves.internals.pressure gauges.strainers.supporting structures.backwash arrangement etc and all other accessories tested twice complete as per specification or as directed by engineer in charge.The scope shall include complete piping with MS fabricatedpipes and specials including valves
Flow rate-250 m/hr
Dia-3m
Height-2.5m

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Activated carbon filter Supply at site erection and commissioning of activated carbon filter vertical type pressure vessel fabricated with MS construction with epoxy coatinginside and anti corrosive treatment outside,2 coatsof paint outside	No	1.00000	475000.00	475000.00	
				TOTAL	475000.00	
				Add Water Charges @ 1%	4750.00	
				Add CPOH @ 15%	71962.50	
				cost for one No	551712.50	
				say	551712.50	

Cost index **37.29 %**	.00
Total with Cost index	551712.5

23 Specification Code: od324514/2021_2022

od324514/2021_2022 :Centrifuge system
Supply at site.installation and commissioning of fiter press/centrifuge system.Filter press shall be automatedrecessed type press with SS fabricated structure pipe button surface and SS flat parallel bar with PP cloth.Filter operations to be mechanical .Outlet cake consistency should not be more than 35% moisture.The capacity of the filter press should be 1 cum/hr.The filter press unit shall be mounted on a platform and all around drain systemto be provided to prevent the filtratewater contaminating the entire surroundings as per the specifications

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Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Supply at site.installation and commissioning of fiter press/centrifuge system.Filter press shall be automatedrecessed type press with SS fabricated structure pipe button surface and SS flat parallel bar with PP cloth	No	1.00000	300000.00	300000.00	
				TOTAL	300000.00	
				Add Water Charges @ 1%	3000.00	
				Add CPOH @ 15%	45450.00	
				cost for one No	348450.00	
				say	348450.00	

Cost index **37.29 %**	.00
Total with Cost index	348450.0

Supply A nd Fitting Diesel Generator

24 Specification Code: od324488/2021_2022

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od324488/2021_2022 :500 KVA Diesel generator providing,installing,testing and commissioning of silent type ,Diesel generating set along with having prime power rating 250 KVA,415 volts at 1500 RPM,0.8 lagging power factor at 415V suitable for 50 HZ,3Phase system& for 0.85 load factor

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Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Providing,installing,testing and commissioning of silent type ,Diesel generating set along with having prime power rating 250 KVA,415 volts at 1500 RPM	No	1.00000	3200000.00	3200000.00	
				TOTAL	3200000.00	
				Add Water Charges @ 1%	32000.00	
				Add CPOH @ 15%	484800.00	
				cost for one No	3716800.00	
				say	3716800.00	

Cost index **37.29 %**	.00

Total with Cost index	3716800.0

Providing Solar Panel SystemINSIDE ELECTRICAL WORKS,PANNEL BOARD AND COMPOUND LIGHTING ARRANGEMENTSTRANSFORMER CONTROL ROOM & GENERATOR ROOMINSTALLATION OF TRANSFORMER AND ELECTRICAL INSTALLATION WORKSMISCELLANEOUSITEMS

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DATA ANALYSIS NETWORK

APPA -CONSTRUCTION OF WELL I - 8.0 M DIA COLLECTION WELL

1 Specification Code: 2.3.1

2.3 Banking excavated earth in layers not exceeding 20 cm in depth, breaking clods, watering, rolling each layer with 1/2 tonne roller, or wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 tonnes and dressing up, in embankments for roads, flood banks, marginal banks, and guide banks etc., lead up to 50 m and lift up to 1.5 m :

2.3.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. LABOUR:				
0114	Beldar	Day	2.2	558.00	1227.60
0115	Coolie	Day	3.6	558.00	2008.80
0101	Bhisti Roller charges (One roller does 1850 sqm. of consolidation per day)	Day	0.4	617.00	246.80
0003	Hire charges of Diesel Road Roller- 8 to 10 tonne	Day	0.008	3000.00	24.00
0113	Chowkidar	Day	0.008	558.00	4.46
9999	Sundries-	L.S	2.73	2.00	5.46
				TOTAL	3517.12
				Add Water Charges @ 1%	35.17
				TOTAL	3552.29
				Add CPOH @ 15%	532.84
				TOTAL	4085.13
				Cost of 10.0 cum	4085.13
				Cost per cum	408.51
				Say	408.5

	Cost index **37.29%**				152.33

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	Total with Cost index				560.83

2 Specification Code: 2.1.1

2.1 Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5m in width as well as 10 sqm on plan including disposal of excavated earth up to 50 m and lift up to 1.5 m, disposed soil to be levelled and neatly dressed:

2.1.1 All Kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 sqm and average depth 15 cm LABOUR:				
0114	Beldar	Day	6.8	558.00	3794.40
0115	Coolie	Day	5.6	558.00	3124.80
				TOTAL	6919.20
				Add Water Charges @ 1%	69.19
				TOTAL	6988.39
				Add CPOH @ 15%	1048.26
				TOTAL	8036.65
				Cost of 100.0 sqm	8036.65
				Cost per sqm	80.37
				Say	80.35

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	Cost index **37.29%**				29.96
	Total with Cost index				110.31

3 Specification Code: 2.6.1

2.6 Earth work in excavation by mechanical means (Hydraulic excavator)/manual

means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.

2.6.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. Average output of Hydraulic Excavator per hour = 30cum MACHINERY:				
0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.041	7000.00	287.00
0018	Hire and running charges of loader LABOUR:	Day	0.041	5000.00	205.00
0128	Mate Beldar/	Day	0.32	617.00	197.44
0115	Coolie	Day	1.2	558.00	669.60
				TOTAL	1359.04
				Add Water Charges @ 1%	13.59
				TOTAL	1372.63
				Add CPOH @ 15%	205.89
				TOTAL	1578.52
				Cost of 10.0 cum	1578.52
				Cost per cum	157.85
				Say	157.85

	Cost index **37.29%**				58.86
	Total with Cost index				216.71

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4 Specification Code: od317402/2021_2022

od317402/2021_2022 :Fabricating MS Kerb of size using 8 mm thick MS plate including cost of MS plate and 10mm
dia anger bar welded to the kerb and conveyance charges of MS plate, all fabrication charges, charges of painting
outer side of the steel work with two or more coat deluxe multi surface paint to give an even shade over an under
coat of primer erection tying anger bar with reinforcement placing in position etc. complete.

*100.37.8.1, Materials required 8mm MS plate outer side - 1.00 x 0.30m = 0.30m2, 8mm ms plate inner side - 1.00 x
0.67m2=0.67m2, Total=0.97m2@62.8kg/sq.m=60.924kg Add 5% of wastage=60.92 x 1.05=63.96kg, 10mm TMT rod
- L=0.97m@0.50 c/c = 3nos = 6m @ 0.62kg/m = 3.72kg, Details of cost for 1m length of Kerb.*

Code	Description	Unit	Quantity	Rate	Amount	Remarks
1010	Mild steel plates	quintal	0.63960	4800.00	3070.08	
5.22.1	Rate as per item number 5.22.1 of SH: Reinforced Cement Concrete	kg	3.72000	71.30	265.24	
100.37.1	Rate as per item number 100.37.1 of SH: KWA Approved Data	cm	167.00000	2.30	384.10	
100.37.3	Rate as per item number 100.37.3 of SH: KWA Approved Data	cm	167.00000	8.80	1469.60	
100.37.2	Rate as per item number 100.37.2 of SH: KWA Approved Data	cm	167.00000	1.65	275.55	
100.37.4	Rate as per item number 100.37.4 of SH: KWA Approved Data	kg	63.96000	10.15	649.19	
0115	Coolie	Day	0.10000	558.00	55.80	
0131	Painter	Day	1.00000	679.00	679.00	
9999	Sundries	L.S	10.00000	2.00	20.00	
				TOTAL	6868.56	
				Add Water Charges @ 1%	38.25	
				Add CPOH @ 15%	579.47	
				cost for 3.0 metre	6868.56	
				cost for one metre	2495.43	
				say	2495.43	

Cost index **37.29 %**	930.55
Total with Cost index	3425.98

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PRICE

5 Specification Code: od331848/2021_2022

od331848/2021_2022 :Sinking well (in or under water) of dia 8m inside all kinds of soil to lines and levels and
plumb by scooping out earth from inside and below the steining using necessary appliances including hire and labour
for the same including dumping the spoil beyond the initial lead of 50m etc. complete total depth 1.5 to 3m.

*Details of Cost For 3m, For depth upto 1.50m -3.00m
Quantity for 3.0m = 3.14/4x9.1x9.1x3=195m3
*

Code	Description	Unit	Quantity	Rate	Amount	Remarks
100.3.9.12	Rate as per item number 100.3.9.12 of SH: KWA Approved Data	cum	195.00000	435.50	84922.50	
MR	Extra for additional lead of 50 m or part thereof over initial lead- vide item 1.2.2 carriage of DSR- including cost index-115.93x1.3989=162.1745	cum	195.00000	162.17	31623.15	
9999	Sundries	L.S	300.00000	2.00	600.00	
				TOTAL	117145.65	
				Add Water Charges @ 1%	322.23	
				Add CPOH @ 15%	4881.81	
				cost for 3.0 metre	117145.65	
				cost for one metre	40783.23	
				say	40783.23	

Cost index **37.29 %**	10642.49
Total with Cost index	51425.72

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6 Specification Code: od331797/2021_2022

od331797/2021_2022 :Sinking well (in or under water) of dia8m inside all kinds of soil to lines and levels and
plumb by scooping out earth from inside and below the steining using necessary appliances including hire and labour
for the same including dumping the spoil beyond the initial lead of 50m etc. complete total depth 3 to 4.5m.

*Details of Cost For 3m, For depth upto 3m -4.5m
Quantity for 3.0m = 3.14/4x9.1x9.1x3=195m3
*

Code	Description	Unit	Quantity	Rate	Amount	Remarks
100.3.9.13	Rate as per item number 100.3.9.13 of SH: KWA Approved Data	cum	195.00000	475.10	92644.50	
MR	Extra for additional lead of 50 m or part thereof over initial lead-vide item 1.2.2 carriage of DSR- including cost index 115.93x1.3989= 162.1745	cum	195.00000	162.17	31623.15	
9999	Sundries	L.S	300.00000	2.00	600.00	
				TOTAL	124867.65	
				Add Water Charges @ 1%	322.23	
				Add CPOH @ 15%	4881.81	
				cost for 3.0 metre	124867.65	
				cost for one metre	43357.23	
				say	43357.23	

Cost index **37.29 %**	11602.34
Total with Cost index	54959.57

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PRICE

7 Specification Code: od331802/2021_2022

od331802/2021_2022 :Sinking well (in or under water) of dia8m inside all kinds of soil to lines and levels and
plumb by scooping out earth from inside and below the steining using necessary appliances including hire and lbour
for the same including dumping the spoil beyond the initial lead of 50m etc. complete total depth 4.5 to 6m.

*Details of Cost For 3m, For depth upto 4.5m -6m
Quantity for 3.0m = 3.14/4x9.1x9.1x3=195m3
*

Code	Description	Unit	Quantity	Rate	Amount	Remarks
100.3.9.14	Rate as per item number 100.3.9.14 of SH: KWA Approved Data	cum	195.00000	514.65	100356.75	
MR	Extra for additional lead of 50m or part therof over initial lead - vide item 1.2.2 carriage of DSR - including cost index - 115.93x1.3989=162.1745	cum	195.00000	162.17	31623.15	
9999	Sundries	L.S	300.00000	2.00	600.00	
				TOTAL	132579.90	

Add Water Charges @ 1%	322.23
Add CPOH @ 15%	4881.81
cost for 3.0 metre	132579.90
cost for one metre	45927.98
say	45927.98

Cost index **37.29 %**	12560.97
Total with Cost index	58488.95

8 Specification Code: od331803/2021_2022

od331803/2021_2022 :Sinking well (in or under water) of dia8m inside all kinds of soil to lines and levels and
plumb by scooping out earth from inside and below the steining using necessary appliances including hire and lbour
for the same including dumping the spoil beyond the initial lead of 50m etc. complete total depth 6 to 7.5m.

*Details of Cost For 3m, For depth upto 6m -7.5m
Quantity for 3.0m = 3.14/4x9.1x9.1x3=195m3
*

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Code	Description	Unit	Quantity	Rate	Amount	Remarks
100.3.9.15	Rate as per item number 100.3.9.15 of SH: KWA Approved Data	cum	195.00000	554.25	108078.75	
MR	Extra for additional lead of 50m or part therof over initial lead - vide item 1.2.2 carriage of DSR - including cost index - 115.93x1.3989=	cum	195.00000	162.17	31623.15	
9999	Sundries	L.S	300.00000	2.00	600.00	
				TOTAL	140301.90	
				Add Water Charges @ 1%	322.23	
				Add CPOH @ 15%	4881.81	
				cost for 3.0 metre	140301.90	
				cost for one metre	48501.98	
				say	48501.98	

Cost index **37.29 %**	13520.81

Total with Cost index	62022.79

9 Specification Code: od331804/2021_2022

od331804/2021_2022 :Sinking well (in or under water) of dia8m inside all kinds of soil to lines and levels and
plumb by scooping out earth from inside and below the steining using necessary appliances including hire and lbour
for the same including dumping the spoil beyond the initial lead of 50m etc. complete total depth 7.5 to 9m.

*Details of Cost For 3m, For depth upto 7.5m -9m
Quantity for 3.0m = 3.14/4x9.1x9.1x3=195m3
*

Code	Description	Unit	Quantity	Rate	Amount	Remarks
100.3.9.16	Rate as per item number 100.3.9.16 of SH: KWA Approved Data	cum	195.00000	593.85	115800.75	
MR	Extra for additional lead of 50m or part therof over initial lead - vide item 1.2.2 carriage of DSR - including cost index - 115.93x1.3989=162.1745	cum	195.00000	162.17	31623.15	
9999	Sundries	L.S	300.00000	2.00	600.00	
				TOTAL	148023.90	
				Add Water Charges @ 1%	322.23	
				Add CPOH @ 15%	4881.81	
				cost for 3.0 metre	148023.90	
				cost for one metre	51075.98	
				say	51075.98	

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Cost index **37.29 %**	14480.66
Total with Cost index	65556.64

10 Specification Code: 5.7

SUBHEAD : **5.0**

REINFORCED CEMENT CONCRETE

5.7 Reinforced cement concrete work in well - steining excluding the cost of centering, shuttering, finishing and reinforcement, with 1:1.5:3 (1 cement : 1.5

coarse sand (Zone - III) : 3 graded stone aggregate 20 mm nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL:				
4.1.2	Rate as per item Number4.1.2 of SH: Concrete work LABOUR	cum	1.0	6259.65	6259.65(A)
0115	Coolie Extra labour involved coolie	Day	0.08	558.00	44.64
				AddWater Charges @ 1% except on A ie on (6304.29-6259.65=44.6401)	.45
				TOTAL	6304.74
				AddCPOH @ 15% except on A ie on (6304.74-6259.65=45.0901)	6.76
				TOTAL	6311.50
				Cost of 1.0 cum	6311.50
				Cost of 1 cum	6311.50
				Say	6311.5

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	Cost index **37.29%**				2353.56
	Total with Cost index				8665.06

11 Specification Code: od317483/2021_2022

od317483/2021_2022 :Centering and shuttering including strutting, etc. and removal of form for Wellstening
(including 20% extra for circular works)

Code	Description	Unit	Quantity	Rate	Amount	Remarks
5.9.12	Rate as per item number 5.9.12 of SH: Reinforced Cement Concrete	sqm	1.20000	184.15	220.98	
				TOTAL	220.98	
				cost for one sqm	220.98	
				say	220.98	

Cost index **37.29 %**	82.40
Total with Cost index	303.38

12 Specification Code: 5.22.4

5.22 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level

5.22.4 Hot rolled deformed bars

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 quintal MATERIAL: Deformed twisted steel bars = 1.00q Wastage 5% = 0.05q Total = 1.05q				
1005	Twisted steel/deformed bars	quintal	1.05	4600.00	4830.00
2205	Carriage of Steel	tonne	0.105	92.24	9.69
9999	Sundries-Cover block LABOUR: For straightening, cutting, bending, binding and placing in position	L.S	26.0	2.00	52.00
0102	Blacksmith 1st class	Day	1.0	738.00	738.00
0114	Beldar	Day	1.0	558.00	558.00
9999	Sundries-and binding wire	L.S	26.91	2.00	53.82

TOTAL	6241.51
Add Water Charges @ 1%	62.42
TOTAL	6303.93
Add CPOH @ 15%	945.59
TOTAL	7249.52
Cost of 100.0 kilogram	7249.52
Cost per kilogram	72.50
Say	72.5

	Cost index **37.29%**				27.04
	Total with Cost index				99.54

13 Specification Code: 4.1.8

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4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

PRICE

4.1.8 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL:				
0293	Stone Aggregate(single size): 40 mm nominal size nominal size (0.70 cum -7.5% for voids i.e. 0.05 =0.65 cum)	cum	0.65	1300.00	845.00
0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.24	1350.00	324.00

2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	0.65	112.79	73.31
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.24	103.77	24.90
0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement	tonne	0.17	4940.00	839.80
2209	Carriage of Cement	tonne	0.17	92.24	15.68
	LABOUR:				
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.52	2.00	27.04

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TOTAL	4327.24
Add Water Charges @ 1%	43.27
TOTAL	4370.51
Add CPOH @ 15%	655.58
TOTAL	5026.09
Cost of 1.0 cum	5026.09
Say	5026.1

	Cost index **37.29%**				1874.23
	Total with Cost index				6900.33

14 Specification Code: 4.1.3

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.3 1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.67	1350.00	904.50
0297	Stone Aggregate(single size): 10 mm nominal size nominal size	cum	0.22	1350.00	297.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.89	103.77	92.36
0982	Coarse sand (zone III)	cum	0.445	1350.00	600.75
2203	Carriage of Coarse sand	cum	0.445	103.77	46.18
0367	Portland Cement (0.2225 cum)	tonne	0.32	4940.00	1580.80
2209	Carriage of Cement	tonne	0.32	92.24	29.52
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	14.3	2.00	28.60
				TOTAL	5073.95
				Add Water Charges @ 1%	50.74
				TOTAL	5124.69

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Add CPOH @ 15%	768.70
TOTAL	5893.39
Cost of 1.0 cum	5893.39
Say	5893.4

	Cost index **37.29%**				2197.65
	Total with Cost index				8091.05

15 Specification Code: 5.1.2

5.1: Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:

5.1.2 1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement (0.2833 cum)	tonne	0.4	4940.00	1976.00
2209	Carriage of Cement	tonne	0.4	92.24	36.90

0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	14.3	2.00	28.60

TOTAL	5768.78
Add Water Charges @ 1%	57.69
TOTAL	5826.47
Add CPOH @ 15%	873.97
TOTAL	6700.44
Cost of 1.0 cum	6700.44
Say	6700.45

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	Cost index **37.29%**				2498.60
	Total with Cost index				9199.05

16 Specification Code: 4.15

4.15 Extra for laying concrete in or under water and or liquid mud including cost of pumping or bailing out water and removing slush etc. complete. Note for item No. 4.15 : - The quantity will be calculated by multiplying the depth measured from the sub-soil water level upto centre of gravity of concrete under sub-soil water level with quantity of concrete in cum executed under the sub-soil water. The depth of centre of gravity shall be reconed correct to 0.10 m 0.05 m or more shall be taken as 0.10 m and less than 0.05 m ignored.

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 14 cum per 0.3m depth Quantity of concrete = 14 cum pumping hours = 3 hrs. or 0.375 day .				
0011	Hire charges of Pump set of capacity 4000 litres/hour	Day	0.375	700.00	262.50
0114	Beldar	Day	4.0	558.00	2232.00

TOTAL	2494.50
Add Water Charges @ 1%	24.95
TOTAL	2519.45
Add CPOH @ 15%	377.92
TOTAL	2897.37
Cost of 4.2 cum	2897.37
Cost per cum	689.85
Say	689.85

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	Cost index **37.29%**				257.25
	Total with Cost index				947.1

PRICE

17 Specification Code: 5.9.3

SUBHEAD : **5.0**

REINFORCED CEMENT CONCRETE

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.3 Suspended floors, roofs, landings, balconies and access platform

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for a room 4.5x3 = 13.50 sqm height 3.5 m MATERIAL: Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost 1. Plates (size 0.75x0.60) Angle 40x40x5 mm 2x0.75 = 1.5 m 2x0.60 = 1.20 m = 2.70 m @ 3.00 kg/m = 8.10 kg sheet 1.6 mm thick 0.75x0.60 = 0.45 sqm 0.45 sqm @ 12.55 kg/sqm = 5.65 kg Weight of one plate = 13.75 kg Add for wastage @ 5% = 0.69 kg Total = 14.44 kg Total weight of all plates = 5x6x14.44= 433.20 kg. Qty taken for cost using once = 433.2x0.85/40 = 9.2055 kg				
10.1	Rate as per item Number10.1 of SH: Steel Work	kilogram	9.2055	74.70	687.65(A)
7342	Adjustable span ESO+SI (2.35-3.40) Qty taken for cost using once = 5x0.85/40 =0.1063	each	0.1063	1480.00	157.32
7343	Adjustable telescopic prop 3 m (2.02-3.75m) Qty taken for cost using once = 6x0.85/40 = 0.1275	each	0.1275	955.00	121.76
9999	Sundries - Assembly nut & nolts etc. Qty taken for cost using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9999	Sundries - Carriage LABOUR: Fitter (grade 1)	L.S	130.0	2.00	260.00

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0116	Fitter(grade1)	Day	3.0	738.00	2214.00
0114	Beldar	Day	6.0	558.00	3348.00
9999	Sundries - Shuttering oil	L.S	78.0	2.00	156.00
9999	Sundries - paper tape etc	L.S	49.7	2.00	99.40

AddWater Charges @ 1% except on A ie on (7088.33-687.65=6400.68)	64.01
TOTAL	7152.34
AddCPOH @ 15% except on A ie on (7152.34-687.65=6464.69)	969.70
TOTAL	8122.27
Cost of 13.5 sqm	8122.27
Cost of 1 sqm	601.65
Say	601.65

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	Cost index **37.29%**				224.36
	Total with Cost index				826.01

PRICE

18 Specification Code: 5.9.5

SUBHEAD : **5.0**

REINFORCED CEMENT CONCRETE

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.5 Lintels, beams, plinth beams, girders bressumers and cantilevers

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for a beam of 6 m clear span, 0.50 m deep 0.30 m wide and height 3.5 m from floor cubical contents 6.60x0.5x0.3 = 0.99 cum 1x1.30x6.00 = 7.80 sqm MATERIAL: Assuming shuttering will become unserviceable after use of 40 times Add maintenance charges @ 10% of cost of material Less salvage value of material after full use @25% of cost of material 1. Steel plats for side and bottom (plate size 1.20 x 0.50 m) Angle 40x40x5mm 2x1.20 = 2.40 m 3x0.50 = 1.50 m Total 3.90 m @ 3.00 kg/m = 11.70 kg sheet 1.6 mm thick 1.20 m x 0.50 m =0.60 sqm 0.60 sqm @ 12.55 kg/sqm. = 7.53 kg.Weight of one plate = 19.23 kg. Add for wastage 5% 0.96 kg. Total = 20.19 kg Total weight of all plates 3x5x20.19 = 302.85 kg Qty taken for cost of using once= 302.85 x 85/40 = 6.4356 kg				
10.1	Rate as per item Number10.1 of SH: Steel Work	kilogram	6.4356	74.70	480.74(A)
7343	Adjustable telescopic prop 3 m (2.02-3.75m) Qty taken for using once = 6x0.85/40 = 0.1275m	each	0.1275	955.00	121.76
7344	Beam clamp 300-380 mm (450-1070 mm) Qty taken for cost of using once = 5x0.85/40 = 0.1063 m	each set	0.1063	355.00	37.74

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9999	Sundries - Assembly nut & bolts etc. Qty taken for cost of using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9999	Sundries - Carriage LABOUR:	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	1.25	738.00	922.50
0114	Beldar	Day	2.5	558.00	1395.00
9999	Sundries - Shuttering oil	L.S	39.0	2.00	78.00
9999	Sundries - paper tape etc	L.S	24.61	2.00	49.22

AddWater Charges @ 1% except on A ie on (3285.16-480.74=2804.42)	28.04
TOTAL	3313.20
AddCPOH @ 15% except on A ie on (3313.2-480.74=2832.46)	424.87
TOTAL	3738.15
Cost of 7.8 sqm	3738.15
Cost of 1 sqm	479.25
Say	479.25

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	Cost index **37.29%**				178.71
	Total with Cost index				657.96

19 Specification Code: 19.16

SUBHEAD : **19.0**

DRAINAGE

19.16 Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS: 10910 on 12 mm dia steeel bar conforming to IS:1786, having minimum cross section as 23 mm x 25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded

legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufactures permanent identification mark to be visible even after fixing including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size)Complete as per design

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. Details:				
7354	Plastic encapsulated M.S. foor rest 30x20x15 cm	each	1.0	110.00	110.00
9988	Carriage and sundries Cement concrete 1:3:6 (0.30x0.20x15)=0.009 cum)	L.S	1.82	2.00	3.64
4.2.5	Rate as per item Number4.2.5 of SH: Concrete work LABOUR:	cum	0.009	6966.75	62.70(A)
0123	Mason (brick layer) Ist class	Day	0.02	738.00	14.76
0124	Mason (brick layer)2nd class	Day	0.2	679.00	135.80
0114	Beldar	Day	0.05	558.00	27.90
				AddWater Charges @ 1% except on A ie on (354.8-62.7=292.1)	2.92
				TOTAL	357.72
				AddCPOH @ 15% except on A ie on (357.72-62.7=295.02)	44.25
				TOTAL	401.95
				Cost of 1.0 each	401.95
				Cost of 1 each	401.95
				Say	401.95

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	Cost index **37.29%**				149.89
	Total with Cost index				551.84

20 Specification Code: 14.72

14.72 Providing and fixing double scaffolding system (cup lock type) on the exterior side, upto seven story hight made with 40 mm dia. M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube challies, M.S. clamps and M.S. staricase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after. The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required location with essential safety features for the workmen etc. complete as per directions and approval of Engineer- in Charge. The elevational area of the scaffolding shall be measured for payment purpose. The payment will be made once irrespective of duration of scaffolding. Note:- This item to be used for maintenance work judicially, necessary deduction for scaffolding in the existing item to be done .

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost forarea 22.5m x 9.0m = 202.5 sqm				
14.72X	Rate as per item Number14.72X of SH: Repairs to Buildings 40 mm dia. M.S. pipe = 3,765.42 kg 25 mm box spigot = 123.98 kg Nuts and bolts = 37.80 kg Clamps = 120 Nos. @ 1.00 kg.each = 120.00 kg Challies = 90 Nos. @ 15.00 kg. each = 1,350.00 kg Cup locks = 1314 Nos. @ 0.50 kg each = 657.00 kg Total = 6054.20 kg. say 6.054 MT	each	1.0	7676.50	7676.50

2205	Carriage of Steel	tonne	6.054	92.24	558.42
0116	Fitter(grade1)	Day	15.5	738.00	11439.00
0114	Beldar	Day	31.0	558.00	17298.00
9999	Sundries-	L.S	1035.0	2.00	2070.00

TOTAL	39041.92
Add Water Charges @ 1%	390.42
TOTAL	39432.34
Add CPOH @ 15%	5914.85
TOTAL	45347.19
Cost of 202.5 sqm	45347.19
Cost per sqm	223.94
Say	223.95

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	Cost index **37.29%**				83.51
	Total with Cost index				307.46

PRICE

21 Specification Code: 13.7.1

13.7 12 mm cement plaster finished with a floating coat of neat cement of mix:

13.7.1 1:3 (1 cement : 3 fine sand)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:3 (1 cement : 3 fine sand				
3.3	Rate as per item Number3.3 of SH: Mortars MATERIAL:	cum	0.144	4183.05	602.36
0155	Mason (average)	Day	0.67	709.00	475.03

0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64
9999	Sundries-Scaffolding and sundries.	L.S	12.61	2.00	25.22
0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	Day	0.27	709.00	191.43
0115	Coolie	Day	0.27	558.00	150.66
9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12

TOTAL	2547.60
Add Water Charges @ 1%	25.48
TOTAL	2573.08
Add CPOH @ 15%	385.96
TOTAL	2959.04
Cost of 10.0 sqm	2959.04
Cost per sqm	295.90
Say	295.9

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PRICE

	Cost index **37.29%**				110.34
	Total with Cost index				406.24

22 Specification Code: 13.52.2

13.52 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.

13.52.2 On concrete work

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 10 sqm PRIMING COAT MATERIAL:				
0821	Distemper primer	Litre	0.84	70.00	58.80
9999	Sundries-Putty	L.S	13.52	2.00	27.04
9977	Carriage LABOUR:	L.S	0.52	2.00	1.04
0131	Painter	Day	0.25	679.00	169.75
0115	Coolie	Day	0.25	558.00	139.50
9999	Sundries-Brushes, sand paper etc.	L.S	2.73	2.00	5.46
9999	Sundries-EPOXY PAINTING| MATERIAL:	L.S	8.06	2.00	16.12
7239	Epoxy paint	Litre	1.21	230.00	278.30
9999	Sundries-Materials for filling in holes and cracks	L.S	6.76	2.00	13.52
9977	Carriage of materialLABOUR:	L.S	1.43	2.00	2.86
0131	Painter	Day	0.54	679.00	366.66
0115	Coolie	Day	0.54	558.00	301.32
9999	Sundries-Putty, brushes, sand paper etc.	L.S	10.79	2.00	21.58
9999	Sundries-	L.S	6.76	2.00	13.52

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TOTAL	1415.47
Add Water Charges @ 1%	14.15
TOTAL	1429.62
Add CPOH @ 15%	214.44
TOTAL	1644.06
Cost of 10.0 sqm	1644.06
Cost per sqm	164.41
Say	164.4

	Cost index **37.29%**				61.30
	Total with Cost index				225.7

23 Specification Code: 2.25

2.25 Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. LABOUR:				
0128	Mate	Day	0.2	617.00	123.40
0115	Coolie	Day	2.5	558.00	1395.00
0101	Bhisti	Day	0.2	617.00	123.40
				TOTAL	1641.80
				Add Water Charges @ 1%	16.42
				TOTAL	1658.22
				Add CPOH @ 15%	248.73
				TOTAL	1906.95
				Cost of 10.0 cum	1906.95
				Cost per cum	190.69
				Say	190.7

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	Cost index **37.29%**				71.11
	Total with Cost index				261.81

24 Specification Code: od317581/2021_2022

od317581/2021_2022 :Removal of excess earth by lorry for minimum mechanical conveyance and less cost of erath

Code	Description	Unit	Quantity	Rate	Amount	Remarks
2241	Good earth	cum	1.00000	129.71	129.71	
0979	Royalty for good earth	cum	-1.00000	40.00	-40.00	
				TOTAL	89.71	
				Add Water Charges @ 1%	.90	
				Add CPOH @ 15%	13.59	
				cost for one cum	104.20	
				say	104.20	

Cost index **37.29 %**	38.86
Total with Cost index	143.06

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25 Specification Code: 100.7.1

100.7.1 Bailing out water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete.
NEW DATA (Prepared based on PHED SDB - Item No.1070

Code	Description	Unit	Quantity	Rate	Amount
0011	Hire charges of Pump set of capacity 4000 litres/hour Hire charges of Engine (Per Day) charges for cost of service of operating staff, cost of lubricating oil, diesel / petrol / kerosene oil, other consumables for running the plant and machinery and all the taxes.	Day	1.0	700.00	700.00
				TOTAL	700.00

Add Water Charges @ 1%	7.00
TOTAL	707.00
Add CPOH @ 15%	106.05
TOTAL	813.05
Cost of 29.84 Kwh	813.05
Cost per Kwh	27.25
Say	27.25

	Cost index **37.29%**				10.16
	Total with Cost index				37.41

26 Specification Code: 100.7.2

100.7.2 Bailing out water with engine and pumpset above 5 HP upto 10 HP including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete. NEW DATA (Prepared based on PHED SDB - Item No.1070

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Code	Description	Unit	Quantity	Rate	Amount
0011	Hire charges of Pump set of capacity 4000 litres/hour Hire charges of Engine (Per Day) charges for cost of service of operating staff, cost of lubricating oil, diesel / petrol / kerosene oil, other consumables for running the plant and machinery and all the taxes.	Day	1.0	700.00	700.00
				TOTAL	700.00
				Add Water Charges @ 1%	7.00
				TOTAL	707.00

Add CPOH @ 15%	106.05
TOTAL	813.05
Cost of 59.68 Kwh	813.05
Cost per Kwh	13.62
Say	13.6

	Cost index **37.29%**				5.07
	Total with Cost index				18.67

27 Specification Code: 100.7.3

100.7.3 Bailing out water with engine and pumpset above 10 HP upto 20 HP including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete. NEW DATA (Prepared based on PHED SDB - Item No.1070

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Code	Description	Unit	Quantity	Rate	Amount
0011	Hire charges of Pump set of capacity 4000 litres/hour Hire charges of Engine (Per Day) charges for cost of service of operating staff, cost of lubricating oil, diesel / petrol / kerosene oil, other consumables for running the plant and machinery and all the taxes.	Day	1.0	700.00	700.00
				TOTAL	700.00
				Add Water Charges @ 1%	7.00
				TOTAL	707.00
				Add CPOH @ 15%	106.05
				TOTAL	813.05

Cost of 119.36 Kwh	813.05
Cost per Kwh	6.81
Say	6.8

	Cost index **37.29%**				2.54
	Total with Cost index				9.34

28 Specification Code: 100.98.1008

100.98.1008 Engaging Coolie

Code	Description	Unit	Quantity	Rate	Amount
0115	Coolie	Day	1.0	558.00	558.00
				TOTAL	558.00
				Add Water Charges @ 1%	5.58
				TOTAL	563.58
				Add CPOH @ 15%	84.54
				TOTAL	648.12
				Cost of 1.0 Day	648.12
				Cost per Day	648.12
				Say	648.1

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	Cost index **37.29%**				241.68
	Total with Cost index				889.78

CONSTRUCTION OF WELL 2 - 5 mDIA

29 Specification Code: 2.3.1

2.3 Banking excavated earth in layers not exceeding 20 cm in depth, breaking clods, watering, rolling each layer with 1/2 tonne roller, or wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 tonnes and dressing up, in embankments for roads, flood banks, marginal banks, and guide banks etc., lead up to 50 m and lift up to 1.5 m :

2.3.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. LABOUR:				
0114	Beldar	Day	2.2	558.00	1227.60
0115	Coolie	Day	3.6	558.00	2008.80
0101	Bhisti Roller charges (One roller does 1850 sqm. of consolidation per day)	Day	0.4	617.00	246.80
0003	Hire charges of Diesel Road Roller- 8 to 10 tonne	Day	0.008	3000.00	24.00
0113	Chowkidar	Day	0.008	558.00	4.46
9999	Sundries-	L.S	2.73	2.00	5.46
				TOTAL	3517.12
				Add Water Charges @ 1%	35.17
				TOTAL	3552.29
				Add CPOH @ 15%	532.84
				TOTAL	4085.13
				Cost of 10.0 cum	4085.13
				Cost per cum	408.51
				Say	408.5

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	Cost index **37.29%**				152.33
	Total with Cost index				560.83

30 Specification Code: 2.1.1

2.1 Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5m in width as well as 10 sqm on plan including disposal of excavated earth up to 50 m and lift up to 1.5 m, disposed soil to be levelled and neatly dressed:

2.1.1 All Kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 sqm and average depth 15 cm LABOUR:				
0114	Beldar	Day	6.8	558.00	3794.40
0115	Coolie	Day	5.6	558.00	3124.80
				TOTAL	6919.20
				Add Water Charges @ 1%	69.19
				TOTAL	6988.39
				Add CPOH @ 15%	1048.26
				TOTAL	8036.65
				Cost of 100.0 sqm	8036.65
				Cost per sqm	80.37
				Say	80.35

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	Cost index **37.29%**				29.96
	Total with Cost index				110.31

31 Specification Code: 2.6.1

2.6 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.

2.6.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. Average output of Hydraulic Excavator per hour = 30cum MACHINERY:				
0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.041	7000.00	287.00
0018	Hire and running charges of loader LABOUR:	Day	0.041	5000.00	205.00
0128	Mate Beldar/	Day	0.32	617.00	197.44
0115	Coolie	Day	1.2	558.00	669.60
				TOTAL	1359.04
				Add Water Charges @ 1%	13.59
				TOTAL	1372.63
				Add CPOH @ 15%	205.89
				TOTAL	1578.52
				Cost of 10.0 cum	1578.52
				Cost per cum	157.85
				Say	157.85

	Cost index **37.29%**				58.86

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	Total with Cost index				216.71

32 Specification Code: od317896/2021_2022

od317896/2021_2022 :Fabricating MS Kerb of size using 8 MM thick MS plate including cost of MS plate and 10mm dia anger bar welded to the kerb and conveyance charges of MS plate ,all fabrication charges ,charges of painting outer side of steel work with two or more coat delux multi surface paint over an under coat of primer erection tying anger bar with reinforcement placing in position etc. complete

100.37.8.1 Materals required 8 mm MS plate outer side 1X 0.3m =0.3m2 8 mm MS plate Inner side 1X 0.67m =0.67m2 Total 0.97m2 at 62.8kg/m2 = 60.924kg add 5% waistage =60.92 X1.05 =63.96 kg ,10MM TMT rod L = 0.97m @ 0.50 C/C =3 Nos.=6m@0.62kg/m =3.72kg DEtails of cost for 1m length kerb

Code	Description	Unit	Quantity	Rate	Amount	Remarks
1010	Mild steel plates	quintal	0.63960	4800.00	3070.08	
5.22.1	Rate as per item number 5.22.1 of SH: Reinforced Cement Concrete	kg	3.72000	71.30	265.24	
100.37.1	Rate as per item number 100.37.1 of SH: KWA Approved Data	cm	167.00000	2.30	384.10	
100.37.3	Rate as per item number 100.37.3 of SH: KWA Approved Data	cm	167.00000	8.80	1469.60	
100.37.2	Rate as per item number 100.37.2 of SH: KWA Approved Data	cm	167.00000	1.65	275.55	
100.37.4	Rate as per item number 100.37.4 of SH: KWA Approved Data	kg	63.96000	10.15	649.19	
0115	Coolie	Day	0.10000	558.00	55.80	
0131	Painter	Day	1.00000	679.00	679.00	
9999	Sundries	L.S	10.00000	2.00	20.00	
				TOTAL	6868.56	
				Add Water Charges @ 1%	38.25	
				Add CPOH @ 15%	579.47	
				cost for one kg	7486.28	
				say	7486.28	

Cost index **37.29 %**	2791.63

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Total with Cost index	10277.91

33 Specification Code: od331805/2021_2022

od331805/2021_2022 :Sinking wells of dia 5m inside all kinds of soil to lines and levels and plumb by scooping out earth from inside and below the steining using necessary appliances including hire and labour for the same including dumping the spoil beyond the initial lead 50m etc. complete total depth 1.5 to 3m.

*Details of cost For 3m, For depth upto 1.5m -3.00m

 Quantity for 3.0m=3.14/4x 6.1x6.1x3=87.63 m3

 Rate of lead with cost index =115.93x1.3989=162.17*

Code	Description	Unit	Quantity	Rate	Amount	Remarks
100.3.9.12	Rate as per item number 100.3.9.12 of SH: KWA Approved Data	cum	87.63000	435.50	38162.87	
MR	EXtra for the additional lead of 50m or part thereof over initial lead vide item 1.2.2 carriage of DSR including cost index 115.93x1.3989=162.17	cum	87.63000	162.17	14210.96	
9999	Sundries	LS	300.00000	2.00	600.00	
				TOTAL	52973.83	
				Add Water Charges @ 1%	148.11	
				Add CPOH @ 15%	2243.86	
				cost for 3.0 cum	52973.83	
				cost for one cum	18455.27	
				say	18455.27	

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Cost index **37.29 %**	4830.27
Total with Cost index	23285.54

34 Specification Code: od331806/2021_2022

od331806/2021_2022 :Sinking wells of dia5m inside all kinds of soil to lines and levels and plumb by scooping out earth from inside and below the steining using necessary appliances including hire and labour for the same including dumping the spoil beyond the initial lead 50m etc. complete total depth 3 to 4.5m.

*Details of cost For 3m, For depth upto 3m -4.5m <br> quantity for 3m =3.14/4x6.1x6.1x3= 87.63m3

 rate for lead with CI 115.93x1.3989 =162.174*

Code	Description	Unit	Quantity	Rate	Amount	Remarks
100.3.9.13	Rate as per item number 100.3.9.13 of SH: KWA Approved Data	cum	87.63000	475.10	41633.01	
MR	Extra for additional lead 50m or part thereof over initial lead vide item 1.2.2 carriage of DSR including cost index	cum	87.63000	162.17	14210.96	
9999	Sundries	L.S	300.00000	2.00	600.00	
				TOTAL	56443.97	
				Add Water Charges @ 1%	148.11	
				Add CPOH @ 15%	2243.86	
				cost for 3.0 cum	56443.97	
				cost for one cum	19611.98	
				say	19611.98	

Cost index **37.29 %**	5261.61
Total with Cost index	24873.59

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35 Specification Code: od331807/2021_2022

od331807/2021_2022 :Sinking wells of dia5m inside all kinds of soil to lines and levels and plumb by scooping out earth from inside and below the steining using necessary appliances including hire and labour for the same including dumping the spoil beyond the initial lead 50m etc. complete total depth 4.5 to 6m.

Details fof cost for 3m ,For depth upto 4.5m-6m ,Qty for 3m = 3.14x6.1x6.1x3=87.63m3, rate for lead with CI 115.93x1.3989=162.174

Code	Description	Unit	Quantity	Rate	Amount	Remarks
100.3.9.14	Rate as per item number 100.3.9.14 of SH: KWA Approved Data	cum	87.63000	514.65	45098.78	
MR	Extra for additional lead 50m or part thereof over initial lead vide item 1.2.2 carriage of DSR including cost index 115.93x1.3989=162.174	cum	87.63000	162.17	14210.96	

9999	Sundries	L.S	300.00000	2.00	600.00	

TOTAL	59909.74
Add Water Charges @ 1%	148.11
Add CPOH @ 15%	2243.86
cost for 3.0 cum	59909.74
cost for one cum	20767.24
say	20767.24

Cost index **37.29 %**	5692.40
Total with Cost index	26459.64

36 Specification Code: od331808/2021_2022

od331808/2021_2022 :Sinking well (in or under water) of dia5m inside all kinds of soil to lines and levels and
plumb by scooping out earth from inside and below the steining using necessary appliances including hire and lbour
for the same including dumping the spoil beyond the initial lead of 50m etc. complete total depth 6 to 7.5m.

*Details of Cost For 3m, For depth upto 6m -7.5m
Quantity for 3.0m = 3.14/4x6.1x6.1x3=87.63m3
*

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Code	Description	Unit	Quantity	Rate	Amount	Remarks
100.3.9.15	Rate as per item number 100.3.9.15 of SH: KWA Approved Data	cum	87.63000	554.25	48568.93	
MR	Extra for additional lead of 50m or part therof over initial lead - vide item 1.2.2 carriage of DSR - including cost index - 115.93x1.3989=	cum	87.63000	162.17	14210.96	
9999	Sundries	L.S	300.00000	2.00	600.00	
				TOTAL	63379.89	
				Add Water Charges @ 1%	148.11	
				Add CPOH @ 15%	2243.86	
				cost for 3.0 metre	63379.89	
				cost for one metre	21923.95	
				say	21923.95	

Cost index **37.29 %**	6123.74
Total with Cost index	28047.69

37 Specification Code: od331809/2021_2022

od331809/2021_2022 :Sinking well (in or under water) of dia 5 m inside all kinds of soil to lines and levels and
plumb by scooping out earth from inside and below the steining using necessary appliances including hire and lbour
for the same including dumping the spoil beyond the initial lead of 50m etc. complete total depth 7.5 to 9m.

*Details of Cost For 3m, For depth upto 7.5m -9m
Quantity for 3.0m = 3.14/4x6.1x6.1x3=87.63m3
*

Code	Description	Unit	Quantity	Rate	Amount	Remarks
100.3.9.16	Rate as per item number 100.3.9.16 of SH: KWA Approved Data	cum	87.63000	593.85	52039.08	
MR	Extra for additional lead of 50m or part therof over initial lead - vide item 1.2.2 carriage of DSR - including cost index - 115.93x1.3989=162.1745	cum	87.63000	162.17	14210.96	
9999	Sundries	L.S	300.00000	2.00	600.00	
				TOTAL	66850.04	
				Add Water Charges @ 1%	148.11	
				Add CPOH @ 15%	2243.86	
				cost for 3.0 metre	66850.04	
				cost for one metre	23080.67	
				say	23080.67	

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Cost index **37.29 %**	6555.08
Total with Cost index	29635.75

38 Specification Code: od317483/2021_2022

od317483/2021_2022 :Centering and shuttering including strutting, etc. and removal of form for

Wellstening (including 20% extra for circular works)

Code	Description	Unit	Quantity	Rate	Amount	Remarks
5.9.12	Rate as per item number 5.9.12 of SH: Reinforced Cement Concrete	sqm	1.20000	184.15	220.98	
				TOTAL	220.98	
				cost for one sqm	220.98	
				say	220.98	

Cost index **37.29 %**	82.40
Total with Cost index	303.38

39 Specification Code: 5.7

SUBHEAD : **5.0**

REINFORCED CEMENT CONCRETE

5.7 Reinforced cement concrete work in well - steining excluding the cost of centering, shuttering, finishing and reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand (Zone - III) : 3 graded stone aggregate 20 mm nominal size)

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL:				
4.1.2	Rate as per item Number4.1.2 of SH: Concrete work LABOUR	cum	1.0	6259.65	6259.65(A)
0115	Coolie Extra labour involved coolie	Day	0.08	558.00	44.64
	AddWater Charges @ 1% except on A ie on (6304.29-6259.65=44.6401)				.45
				TOTAL	6304.74

AddCPOH @ 15% except on A ie on (6304.74-6259.65=45.0901)	6.76
TOTAL	6311.50
Cost of 1.0 cum	6311.50
Cost of 1 cum	6311.50
Say	6311.5

	Cost index **37.29%**				2353.56
	Total with Cost index				8665.06

40 Specification Code: 5.22.4

5.22 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level

5.22.4 Hot rolled deformed bars

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 quintal MATERIAL: Deformed twisted steel bars = 1.00q Wastage 5% = 0.05q Total = 1.05q				
1005	Twisted steel/deformed bars	quintal	1.05	4600.00	4830.00
2205	Carriage of Steel	tonne	0.105	92.24	9.69
9999	Sundries-Cover block LABOUR: For straightening, cutting, bending, binding and placing in position	L.S	26.0	2.00	52.00
0102	Blacksmith 1st class	Day	1.0	738.00	738.00

0114	Beldar	Day	1.0	558.00	558.00
9999	Sundries-and binding wire	L.S	26.91	2.00	53.82

TOTAL	6241.51
Add Water Charges @ 1%	62.42
TOTAL	6303.93
Add CPOH @ 15%	945.59
TOTAL	7249.52
Cost of 100.0 kilogram	7249.52
Cost per kilogram	72.50
Say	72.5

	Cost index **37.29%**				27.04
	Total with Cost index				99.54

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PRICE

41 Specification Code: 4.1.8

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.8 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL:				
0293	Stone Aggregate(single size): 40 mm nominal size nominal size (0.70 cum -7.5% for voids i.e. 0.05 =0.65 cum)	cum	0.65	1300.00	845.00

0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.24	1350.00	324.00
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	0.65	112.79	73.31
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.24	103.77	24.90
0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement	tonne	0.17	4940.00	839.80
2209	Carriage of Cement	tonne	0.17	92.24	15.68
	LABOUR:				
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.52	2.00	27.04

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TOTAL	4327.24
Add Water Charges @ 1%	43.27
TOTAL	4370.51
Add CPOH @ 15%	655.58
TOTAL	5026.09
Cost of 1.0 cum	5026.09
Say	5026.1

	Cost index **37.29%**				1874.23

	Total with Cost index				6900.33

42 Specification Code: 4.1.3

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.3 1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.67	1350.00	904.50
0297	Stone Aggregate(single size): 10 mm nominal size nominal size	cum	0.22	1350.00	297.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.89	103.77	92.36
0982	Coarse sand (zone III)	cum	0.445	1350.00	600.75
2203	Carriage of Coarse sand	cum	0.445	103.77	46.18
0367	Portland Cement (0.2225 cum)	tonne	0.32	4940.00	1580.80
2209	Carriage of Cement	tonne	0.32	92.24	29.52
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	14.3	2.00	28.60

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PRICE

TOTAL	5073.95
Add Water Charges @ 1%	50.74
TOTAL	5124.69
Add CPOH @ 15%	768.70
TOTAL	5893.39
Cost of 1.0 cum	5893.39
Say	5893.4

	Cost index **37.29%**				2197.65
	Total with Cost index				8091.05

43 Specification Code: 5.1.2

5.1: Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:

5.1.2 1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10

0367	Portland Cement (0.2833 cum)	tonne	0.4	4940.00	1976.00
2209	Carriage of Cement	tonne	0.4	92.24	36.90
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	14.3	2.00	28.60

TOTAL	5768.78
Add Water Charges @ 1%	57.69
TOTAL	5826.47
Add CPOH @ 15%	873.97
TOTAL	6700.44
Cost of 1.0 cum	6700.44
Say	6700.45

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	Cost index **37.29%**				2498.60
	Total with Cost index				9199.05

44 Specification Code: 4.15

4.15 Extra for laying concrete in or under water and or liquid mud including cost of pumping or bailing out water and removing slush etc. complete. Note for item No. 4.15 : - The quantity will be calculated by multiplying the depth measured from the sub-soil water level upto centre of gravity of concrete under sub-soil water level with quantity of concrete in cum executed under the sub-soil water. The depth of centre of gravity shall be reconed correct to 0.10 m 0.05 m or more shall be taken as 0.10 m and less than 0.05 m ignored.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 14 cum per 0.3m depth Quantity of concrete = 14 cum pumping hours = 3 hrs. or 0.375 day .				
0011	Hire charges of Pump set of capacity 4000 litres/hour	Day	0.375	700.00	262.50
0114	Beldar	Day	4.0	558.00	2232.00
				TOTAL	2494.50
				Add Water Charges @ 1%	24.95
				TOTAL	2519.45
				Add CPOH @ 15%	377.92
				TOTAL	2897.37
				Cost of 4.2 cum	2897.37
				Cost per cum	689.85
				Say	689.85

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PRICE

	Cost index **37.29%**				257.25
	Total with Cost index				947.1

45 Specification Code: 5.9.5

SUBHEAD : **5.0**

REINFORCED CEMENT CONCRETE

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.5 Lintels, beams, plinth beams, girders bressumers and cantilevers

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for a beam of 6 m clear span, 0.50 m deep 0.30 m wide and height 3.5 m from floor cubical contents 6.60x0.5x0.3 = 0.99 cum 1x1.30x6.00 = 7.80 sqm MATERIAL: Assuming shuttering will become unserviceable after use of 40 times Add maintenance charges @ 10% of cost of material Less salvage value of material after full use @25% of cost of material 1. Steel plats for side and bottom (plate size 1.20 x 0.50 m) Angle 40x40x5mm 2x1.20 = 2.40 m 3x0.50 = 1.50 m Total 3.90 m @ 3.00 kg/m = 11.70 kg sheet 1.6 mm thick 1.20 m x 0.50 m =0.60 sqm 0.60 sqm @ 12.55 kg/sqm. = 7.53 kg.Weight of one plate = 19.23 kg. Add for wastage 5% 0.96 kg. Total = 20.19 kg Total weight of all plates 3x5x20.19 = 302.85 kg Qty taken for cost of using once= 302.85 x 85/40 = 6.4356 kg				
10.1	Rate as per item Number10.1 of SH: Steel Work	kilogram	6.4356	74.70	480.74(A)
7343	Adjustable telescopic prop 3 m (2.02-3.75m) Qty taken for using once = 6x0.85/40 = 0.1275m	each	0.1275	955.00	121.76
7344	Beam clamp 300-380 mm (450-1070 mm) Qty taken for cost of using once = 5x0.85/40 = 0.1063 m	each set	0.1063	355.00	37.74

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9999	Sundries - Assembly nut & bolts etc. Qty taken for cost of using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9999	Sundries - Carriage LABOUR:	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	1.25	738.00	922.50
0114	Beldar	Day	2.5	558.00	1395.00
9999	Sundries - Shuttering oil	L.S	39.0	2.00	78.00
9999	Sundries - paper tape etc	L.S	24.61	2.00	49.22

AddWater Charges @ 1% except on A ie on (3285.16-480.74=2804.42)	28.04
TOTAL	3313.20
AddCPOH @ 15% except on A ie on (3313.2-480.74=2832.46)	424.87
TOTAL	3738.15
Cost of 7.8 sqm	3738.15
Cost of 1 sqm	479.25
Say	479.25

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PRICE

	Cost index **37.29%**				178.71
	Total with Cost index				657.96

46 Specification Code: 5.9.3

SUBHEAD : **5.0**

REINFORCED CEMENT CONCRETE

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.3 Suspended floors, roofs, landings, balconies and access platform

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for a room 4.5x3 = 13.50 sqm height 3.5 m MATERIAL: Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost 1. Plates (size 0.75x0.60) Angle 40x40x5 mm 2x0.75 = 1.5 m 2x0.60 = 1.20 m = 2.70 m @ 3.00 kg/m = 8.10 kg sheet 1.6 mm thick 0.75x0.60 = 0.45 sqm 0.45 sqm @ 12.55 kg/sqm = 5.65 kg Weight of one plate = 13.75 kg Add for wastage @ 5% = 0.69 kg Total = 14.44 kg Total weight of all plates = 5x6x14.44= 433.20 kg. Qty taken for cost using once = 433.2x0.85/40 = 9.2055 kg				
10.1	Rate as per item Number10.1 of SH: Steel Work	kilogram	9.2055	74.70	687.65(A)
7342	Adjustable span ESO+SI (2.35-3.40) Qty taken for cost using once = 5x0.85/40 =0.1063	each	0.1063	1480.00	157.32
7343	Adjustable telescopic prop 3 m (2.02-3.75m) Qty taken for cost using once = 6x0.85/40 = 0.1275	each	0.1275	955.00	121.76
9999	Sundries - Assembly nut & nolts etc. Qty taken for cost using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20

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9999	Sundries - Carriage LABOUR: Fitter (grade 1)	L.S	130.0	2.00	260.00
0116	Fitter(grade1)	Day	3.0	738.00	2214.00
0114	Beldar	Day	6.0	558.00	3348.00
9999	Sundries - Shuttering oil	L.S	78.0	2.00	156.00
9999	Sundries - paper tape etc	L.S	49.7	2.00	99.40

AddWater Charges @ 1% except on A ie on (7088.33-687.65=6400.68)	64.01
TOTAL	7152.34
AddCPOH @ 15% except on A ie on (7152.34-687.65=6464.69)	969.70
TOTAL	8122.27
Cost of 13.5 sqm	8122.27
Cost of 1 sqm	601.65
Say	601.65

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PRICE

	Cost index **37.29%**				224.36
	Total with Cost index				826.01

47 Specification Code: 19.16

SUBHEAD : **19.0**

DRAINAGE

19.16 Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS: 10910 on 12 mm dia steeel bar conforming to IS:1786, having minimum cross section as 23 mm x 25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per

standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufactures permanent identification mark to be visible even after fixing including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size)Complete as per design

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. Details:				
7354	Plastic encapsulated M.S. foor rest 30x20x15 cm	each	1.0	110.00	110.00
9988	Carriage and sundries Cement concrete 1:3:6 (0.30x0.20x15)=0.009 cum)	L.S	1.82	2.00	3.64
4.2.5	Rate as per item Number4.2.5 of SH: Concrete work LABOUR:	cum	0.009	6966.75	62.70(A)
0123	Mason (brick layer) Ist class	Day	0.02	738.00	14.76
0124	Mason (brick layer)2nd class	Day	0.2	679.00	135.80
0114	Beldar	Day	0.05	558.00	27.90
				AddWater Charges @ 1% except on A ie on (354.8-62.7=292.1)	2.92
				TOTAL	357.72
				AddCPOH @ 15% except on A ie on (357.72-62.7=295.02)	44.25
				TOTAL	401.95
				Cost of 1.0 each	401.95
				Cost of 1 each	401.95
				Say	401.95

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PRICE

	Cost index **37.29%**				149.89
	Total with Cost index				551.84

48 Specification Code: 14.72

14.72 Providing and fixing double scaffolding system (cup lock type) on the exterior side, upto seven story hight made with 40 mm dia. M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube challies, M.S. clamps and M.S. staricase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after. The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required location with essential safety features for the workmen etc. complete as per directions and approval of Engineer- in Charge. The elevational area of the scaffolding shall be measured for payment purpose. The payment will be made once irrespective of duration of scaffolding. Note:- This item to be used for maintenance work judicially, necessary deduction for scaffolding in the existing item to be done .

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost forarea 22.5m x 9.0m = 202.5 sqm				
14.72X	Rate as per item Number14.72X of SH: Repairs to Buildings 40 mm dia. M.S. pipe = 3,765.42 kg 25 mm box spigot = 123.98 kg Nuts and bolts = 37.80 kg Clamps = 120 Nos. @ 1.00 kg.each = 120.00 kg Challies = 90 Nos. @ 15.00 kg. each = 1,350.00 kg Cup locks = 1314 Nos. @ 0.50 kg each = 657.00 kg Total = 6054.20 kg. say 6.054 MT	each	1.0	7676.50	7676.50

2205	Carriage of Steel	tonne	6.054	92.24	558.42
0116	Fitter(grade1)	Day	15.5	738.00	11439.00
0114	Beldar	Day	31.0	558.00	17298.00
9999	Sundries-	L.S	1035.0	2.00	2070.00

TOTAL	39041.92
Add Water Charges @ 1%	390.42
TOTAL	39432.34
Add CPOH @ 15%	5914.85
TOTAL	45347.19
Cost of 202.5 sqm	45347.19
Cost per sqm	223.94
Say	223.95

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	Cost index **37.29%**				83.51
	Total with Cost index				307.46

PRICE

49 Specification Code: 13.7.1

13.7 12 mm cement plaster finished with a floating coat of neat cement of mix:

13.7.1 1:3 (1 cement : 3 fine sand)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:3 (1 cement : 3 fine sand				
3.3	Rate as per item Number3.3 of SH: Mortars MATERIAL:	cum	0.144	4183.05	602.36
0155	Mason (average)	Day	0.67	709.00	475.03

0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64
9999	Sundries-Scaffolding and sundries.	L.S	12.61	2.00	25.22
0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	Day	0.27	709.00	191.43
0115	Coolie	Day	0.27	558.00	150.66
9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12

TOTAL	2547.60
Add Water Charges @ 1%	25.48
TOTAL	2573.08
Add CPOH @ 15%	385.96
TOTAL	2959.04
Cost of 10.0 sqm	2959.04
Cost per sqm	295.90
Say	295.9

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	Cost index **37.29%**				110.34
	Total with Cost index				406.24

50 Specification Code: 13.52.2

13.52 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.

13.52.2 On concrete work

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 10 sqm PRIMING COAT MATERIAL:				
0821	Distemper primer	Litre	0.84	70.00	58.80
9999	Sundries-Putty	L.S	13.52	2.00	27.04
9977	Carriage LABOUR:	L.S	0.52	2.00	1.04
0131	Painter	Day	0.25	679.00	169.75
0115	Coolie	Day	0.25	558.00	139.50
9999	Sundries-Brushes, sand paper etc.	L.S	2.73	2.00	5.46
9999	Sundries-EPOXY PAINTING| MATERIAL:	L.S	8.06	2.00	16.12
7239	Epoxy paint	Litre	1.21	230.00	278.30
9999	Sundries-Materials for filling in holes and cracks	L.S	6.76	2.00	13.52
9977	Carriage of materialLABOUR:	L.S	1.43	2.00	2.86
0131	Painter	Day	0.54	679.00	366.66
0115	Coolie	Day	0.54	558.00	301.32
9999	Sundries-Putty, brushes, sand paper etc.	L.S	10.79	2.00	21.58
9999	Sundries-	L.S	6.76	2.00	13.52

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TOTAL	1415.47
Add Water Charges @ 1%	14.15
TOTAL	1429.62
Add CPOH @ 15%	214.44
TOTAL	1644.06
Cost of 10.0 sqm	1644.06
Cost per sqm	164.41
Say	164.4

	Cost index **37.29%**				61.30
	Total with Cost index				225.7

51 Specification Code: 2.25

2.25 Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. LABOUR:				
0128	Mate	Day	0.2	617.00	123.40
0115	Coolie	Day	2.5	558.00	1395.00
0101	Bhisti	Day	0.2	617.00	123.40
				TOTAL	1641.80
				Add Water Charges @ 1%	16.42
				TOTAL	1658.22
				Add CPOH @ 15%	248.73
				TOTAL	1906.95
				Cost of 10.0 cum	1906.95
				Cost per cum	190.69
				Say	190.7

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	Cost index **37.29%**				71.11
	Total with Cost index				261.81

52 Specification Code: od317581/2021_2022

od317581/2021_2022 :Removal of excess earth by lorry for minimum mechanical conveyance and less cost of erath

Code	Description	Unit	Quantity	Rate	Amount	Remarks
2241	Good earth	cum	1.00000	129.71	129.71	
0979	Royalty for good earth	cum	-1.00000	40.00	-40.00	
				TOTAL	89.71	
				Add Water Charges @ 1%	.90	
				Add CPOH @ 15%	13.59	
				cost for one cum	104.20	
				say	104.20	

Cost index **37.29 %**	38.86
Total with Cost index	143.06

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53 Specification Code: 100.7.1

100.7.1 Bailing out water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete.
NEW DATA (Prepared based on PHED SDB - Item No.1070

Code	Description	Unit	Quantity	Rate	Amount
0011	Hire charges of Pump set of capacity 4000 litres/hour Hire charges of Engine (Per Day) charges for cost of service of operating staff, cost of lubricating oil, diesel / petrol / kerosene oil, other consumables for running the plant and machinery and all the taxes.	Day	1.0	700.00	700.00
				TOTAL	700.00

Add Water Charges @ 1%	7.00
TOTAL	707.00
Add CPOH @ 15%	106.05
TOTAL	813.05
Cost of 29.84 Kwh	813.05
Cost per Kwh	27.25
Say	27.25

	Cost index **37.29%**				10.16
	Total with Cost index				37.41

54 Specification Code: 100.7.2

100.7.2 Bailing out water with engine and pumpset above 5 HP upto 10 HP including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete. NEW DATA (Prepared based on PHED SDB - Item No.1070

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Code	Description	Unit	Quantity	Rate	Amount
0011	Hire charges of Pump set of capacity 4000 litres/hour Hire charges of Engine (Per Day) charges for cost of service of operating staff, cost of lubricating oil, diesel / petrol / kerosene oil, other consumables for running the plant and machinery and all the taxes.	Day	1.0	700.00	700.00
				TOTAL	700.00
				Add Water Charges @ 1%	7.00
				TOTAL	707.00

Add CPOH @ 15%	106.05
TOTAL	813.05
Cost of 59.68 Kwh	813.05
Cost per Kwh	13.62
Say	13.6

	Cost index **37.29%**				5.07
	Total with Cost index				18.67

55 Specification Code: 100.7.3

100.7.3 Bailing out water with engine and pumpset above 10 HP upto 20 HP including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete. NEW DATA (Prepared based on PHED SDB - Item No.1070

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Code	Description	Unit	Quantity	Rate	Amount
0011	Hire charges of Pump set of capacity 4000 litres/hour Hire charges of Engine (Per Day) charges for cost of service of operating staff, cost of lubricating oil, diesel / petrol / kerosene oil, other consumables for running the plant and machinery and all the taxes.	Day	1.0	700.00	700.00
				TOTAL	700.00
				Add Water Charges @ 1%	7.00
				TOTAL	707.00
				Add CPOH @ 15%	106.05
				TOTAL	813.05

Cost of 119.36 Kwh	813.05
Cost per Kwh	6.81
Say	6.8

	Cost index **37.29%**				2.54
	Total with Cost index				9.34

56 Specification Code: 100.98.1008

100.98.1008 Engaging Coolie

Code	Description	Unit	Quantity	Rate	Amount
0115	Coolie	Day	1.0	558.00	558.00
				TOTAL	558.00
				Add Water Charges @ 1%	5.58
				TOTAL	563.58
				Add CPOH @ 15%	84.54
				TOTAL	648.12
				Cost of 1.0 Day	648.12
				Cost per Day	648.12
				Say	648.1

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	Cost index **37.29%**				241.68
	Total with Cost index				889.78

CONSTRUCTION OF WELL 3 - 3 m DIA

57 Specification Code: 2.3.1

2.3 Banking excavated earth in layers not exceeding 20 cm in depth, breaking clods, watering, rolling each layer with 1/2 tonne roller, or wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 tonnes and dressing up, in embankments for roads, flood banks, marginal banks, and guide banks etc., lead up to 50 m and lift up to 1.5 m :

2.3.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. LABOUR:				
0114	Beldar	Day	2.2	558.00	1227.60
0115	Coolie	Day	3.6	558.00	2008.80
0101	Bhisti Roller charges (One roller does 1850 sqm. of consolidation per day)	Day	0.4	617.00	246.80
0003	Hire charges of Diesel Road Roller- 8 to 10 tonne	Day	0.008	3000.00	24.00
0113	Chowkidar	Day	0.008	558.00	4.46
9999	Sundries-	L.S	2.73	2.00	5.46
				TOTAL	3517.12
				Add Water Charges @ 1%	35.17
				TOTAL	3552.29
				Add CPOH @ 15%	532.84
				TOTAL	4085.13
				Cost of 10.0 cum	4085.13
				Cost per cum	408.51
				Say	408.5

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	Cost index **37.29%**				152.33
	Total with Cost index				560.83

58 Specification Code: 2.1.1

2.1 Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5m in width as well as 10 sqm on plan including disposal of excavated earth up to 50 m and lift up to 1.5 m, disposed soil to be levelled and neatly dressed:

2.1.1 All Kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 sqm and average depth 15 cm LABOUR:				
0114	Beldar	Day	6.8	558.00	3794.40
0115	Coolie	Day	5.6	558.00	3124.80
				TOTAL	6919.20
				Add Water Charges @ 1%	69.19
				TOTAL	6988.39
				Add CPOH @ 15%	1048.26
				TOTAL	8036.65
				Cost of 100.0 sqm	8036.65
				Cost per sqm	80.37
				Say	80.35

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	Cost index **37.29%**				29.96
	Total with Cost index				110.31

59 Specification Code: 2.6.1

2.6 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.

2.6.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. Average output of Hydraulic Excavator per hour = 30cum MACHINERY:				
0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.041	7000.00	287.00
0018	Hire and running charges of loader LABOUR:	Day	0.041	5000.00	205.00
0128	Mate Beldar/	Day	0.32	617.00	197.44
0115	Coolie	Day	1.2	558.00	669.60
				TOTAL	1359.04
				Add Water Charges @ 1%	13.59
				TOTAL	1372.63
				Add CPOH @ 15%	205.89
				TOTAL	1578.52
				Cost of 10.0 cum	1578.52
				Cost per cum	157.85
				Say	157.85

	Cost index **37.29%**				58.86

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	Total with Cost index				216.71

60 Specification Code: od317896/2021_2022

od317896/2021_2022 :Fabricating MS Kerb of size using 8 MM thick MS plate including cost of MS plate and 10mm dia anger bar welded to the kerb and conveyance charges of MS plate ,all fabrication charges ,charges of painting outer side of steel work with two or more coat delux multi surface paint over an under coat of primer erection tying anger bar with reinforcement placing in position etc. complete

100.37.8.1 Materals required 8 mm MS plate outer side 1X 0.3m =0.3m2 8 mm MS plate Inner side 1X 0.67m =0.67m2 Total 0.97m2 at 62.8kg/m2 = 60.924kg add 5% waistage =60.92 X1.05 =63.96 kg ,10MM TMT rod L = 0.97m @ 0.50 C/C =3 Nos.=6m@0.62kg/m =3.72kg DEtails of cost for 1m length kerb

Code	Description	Unit	Quantity	Rate	Amount	Remarks
1010	Mild steel plates	quintal	0.63960	4800.00	3070.08	
5.22.1	Rate as per item number 5.22.1 of SH: Reinforced Cement Concrete	kg	3.72000	71.30	265.24	
100.37.1	Rate as per item number 100.37.1 of SH: KWA Approved Data	cm	167.00000	2.30	384.10	
100.37.3	Rate as per item number 100.37.3 of SH: KWA Approved Data	cm	167.00000	8.80	1469.60	
100.37.2	Rate as per item number 100.37.2 of SH: KWA Approved Data	cm	167.00000	1.65	275.55	
100.37.4	Rate as per item number 100.37.4 of SH: KWA Approved Data	kg	63.96000	10.15	649.19	
0115	Coolie	Day	0.10000	558.00	55.80	
0131	Painter	Day	1.00000	679.00	679.00	
9999	Sundries	L.S	10.00000	2.00	20.00	
				TOTAL	6868.56	
				Add Water Charges @ 1%	38.25	
				Add CPOH @ 15%	579.47	
				cost for one kg	7486.28	
				say	7486.28	

Cost index **37.29 %**	2791.63

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Total with Cost index	10277.91

61 Specification Code: od317405/2021_2022

od317405/2021_2022 :Sinking well (in or under water) of dia 3m inside all kinds of soil to lines and levels and
plumb by scooping out earth from inside and below the steining using necessary appliances including hire and labour
for the same including dumping the spoil beyond the initial lead of 50m etc. complete total depth 1.5 to 3m.

*Details of Cost For 3m, For depth upto 1.50m -3.00m
Quantity for 3.0m = 3.14/4x4.1x4.1x3=39.6m3
*

Code	Description	Unit	Quantity	Rate	Amount	Remarks
100.3.9.12	Rate as per item number 100.3.9.12 of SH: KWA Approved Data	cum	39.60000	435.50	17245.80	
MR	Extra for additional lead of 50 m or part thereof over initial lead- vide item 1.2.2 carriage of DSR- including cost index- 115.93x1.3989=162.1745	cum	39.60000	162.17	6421.93	
9999	Sundries	L.S	300.00000	2.00	600.00	
				TOTAL	24267.73	
				Add Water Charges @ 1%	70.22	
				Add CPOH @ 15%	1063.82	
				cost for 3.0 metre	24267.73	
				cost for one metre	8467.26	
				say	8467.26	

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Cost index **37.29 %**	2230.28
Total with Cost index	10697.54

62 Specification Code: od317407/2021_2022

od317407/2021_2022 :Sinking well (in or under water) of dia 3. m inside all kinds of soil to lines and levels and
plumb by scooping out earth from inside and below the steining using necessary appliances including hire and labour
for the same including dumping the spoil beyond the initial lead of 50m etc. complete total depth 3 to

4.5m.
*Details of Cost For 3m, For depth upto 3m -4.5m Quantity for 3.0m = 3.14/4x4.1x4.1x3=39.58m3 *

Code	Description	Unit	Quantity	Rate	Amount	Remarks
100.3.9.13	Rate as per item number 100.3.9.13 of SH: KWA Approved Data	cum	39.58000	475.10	18804.46	
MR	Extra for additional lead of 50 m or part thereof over initial lead-vide item 1.2.2 carriage of DSR- including cost index 115.93x1.3989= 162.1745	cum	39.58000	162.17	6418.69	
9999	Sundries	L.S	300.00000	2.00	600.00	
				TOTAL	25823.15	
				Add Water Charges @ 1%	70.19	
				Add CPOH @ 15%	1063.33	
				cost for 3.0 metre	25823.15	
				cost for one metre	8985.56	
				say	8985.56	

Cost index **37.29 %**	2424.02
Total with Cost index	11409.58

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PRICE

63 Specification Code: od317408/2021_2022

od317408/2021_2022 :Sinking well (in or under water) of dia 3 m inside all kinds of soil to lines and levels and plumb by scooping out earth from inside and below the steining using necessary appliances including hire and lbour for the same including dumping the spoil beyond the initial lead of 50m etc. complete total depth 4.5 to 6m.
*Details of Cost For 3m, For depth upto 4.5m -6m Quantity for 3.0m = 3.14/4x4.1x4.1x3=39.58m3 *

Code	Description	Unit	Quantity	Rate	Amount	Remarks
100.3.9.14	Rate as per item number 100.3.9.14 of SH: KWA Approved Data	cum	39.58000	514.65	20369.85	
MR	Extra for additional lead of 50m or part therof over initial lead - vide item 1.2.2 carriage of DSR - including cost index -	cum	39.58000	162.17	6418.69	

	115.93x1.3989=162.1745					

9999	Sundries	L.S	300.00000	2.00	600.00	
				TOTAL	27388.54	
				Add Water Charges @ 1%	70.19	
				Add CPOH @ 15%	1063.33	
				cost for 3.0 metre	27388.54	
				cost for one metre	9507.35	
				say	9507.35	

Cost index **37.29 %**	2618.60
Total with Cost index	12125.95

64 Specification Code: od317414/2021_2022

od317414/2021_2022 :Sinking well (in or under water) of dia 3 m inside all kinds of soil to lines and levels and
plumb by scooping out earth from inside and below the steining using necessary appliances including hire and lbour
for the same including dumping the spoil beyond the initial lead of 50m etc. complete total depth 6 to 7.5m.

*Details of Cost For 3m, For depth upto 6m -7.5m
Quantity for 3.0m = 3.14/4x4.1x4.1x3=39.58m3
*

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Code	Description	Unit	Quantity	Rate	Amount	Remarks
100.3.9.15	Rate as per item number 100.3.9.15 of SH: KWA Approved Data	cum	39.58000	554.25	21937.22	
MR	Extra for additional lead of 50m or part therof over initial lead - vide item 1.2.2 carriage of DSR - including cost index - 115.93x1.3989=	cum	39.58000	162.17	6418.69	
9999	Sundries	L.S	300.00000	2.00	600.00	
				TOTAL	28955.91	
				Add Water Charges @ 1%	70.19	
				Add CPOH @ 15%	1063.33	
				cost for 3.0 metre	28955.91	
				cost for one metre	10029.81	

say	10029.81

Cost index **37.29 %**	2813.42
Total with Cost index	12843.23

65 Specification Code: od317415/2021_2022

od317415/2021_2022 :Sinking well (in or under water) of dia 3 m inside all kinds of soil to lines and levels and
plumb by scooping out earth from inside and below the steining using necessary appliances including hire and lbour
for the same including dumping the spoil beyond the initial lead of 50m etc. complete total depth 7.5 to 9m.

*Details of Cost For 3m, For depth upto 7.5m -9m
Quantity for 3.0m = 3.14/4x4.1x4.1x3=39.58m3
*

Code	Description	Unit	Quantity	Rate	Amount	Remarks
100.3.9.16	Rate as per item number 100.3.9.16 of SH: KWA Approved Data	cum	39.58000	593.85	23504.58	
MR	Extra for additional lead of 50m or part therof over initial lead - vide item 1.2.2 carriage of DSR - including cost index - 115.93x1.3989=162.1745	cum	39.58000	162.17	6418.69	
9999	Sundries	L.S	300.00000	2.00	600.00	
				TOTAL	30523.27	
				Add Water Charges @ 1%	70.19	
				Add CPOH @ 15%	1063.33	
				cost for 3.0 metre	30523.27	
				cost for one metre	10552.26	
				say	10552.26	

Cost index **37.29 %**	3008.24
Total with Cost index	13560.5

66 Specification Code: od318114/2021_2022

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od318114/2021_2022 :Centering and shuttering including strutting propping etc. and removal of form etc. well steining (Including 20% extra for circular works)

Code	Description	Unit	Quantity	Rate	Amount	Remarks
5.9.12	Rate as per item number 5.9.12 of SH: Reinforced Cement Concrete	sqm	1.00000	184.15	184.15	
				TOTAL	184.15	
				cost for one sqm	184.15	
				say	184.15	

Cost index **37.29 %**	68.67
Total with Cost index	252.82

67 Specification Code: 5.7

SUBHEAD : **5.0**

REINFORCED CEMENT CONCRETE

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5.7 Reinforced cement concrete work in well - steining excluding the cost of centering, shuttering, finishing and reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand (Zone - III) : 3 graded stone aggregate 20 mm nominal size)

PRICE

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL:				
4.1.2	Rate as per item Number4.1.2 of SH: Concrete work LABOUR	cum	1.0	6259.65	6259.65(A)
0115	Coolie Extra labour involved coolie	Day	0.08	558.00	44.64
	AddWater Charges @ 1% except on A ie on (6304.29-6259.65=44.6401)				.45
				TOTAL	6304.74

AddCPOH @ 15% except on A ie on (6304.74-6259.65=45.0901)	6.76
TOTAL	6311.50
Cost of 1.0 cum	6311.50
Cost of 1 cum	6311.50
Say	6311.5

	Cost index **37.29%**				2353.56
	Total with Cost index				8665.06

68 Specification Code: 5.22.4

5.22 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level

5.22.4 Hot rolled deformed bars

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PRICE

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 quintal MATERIAL: Deformed twisted steel bars = 1.00q Wastage 5% = 0.05q Total = 1.05q				
1005	Twisted steel/deformed bars	quintal	1.05	4600.00	4830.00
2205	Carriage of Steel	tonne	0.105	92.24	9.69
9999	Sundries-Cover block LABOUR: For straightening, cutting, bending, binding and placing in position	L.S	26.0	2.00	52.00
0102	Blacksmith 1st class	Day	1.0	738.00	738.00

0114	Beldar	Day	1.0	558.00	558.00
9999	Sundries-and binding wire	L.S	26.91	2.00	53.82

TOTAL	6241.51
Add Water Charges @ 1%	62.42
TOTAL	6303.93
Add CPOH @ 15%	945.59
TOTAL	7249.52
Cost of 100.0 kilogram	7249.52
Cost per kilogram	72.50
Say	72.5

	Cost index **37.29%**				27.04
	Total with Cost index				99.54

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PRICE

69 Specification Code: 4.1.8

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.8 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL:				
0293	Stone Aggregate(single size): 40 mm nominal size nominal size (0.70 cum -7.5% for voids i.e. 0.05 =0.65 cum)	cum	0.65	1300.00	845.00

0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.24	1350.00	324.00
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	0.65	112.79	73.31
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.24	103.77	24.90
0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement	tonne	0.17	4940.00	839.80
2209	Carriage of Cement	tonne	0.17	92.24	15.68
	LABOUR:				
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.52	2.00	27.04

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TOTAL	4327.24
Add Water Charges @ 1%	43.27
TOTAL	4370.51
Add CPOH @ 15%	655.58
TOTAL	5026.09
Cost of 1.0 cum	5026.09
Say	5026.1

	Cost index **37.29%**				1874.23

	Total with Cost index				6900.33

70 Specification Code: 4.1.3

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.3 1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.67	1350.00	904.50
0297	Stone Aggregate(single size): 10 mm nominal size nominal size	cum	0.22	1350.00	297.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.89	103.77	92.36
0982	Coarse sand (zone III)	cum	0.445	1350.00	600.75
2203	Carriage of Coarse sand	cum	0.445	103.77	46.18
0367	Portland Cement (0.2225 cum)	tonne	0.32	4940.00	1580.80
2209	Carriage of Cement	tonne	0.32	92.24	29.52
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	14.3	2.00	28.60

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TOTAL	5073.95
Add Water Charges @ 1%	50.74
TOTAL	5124.69
Add CPOH @ 15%	768.70
TOTAL	5893.39
Cost of 1.0 cum	5893.39
Say	5893.4

	Cost index **37.29%**				2197.65
	Total with Cost index				8091.05

71 Specification Code: 5.1.2

5.1: Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:

5.1.2 1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10

0367	Portland Cement (0.2833 cum)	tonne	0.4	4940.00	1976.00
2209	Carriage of Cement	tonne	0.4	92.24	36.90
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	14.3	2.00	28.60

TOTAL	5768.78
Add Water Charges @ 1%	57.69
TOTAL	5826.47
Add CPOH @ 15%	873.97
TOTAL	6700.44
Cost of 1.0 cum	6700.44
Say	6700.45

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	Cost index **37.29%**				2498.60
	Total with Cost index				9199.05

72 Specification Code: 4.15

4.15 Extra for laying concrete in or under water and or liquid mud including cost of pumping or bailing out water and removing slush etc. complete. Note for item No. 4.15 : - The quantity will be calculated by multiplying the depth measured from the sub-soil water level upto centre of gravity of concrete under sub-soil water level with quantity of concrete in cum executed under the sub-soil water. The depth of centre of gravity shall be reconed correct to 0.10 m 0.05 m or more shall be taken as 0.10 m and less than 0.05 m ignored.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 14 cum per 0.3m depth Quantity of concrete = 14 cum pumping hours = 3 hrs. or 0.375 day .				
0011	Hire charges of Pump set of capacity 4000 litres/hour	Day	0.375	700.00	262.50
0114	Beldar	Day	4.0	558.00	2232.00
				TOTAL	2494.50
				Add Water Charges @ 1%	24.95
				TOTAL	2519.45
				Add CPOH @ 15%	377.92
				TOTAL	2897.37
				Cost of 4.2 cum	2897.37
				Cost per cum	689.85
				Say	689.85

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	Cost index **37.29%**				257.25
	Total with Cost index				947.1

73 Specification Code: 5.9.5

SUBHEAD : **5.0**

REINFORCED CEMENT CONCRETE

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.5 Lintels, beams, plinth beams, girders bressumers and cantilevers

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for a beam of 6 m clear span, 0.50 m deep 0.30 m wide and height 3.5 m from floor cubical contents 6.60x0.5x0.3 = 0.99 cum 1x1.30x6.00 = 7.80 sqm MATERIAL: Assuming shuttering will become unserviceable after use of 40 times Add maintenance charges @ 10% of cost of material Less salvage value of material after full use @25% of cost of material 1. Steel plats for side and bottom (plate size 1.20 x 0.50 m) Angle 40x40x5mm 2x1.20 = 2.40 m 3x0.50 = 1.50 m Total 3.90 m @ 3.00 kg/m = 11.70 kg sheet 1.6 mm thick 1.20 m x 0.50 m =0.60 sqm 0.60 sqm @ 12.55 kg/sqm. = 7.53 kg.Weight of one plate = 19.23 kg. Add for wastage 5% 0.96 kg. Total = 20.19 kg Total weight of all plates 3x5x20.19 = 302.85 kg Qty taken for cost of using once= 302.85 x 85/40 = 6.4356 kg				
10.1	Rate as per item Number10.1 of SH: Steel Work	kilogram	6.4356	74.70	480.74(A)
7343	Adjustable telescopic prop 3 m (2.02-3.75m) Qty taken for using once = 6x0.85/40 = 0.1275m	each	0.1275	955.00	121.76
7344	Beam clamp 300-380 mm (450-1070 mm) Qty taken for cost of using once = 5x0.85/40 = 0.1063 m	each set	0.1063	355.00	37.74

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9999	Sundries - Assembly nut & bolts etc. Qty taken for cost of using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9999	Sundries - Carriage LABOUR:	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	1.25	738.00	922.50
0114	Beldar	Day	2.5	558.00	1395.00
9999	Sundries - Shuttering oil	L.S	39.0	2.00	78.00
9999	Sundries - paper tape etc	L.S	24.61	2.00	49.22

AddWater Charges @ 1% except on A ie on (3285.16-480.74=2804.42)	28.04
TOTAL	3313.20
AddCPOH @ 15% except on A ie on (3313.2-480.74=2832.46)	424.87
TOTAL	3738.15
Cost of 7.8 sqm	3738.15
Cost of 1 sqm	479.25
Say	479.25

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PRICE

	Cost index **37.29%**				178.71
	Total with Cost index				657.96

74 Specification Code: 5.9.3

SUBHEAD : **5.0**

REINFORCED CEMENT CONCRETE

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.3 Suspended floors, roofs, landings, balconies and access platform

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for a room 4.5x3 = 13.50 sqm height 3.5 m MATERIAL: Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost 1. Plates (size 0.75x0.60) Angle 40x40x5 mm 2x0.75 = 1.5 m 2x0.60 = 1.20 m = 2.70 m @ 3.00 kg/m = 8.10 kg sheet 1.6 mm thick 0.75x0.60 = 0.45 sqm 0.45 sqm @ 12.55 kg/sqm = 5.65 kg Weight of one plate = 13.75 kg Add for wastage @ 5% = 0.69 kg Total = 14.44 kg Total weight of all plates = 5x6x14.44= 433.20 kg. Qty taken for cost using once = 433.2x0.85/40 = 9.2055 kg				
10.1	Rate as per item Number10.1 of SH: Steel Work	kilogram	9.2055	74.70	687.65(A)
7342	Adjustable span ESO+SI (2.35-3.40) Qty taken for cost using once = 5x0.85/40 =0.1063	each	0.1063	1480.00	157.32
7343	Adjustable telescopic prop 3 m (2.02-3.75m) Qty taken for cost using once = 6x0.85/40 = 0.1275	each	0.1275	955.00	121.76
9999	Sundries - Assembly nut & nolts etc. Qty taken for cost using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20

Kerala Water Authority
PRICE

9999	Sundries - Carriage LABOUR: Fitter (grade 1)	L.S	130.0	2.00	260.00
0116	Fitter(grade1)	Day	3.0	738.00	2214.00
0114	Beldar	Day	6.0	558.00	3348.00
9999	Sundries - Shuttering oil	L.S	78.0	2.00	156.00
9999	Sundries - paper tape etc	L.S	49.7	2.00	99.40

AddWater Charges @ 1% except on A ie on (7088.33-687.65=6400.68)	64.01
TOTAL	7152.34
AddCPOH @ 15% except on A ie on (7152.34-687.65=6464.69)	969.70
TOTAL	8122.27
Cost of 13.5 sqm	8122.27
Cost of 1 sqm	601.65
Say	601.65

Kerala Water Authority
PRICE

	Cost index **37.29%**				224.36
	Total with Cost index				826.01

75 Specification Code: 19.16

SUBHEAD : **19.0**

DRAINAGE

19.16 Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS: 10910 on 12 mm dia steeel bar conforming to IS:1786, having minimum cross section as 23 mm x 25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per

standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufactures permanent identification mark to be visible even after fixing including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size)Complete as per design

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. Details:				
7354	Plastic encapsulated M.S. foor rest 30x20x15 cm	each	1.0	110.00	110.00
9988	Carriage and sundries Cement concrete 1:3:6 (0.30x0.20x15)=0.009 cum)	L.S	1.82	2.00	3.64
4.2.5	Rate as per item Number4.2.5 of SH: Concrete work LABOUR:	cum	0.009	6966.75	62.70(A)
0123	Mason (brick layer) Ist class	Day	0.02	738.00	14.76
0124	Mason (brick layer)2nd class	Day	0.2	679.00	135.80
0114	Beldar	Day	0.05	558.00	27.90
				AddWater Charges @ 1% except on A ie on (354.8-62.7=292.1)	2.92
				TOTAL	357.72
				AddCPOH @ 15% except on A ie on (357.72-62.7=295.02)	44.25
				TOTAL	401.95
				Cost of 1.0 each	401.95
				Cost of 1 each	401.95
				Say	401.95

Kerala Water Authority
PRICE

	Cost index **37.29%**				149.89
	Total with Cost index				551.84

76 Specification Code: 14.72

14.72 Providing and fixing double scaffolding system (cup lock type) on the exterior side, upto seven story hight made with 40 mm dia. M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube challies, M.S. clamps and M.S. staricase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after. The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required location with essential safety features for the workmen etc. complete as per directions and approval of Engineer- in Charge. The elevational area of the scaffolding shall be measured for payment purpose. The payment will be made once irrespective of duration of scaffolding. Note:- This item to be used for maintenance work judicially, necessary deduction for scaffolding in the existing item to be done .

Kerala Water Authority PRICE

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost forarea 22.5m x 9.0m = 202.5 sqm				
14.72X	Rate as per item Number14.72X of SH: Repairs to Buildings 40 mm dia. M.S. pipe = 3,765.42 kg 25 mm box spigot = 123.98 kg Nuts and bolts = 37.80 kg Clamps = 120 Nos. @ 1.00 kg.each = 120.00 kg Challies = 90 Nos. @ 15.00 kg. each = 1,350.00 kg Cup locks = 1314 Nos. @ 0.50 kg each = 657.00 kg Total = 6054.20 kg. say 6.054 MT	each	1.0	7676.50	7676.50

2205	Carriage of Steel	tonne	6.054	92.24	558.42
0116	Fitter(grade1)	Day	15.5	738.00	11439.00
0114	Beldar	Day	31.0	558.00	17298.00
9999	Sundries-	L.S	1035.0	2.00	2070.00

TOTAL	39041.92
Add Water Charges @ 1%	390.42
TOTAL	39432.34
Add CPOH @ 15%	5914.85
TOTAL	45347.19
Cost of 202.5 sqm	45347.19
Cost per sqm	223.94
Say	223.95

Kerala Water Authority

	Cost index **37.29%**				83.51
	Total with Cost index				307.46

PRICE

77 Specification Code: 13.7.1

13.7 12 mm cement plaster finished with a floating coat of neat cement of mix:

13.7.1 1:3 (1 cement : 3 fine sand)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:3 (1 cement : 3 fine sand				
3.3	Rate as per item Number3.3 of SH: Mortars MATERIAL:	cum	0.144	4183.05	602.36
0155	Mason (average)	Day	0.67	709.00	475.03

0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64
9999	Sundries-Scaffolding and sundries.	L.S	12.61	2.00	25.22
0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	Day	0.27	709.00	191.43
0115	Coolie	Day	0.27	558.00	150.66
9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12

TOTAL	2547.60
Add Water Charges @ 1%	25.48
TOTAL	2573.08
Add CPOH @ 15%	385.96
TOTAL	2959.04
Cost of 10.0 sqm	2959.04
Cost per sqm	295.90
Say	295.9

Kerala Water Authority
PRICE

	Cost index **37.29%**				110.34
	Total with Cost index				406.24

78 Specification Code: 13.52.2

13.52 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.

13.52.2 On concrete work

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 10 sqm PRIMING COAT MATERIAL:				
0821	Distemper primer	Litre	0.84	70.00	58.80
9999	Sundries-Putty	L.S	13.52	2.00	27.04
9977	Carriage LABOUR:	L.S	0.52	2.00	1.04
0131	Painter	Day	0.25	679.00	169.75
0115	Coolie	Day	0.25	558.00	139.50
9999	Sundries-Brushes, sand paper etc.	L.S	2.73	2.00	5.46
9999	Sundries-EPOXY PAINTING| MATERIAL:	L.S	8.06	2.00	16.12
7239	Epoxy paint	Litre	1.21	230.00	278.30
9999	Sundries-Materials for filling in holes and cracks	L.S	6.76	2.00	13.52
9977	Carriage of materialLABOUR:	L.S	1.43	2.00	2.86
0131	Painter	Day	0.54	679.00	366.66
0115	Coolie	Day	0.54	558.00	301.32
9999	Sundries-Putty, brushes, sand paper etc.	L.S	10.79	2.00	21.58
9999	Sundries-	L.S	6.76	2.00	13.52

Kerala Water Authority
PRICE

TOTAL	1415.47
Add Water Charges @ 1%	14.15
TOTAL	1429.62
Add CPOH @ 15%	214.44
TOTAL	1644.06
Cost of 10.0 sqm	1644.06
Cost per sqm	164.41
Say	164.4

	Cost index **37.29%**				61.30
	Total with Cost index				225.7

79 Specification Code: 2.25

2.25 Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. LABOUR:				
0128	Mate	Day	0.2	617.00	123.40
0115	Coolie	Day	2.5	558.00	1395.00
0101	Bhisti	Day	0.2	617.00	123.40
				TOTAL	1641.80
				Add Water Charges @ 1%	16.42
				TOTAL	1658.22
				Add CPOH @ 15%	248.73
				TOTAL	1906.95
				Cost of 10.0 cum	1906.95
				Cost per cum	190.69
				Say	190.7

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PRICE

	Cost index **37.29%**				71.11
	Total with Cost index				261.81

80 Specification Code: od318118/2021_2022

od318118/2021_2022 :Removal of excess earth by lorry for minimum mechanical conveyance and less cost of earth

Code	Description	Unit	Quantity	Rate	Amount	Remarks
2241	Good earth	cum	1.00000	129.71	129.71	
0979	Royalty for good earth	cum	-1.00000	40.00	-40.00	
				TOTAL	89.71	
				Add Water Charges @ 1%	.90	
				Add CPOH @ 15%	13.59	
				cost for one cum	104.20	
				say	104.20	

Cost index **37.29 %**	38.86
Total with Cost index	143.06

Kerala Water Authority
PRICE

81 Specification Code: 100.7.1

100.7.1 Bailing out water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete.
NEW DATA (Prepared based on PHED SDB - Item No.1070

Code	Description	Unit	Quantity	Rate	Amount
0011	Hire charges of Pump set of capacity 4000 litres/hour Hire charges of Engine (Per Day) charges for cost of service of operating staff, cost of lubricating oil, diesel / petrol / kerosene oil, other consumables for running the plant and machinery and all the taxes.	Day	1.0	700.00	700.00
				TOTAL	700.00

Add Water Charges @ 1%	7.00
TOTAL	707.00
Add CPOH @ 15%	106.05
TOTAL	813.05
Cost of 29.84 Kwh	813.05
Cost per Kwh	27.25
Say	27.25

	Cost index **37.29%**				10.16
	Total with Cost index				37.41

82 Specification Code: 100.7.2

100.7.2 Bailing out water with engine and pumpset above 5 HP upto 10 HP including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete. NEW DATA (Prepared based on PHED SDB - Item No.1070

Kerala Water Authority PRICE

Code	Description	Unit	Quantity	Rate	Amount
0011	Hire charges of Pump set of capacity 4000 litres/hour Hire charges of Engine (Per Day) charges for cost of service of operating staff, cost of lubricating oil, diesel / petrol / kerosene oil, other consumables for running the plant and machinery and all the taxes.	Day	1.0	700.00	700.00
				TOTAL	700.00
				Add Water Charges @ 1%	7.00
				TOTAL	707.00

Add CPOH @ 15%	106.05
TOTAL	813.05
Cost of 59.68 Kwh	813.05
Cost per Kwh	13.62
Say	13.6

	Cost index **37.29%**				5.07
	Total with Cost index				18.67

83 Specification Code: 100.7.3

100.7.3 Bailing out water with engine and pumpset above 10 HP upto 20 HP including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete. NEW DATA (Prepared based on PHED SDB - Item No.1070

Kerala Water Authority
PRICE

Code	Description	Unit	Quantity	Rate	Amount
0011	Hire charges of Pump set of capacity 4000 litres/hour Hire charges of Engine (Per Day) charges for cost of service of operating staff, cost of lubricating oil, diesel / petrol / kerosene oil, other consumables for running the plant and machinery and all the taxes.	Day	1.0	700.00	700.00
				TOTAL	700.00
				Add Water Charges @ 1%	7.00
				TOTAL	707.00
				Add CPOH @ 15%	106.05
				TOTAL	813.05

Cost of 119.36 Kwh	813.05
Cost per Kwh	6.81
Say	6.8

	Cost index **37.29%**				2.54
	Total with Cost index				9.34

84 Specification Code: 100.98.1008

100.98.1008 Engaging Coolie

Code	Description	Unit	Quantity	Rate	Amount
0115	Coolie	Day	1.0	558.00	558.00
				TOTAL	558.00
				Add Water Charges @ 1%	5.58
				TOTAL	563.58
				Add CPOH @ 15%	84.54
				TOTAL	648.12
				Cost of 1.0 Day	648.12
				Cost per Day	648.12
				Say	648.1

Kerala Water Authority
PRICE

	Cost index **37.29%**				241.68
	Total with Cost index				889.78

3 APP B-CONSTRUCTION 0F PUMP HOUSE AT TOP OF WELL

85 Specification Code: 5.2.2

5.2: Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up tot floor five level excluding cost of centering, shuttering, finishing and reinforcement :

5.2.2 1:1.5:3(1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 9.18 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	5.2326	1350.00	7064.01
0297	Stone Aggregate(single size): 10 mm nominal size	cum	2.5704	1350.00	3470.04
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	7.803	103.77	809.72
0982	Coarse sand (zone III)	cum	3.9015	1350.00	5267.03
2203	Carriage of Coarse sand	cum	3.9015	103.77	404.86
0367	Portland Cement (0.2833 cum)	tonne	3.672	4940.00	18139.68
2209	Carriage of Cement LABOUR:	tonne	3.672	92.24	338.71
0114	Beldar	Day	11.29	558.00	6299.82
0115	Coolie	Day	7.53	558.00	4201.74
0101	Bhisti	Day	8.26	617.00	5096.42
0123	Mason (brick layer) Ist class	Day	0.92	738.00	678.96
0124	Mason (brick layer)2nd class	Day	0.92	679.00	624.68
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.64	800.00	512.00
0012	Vibrator (Needle type 40 mm)	Day	0.64	370.00	236.80

Kerala Water Authority
PRICE

9999	Sundries-	L.S	131.82	2.00	263.64
9999	Sundries-Extra labour for lifting of material up to floor V level: 0.75x9. 18x2.5	L.S	420.03	2.00	840.06
0115	Coolie	Day	17.21	558.00	9603.18

TOTAL	63851.35
Add Water Charges @ 1%	638.51
TOTAL	64489.86
Add CPOH @ 15%	9673.48
TOTAL	74163.34
Cost of 9.18 cum	74163.34
Cost per cum	8078.79
Say	8078.8

Kerala Water Authority
PRICE

	Cost index **37.29%**				3012.58
	Total with Cost index				11091.38

86 Specification Code: 5.3

5.3 Reinforced cement concrete work in beams, suspended floors, roofs, having slope up to 15^0 landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases up to floor five level excluding the cost of centering, shuttering, finishing and reinforcement, with1:1.5:3 (1 cement : 1.5 coarse sand (Zone III) : 3 graded stone aggregate 20 mm nominal size).

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum. MATERIAL:				

0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement (0.2225 cum)	tonne	0.4	4940.00	1976.00
2209	Carriage of Cement LABOUR:	tonne	0.4	92.24	36.90
0155	Mason (average)	Day	0.24	709.00	170.16
0114	Beldar	Day	2.75	558.00	1534.50
0101	Bhisti	Day	0.9	617.00	555.30
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.08	800.00	64.00
0012	Vibrator (Needle type 40 mm)	Day	0.08	370.00	29.60
9999	Sundries-Extra labour for lifting material upto floor V level: Coolie (2.5x0.75)	L.S	14.3	2.00	28.60
0115	Coolie	Day	1.88	558.00	1049.04

Kerala Water Authority
PRICE

TOTAL	7297.65
Add Water Charges @ 1%	72.98
TOTAL	7370.63
Add CPOH @ 15%	1105.59
TOTAL	8476.22
Cost of 1.0 cum	8476.22

Cost per cum	8476.22
Say	8476.2

	Cost index **37.29%**				3160.77
	Total with Cost index				11636.97

87 Specification Code: 5.9.3

SUBHEAD : **5.0**

REINFORCED CEMENT CONCRETE

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.3 Suspended floors, roofs, landings, balconies and access platform

Code	Description	Unit	Quantity	Rate	Amount

Kerala Water Authority
PRICE

	Details of cost for a room 4.5x3 = 13.50 sqm height 3.5 m MATERIAL: Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost 1. Plates (size 0.75x0.60) Angle 40x40x5 mm 2x0.75 = 1.5 m 2x0.60 = 1.20 m = 2.70 m @ 3.00 kg/m = 8.10 kg sheet 1.6 mm thick 0.75x0.60 = 0.45 sqm 0.45 sqm @ 12.55 kg/sqm = 5.65 kg Weight of one plate = 13.75 kg Add for wastage @ 5% = 0.69 kg Total = 14.44 kg Total weight of all plates = 5x6x14.44= 433.20 kg. Qty taken for cost using once = 433.2x0.85/40 = 9.2055 kg				
10.1	Rate as per item Number10.1 of SH: Steel Work	kilogram	9.2055	74.70	687.65(A)
7342	Adjustable span ESO+SI (2.35-3.40) Qty taken for cost using once = 5x0.85/40 =0.1063	each	0.1063	1480.00	157.32
7343	Adjustable telescopic prop 3 m (2.02-3.75m) Qty taken for cost using once = 6x0.85/40 = 0.1275	each	0.1275	955.00	121.76
9999	Sundries - Assembly nut & nolts etc. Qty taken for cost using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9999	Sundries - Carriage LABOUR: Fitter (grade 1)	L.S	130.0	2.00	260.00

Kerala Water Authority
PRICE

0116	Fitter(grade1)	Day	3.0	738.00	2214.00
0114	Beldar	Day	6.0	558.00	3348.00
9999	Sundries - Shuttering oil	L.S	78.0	2.00	156.00
9999	Sundries - paper tape etc	L.S	49.7	2.00	99.40

AddWater Charges @ 1% except on A ie on (7088.33-687.65=6400.68)	64.01
TOTAL	7152.34
AddCPOH @ 15% except on A ie on (7152.34-687.65=6464.69)	969.70
TOTAL	8122.27
Cost of 13.5 sqm	8122.27
Cost of 1 sqm	601.65
Say	601.65

Kerala Water Authority

	Cost index **37.29%**				224.36
	Total with Cost index				826.01

PRICE

88 Specification Code: 5.9.5

SUBHEAD : **5.0**

REINFORCED CEMENT CONCRETE

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.5 Lintels, beams, plinth beams, girders bressumers and cantilevers

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for a beam of 6 m clear span, 0.50 m deep 0.30 m wide and height 3.5 m from floor cubical contents 6.60x0.5x0.3 = 0.99 cum 1x1.30x6.00 = 7.80 sqm MATERIAL: Assuming shuttering will become unserviceable after use of 40 times Add maintenance charges @ 10% of cost of material Less salvage value of material after full use @25% of cost of material 1. Steel plats for side and bottom (plate size 1.20 x 0.50 m) Angle 40x40x5mm 2x1.20 = 2.40 m 3x0.50 = 1.50 m Total 3.90 m @ 3.00 kg/m = 11.70 kg sheet 1.6 mm thick 1.20 m x 0.50 m =0.60 sqm 0.60 sqm @ 12.55 kg/sqm. = 7.53 kg.Weight of one plate = 19.23 kg. Add for wastage 5% 0.96 kg. Total = 20.19 kg Total weight of all plates 3x5x20.19 = 302.85 kg Qty taken for cost of using once= 302.85 x 85/40 = 6.4356 kg				
10.1	Rate as per item Number10.1 of SH: Steel Work	kilogram	6.4356	74.70	480.74(A)
7343	Adjustable telescopic prop 3 m (2.02-3.75m) Qty taken for using once = 6x0.85/40 = 0.1275m	each	0.1275	955.00	121.76
7344	Beam clamp 300-380 mm (450-1070 mm) Qty taken for cost of using once = 5x0.85/40 = 0.1063 m	each set	0.1063	355.00	37.74

Kerala Water Authority
PRICE

9999	Sundries - Assembly nut & bolts etc. Qty taken for cost of using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9999	Sundries - Carriage LABOUR:	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	1.25	738.00	922.50
0114	Beldar	Day	2.5	558.00	1395.00
9999	Sundries - Shuttering oil	L.S	39.0	2.00	78.00
9999	Sundries - paper tape etc	L.S	24.61	2.00	49.22

AddWater Charges @ 1% except on A ie on (3285.16-480.74=2804.42)	28.04
TOTAL	3313.20
AddCPOH @ 15% except on A ie on (3313.2-480.74=2832.46)	424.87
TOTAL	3738.15
Cost of 7.8 sqm	3738.15
Cost of 1 sqm	479.25
Say	479.25

Kerala Water Authority
PRICE

	Cost index **37.29%**				178.71
	Total with Cost index				657.96

89 Specification Code: 5.9.6

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.6 Columns, Pillars, Piers, Abutments, Posts and Struts

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 4.5 sqm. Size of column 450x450mm and 2.5 m high Area of contact = 4x0.45x2.5 = 4.5 sqm MATERIAL:Assuming shuttering will become unserviceable after use of 40 times Add maintenance charges @ 10 % of cost of material Less salvage value of material after full use @ 25% of cost of material				
7331	Wall form panel 1250x450xmm Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	860.00	146.20
7332	Corner angle 45x45x5 mm 2.50 long Qty taken for cost of using once = 4x0.85/40 = 0.085	each	0.085	255.00	21.68
7333	Column clamp 450x1070 mm Qty taken for cost of using once = 5x0.85/40 = 0.1063	each	0.1063	965.00	102.58
7334	Prop 2 m (2-3.5m) Qty taken for cost of using once = 4x0.85/40 = 0.085	each	0.085	635.00	53.98
9999	Sundries-Qty taken for cost of using once = 1300x0.85/40 = 27.62	L.S	27.62	2.00	55.24
9977	Carriage LABOUR	L.S	52.0	2.00	104.00
0116	Fitter(grade1)	Day	1.0	738.00	738.00
0114	Beldar	Day	2.0	558.00	1116.00
9999	Sundries-Shuttering oil	L.S	39.0	2.00	78.00
9999	Sundries-Carriage	L.S	26.0	2.00	52.00

TOTAL	2467.68
Add Water Charges @ 1%	24.68
TOTAL	2492.36

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Add CPOH @ 15%	373.85
TOTAL	2866.21
Cost of 4.5 sqm	2866.21
Cost per sqm	636.94
Say	636.95

	Cost index **37.29%**				237.52
	Total with Cost index				874.47

90 Specification Code: 5.22.4

5.22 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level

5.22.4 Hot rolled deformed bars

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PRICE

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 quintal MATERIAL: Deformed twisted steel bars = 1.00q Wastage 5% = 0.05q Total = 1.05q				
1005	Twisted steel/deformed bars	quintal	1.05	4600.00	4830.00
2205	Carriage of Steel	tonne	0.105	92.24	9.69
9999	Sundries-Cover block LABOUR: For straightening, cutting, bending, binding and placing in position	L.S	26.0	2.00	52.00
0102	Blacksmith 1st class	Day	1.0	738.00	738.00
0114	Beldar	Day	1.0	558.00	558.00

9999	Sundries-and binding wire	L.S	26.91	2.00	53.82

TOTAL	6241.51
Add Water Charges @ 1%	62.42
TOTAL	6303.93
Add CPOH @ 15%	945.59
TOTAL	7249.52
Cost of 100.0 kilogram	7249.52
Cost per kilogram	72.50
Say	72.5

	Cost index **37.29%**				27.04
	Total with Cost index				99.54

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91 Specification Code: 6.3.1

6.3 Brick work with common burnt clay machine moulded perforated bricks of classdesignation 12.5 conforming to IS: 2222 in superstructure above plinth level up tofloor five level in cement mortar 1:6 (1 cement : 6 coarse sand):

6.3.1 With F.P.S. (non modular) bricks(from floor 2 level up to floor 5 level)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL:				
7901	Machine moulded perforated common burnt clay FPS (non modular) bricks of class designation 12.5	1000 nos	494.0	4700.00	2321.8
2201	Carriage of Bricks Cement mortar 1:6	1000 nos	494.0	276.72	136.69969

3.11	Rate as per item Number3.11 of SH: Mortars	cum	0.25	3356.15	839.04
9999	Sundries-LABOUR:	L.S	2.73	2.00	5.46
0123	Mason (brick layer) Ist class	Day	0.47	738.00	346.86
0124	Mason (brick layer)2nd class	Day	0.47	679.00	319.13
0115	Coolie	Day	1.8	558.00	1004.40
0101	Bhisti	Day	0.2	617.00	123.40
9999	Sundries-Scaffolding Extra labour element required for lifting of materials (above floor two level upto floor five level	L.S	22.36	2.00	44.72
0115	Coolie	Day	1.13	558.00	630.54

TOTAL	5772.05
Add Water Charges @ 1%	57.72
TOTAL	5829.77
Add CPOH @ 15%	874.47
TOTAL	6704.24
Cost of 1.0 cum	6704.24
Say	6704.25

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	Cost index **37.29%**				2500.01
	Total with Cost index				9204.26

92 Specification Code: 9.1.1

9.1 Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately).

9.1.1 Second class teak wood

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for chowkhat of a door 206.75x117.5 cm MATERIAL: Superior class teakwood such as Dandeli Balarshah or Malabar 2x206.75x9.5x7.0cm = 0.028cum + 1x117.5x9.5x7.0cm = 0.008 cum. = 0.036 cum + Add for wastage @ 5% = 0.002 cum. Grand Total = 0.038 cum = 38 cudm				
1189	Second class teak wood in scantling	10 cudm	38.0	776.00	2948.8
2204	Carriage of Timber LABOUR:	cum	0.038	118.59	4.51
0156	Carpenter (average)	Day	0.72	709.00	510.48
0114	Beldar	Day	0.07	558.00	39.06
				TOTAL	3502.85
				Add Water Charges @ 1%	35.03
				TOTAL	3537.88
				Add CPOH @ 15%	530.68
				TOTAL	4068.56
				Cost of 0.036 cum	4068.56
				Cost per cum	113015.56
				Say	113015.55

	Cost index **37.29%**				42143.50

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	Total with Cost index				155159.05

93 Specification Code: 9.5.1.1

SUBHEAD 9.0

WOOD AND PVC WORK

9.5

Providing and fixing panelled or panelled and glazed shutters for shutters for doors, windows and clerestory windows, including ISI marked M.S. pressed butt hinges bright finished of required size with necessery screws, excluding panelling which will be paid for separately, all complete as per direction of Engineer - in-charge.

9.5.1

Second class teak wood

9.5.1.1

Providing and fixing panelled or panelled and glazed shutters for doors, windowsand clerestory windows fixing with butt hinges of required size with necessaryscrews, excluding panelling which will be paid for separately, all complete as perdirection of Engineer-in-charge. (Note:- Butt hinges and necessary screws shallbe paid separately)Second class teak wood35 mm thick shutters

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Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for shutters of a Door (1/3rd glazed and 2/3rd panelled) 200x108cm = 2.16sqm) MATERIAL: Teak wood Styles 4x200x10.0x3.5cm = 0.028 cum + Rails Top rails 1x110.5x3.5cm = 0.004 cum. + Bottom rails 1x110.5x20x3.5cm = 0.008cum + Lock rails 1x110.5x15x3.5cm = 0.006cum+ Beading 2x186. 1x1. 9x1.2cm = 0.001cum. Total = 0.047 cum + Add for wastage @ 10% = 0.005cum Grand Total = 0.051 cum = 51 cudm				
1190	Second class teak wood in planks	10 cud m	51.0	791.00	4034.1
2204	Carriage of Timber	cum	0.051	118.59	6.05
0156	Carpenter (average)	Day	1.83	709.00	1297.47
0114	Beldar	Day	0.76	558.00	424.08
9999	Sundries-	L.S	35.88	2.00	71.76
				TOTAL	5833.46
				Add Water Charges @ 1%	58.33
				TOTAL	5891.79
				Add CPOH @ 15%	883.77
				Costof 2.16 Sq. m.	6775.56
				Cost per 1 Sq. m.	3136.83
				Say	3136.85

	Cost index **37.29%**				1169.73

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	Total with Cost index				4306.58

94 Specification Code: 13.9.1

13.9 Cement plaster 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement.

13.9.1 12 mm cement plaster

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:3 (1 cement : 3 coarse sand)				
3.8	Rate as per item Number3.8 of SH: Mortars LABOUR:	cum	0.144	4664.55	671.70
0155	Mason (average)	Day	0.67	709.00	475.03
0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64
9999	Sundries-Scaffolding and sundries	L.S	12.61	2.00	25.22
0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	Day	0.27	709.00	191.43
0115	Coolie	Day	0.27	558.00	150.66
9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12
				TOTAL	2616.94
				Add Water Charges @ 1%	26.17
				TOTAL	2643.11
				Add CPOH @ 15%	396.47
				TOTAL	3039.58

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Cost of 10.0 sqm	3039.58
Cost per sqm	303.96
Say	303.95

	Cost index **37.29%**				113.34
	Total with Cost index				417.29

95 Specification Code: 13.9.2

13.9 Cement plaster 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement.

13.9.2 20 mm cement plaster

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1 : 3 (1 cement : 3 coarse sand)				
3.8	Rate as per item Number3.8 of SH: Mortars LABOUR:	cum	0.224	4664.55	1044.86
0155	Mason (average)	Day	0.94	709.00	666.46
0115	Coolie	Day	1.02	558.00	569.16
0101	Bhisti	Day	1.1	617.00	678.70
9999	Sundries-Scaffolding and sundries.	L.S	12.61	2.00	25.22
0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	Day	0.27	709.00	191.43
0115	Coolie	Day	0.27	558.00	150.66

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9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12

TOTAL	3443.25
Add Water Charges @ 1%	34.43
TOTAL	3477.68
Add CPOH @ 15%	521.65
TOTAL	3999.33
Cost of 10.0 sqm	3999.33
Cost per sqm	399.93
Say	399.95

	Cost index **37.29%**				149.14
	Total with Cost index				549.09

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96 Specification Code: 13.60.1

13.60 Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade:

13.60.1 Two or more coats on new work

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for10 sqm MATERIAL:				
0835	Plastic emulsion paint	Litre	1.21	200.00	242.00
9999	Sundries-Materials for filling in holes and cracks (putty etc.)	L.S	6.76	2.00	13.52
9977	Carriage of material LABOUR:	L.S	1.43	2.00	2.86
0131	Painter	Day	0.54	679.00	366.66

0115	Coolie	Day	0.54	558.00	301.32
9999	Sundries-Brushes, sand paper etc.	L.S	10.79	2.00	21.58
9999	Sundries-	L.S	6.76	2.00	13.52

TOTAL	961.46
Add Water Charges @ 1%	9.61
TOTAL	971.07
Add CPOH @ 15%	145.66
TOTAL	1116.73
Cost of 10.0 sqm	1116.73
Cost per sqm	111.67
Say	111.65

	Cost index **37.29%**				41.63
	Total with Cost index				153.28

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PRICE

97 Specification Code: 13.48.2

13.48 Finishing with Deluxe Multi surface paint system for interiors and exteriors using primer as per manufacturers specifications:

13.48.2 Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.75 ltr/10 sqm of approved brand and manufacture

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL:				
8504	Multi surface paint	Litre	0.9	255.00	229.50
8509	Special primer (C.W)	Litre	0.75	140.00	105.00

9977	Carriage of material LABOUR:	L.S	1.56	2.00	3.12
0131	Painter	Day	0.6	679.00	407.40
0115	Coolie	Day	0.3	558.00	167.40
0101	Bhisti	Day	0.05	617.00	30.85
9999	Sundries-Brushes, sand paper etc.	L.S	7.02	2.00	14.04
9999	Sundries-	L.S	8.06	2.00	16.12

TOTAL	973.43
Add Water Charges @ 1%	9.73
TOTAL	983.16
Add CPOH @ 15%	147.47
TOTAL	1130.63
Cost of 10.0 sqm	1130.63
Cost per sqm	113.06
Say	113.05

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PRICE

	Cost index **37.29%**				42.16
	Total with Cost index				155.21

98 Specification Code: 11.53

11.53 Providing and fixing Glass mossaic tiles at finished plain wall surface of size 20 mm x 20 mm x 4 mm in all colour, design, fixing in customize design as per direction of Engineer-in-charge. The glass mosaic tiles to be fixed on the wall surface with the help of approved adhesive applied at the rate of 2.5 kg per sqm and grouting of the same. The rate is inclusive of all operation, material and required pattern approved by Engineer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 8.00 sqm. Glass mosaic tiles (10mm x 10mm x 4mm) Add for wastage 2.5% = 0.2 sqm Total = 8.20 sqm MATERIAL:				
1242	Glass mossaic tiles (20 mm x 20 mmx 4 mm).	sqm	8.2	2049.00	16801.80
1243	Tile fixing chemical adhesive	kg	20.0	8.70	174.00
1244	Cement Polymer Grout Compound	kg	10.0	16.00	160.00
1245	Acid for cleaning tiles	Litre	4.0	18.00	72.00
9999	Sundries-Carriage of tiles (8x6.24 = 49.92) LABOUR:	L.S	49.92	2.00	99.84
0123	Mason (brick layer) Ist class	Day	1.6	738.00	1180.80
0115	Coolie	Day	1.6	558.00	892.80
9999	Sundries-including carriage of adhesive etc.	L.S	26.91	2.00	53.82

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TOTAL	19435.06
Add Water Charges @ 1%	194.35
TOTAL	19629.41
Add CPOH @ 15%	2944.41
TOTAL	22573.82
Cost of 8.0 sqm	22573.82
Cost per sqm	2821.73
Say	2821.75

	Cost index **37.29%**				1052.23
	Total with Cost index				3873.98

99 Specification Code: 11.37A

SUBHEAD 11.0

FLOORING

11.37A

Providing and fixing 1st quality ceramic glazed floor tiles conforming to IS :15622 (thickness to be specified by the manufacturer) of approved make in allcolours, shades except burgundy, bottle green, black of any size as approvedby Engineer-in-Charge in skirting, risers of steps and dados over 12 mm thickbed of cement Mortar 1:3 (1 cement: 3 coarse sand) and jointing with grey cementslurry @ 3.3kg per sqm including pointing in white cement mixed with pigmentof matching shade complete.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of Cost for 1.00 Sqm Material				
7801	Ceramic Glazed Tiles Ist quality 300 x 300 mm in all shades and designs of White, Ivory, grey, Fume Red brown etc.	sqm	1.025	209.10	214.33
9999	Sundries-Carriage of Tiles	L.S	6.24	2.00	12.48
3.8	Rate as per item Number3.8 of SH: Mortars Cement mortar 1:3 (1 Cement:3 Coarse Sand)	cum	0.014	4664.55	65.30
9999	Sundries-Mortar for pointing in white cement	L.S	3.64	2.00	7.28
0367	Portland Cement Cement for slurry over bed @3.3 Kg/Sqm Labour	tonne	0.0033	4940.00	16.30
0123	Mason (brick layer) Ist class	Day	0.25	738.00	184.50
0115	Coolie	Day	0.25	558.00	139.50
9999	Sundries-Sundries including carriage of Cement etc	L.S	26.91	2.00	53.82
				TOTAL	693.51
				Add Water Charges @ 1%	6.94

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TOTAL	700.45
Add CPOH @ 15%	105.07
Costof 1 Sq. m.	805.52
Cost per 1 Sq. m.	805.52
Say	805.5

	Cost index **37.29%**				300.37
	Total with Cost index				1105.87

100 Specification Code: 17.2.1

17.2 Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required:

17.2.1 W.C. pan with ISI marked white solid plastic seat and lid

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one pan MATERIAL:				
1875	White plastic seat (solid) with lid C.P. brass hinges and rubber buffers	each	1.0	400.00	400.00
1955	Vitreous china pedestal type wate closet	each	1.0	1000.00	1000.00
7358	Flushing Cistern P.V.C. 10 lts capacity (low level) (white) (with fittings, accessories and flush pipe)	each	1.0	575.00	575.00
9999	Sundries-Cement, sand and grit etc.	L.S	26.91	2.00	53.82
9977	Carriage of materialsLABOUR:	L.S	26.91	2.00	53.82

0116	Fitter(grade1)	Day	1.25	738.00	922.50
0123	Mason (brick layer) Ist class	Day	0.5	738.00	369.00
0114	Beldar	Day	1.0	558.00	558.00

TOTAL	3932.14
Add Water Charges @ 1%	39.32
TOTAL	3971.46
Add CPOH @ 15%	595.72
TOTAL	4567.18
Cost of 1.0 each	4567.18
Cost per each	4567.18
Say	4567.2

	Cost index **37.29%**				1703.11
	Total with Cost index				6270.31

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101 Specification Code: 17.7.3

17.7 Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:

17.7.3 White Vitreous China Wash basin size 550x400 mm with a pair of 15 mm C.P. brass pillar taps

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. MATERIAL:				
3229	Vitreous china flat back wash basin 550x400 mm	each	1.0	545.00	545.00
1885	15 mm C.P.brass tap	each	2.0	207.00	414.00

1951	C.P. brass waste 32 mm	each	1.0	80.00	80.00
1309	C.I. bracket for wash basin and sinks	pair	1.0	88.00	88.00
9999	Sundries-Red lead, white lead and gasket	L.S	16.12	2.00	32.24
9999	Sundries-Cement , sand and grit etc.	L.S	13.39	2.00	26.78
9999	Sundries-Painting of brackets, fittings etc.	L.S	26.91	2.00	53.82
9977	Carriage of materialsLABOUR:	L.S	13.52	2.00	27.04
0116	Fitter(grade1)	Day	0.33	738.00	243.54
0123	Mason (brick layer) Ist class	Day	0.33	738.00	243.54
0114	Beldar	Day	0.67	558.00	373.86

TOTAL	2127.82
Add Water Charges @ 1%	21.28
TOTAL	2149.10
Add CPOH @ 15%	322.37
TOTAL	2471.47
Cost of 1.0 each	2471.47
Cost per each	2471.47
Say	2471.45

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	Cost index **37.29%**				921.60
	Total with Cost index				3393.05

102 Specification Code: 10.6.3

10.6 Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm

long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.

10.6.3 80x0.90 mm M.S. laths with 0.90 mm thick to cover

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for a rolling shutter of size 3mx2.5 m = 7.5 sqm. MATERIAL:				
7044	Rolling shutters of 80x0.90 mm laths	sqm	7.5	1300.00	9750.00
7046	Top cover of Rolling shutters 0.90 mm thick	metre	2.5	450.00	1125.00
0975	27.5 cm long wire spring grade no 2 for rolling shutters	each	1.0	300.00	300.00
9977	Carriage	L.S	53.82	2.00	107.64
0116	Fitter(grade1)	Day	2.55	738.00	1881.90
0114	Beldar	Day	2.55	558.00	1422.90
0123	Mason (brick layer) Ist class	Day	0.12	738.00	88.56
0124	Mason (brick layer)2nd class	Day	0.12	679.00	81.48
9999	Sundries-	L.S	60.58	2.00	121.16
				TOTAL	14878.64
				Add Water Charges @ 1%	148.79
				TOTAL	15027.43
				Add CPOH @ 15%	2254.11
				TOTAL	17281.54
				Cost of 7.5 sqm	17281.54
				Cost per sqm	2304.21
				Say	2304.2

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	Cost index **37.29%**				859.24
	Total with Cost index				3163.44

103 Specification Code: 9.120.2

9.120 Providing and fixing factory made panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and sized of 19 mm x 19 mm for styles and 15x15 mm for top & bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture. M.S. frame covered with 5 mm thick heat moulded PVC 'C' channel of size 30 mm thickness, 70 mm width out of whicj 50 mm shall be flat and 20 mm shall be tapered in 45 degree angle on both side forming styles and 5mm thick, 95 mm wide PVC sheet out of which75 mm shall be tapered in 45 degree on th inner side to form top and bottom rail and 115 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered on both sides to form lock rail. Top, bottom and lock rails shall be provided both side of the panel. 10 mm (5 mmx2) thick, 20 mm wide cross PVC sheet be provided as gap insert for top rail & bottom rail. paneling of 5 mm thick both side PVC sheet to be fitted in the M.S. frame welded /sealed to the styles & rails with 7 mm (5 mm + 2 mm) thick x 15 mm wide PVC sheet beading on inner side, and joined together with solvent cement adhesive. An additional 5 mm thick PVC strip of 20 mm width is to be stuck on the interior side of the 'C' Channel using PVC solvent adhesive etc. complete as per direction of Engineer -in-charge, manufacture's specification & drawing.

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9.120.2 30 mm thick pre laminated PVC door shutters

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one door shutter 2.20x1.08 m = 2.38 sqm MATERIAL:				
8004	Factory made PVC rigid foam panelled shutter as per IS: 4020 i/c carriage	sqm	2.38	1547.45	3682.93
8100	Powder coated M.S. butt hinges 100 mm X58 mm X 1.9 mm	10 nos	4.0	123.00	49.2
0637	Bright finished or black enameled mild steel screws 40 mm	100 nos	48.0	60.00	28.8

0640	Bright finished or black enameled mild steel screws 20 mm LABOUR:	100 nos	8.0	30.00	2.4
0156	Carpenter (average)	Day	0.4	709.00	283.60
0114	Beldar	Day	0.4	558.00	223.20
9999	Sundries-	L.S	20.36	2.00	40.72

TOTAL	4310.85
Add Water Charges @ 1%	43.11
TOTAL	4353.96
Add CPOH @ 15%	653.09
TOTAL	5007.05
Cost of 2.38 sqm	5007.05
Cost per sqm	2103.80
Say	2103.8

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	Cost index **37.29%**				784.51
	Total with Cost index				2888.31

104 Specification Code: od318119/2021_2022

od318119/2021_2022 :Providing, Supplying syntex tank and laying pvc pipes, taps valve etc. for plumbing
arrangements to the WC, including all material and labour charges including KWA water supply connections.

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	All Plumbing works	No	1.00000	80000.00	80000.00	
				TOTAL	80000.00	
				cost for one No	80000.00	

say	80000.00

Cost index **37.29 %**	.00
Total with Cost index	80000.0

CONSTRUCTION OF GRIT CHAMBER

105 Specification Code: 100.98.1000

100.98.1000 Engaging Bandhani

Code	Description	Unit	Quantity	Rate	Amount
0100	Bandhani	Day	1.0	617.00	617.00
				TOTAL	617.00
				Add Water Charges @ 1%	6.17
				TOTAL	623.17
				Add CPOH @ 15%	93.48
				TOTAL	716.65
				Cost of 1.0 Day	716.65
				Cost per Day	716.65
				Say	716.65

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	Cost index **37.29%**				267.24
	Total with Cost index				983.89

106 Specification Code: 100.8.1

SUBHEAD 100.0

KWA APPROVED DATA

100.8.1

Fencing one side of trenches, 1.50 m height with two rows of 10 cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals.

(Data Prepared based on PWD SDB - Item No.1009)

Code	Description	Unit	Quantity	Rate	Amount
	Details of Cost for 10m Pole required for vertical Post = 6x1.65=9.90m				
KW14	Casuarina Pole girth 15cm to 24cm. Hire Charges of Casurania pole (25% of cost as hire) Quantity is taken as 1/4 of 9.9	metre	2.475	22.13	54.77
9999	Sundries-Carriage of Casurania pole	L.S	3.0	2.00	6.00
KW15	Red Coloured Flourescent caution tape	metre	21.2	1.28	27.14
0114	Beldar Labour	Day	0.2	558.00	111.60
				TOTAL	199.51
				Add Water Charges @ 1%	2.00
				TOTAL	201.51
				Add CPOH @ 15%	30.23
				Costof 10m	231.74
				Cost per m	23.17
				Say	23.15

	Cost index **37.29%**				5.09
	Total with Cost index				28.24

107 Specification Code: 2.8.1

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2.8 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.

2.8.1 All kinds of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. MACHINERY:				
0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.04125	7000.00	288.75
0018	Hire and running charges of loader LABOUR:	Day	0.04125	5000.00	206.25
0128	Mate	Day	0.4	617.00	246.80
0115	Coolie	Day	2.05	558.00	1143.90
				TOTAL	1885.70
				Add Water Charges @ 1%	18.86
				TOTAL	1904.56
				Add CPOH @ 15%	285.68
				TOTAL	2190.24
				Cost of 10.0 cum	2190.24
				Cost per cum	219.02
				Say	219.0

	Cost index **37.29%**				81.67
	Total with Cost index				300.67

Kerala Water Authority
PRICE

108 Specification Code: od320711/2021_2022

od320711/2021_2022 :Earthwork in excavation by mechanical means/ manual means in foundation trenches or drains(not exceeding 1.5 meter in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 3 mtr including getting out the excavated soil and disposa of surplus excavated soil as directed within a lead of 50mtr. All kinds of soil

Details of cost for 10 cum machinery

Code	Description	Unit	Quantity	Rate	Amount	Remarks
2.8.1	Rate as per item number 2.8.1 of SH: Earth Work	cum	1.00000	219.00	219.00	
2.26.1	Rate as per item number 2.26.1 of SH: Earth Work	cum	1.00000	78.45	78.45	
				TOTAL	297.45	
				cost for one cum	297.45	
				say	297.45	

Cost index **37.29 %**	110.92
Total with Cost index	408.37

Kerala Water Authority
PRICE

109 Specification Code: od320708/2021_2022

od320708/2021_2022 :Earth work in excavation by mechanical means (Hydraulic excavator)/manual means in
foundation trenches or drains (not exceeding 1.5 m in width or 10sqm on plan) including dressing of sides and
ramming of bottom, lift of 4.5m to 6m, including getting out the excavated soil and disposal of surplus excavated soil
as directed within a lead of 50m. Fourth depth 4.5m to 6m

Fourth depth 4.5m to 6m

Code	Description	Unit	Quantity	Rate	Amount	Remarks
2.6.1	Rate as per item number 2.6.1 of SH: Earth Work	cum	1.00000	157.85	157.85	
2.26.1	Rate as per item number 2.26.1 of SH: Earth Work	cum	3.00000	78.45	235.35	
				TOTAL	393.20	

cost for one cum	393.20
say	393.20

Cost index **37.29 %**	146.62
Total with Cost index	539.82

110 Specification Code: od320712/2021_2022

od320712/2021_2022 :Earthwork in excavation by mechanical means/ manual means in foundation trenches or drains(not exceeding 1.5 meter in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 6 mtr including getting out the excavated soil and disposa of surplus excavated soil as directed within a lead of 50mtr. All kinds of soil

Details of cost for 1cum machinery

Code	Description	Unit	Quantity	Rate	Amount	Remarks
2.8.1	Rate as per item number 2.8.1 of SH: Earth Work	cum	1.00000	219.00	219.00	
2.26.1	Rate as per item number 2.26.1 of SH: Earth Work	cum	3.00000	78.45	235.35	
				TOTAL	454.35	
				cost for one cum	454.35	
				say	454.35	

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PRICE

Cost index **37.29 %**	169.43
Total with Cost index	623.78

111 Specification Code: od320714/2021_2022

od320714/2021_2022 :Earthwork in excavation by mechanical means/ manual means in foundation trenches or drains(not exceeding 1.5 meter in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 7.5 mtr including getting out the excavated soil and disposa of surplus excavated soil as directed within a lead of 50mtr. All kinds of soil

Details of cost for 1cum machinery

Code	Description	Unit	Quantity	Rate	Amount	Remarks
2.8.1	Rate as per item number 2.8.1 of SH: Earth Work	cum	1.00000	219.00	219.00	
2.26.1	Rate as per item number 2.26.1 of SH: Earth Work	cum	4.00000	78.45	313.80	
				TOTAL	532.80	
				cost for one cum	532.80	
				say	532.80	

Cost index **37.29 %**	198.68
Total with Cost index	731.48

112 Specification Code: 100.6.1

SUBHEAD : 100.0

KWA APPROVED DATA

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PRICE

100.6.1

Providing steel sheet shoring to the sides of the trenches to depths of above 4.00 m but not exceeding 6.00m using 6 mm M.S. sheet 0.50 M wide stiffen on edges with 50 mm x 50mm x 6 mm M.S. angles driving down vertically on either side one after another in lines and levels with suitable pile driving equipments and accessories to a maximum depth of 0.50 M below the bottom of the proposed excavation 0.5 M above ground level suitably braced by horizontal walling pieces at 75 x 150 mm x 8 mm angles on either side at intervals not exceeding 1.50M and horizontal screw jack type struts at 1.50M intervals and maintaining the shoring till the pipes are laid and works are completed, dismantling, cleaning and restacking for reuse including all labour, hire charges and conveyance for equipments, tools and plants and sundries etc. complete.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 m2.				
100.6.S.2	Rate as per item Number100.6.S.2 of SH: KWA Approved Data Hire charges of MS sheet (1/20 of cost)	sqm	1.0	160.85	160.85(A)

100.6.S.3	Rate as per item Number100.6.S.3 of SH: KWA Approved Data Hire charges of MS angles (1/20 of cost)	sqm	1.0	33.05	33.05(A)
100.6.S.4	Rate as per item Number100.6.S.4 of SH: KWA Approved Data Hire charges of walling pieces (1/25 of cost)	sqm	1.0	19.50	19.50(A)
100.6.S.5	Rate as per item Number100.6.S.5 of SH: KWA Approved Data Fabricating MS sheet o.5 m wide 7 m long stiffened on 3 edges (1/20 cost as per sub data)	sqm	1.0	62.05	62.05(A)
100.6.S.6	Rate as per item Number100.6.S.6 of SH: KWA Approved Data Driving down the sheet pile and shoring.	sqm	1.0	160.70	160.70(A)
100.6.S.7	Rate as per item Number100.6.S.7 of SH: KWA Approved Data Dismantling the sheet pile after use, cleaning and stacking properly.	sqm	1.0	80.35	80.35(A)
100.6.S.8	Rate as per item Number100.6.S.8 of SH: KWA Approved Data Labour charges for rectifying the damages of sheet piles during driving down & Protective Measures.	sqm	1.0	36.00	36.00(A)
				TOTAL	552.50
				AddWater Charges @ 1% except on A ie on (552.5-552.5=0.0)	.00
				TOTAL	552.50
				AddCPOH @ 15% except on A ie on (552.5-552.5=0.0)	.00
				Cost of 1 m2	552.50
				Cost per 1 m2	552.50
				Say	552.5

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PRICE

	Cost index **37.29%**				206.03
	Total with Cost index				758.53

113 Specification Code: 4.1.8

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.8 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL:				
0293	Stone Aggregate(single size): 40 mm nominal size nominal size (0.70 cum -7.5% for voids i.e. 0.05 =0.65 cum)	cum	0.65	1300.00	845.00
0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.24	1350.00	324.00
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	0.65	112.79	73.31
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.24	103.77	24.90
0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement	tonne	0.17	4940.00	839.80
2209	Carriage of Cement LABOUR:	tonne	0.17	92.24	15.68
0155	Mason (average)	Day	0.1	709.00	70.90

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PRICE

0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.52	2.00	27.04

TOTAL	4327.24
Add Water Charges @ 1%	43.27
TOTAL	4370.51
Add CPOH @ 15%	655.58
TOTAL	5026.09
Cost of 1.0 cum	5026.09
Say	5026.1

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	Cost index **37.29%**				1874.23
	Total with Cost index				6900.33

PRICE

114 Specification Code: 4.1.3

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.3 1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.67	1350.00	904.50

0297	Stone Aggregate(single size): 10 mm nominal size nominal size	cum	0.22	1350.00	297.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.89	103.77	92.36
0982	Coarse sand (zone III)	cum	0.445	1350.00	600.75
2203	Carriage of Coarse sand	cum	0.445	103.77	46.18
0367	Portland Cement (0.2225 cum)	tonne	0.32	4940.00	1580.80
2209	Carriage of Cement	tonne	0.32	92.24	29.52
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	14.3	2.00	28.60

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TOTAL	5073.95
Add Water Charges @ 1%	50.74
TOTAL	5124.69
Add CPOH @ 15%	768.70
TOTAL	5893.39
Cost of 1.0 cum	5893.39
Say	5893.4

	Cost index **37.29%**				2197.65
	Total with Cost index				8091.05

115 Specification Code: 5.1.2

5.1: Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:

5.1.2 1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75
2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement (0.2833 cum)	tonne	0.4	4940.00	1976.00
2209	Carriage of Cement	tonne	0.4	92.24	36.90
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	14.3	2.00	28.60
				TOTAL	5768.78
				Add Water Charges @ 1%	57.69

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TOTAL	5826.47
Add CPOH @ 15%	873.97
TOTAL	6700.44
Cost of 1.0 cum	6700.44
Say	6700.45

	Cost index **37.29%**				2498.60
	Total with Cost index				9199.05

116 Specification Code: 5.2.2

5.2: Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up tot floor five level excluding cost of centering, shuttering, finishing and reinforcement :

5.2.2 1:1.5:3(1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 9.18 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size	cum	5.2326	1350.00	7064.01
0297	Stone Aggregate(single size): 10 mm nominal size	cum	2.5704	1350.00	3470.04
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	7.803	103.77	809.72
0982	Coarse sand (zone III)	cum	3.9015	1350.00	5267.03
2203	Carriage of Coarse sand	cum	3.9015	103.77	404.86

0367	Portland Cement (0.2833 cum)	tonne	3.672	4940.00	18139.68
2209	Carriage of Cement LABOUR:	tonne	3.672	92.24	338.71
0114	Beldar	Day	11.29	558.00	6299.82
0115	Coolie	Day	7.53	558.00	4201.74
0101	Bhisti	Day	8.26	617.00	5096.42
0123	Mason (brick layer) Ist class	Day	0.92	738.00	678.96
0124	Mason (brick layer)2nd class	Day	0.92	679.00	624.68
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.64	800.00	512.00
0012	Vibrator (Needle type 40 mm)	Day	0.64	370.00	236.80
9999	Sundries-	L.S	131.82	2.00	263.64
9999	Sundries-Extra labour for lifting of material up to floor V level: 0.75x9. 18x2.5	L.S	420.03	2.00	840.06
0115	Coolie	Day	17.21	558.00	9603.18

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PRICE

TOTAL	63851.35
Add Water Charges @ 1%	638.51
TOTAL	64489.86
Add CPOH @ 15%	9673.48
TOTAL	74163.34
Cost of 9.18 cum	74163.34
Cost per cum	8078.79
Say	8078.8

	Cost index **37.29%**				3012.58

	Total with Cost index				11091.38

117 Specification Code: 5.9.1

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.1 Foundations, footings, bases of columns, etc for mass concrete

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for footing size 2.7mx2.7mx 1.00m Contact area = 10.8sqm MATERIAL: Assuming shuttering material will become unserviceable after use of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	860.00	292.40
7326	Corner angle 45x45x5 mm 1.50 m long Qty taken for cost of using once = 4x0.85/40=0.085	each	0.085	240.00	20.40
7327	100 mm channel shoulder 2.5 m long Qty taken for cost of using once = 8x0.85/40=0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	76.00	25.84
7329	Single clip Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	59.00	10.03

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7330	M.S. Tube 40 mm dia Qty taken for cost of using once = 10.8x0.85/40 = 0.2295	metre	0.2295	215.00	49.34
9999	Sundries-Assembly nuts 7 bolts Qty taken for cost of using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	0.75	738.00	553.50
0114	Beldar	Day	1.5	558.00	837.00
9999	Sundries-Suttering oil	L.S	52.0	2.00	104.00
9999	Sundries-	L.S	26.0	2.00	52.00

TOTAL	2299.41
Add Water Charges @ 1%	22.99
TOTAL	2322.40
Add CPOH @ 15%	348.36
TOTAL	2670.76
Cost of 10.8 sqm	2670.76
Cost per sqm	247.29
Say	247.3

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PRICE

	Cost index **37.29%**				92.22
	Total with Cost index				339.52

118 Specification Code: 5.9.2

SUBHEAD 5.0

REINFORCED CEMENT CONCRETE

5.9

Centering and shuttering including strutting, etc. and removal of form for:

5.9.2

Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 7.9m long and 1.00m high wall Area of contact 2x7.9x1.0 = 15.8 sqm MATERIAL: Assuming shuttering material will become unserviceable after us of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm 2x3x2x2 = 24 Nos. Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	860.00	438.60
7327	100 mm channel shoulder 2.5 m long 4x2 = 8 Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) 2x6x2 = 24 Qty taken for cost of using once = 24x0.85/40 = 0.51	each	0.51	76.00	38.76
7329	Single clip 2x3x2 = 12 Qty taken for cost of using once = 12x0.85/40 = 0.255	each	0.255	59.00	15.05
7330	M.S. Tube 40 mm dia 2x2x8m = 32m Qty taken for cost of using once = 32x0.85/40 = 0.68	metre	0.68	215.00	146.20

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9999	Sundries-Qty taken for cost of using once = 1300x0.85/40 = 27.62	L.S	27.62	2.00	55.24
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	3.5	738.00	2583.00
0114	Beldar	Day	6.0	558.00	3348.00
9999	Sundries- shuttering oil	L.S	78.0	2.00	156.00
9999	Sundries-	L.S	52.0	2.00	104.00
				TOTAL	7195.55
				Add Water Charges @ 1%	71.96
				TOTAL	7267.51
				Add CPOH @ 15%	1090.13
				Costof 15.8 Sq. m.	8357.64
				Cost per 1 Sq. m.	528.96
				Say	528.95

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	Cost index **37.29%**				197.25
	Total with Cost index				726.2

119 Specification Code: 5.22.4

5.22 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level

5.22.4 Hot rolled deformed bars

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 1 quintal MATERIAL: Deformed twisted steel bars = 1.00q Wastage 5% = 0.05q Total = 1.05q				
1005	Twisted steel/deformed bars	quintal	1.05	4600.00	4830.00
2205	Carriage of Steel	tonne	0.105	92.24	9.69
9999	Sundries-Cover block LABOUR: For straightening, cutting, bending, binding and placing in position	L.S	26.0	2.00	52.00
0102	Blacksmith 1st class	Day	1.0	738.00	738.00
0114	Beldar	Day	1.0	558.00	558.00
9999	Sundries-and binding wire	L.S	26.91	2.00	53.82

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TOTAL	6241.51
Add Water Charges @ 1%	62.42
TOTAL	6303.93
Add CPOH @ 15%	945.59
TOTAL	7249.52
Cost of 100.0 kilogram	7249.52
Cost per kilogram	72.50
Say	72.5

	Cost index **37.29%**				27.04
	Total with Cost index				99.54

120 Specification Code: 19.16

SUBHEAD : **19.0**

DRAINAGE

19.16 Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS: 10910 on 12 mm dia steeel bar conforming to IS:1786, having minimum cross section as 23 mm x 25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufactures permanent identification mark to be visible even after fixing including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size)Complete as per design

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. Details:				
7354	Plastic encapsulated M.S. foor rest 30x20x15 cm	each	1.0	110.00	110.00
9988	Carriage and sundries Cement concrete 1:3:6 (0.30x0.20x15)=0.009 cum)	L.S	1.82	2.00	3.64
4.2.5	Rate as per item Number4.2.5 of SH: Concrete work LABOUR:	cum	0.009	6966.75	62.70(A)
0123	Mason (brick layer) Ist class	Day	0.02	738.00	14.76
0124	Mason (brick layer)2nd class	Day	0.2	679.00	135.80
0114	Beldar	Day	0.05	558.00	27.90
	AddWater Charges @ 1% except on A ie on (354.8-62.7=292.1)				2.92
	TOTAL				357.72

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AddCPOH @ 15% except on A ie on (357.72-62.7=295.02)	44.25
TOTAL	401.95
Cost of 1.0 each	401.95
Cost of 1 each	401.95
Say	401.95

	Cost index **37.29%**				149.89
	Total with Cost index				551.84

121 Specification Code: 13.9.1

13.9 Cement plaster 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement.

13.9.1 12 mm cement plaster

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:3 (1 cement : 3 coarse sand)				
3.8	Rate as per item Number3.8 of SH: Mortars LABOUR:	cum	0.144	4664.55	671.70
0155	Mason (average)	Day	0.67	709.00	475.03
0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64
9999	Sundries-Scaffolding and sundries	L.S	12.61	2.00	25.22
0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84

0155	Mason (average)	Day	0.27	709.00	191.43
0115	Coolie	Day	0.27	558.00	150.66
9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12

TOTAL	2616.94
Add Water Charges @ 1%	26.17
TOTAL	2643.11
Add CPOH @ 15%	396.47
TOTAL	3039.58
Cost of 10.0 sqm	3039.58
Cost per sqm	303.96
Say	303.95

	Cost index **37.29%**				113.34
	Total with Cost index				417.29

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122 Specification Code: 13.52.2

13.52 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.

13.52.2 On concrete work

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm PRIMING COAT MATERIAL:				
0821	Distemper primer	Litre	0.84	70.00	58.80
9999	Sundries-Putty	L.S	13.52	2.00	27.04

9977	Carriage LABOUR:	L.S	0.52	2.00	1.04
0131	Painter	Day	0.25	679.00	169.75
0115	Coolie	Day	0.25	558.00	139.50
9999	Sundries-Brushes, sand paper etc.	L.S	2.73	2.00	5.46
9999	Sundries-EPOXY PAINTING| MATERIAL:	L.S	8.06	2.00	16.12
7239	Epoxy paint	Litre	1.21	230.00	278.30
9999	Sundries-Materials for filling in holes and cracks	L.S	6.76	2.00	13.52
9977	Carriage of materialLABOUR:	L.S	1.43	2.00	2.86
0131	Painter	Day	0.54	679.00	366.66
0115	Coolie	Day	0.54	558.00	301.32
9999	Sundries-Putty, brushes, sand paper etc.	L.S	10.79	2.00	21.58
9999	Sundries-	L.S	6.76	2.00	13.52

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TOTAL	1415.47
Add Water Charges @ 1%	14.15
TOTAL	1429.62
Add CPOH @ 15%	214.44
TOTAL	1644.06
Cost of 10.0 sqm	1644.06
Cost per sqm	164.41
Say	164.4

	Cost index **37.29%**				61.30
	Total with Cost index				225.7

123 Specification Code: 100.7.1

100.7.1 Bailing out water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete.
NEW DATA (Prepared based on PHED SDB - Item No.1070

Code	Description	Unit	Quantity	Rate	Amount
0011	Hire charges of Pump set of capacity 4000 litres/hour Hire charges of Engine (Per Day) charges for cost of service of operating staff, cost of lubricating oil, diesel / petrol / kerosene oil, other consumables for running the plant and machinery and all the taxes.	Day	1.0	700.00	700.00
				TOTAL	700.00
				Add Water Charges @ 1%	7.00
				TOTAL	707.00
				Add CPOH @ 15%	106.05
				TOTAL	813.05
				Cost of 29.84 Kwh	813.05
				Cost per Kwh	27.25
				Say	27.25

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	Cost index **37.29%**				10.16
	Total with Cost index				37.41

124 Specification Code: 100.7.2

100.7.2 Bailing out water with engine and pumpset above 5 HP upto 10 HP including

conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete.
NEW DATA (Prepared based on PHED SDB - Item No.1070

Code	Description	Unit	Quantity	Rate	Amount
0011	Hire charges of Pump set of capacity 4000 litres/hour Hire charges of Engine (Per Day) charges for cost of service of operating staff, cost of lubricating oil, diesel / petrol / kerosene oil, other consumables for running the plant and machinery and all the taxes.	Day	1.0	700.00	700.00
				TOTAL	700.00
				Add Water Charges @ 1%	7.00
				TOTAL	707.00
				Add CPOH @ 15%	106.05
				TOTAL	813.05
				Cost of 59.68 Kwh	813.05
				Cost per Kwh	13.62
				Say	13.6

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PRICE

	Cost index **37.29%**				5.07
	Total with Cost index				18.67

125 Specification Code: 100.98.1007

100.98.1007 Engaging Beldar

Code	Description	Unit	Quantity	Rate	Amount

0114	Beldar	Day	1.0	558.00	558.00

TOTAL	558.00
Add Water Charges @ 1%	5.58
TOTAL	563.58
Add CPOH @ 15%	84.54
TOTAL	648.12
Cost of 1.0 Day	648.12
Cost per Day	648.12
Say	648.1

	Cost index **37.29%**				241.68
	Total with Cost index				889.78

Kerala Water Authority
PRICE

126 Specification Code: 100.52.S.1

SUBHEAD : **100.0**

KWA APPROVED DATA

100.52.S.1 Sub Data for providing Earth filled cement bags including cutting of the Earth, filling, conveying and placing in position.

Code	Description	Unit	Quantity	Rate	Amount
	Details of Cost for Each.				
KW17	Empty bag for Earth Filling.	each	1.0	1.28	1.28

2.6.1	Rate as per item Number2.6.1 of SH: Earth Work Earth work excavation for filling the earth	cum	0.025	157.85	3.95(A)
0114	Beldar Beldar for filling the earth in cement bag and tying	Day	0.025	558.00	13.95
9999	Sundries - Cost of coir yarn	L.S	1.0	2.00	2.00
0114	Beldar Beldar for conveying the earth filled cement bags near to the site and tying	Day	0.025	558.00	13.95
0114	Beldar Beldar for conveying and placing the bag in position	Day	0.025	558.00	13.95
0115	Coolie for assisting	Day	0.02	558.00	11.16

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AddWater Charges @ 1% except on A ie on (60.24-3.95=56.29)	.56
TOTAL	60.80
AddCPOH @ 15% except on A ie on (60.8-3.95=56.85)	8.53
TOTAL	69.33
Cost of 0.025 cum	69.33
Cost of 1 cum	2773.20
Say	2773.2

	Cost index **37.29%**				1011.90

	Total with Cost index				3785.1

127 Specification Code: od320879/2021_2022

od320879/2021_2022 :Structural steelwork in a single section for providing girder over the grit champer with 80mm dia 4mm thick MS circular sectio fixing of RCC column and providing necessary arrangements for fixing pully for ease f desilting, fixed with or without connection plate, including hoisitng, fixing in position and applying a priming coat of approved steel primer all compete

Materials 80mm dia 4mm thick circular section at 8.36 KG/m length 7.5 mtr = 62.70

Code	Description	Unit	Quantity	Rate	Amount	Remarks
10.1	Rate as per item number 10.1 of SH: Steel Work	kilogram	62.70000	74.70	4683.69	
0125	Mason (for plain stone work) 2nd class	Day	0.10000	679.00	67.90	
0115	Coolie	Day	0.10000	558.00	55.80	
MR	Pully carrying 100 KG	No	1.00000	500.00	500.00	
9999	Sundries	L.S	30.00000	2.00	60.00	
				TOTAL	5367.39	
				Add Water Charges @ 1%	6.84	
				Add CPOH @ 15%	103.58	
				cost for one kg	5477.81	
				say	5477.81	

Cost index **37.29 %**	1826.11
Total with Cost index	7303.92

128 Specification Code: od320880/2021_2022

od320880/2021_2022 :Providing grating size 1.25x0.95m to the grit chamber with fabrication MS flat size 50x8mm
thick with 50mm c/c and connected 12mm dia MS bar across the flat and welded bend necessary angle ease to
place and removal etc.and painting with approved anti fungal paint prime coat placing etc.

Size of 1.25x0.95m grating, MS flat size 50x8mm thick -12nos , 21.5m@ 3.1kg/m=66.65, +5%wastege= 69.98kg

Kerala Water Authority
PRICE

Code	Description	Unit	Quantity	Rate	Amount	Remarks
10.20	Rate as per item number 10.20 of SH: Steel Work	kg	69.98000	111.50	7802.77	
0115	Coolie	Day	0.01000	558.00	5.58	
9999	Sundries	L.S	10.00000	2.00	20.00	
				TOTAL	7828.35	
				Add Water Charges @ 1%	.26	
				Add CPOH @ 15%	3.88	
				cost for one No	7832.48	
				say	7832.48	

Cost index **37.29 %**	2920.73
Total with Cost index	10753.21

129 Specification Code: 100.31.2.5

SUBHEAD : **100.0**

Kerala Water Authority

KWA APPROVED DATA

PRICE

100.31.2.5 Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) :
200 mm diameter. Class II"
Data derived from item no.18.31.4.2of DAR

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sluice valves Labour				
2309	Carriage of Cast iron fittings Carriage of sluice valves wt.=150.50x10 = 1505kg = 1.505t. say 1.5t Carriage of Cast Iron Fittings	tonne	1.5	92.24	138.36

18.24	Rate as per item Number18.24 of SH: Water Supply	quintal	15.05	426.70	6421.84(A)
18.30.5	Rate as per item Number18.30.5 of SH: Water Supply Providing flanged joints to Sluice valves with bots,nuts and rubber insertion etc.	no	20.0	308.65	6173.00(A)

AddWater Charges @ 1% except on A ie on (12733.2-12594.84=138.36015)	1.38
TOTAL	12734.58
AddCPOH @ 15% except on A ie on (12734.58-12594.84=139.74016)	20.96
TOTAL	12755.50
Cost of 10.0 no	12755.50
Costof each	1275.55
Say	1275.55

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PRICE

	Cost index **37.29%**				475.65
	Total with Cost index				1751.2

130 Specification Code: od320882/2021_2022

od320882/2021_2022 :Supplying 200mm sluice valve

Code	Description	Unit	Quantity	Rate	Amount	Remarks
1943	C.I.Sluice valve (with caps) class I : 200 mm dia	No	1.00000	7500.00	7500.00	
MR	Conveyance	L.S	1.00000	100.00	100.00	
				TOTAL	7600.00	

Add Water Charges @ 1%	76.00
Add CPOH @ 15%	1151.40
cost for one No	8827.40
say	8827.40

Cost index **37.29 %**	3248.43
Total with Cost index	12075.83

131 Specification Code: 100.41.33

100.41.33 Supplying and fixing 500mm dia CI manhole cover with frame(medium duty) charges including all cost, labour charges etc complete.

Code	Description	Unit	Quantity	Rate	Amount
	Details of Cost For 1 No. Materials				
1356	500 mm dia cover with frame (medium duty)	each	1.0	4400.00	4400.00
9999	Sundries-Carriage of CI Man hole cover Labour	L.S	25.0	2.00	50.00
0155	Mason (average)	Day	0.25	709.00	177.25
0115	Coolie	Day	0.25	558.00	139.50
				TOTAL	4766.75
				Add Water Charges @ 1%	47.67
				TOTAL	4814.42
				Add CPOH @ 15%	722.16
				TOTAL	5536.58
				Cost of 1.0 no	5536.58
				Cost of each	5536.58
				Say	5536.6

Karachi Water Authority
PRICE

	Cost index **37.29%**				2064.60
	Total with Cost index				7601.2

5 APP D - LAYING PUMPING MAIN

132 Specification Code: 15.43.2

15.43 Dismantling manually / by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer -in-Charge:

15.43.2 Bituminous road

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 36 sqm consider a road 6 metres wide and 6 metres length wise 30 cm average depth = 10.80 cubic metre LABOUR: For cutting road taking out soling and metalling including sorting and screening				
0114	Beldar	Day	9.6	558.00	5356.80
0115	Coolie	Day	4.8	558.00	2678.40
9999	Sundries-Labour for stacking of serviceable material and disposal of unserviceable material within 50 metre lead	L.S	107.64	2.00	215.28
				TOTAL	8250.48
				Add Water Charges @ 1%	82.50
				TOTAL	8332.98
				Add CPOH @ 15%	1249.95
				TOTAL	9582.93
				Cost of 36.0 sqm	9582.93
				Cost per sqm	266.19

Kerala Water Authority
PRICE

Say	266.2

	Cost index **37.29%**				99.27
	Total with Cost index				365.47

133 Specification Code: 100.1.1

SUBHEAD : **100.0**

KWA APPROVED DATA

100.1.1 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidatingeach deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :
All kinds of soil
(Ref. Item No. 2.10.1 of DSR)

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PRICE

Code	Description	Unit	Quantity	Rate	Amount
	Details of Cost For 100 m3 Materials				
2.8.1	Rate as per item Number2.8.1 of SH: Earth Work (DSR)	cum	100.0	219.00	21900.00(A)
2.25	Rate as per item Number2.25 of SH: Earth Work (DSR)	cum	100.0	190.70	19070.00(A)
				TOTAL	40970.00
				Cost of 100.0 cum	40970.00

Cost of 1 cum	409.70
Say	409.7

	Cost index **37.29%**				152.78
	Total with Cost index				562.48

134 Specification Code: 100.8.1

SUBHEAD 100.0

KWA APPROVED DATA

100.8.1

Fencing one side of trenches, 1.50 m height with two rows of 10 cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals.

(Data Prepared based on PWD SDB - Item No.1009)

Kerala Water Authority
PRICE

Code	Description	Unit	Quantity	Rate	Amount
	Details of Cost for 10m Pole required for vertical Post = 6x1.65=9.90m				
KW14	Casuarina Pole girth 15cm to 24cm. Hire Charges of Casurania pole (25% of cost as hire) Quantity is taken as 1/4 of 9.9	metre	2.475	22.13	54.77
9999	Sundries-Carriage of Casurania pole	L.S	3.0	2.00	6.00
KW15	Red Coloured Flourescent caution tape	metre	21.2	1.28	27.14
0114	Beldar Labour	Day	0.2	558.00	111.60
				TOTAL	199.51
				Add Water Charges @ 1%	2.00

TOTAL	201.51
Add CPOH @ 15%	30.23
Costof 10m	231.74
Cost per m	23.17
Say	23.15

	Cost index **37.29%**				5.09
	Total with Cost index				28.24

135 Specification Code: 100.8.2

SUBHEAD 100.0

KWA APPROVED DATA

Kerala Water Authority

100.8.2

PRICE

Fencing 1.50m high with two rows of casuarina poles (girth 15cm to 24cm) tied with coir yarn on vertical casuarina pole (girth 15cm to 24cm) fixed at 1.5m intervals.

NEW DATA (Prepared based on PWD SDB - Item No.1009

Code	Description	Unit	Quantity	Rate	Amount
	Details of Cost For 10 m Materials Poles required for vertical Post = 8x1.65=13.20 m; Poles required for Horizontal = 2x10=20.00 m; Total Length required = 20.00+13.20= 33.20m;				
KW14	Casuarina Pole girth 15cm to 24cm. Hire Charges of Casurania pole (25% of cost as hire) Quantity taken as 1/4 of 33.2	metre	8.3	22.13	183.68
9999	Sundries-Carriage of Casurania pole	L.S	10.0	2.00	20.00

KW16	Coir yarn	kg	0.3	170.21	51.06
0114	Beldar Labour	Day	0.75	558.00	418.50
				TOTAL	673.24
				Add Water Charges @ 1%	6.73
				TOTAL	679.97
				Add CPOH @ 15%	102.00
				Costof 10m	781.97
				Cost per m	78.20
				Say	78.2

	Cost index **37.29%**				19.00
	Total with Cost index				97.2

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PRICE

136 Specification Code: 100.7.1

100.7.1 Bailing out water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete.
NEW DATA (Prepared based on PHED SDB - Item No.1070

Code	Description	Unit	Quantity	Rate	Amount
0011	Hire charges of Pump set of capacity 4000 litres/hour Hire charges of Engine (Per Day) charges for cost of service of operating staff, cost of lubricating oil, diesel / petrol / kerosene oil, other consumables for running the plant and machinery and all the taxes.	Day	1.0	700.00	700.00

TOTAL	700.00
Add Water Charges @ 1%	7.00
TOTAL	707.00
Add CPOH @ 15%	106.05
TOTAL	813.05
Cost of 29.84 Kwh	813.05
Cost per Kwh	27.25
Say	27.25

	Cost index **37.29%**				10.16
	Total with Cost index				37.41

137 Specification Code: 100.98.1008

100.98.1008 Engaging Coolie

Kerala Water Authority
PRICE

Code	Description	Unit	Quantity	Rate	Amount
0115	Coolie	Day	1.0	558.00	558.00
				TOTAL	558.00
				Add Water Charges @ 1%	5.58
				TOTAL	563.58
				Add CPOH @ 15%	84.54
				TOTAL	648.12
				Cost of 1.0 Day	648.12
				Cost per Day	648.12
				Say	648.1

	Cost index **37.29%**				241.68
	Total with Cost index				889.78

138 Specification Code: 100.14.1

SUBHEAD : **100.0**

KWA APPROVED DATA

100.14.1 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials :
100 mm dia Ductile Iron Class K-9 Pipes
Data derived from 18.72.15 in DAR

Kerala Water Authority
PRICE

Code	Description	Unit	Quantity	Rate	Amount
	Details for 10metre Materials 100mm dia. pipes (in 5.5m lengths). Weight of 1m pipe = 17.760kg; Weight of 10m pipes - 17.760x10 = 177.60kg.				
2319	Carriage of Spun iron S & S pipes 100 mm dia Labour for laying	100 meter	10.0	226.82	22.68
18.23	Rate as per item Number18.23 of SH: Water Supply	quintal	1.776	229.40	407.41(A)
				AddWater Charges @ 1% except on A ie on (430.09-407.41=22.679996)	.23
				TOTAL	430.32
				AddCPOH @ 15% except on A ie on (430.32-407.41=22.909996)	3.44
				TOTAL	434.00
				Cost of 10.0 metre	434.00

Cost of 1 metre	43.40
Say	43.4

	Cost index **37.29%**				16.18
	Total with Cost index				59.58

139 Specification Code: 100.14.2

SUBHEAD : **100.0**

KWA APPROVED DATA

100.14.2 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials :
150 mm dia Ductile Iron Class K-9 Pipes
Data derived from 18.72.16 in DAR

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Code	Description	Unit	Quantity	Rate	Amount
	Details for 10metre Materials 150mm dia. pipes (in 5.5m lengths). Weight of 1m pipe = 26.27kg; Weight of 10m pipes - 26.27x10 = 262.70kg.				
2321	Carriage of Spun iron S & S pipes 150 mm dia Labour for laying	100 meter	10.0	378.03	37.80
18.23	Rate as per item Number18.23 of SH: Water Supply	quintal	2.627	229.40	602.63(A)
	AddWater Charges @ 1% except on A ie on (640.43-602.63=37.799995)				.38
	TOTAL				640.81

AddCPOH @ 15% except on A ie on (640.81-602.63=38.179996)	5.73
TOTAL	646.50
Cost of 10.0 metre	646.50
Cost of 1 metre	64.65
Say	64.65

	Cost index **37.29%**				24.11
	Total with Cost index				88.76

140 Specification Code: 100.14.4

SUBHEAD : **100.0**

KWA APPROVED DATA

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100.14.4 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials :
250 mm dia Ductile Iron Class K-9 Pipes
Data derived from 18.72.18 in DAR

Code	Description	Unit	Quantity	Rate	Amount
	Details for 10metre Materials 250mm dia. pipes (in 5.5m lengths). Weight of 1m pipe = 48.00kg; Weight of 10m pipes - 48.00x10 = 480.00kg.				
2323	Carriage of Spun iron S & S pipes 250 mm dia Labour for laying	100 meter	10.0	873.84	87.38

18.23	Rate as per item Number18.23 of SH: Water Supply	quintal	4.8	229.40	1101.12(A)

AddWater Charges @ 1% except on A ie on (1188.5-1101.12=87.380005)	.87
TOTAL	1189.37
AddCPOH @ 15% except on A ie on (1189.37-1101.12=88.25001)	13.24
TOTAL	1202.50
Cost of 10.0 metre	1202.50
Cost of 1 metre	120.25
Say	120.25

	Cost index **37.29%**				44.84
	Total with Cost index				165.09

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141 Specification Code: 4.1.3

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.3 1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.67	1350.00	904.50

0297	Stone Aggregate(single size): 10 mm nominal size nominal size	cum	0.22	1350.00	297.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.89	103.77	92.36
0982	Coarse sand (zone III)	cum	0.445	1350.00	600.75
2203	Carriage of Coarse sand	cum	0.445	103.77	46.18
0367	Portland Cement (0.2225 cum)	tonne	0.32	4940.00	1580.80
2209	Carriage of Cement	tonne	0.32	92.24	29.52
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	14.3	2.00	28.60

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TOTAL	5073.95
Add Water Charges @ 1%	50.74
TOTAL	5124.69
Add CPOH @ 15%	768.70
TOTAL	5893.39
Cost of 1.0 cum	5893.39
Say	5893.4

	Cost index **37.29%**				2197.65
	Total with Cost index				8091.05

142 Specification Code: 5.9.1

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.1 Foundations, footings, bases of columns, etc for mass concrete

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for footing size 2.7mx2.7mx 1.00m Contact area = 10.8sqm MATERIAL: Assuming shuttering material will become unserviceable after use of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	860.00	292.40
7326	Corner angle 45x45x5 mm 1.50 m long Qty taken for cost of using once = 4x0.85/40=0.085	each	0.085	240.00	20.40
7327	100 mm channel shoulder 2.5 m long Qty taken for cost of using once = 8x0.85/40=0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	76.00	25.84
7329	Single clip Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	59.00	10.03
7330	M.S. Tube 40 mm dia Qty taken for cost of using once = 10.8x0.85/40 = 0.2295	metre	0.2295	215.00	49.34

Kerala Water Authority
PRICE

9999	Sundries-Assembly nuts 7 bolts Qty taken for cost of using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	0.75	738.00	553.50
0114	Beldar	Day	1.5	558.00	837.00
9999	Sundries-Suttering oil	L.S	52.0	2.00	104.00
9999	Sundries-	L.S	26.0	2.00	52.00

TOTAL	2299.41
Add Water Charges @ 1%	22.99
TOTAL	2322.40
Add CPOH @ 15%	348.36
TOTAL	2670.76
Cost of 10.8 sqm	2670.76
Cost per sqm	247.29
Say	247.3

Kerala Water Authority
PRICE

	Cost index **37.29%**				92.22
	Total with Cost index				339.52

143 Specification Code: 5.22.4

5.22 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level

5.22.4 Hot rolled deformed bars

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 1 quintal MATERIAL: Deformed twisted steel bars = 1.00q Wastage 5% = 0.05q Total = 1.05q				
1005	Twisted steel/deformed bars	quintal	1.05	4600.00	4830.00
2205	Carriage of Steel	tonne	0.105	92.24	9.69
9999	Sundries-Cover block LABOUR: For straightening, cutting, bending, binding and placing in position	L.S	26.0	2.00	52.00
0102	Blacksmith 1st class	Day	1.0	738.00	738.00
0114	Beldar	Day	1.0	558.00	558.00
9999	Sundries-and binding wire	L.S	26.91	2.00	53.82

Kerala Water Authority
PRICE

TOTAL	6241.51
Add Water Charges @ 1%	62.42
TOTAL	6303.93
Add CPOH @ 15%	945.59
TOTAL	7249.52
Cost of 100.0 kilogram	7249.52
Cost per kilogram	72.50
Say	72.5

	Cost index **37.29%**				27.04
	Total with Cost index				99.54

144 Specification Code: od320999/2021_2022

od320999/2021_2022 :Supplying, conveying and laying 20/25mm dia PVC best quality Pipe, 10kg/cm2,including
specials for diverting near manholes

Code	Description	Unit	Quantity	Rate	Amount	Remarks
100.98.230	Rate as per item number 100.98.230 of SH: KWA Approved Data	metre	1.15000	27.95	32.14	
100.9.2	Rate as per item number 100.9.2 of SH: KWA Approved Data	metre	1.00000	26.50	26.50	
				TOTAL	58.64	
				cost for one metre	58.64	
				say	58.64	

Cost index **37.29 %**	9.88
Total with Cost index	68.52

145 Specification Code: 18.59.3

Kerala Water Authority
PRICE

SUBHEAD : 18.0

WATER SUPPLY

18.59 Providing and fixing C.I double acting air valve of approved quality with bolts, nuts, rubber insertion etc. complete (The tail pieces, tapers etc. if required will be paid separately):

18.59.3 100 mm dia

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. MATERIAL:				
7417	Double acting air valve 100 mm	each	10.0	5910.00	59100.00
9977	Carriage of air valves	L.S	26.0	2.00	52.00

9999	Sundries - Labour for laying double acting air valve Providing flanged joints to double acting air valves with bolts, nuts and rubber insertion etc.	L.S	52.0	2.00	104.00
18.30.2	Rate as per item Number18.30.2 of SH: Water Supply	no	10.0	230.05	2300.50(A)

AddWater Charges @ 1% except on A ie on (61556.5-2300.5=59256.0)	592.56
TOTAL	62149.06
AddCPOH @ 15% except on A ie on (62149.06-2300.5=59848.56)	8977.28
TOTAL	71126.50
Cost of 10.0 no	71126.50
Costof each	7112.65
Say	7112.65

Kerala Water Authority
PRICE

	Cost index **37.29%**				2652.31
	Total with Cost index				9764.96

6 APP- E SUPPLY OFMATERIALS FOR PUMPING MAIN

146 Specification Code: 100.98.101

100.98.101 Supply of DI K7 Pipe Conforming to IS 8329/2000, 100mm Dia.

Code	Description	Unit	Quantity	Rate	Amount
KW101	DI K7 Pipe Conforming to IS 8329/2000, 100mm Dia.	metre	1.0	865.27	865.27
				TOTAL	865.27

Add Water Charges @ 1%	8.65
TOTAL	873.92
Add CPOH @ 15%	131.09
TOTAL	1005.01
Cost of 1.0 metre	1005.01
Cost per metre	1005.01
Say	1005.0

	Cost index **37.29%**				.00
	Total with Cost index				1005.0

147 Specification Code: 100.98.102

100.98.102 Supply of DI K7 Pipe Conforming to IS 8329/2000, 150mm Dia.

Kerala Water Authority
PRICE

Code	Description	Unit	Quantity	Rate	Amount
KW102	DI K7 Pipe Conforming to IS 8329/2000, 150mm Dia.	metre	1.0	1270.34	1270.34
				TOTAL	1270.34
				Add Water Charges @ 1%	12.70
				TOTAL	1283.04
				Add CPOH @ 15%	192.46
				TOTAL	1475.50
				Cost of 1.0 metre	1475.50
				Cost per metre	1475.50
				Say	1475.5

	Cost index **37.29%**				.00
	Total with Cost index				1475.5

148 Specification Code: 100.98.104

100.98.104 Supply of DI K7 Pipe Conforming to IS 8329/2000, 250mm Dia.

Code	Description	Unit	Quantity	Rate	Amount
KW104	DI K7 Pipe Conforming to IS 8329/2000, 250mm Dia.	metre	1.0	1981.36	1981.36
				TOTAL	1981.36
				Add Water Charges @ 1%	19.81
				TOTAL	2001.17
				Add CPOH @ 15%	300.18
				TOTAL	2301.35
				Cost of 1.0 metre	2301.35
				Cost per metre	2301.35
				Say	2301.35

Kerala Water Authority
PRICE

	Cost index **37.29%**				.00
	Total with Cost index				2301.35

7 APP F-LAYING GRAVITY SEWER MAIN & CONSTRUCTION OF MAN HOLES

149 Specification Code: 16.83

16.83 Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm LABOUR:				
0114	Beldar	Day	0.25	558.00	139.50
0115	Coolie	Day	1.0	558.00	558.00
9999	Sundries-	L.S	2.7	2.00	5.40
				TOTAL	702.90
				Add Water Charges @ 1%	7.03
				TOTAL	709.93
				Add CPOH @ 15%	106.49
				TOTAL	816.42
				Cost of 10.0 sqm	816.42
				Cost per sqm	81.64
				Say	81.65

Kerala Water Authority
PRICE

	Cost index **37.29%**				30.45
	Total with Cost index				112.1

150 Specification Code: 15.3

15.3 Demolishing R.C.C. work manually / by mechanical means including stacking of steel bars and disposal of unserviceable material with in 50 metres lead as per direction of Engineer -in-Charge.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum LABOUR:				
0114	Beldar	Day	2.65	558.00	1478.70

0115	Coolie	Day	0.72	558.00	401.76
9999	Sundries-	L.S	7.02	2.00	14.04

TOTAL	1894.50
Add Water Charges @ 1%	18.95
TOTAL	1913.45
Add CPOH @ 15%	287.02
TOTAL	2200.47
Cost of 1.0 cum	2200.47
Say	2200.45

	Cost index **37.29%**				820.55
	Total with Cost index				3021.0

Kerala Water Authority
PRICE

151 Specification Code: 15.43.2

15.43 Dismantling manually / by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer -in-Charge:

15.43.2 Bituminous road

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 36 sqm consider a road 6 metres wide and 6 metres length wise 30 cm average depth = 10.80 cubic metre LABOUR: For cutting road taking out soling and metalling including sorting and screening				
0114	Beldar	Day	9.6	558.00	5356.80
0115	Coolie	Day	4.8	558.00	2678.40

9999	Sundries-Labour for stacking of serviceable material and disposal of unserviceable material within 50 metre lead	L.S	107.64	2.00	215.28

TOTAL	8250.48
Add Water Charges @ 1%	82.50
TOTAL	8332.98
Add CPOH @ 15%	1249.95
TOTAL	9582.93
Cost of 36.0 sqm	9582.93
Cost per sqm	266.19
Say	266.2

	Cost index **37.29%**				99.27
	Total with Cost index				365.47

Kerala Water Authority
PRICE

152 Specification Code: 100.1.1

SUBHEAD : **100.0**

KWA APPROVED DATA

100.1.1 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidatingeach deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :
All kinds of soil
(Ref. Item No. 2.10.1 of DSR)

Code	Description	Unit	Quantity	Rate	Amount

	Details of Cost For 100 m3 Materials				
2.8.1	Rate as per item Number2.8.1 of SH: Earth Work (DSR)	cum	100.0	219.00	21900.00(A)
2.25	Rate as per item Number2.25 of SH: Earth Work (DSR)	cum	100.0	190.70	19070.00(A)

TOTAL	40970.00
Cost of 100.0 cum	40970.00
Cost of 1 cum	409.70
Say	409.7

Kerala Water Authority
PRICE

	Cost index **37.29%**				152.78
	Total with Cost index				562.48

153 Specification Code: 100.1.2

SUBHEAD : **100.0**

KWA APPROVED DATA

100.1.2 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth exceeding 1.5m but not exceeding 3 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m: 1.50m to 3.0m
All kinds of soil
(Ref. Item No. 2.11 of DSR)

Code	Description	Unit	Quantity	Rate	Amount
	Details of Cost For 100 m3 Materials				
2.8.1	Rate as per item Number2.8.1 of SH: Earth Work	cum	100.0	219.00	21900.00(A)
2.25	Rate as per item Number2.25 of SH: Earth Work	cum	100.0	190.70	19070.00(A)
2.26.1	Rate as per item Number2.26.1 of SH: Earth Work	cum	100.0	78.45	7845.00
				TOTAL	48815.00
				Cost of 100.0 cum	48815.00
				Cost of 1 cum	488.15
				Say	488.15

Kerala Water Authority
PRICE

	Cost index **37.29%**				182.03
	Total with Cost index				670.18

154 Specification Code: 100.1.3

SUBHEAD : **100.0**

KWA APPROVED DATA

100.1.3

Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth exceeding 3m in depth but not exceeding 4.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : 3.0m to 4.50m
All kinds of soil
(Ref. Item No. 2.12 of DSR)

Code	Description	Unit	Quantity	Rate	Amount
	(Ref. Item No. 2.12 of DSR) Details of Cost For 100 m3 Materials				
2.8.1	Rate as per item Number2.8.1 of SH: Earth Work (DSR)	cum	100.0	219.00	21900.00(A)
2.25	Rate as per item Number2.25 of SH: Earth Work (DSR)	cum	100.0	190.70	19070.00(A)
2.26.1	Rate as per item Number2.26.1 of SH: Earth Work (DSR)- Extra for addl. Lift	cum	100.0	78.45	7845.00
2.26.1	Rate as per item Number2.26.1 of SH: Earth Work (DSR)- Extra for addl. Lift	cum	100.0	78.45	7845.00(A)
				TOTAL	56660.00
				Cost of 100.0 cum	56660.00
				Cost of 1 cum	566.60
				Say	566.6

	Cost index **37.29%**				211.29
	Total with Cost index				777.89

Kerala Water Authority
PRICE

155 Specification Code: 100.1.4

SUBHEAD : **100.0**

KWA APPROVED DATA

100.1.4 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth exceeding 4.5m in depth but not exceeding 6 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : 4.5m to 6.0m
All kinds of soil.
(Ref. Item No. 2.12 of DSR)

Code	Description	Unit	Quantity	Rate	Amount
	Details of Cost For 100 m3 Materials				
2.8.1	Rate as per item Number2.8.1 of SH: Earth Work (DSR)	cum	100.0	219.00	21900.00(A)
2.25	Rate as per item Number2.25 of SH: Earth Work (DSR)	cum	100.0	190.70	19070.00(A)
2.26.1	Rate as per item Number2.26.1 of SH: Earth Work (DSR)- Extra for addl. Lift 1.5 m to 3 m	cum	100.0	78.45	7845.00
2.26.1	Rate as per item Number2.26.1 of SH: Earth Work (DSR)- Extra for addl. Lift 3 m to 4.5 m	cum	100.0	78.45	7845.00(A)

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PRICE

2.26.1	Rate as per item Number2.26.1 of SH: Earth Work (DSR)- Extra for addl. Lift 4.5 m to 6.0 m	cum	100.0	78.45	7845.00

TOTAL	64505.00
Cost of 100.0 cum	64505.00
Cost of 1 cum	645.05
Say	645.05

	Cost index **37.29%**				240.54
	Total with Cost index				885.59

156 Specification Code: 2.16.1

2.16 Close timbering in trenches including strutting, shoring and packing cavities (wherever required) complete (Measurements to be taken of the face area timbered).

2.16.1 Depth not exceeding 1.5m

Kerala Water Authority
PRICE

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for a trench 30m long and 1.5 m deep. Area = 2 x 30x 1.5 = 90 sqm. MATERIAL: The material can based four times on the same work and after use of material credit is give @ 75% of cost poling boards of				

1198	Second class kail wood in planks Second class kail wood in planks 90x0.038 = 3.42 cum = 3420 cudm Qty taken for cost of using once after deducting for credit = 3420x1/4x1/4 = 213.75 cudm Wallings 100mmx 100 mm of	10 cud m	213.75	260.00	5557.5
1197	Second class kail wood in scantling 4x30x0.10x1.10 = 1.20cum= 1200cudm Qty taken for cost of using once after deducting for credit = 1200x1/4x1/4 = 75 cudm	10 cud m	75.0	260.00	1950.0
0302	Safeda ballies 125 mm diameter long 2x17x1.50 = 51 m Qty taken for cost of using once after deducting for credit =51x1/4x 1/4=3.1875m CARRIAGE: Poling boards = 3.42 cum Walling = 1.20 cum. Balli struts : 3.14/4x(0.125)3x51= 0.63cum Total of carriage = 5.25x1/4 = 1.3125 cum	metre	3.1875	40.00	127.50
2204	Carriage of Timber	cum	1.3125	118.59	155.65
0112	Carpenter 2nd class	Day	0.5	679.00	339.50
0114	Beldar	Day	1.0	558.00	558.00
9999	Sundries-	L.S	26.91	2.00	53.82

TOTAL	8741.97
Add Water Charges @ 1%	87.42
TOTAL	8829.39
Add CPOH @ 15%	1324.41
TOTAL	10153.80

Kerala Water Authority
PRICE

Cost of 90.0 sqm	10153.80
Cost per sqm	112.82
Say	112.8

	Cost index **37.29%**				42.06
	Total with Cost index				154.86

157 Specification Code: 2.16.2

2.16 Close timbering in trenches including strutting, shoring and packing cavities (wherever required) complete (Measurements to be taken of the face area timbered).

2.16.2 Depth exceeding 1.5 m but not exceeding 3 m

Kerala Water Authority
PRICE

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for a trenches 30 m long and 1.5m deep Area = 2x 30x1.5 = 90 sqm MATERIAL: The Material can be used four times on the same work and after use of material credit is given @ 75% of cost Poling boards of				
1198	Second class kail wood in planks 90x0.038 = 3.42 cum = 3420 cudm qty taken for cost of using once after deducting for credit = 3420x1/4x1/4 = 213.75 cudm Walings 100 mmx 100 mm of	10 cud m	213.75	260.00	5557.5

1197	Second class kail wood in scantling 4x30x0.10x0.10 =1.20 cum = 1200 cudm Qty taken for cost of using once after deducting for credit = 1200x1/4x1/4= 75 cudm	10 cud m	75.0	260.00	1950.0
0302	Safeda ballies 125 mm diameter and 1.50m long 2x17x1.50 = 51m Qty taken for cost of using once after deducting for credit=51x1/4x1/4=3.1875m CARRIAGE: Poling boards = 3.42 cum Waling = 1.20 cum Balli struts : 3.14/4 x (0.125) 3x51 = 0.63 cum Total of carriage = 5.25x/4 = 1.3125 cum	metre	3.1875	40.00	127.50
2204	Carriage of Timber	cum	1.3125	118.59	155.65
0112	Carpenter 2nd class	Day	0.75	679.00	509.25
0114	Beldar	Day	2.0	558.00	1116.00
9999	Sundries-	L.S	40.43	2.00	80.86

Kerala Water Authority
PRICE

TOTAL	9496.76
Add Water Charges @ 1%	94.97
TOTAL	9591.73
Add CPOH @ 15%	1438.76
TOTAL	11030.49
Cost of 90.0 sqm	11030.49
Cost per sqm	122.56
Say	122.55

	Cost index **37.29%**				45.70

	Total with Cost index				168.25

158 Specification Code: 2.16.3

2.16 Close timbering in trenches including strutting, shoring and packing cavities (wherever required) complete (Measurements to be taken of the face area timbered).

2.16.3 Depth exceeding 3 m but not exceeding 4.5 m

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for a trench 30 m long and 1.5m deep Area = 2x 30 x 1.5 = 90 sqm. MATERIAL: The Material can be used for times on the same work and after use of material credit is given @ 75% of cost Poling boards of				
1198	Second class kail wood in planks 90x0.038 = 3.42 cum = 340cudm Qty taken for cost of using once after deducting for credit=3420x1/4x1/4 =213.75 cudm Wallings 100mmx 100mm of	10 cud m	213.75	260.00	5557.5
1197	Second class kail wood in scantling 4x30x0.10x0.10 = 1.20 cum = 1200 dm3 Qty taken for cost of using once after deducting for credit = 1200x1/4x1/4 = 75 cudm	10 cud m	75.0	260.00	1950.0

Kerala Water Authority
PRICE

0302	Safeda ballies 125 mm diameter and 1.5m long 2x17x1.5 =51m Qty taken for cost of using once after deducting for credit = 51x1/4x1/4 = 3.1875 m CARRIAGE: Poling boards = 3.42 cum Walling - = 1.20 cum. Balli struts:3.14/4x(0.125)3x51 = 0.63 cum Total of carriage = 5.25x1/4 = 1.3125 cum.	metre	3.1875	40.00	127.50
2204	Carriage of Timber LABOUR:	cum	1.3125	118.59	155.65
0112	Carpenter 2nd class	Day	1.5	679.00	1018.50
0114	Beldar	Day	4.0	558.00	2232.00
9999	Sundries-	L.S	80.73	2.00	161.46

Kerala Water Authority

TOTAL	11202.61
Add Water Charges @ 1%	112.03
TOTAL	11314.64
Add CPOH @ 15%	1697.20
TOTAL	13011.84
Cost of 90.0 sqm	13011.84
Cost per sqm	144.58
Say	144.6

PRICE

	Cost index **37.29%**				53.92
	Total with Cost index				198.52

159 Specification Code: 100.10.7

100.10.7

Laying HDPE pipes (IS : 4984)on land portion including conveying within initial lead and aligning the pipes, electro-fusion welding using automatic or semi automatic electrofusion machines, testing the pipe line thus fabricated to suit the hydrulic working pressure and after testing , aligning the pipeline, lowering the pipe in position into the trenches already made, testing the line to suitable pressure with potable water before back filling and leveling the trenches including all labour charge, hire for appliances etc. complete but excluding cost of pipe and fittings.

200 mm OD HDPE pipe

NEW DATA

Kerala Water Authority
PRICE

Code	Description	Unit	Quantity	Rate	Amount
	Details of Cost For 100m Labour				
0116	Fitter(grade1)	Day	11.5	738.00	8487.00
9999	Sundries-Electric energy charges	L.S	300.0	2.00	600.00
9999	Sundries-Hire for fushion welding machine	L.S	600.0	2.00	1200.00
0160	Technician	Day	1.5	775.00	1162.50
0157	Operator (Pile/Special machine)	Day	1.5	738.00	1107.00
0115	Coolie for assisting fitter & operator	Day	11.5	558.00	6417.00
0115	Coolie for changing the pipe from electrofushion machnie to the trench	Day	1.5	558.00	837.00
9999	Sundries-Conveyance charge ,Testing the pipe line,providing caution board etc.	L.S	250.0	2.00	500.00
				TOTAL	20310.50

Add Water Charges @ 1%	203.10
TOTAL	20513.60
Add CPOH @ 15%	3077.04
TOTAL	23590.64
Cost of 100.0 metre	23590.64
Cost per metre	235.91
Say	235.9

	Cost index **37.29%**				87.97
	Total with Cost index				323.87

160 Specification Code: 100.98.140

Kerala Water Authority

SUBHEAD 100.0

KWA APPROVED DATA

PRICE

100.98.140

Supply of PE Pipe, PE100, PN8, 200mm dia, conforming to IS 4984/2016.

Code	Description	Unit	Quantity	Rate	Amount
KW140	PE Pipe, PE100, PN8, 200mm dia, conforming to IS 4984/2016	metre	1.0	910.00	910.00
				TOTAL	910.00
				Add Water Charges @ 1%	9.10
				TOTAL	919.10
				Add CPOH @ 15%	137.87
				Costof 1.0 metre	1056.97
				Cost of 1 metre	1056.97

Say	1056.95

	Cost index **37.29%**				.00
	Total with Cost index				1056.95

161 Specification Code: 100.10.9

100.10.9

Laying HDPE pipes (IS : 4984)on land portion including conveying within initial lead and aligning the pipes, electro-fusion welding using automatic or semi automatic electrofusion machines, testing the pipe line thus fabricated to suit the hydrulic working pressure and after testing , aligning the pipeline, lowering the pipe in position into the trenches already made, testing the line to suitable pressure with potable water before back filling and leveling the trenches including all labour charge, hire for appliances etc. complete but excluding cost of pipe and fittings.

250 mm OD HDPE pipe

NEW DATA

Kerala Water Authority
PRICE

Code	Description	Unit	Quantity	Rate	Amount
	Details of Cost For 100m Labour				
0116	Fitter(grade1) for aligning the pipe	Day	17.0	738.00	12546.00
9999	Sundries-Electric energy charges	L.S	350.0	2.00	700.00
9999	Sundries-Hire for fushion welding machine	L.S	600.0	2.00	1200.00
0160	Technician	Day	1.7	775.00	1317.50
0157	Operator (Pile/Special machine)	Day	1.7	738.00	1254.60

0115	Coolie for changing the pipe from electrofushion machnie to the trench	Day	17.0	558.00	9486.00
0115	Coolie Conveyance charge ,Testing the pipe line,providing caution board etc.	Day	1.7	558.00	948.60
9999	Sundries-Conveyance charge ,Testing the pipe line,providing caution board etc.	L.S	300.0	2.00	600.00

TOTAL	28052.70
Add Water Charges @ 1%	280.53
TOTAL	28333.23
Add CPOH @ 15%	4249.98
TOTAL	32583.21
Cost of 100.0 metre	32583.21
Cost per metre	325.83
Say	325.85

Kerala Water Authority
PRICE

	Cost index **37.29%**				121.51
	Total with Cost index				447.36

162 Specification Code: 100.98.142

SUBHEAD 100.0

KWA APPROVED DATA

100.98.142

Supply of PE Pipe, PE100, PN8, 250mm dia, conforming to IS 4984/2016.

Code	Description	Unit	Quantity	Rate	Amount
KW142	PE Pipe, PE100, PN8, 250mm dia, conforming to IS 4984/2016	metre	1.0	1416.00	1416.00
				TOTAL	1416.00
				Add Water Charges @ 1%	14.16
				TOTAL	1430.16
				Add CPOH @ 15%	214.52
				Costof 1.0 metre	1644.68
				Cost of 1 metre	1644.68
				Say	1644.7

	Cost index **37.29%**				.00
	Total with Cost index				1644.7

Kerala Water Authority
PRICE

163 Specification Code: 100.10.11

100.10.11

Laying HDPE pipes (IS : 4984)on land portion including conveying within initial lead and aligning the pipes, electro-fusion welding using automatic or semi automatic electrofusion machines, testing the pipe line thus fabricated to suit the hydrulic working pressure and after testing , aligning the pipeline, lowering the pipe in position into the trenches already made, testing the line to suitable pressure with potable water before back filling and leveling the trenches including all labour charge, hire for appliances etc. complete but excluding cost of pipe and fittings.

315 mm OD HDPE pipe

NEW DATA

Code	Description	Unit	Quantity	Rate	Amount

	Details of Cost For 100m Labour				
0116	Fitter(grade1) for aligning the pipe	Day	23.5	738.00	17343.00
9999	Sundries-Electric energy charges	L.S	350.0	2.00	700.00
9999	Sundries-Hire for fushion welding machine	L.S	600.0	2.00	1200.00
0160	Technician	Day	1.9	775.00	1472.50
0157	Operator (Pile/Special machine)	Day	1.9	738.00	1402.20
0115	Coolie for assisting fitter & operator	Day	23.5	558.00	13113.00
0115	Coolie for changing the pipe from electrofushion machnie to the trench	Day	1.9	558.00	1060.20
9999	Sundries-Conveyance charge ,Testing the pipe line,providing caution board etc.	L.S	300.0	2.00	600.00

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PRICE

TOTAL	36890.90
Add Water Charges @ 1%	368.91
TOTAL	37259.81
Add CPOH @ 15%	5588.97
TOTAL	42848.78
Cost of 100.0 metre	42848.78
Cost per metre	428.49
Say	428.5

	Cost index **37.29%**				159.79
	Total with Cost index				588.29

164 Specification Code: 100.98.144

SUBHEAD 100.0

KWA APPROVED DATA

100.98.144

Supply of PE Pipe, PE100, PN8, 315mm dia, conforming to IS 4984/2016.

Code	Description	Unit	Quantity	Rate	Amount
KW144	PE Pipe, PE100, PN8, 315mm dia, conforming to IS 4984/2016	metre	1.0	2260.00	2260.00
				TOTAL	2260.00
				Add Water Charges @ 1%	22.60
				TOTAL	2282.60
				Add CPOH @ 15%	342.39
				Costof 1.0 metre	2624.99
				Cost of 1 metre	2624.99
				Say	2625.0

Kerala Water Authority
PRICE

	Cost index **37.29%**				.00
	Total with Cost index				2625.0

165 Specification Code: 100.10.13

100.10.13 Laying HDPE pipes (IS : 4984)on land portion including conveying within initial lead and aligning the pipes, electro-fusion welding using automatic or semi

automatic electrofusion machines, testing the pipe line thus fabricated to suit the hydrulic working pressure and after testing , aligning the pipeline, lowering the pipe in position into the trenches already made, testing the line to suitable pressure with potable water before back filling and leveling the trenches including all labour charge, hire for appliances etc. complete but excluding cost of pipe and fittings.
400 mm OD HDPE pipe
NEW DATA

Code	Description	Unit	Quantity	Rate	Amount
	Details of Cost For 100m Labour				
0116	Fitter(grade1) for aligning the pipe	Day	30.5	738.00	22509.00
9999	Sundries-Electric energy charges	L.S	400.0	2.00	800.00
9999	Sundries-Hire for fushion welding machine	L.S	600.0	2.00	1200.00
0160	Technician	Day	2.0	775.00	1550.00
0157	Operator (Pile/Special machine)	Day	2.0	738.00	1476.00
0115	Coolie for assisting fitter & operator	Day	30.5	558.00	17019.00
0115	Coolie for changing the pipe from electrofushion machnie to the trench	Day	2.0	558.00	1116.00
9999	Sundries-Conveyance charge ,Testing the pipe line,providing caution board etc.	L.S	350.0	2.00	700.00
				TOTAL	46370.00

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PRICE

Add Water Charges @ 1%	463.70
TOTAL	46833.70
Add CPOH @ 15%	7025.06
TOTAL	53858.76
Cost of 100.0 metre	53858.76
Cost per metre	538.59
Say	538.6

	Cost index **37.29%**				200.84
	Total with Cost index				739.44

166 Specification Code: 100.98.166

Kerala Water Authority

SUBHEAD 100.0

KWA APPROVED DATA

PRICE

100.98.166

Supply of PE Pipe, PE100, PN10, 400mm dia, conforming to IS 4984/2016.

Code	Description	Unit	Quantity	Rate	Amount
KW166	PE Pipe, PE100, PN10, 400mm dia, conforming to IS 4984/2016	metre	1.0	4545.29	4545.29
				TOTAL	4545.29
				Add Water Charges @ 1%	45.45
				TOTAL	4590.74
				Add CPOH @ 15%	688.61
				Costof 1.0 metre	5279.35
				Cost of 1 metre	5279.35

Say	5279.35

	Cost index **37.29%**				.00
	Total with Cost index				5279.35

167 Specification Code: 100.10.14

100.10.14

Laying HDPE pipes (IS : 4984)on land portion including conveying within initial lead and aligning the pipes, electro-fusion welding using automatic or semi automatic electrofusion machines, testing the pipe line thus fabricated to suit the hydrulic working pressure and after testing , aligning the pipeline, lowering the pipe in position into the trenches already made, testing the line to suitable pressure with potable water before back filling and leveling the trenches including all labour charge, hire for appliances etc. complete but excluding cost of pipe and fittings

450 mm OD HDPE pipe

NEW DATA

Kerala Water Authority
PRICE

Code	Description	Unit	Quantity	Rate	Amount
	Details of Cost For 100m Labour				
0116	Fitter(grade1) for aligning the pipe	Day	34.5	738.00	25461.00
9999	Sundries-Electric energy charges	L.S	400.0	2.00	800.00
9999	Sundries-Hire for fushion welding machine	L.S	600.0	2.00	1200.00
0160	Technician	Day	2.0	775.00	1550.00
0157	Operator (Pile/Special machine)	Day	2.0	738.00	1476.00

0115	Coolie for changing the pipe from electrofushion machnie to the trench	Day	34.5	558.00	19251.00
0115	Coolie for changing the pipe from electrofushion machnie to the trench	Day	2.0	558.00	1116.00
9999	Sundries-Conveyance charge ,Testing the pipe line,providing caution board etc.	L.S	350.0	2.00	700.00

TOTAL	51554.00
Add Water Charges @ 1%	515.54
TOTAL	52069.54
Add CPOH @ 15%	7810.43
TOTAL	59879.97
Cost of 100.0 metre	59879.97
Cost per metre	598.80
Say	598.8

Kerala Water Authority
PRICE

	Cost index **37.29%**				223.29
	Total with Cost index				822.09

168 Specification Code: 100.98.167

SUBHEAD 100.0

KWA APPROVED DATA

100.98.167

Supply of PE Pipe, PE100, PN10, 450mm dia, conforming to IS 4984/2016.

Code	Description	Unit	Quantity	Rate	Amount
KW167	PE Pipe, PE100, PN10, 450mm dia, conforming to IS 4984/2016	metre	1.0	5765.12	5765.12
				TOTAL	5765.12
				Add Water Charges @ 1%	57.65
				TOTAL	5822.77
				Add CPOH @ 15%	873.42
				Costof 1.0 metre	6696.19
				Cost of 1 metre	6696.19
				Say	6696.2

	Cost index **37.29%**				.00
	Total with Cost index				6696.2

Kerala Water Authority
PRICE

169 Specification Code: 4.1.5

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.5 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum				
0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.7	1350.00	945.00
0297	Stone Aggregate(single size): 10 mm nominal size nominal size	cum	0.24	1350.00	324.00

2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.94	103.77	97.54
0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement (0.15674 cum)	tonne	0.22	4940.00	1086.80
2209	Carriage of Cement	tonne	0.22	92.24	20.29
	LABOUR:				
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	13.52	2.00	27.04

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PRICE

TOTAL	4678.18
Add Water Charges @ 1%	46.78
TOTAL	4724.96
Add CPOH @ 15%	708.74
TOTAL	5433.70
Cost of 1.0 cum	5433.70
Say	5433.7

	Cost index **37.29%**				2026.23
	Total with Cost index				7459.93

170 Specification Code: 100.7.1

100.7.1 Bailing out water with 5 HP engine and pumpset including conveyance to the

site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete.
NEW DATA (Prepared based on PHED SDB - Item No.1070

Code	Description	Unit	Quantity	Rate	Amount
0011	Hire charges of Pump set of capacity 4000 litres/hour Hire charges of Engine (Per Day) charges for cost of service of operating staff, cost of lubricating oil, diesel / petrol / kerosene oil, other consumables for running the plant and machinery and all the taxes.	Day	1.0	700.00	700.00
				TOTAL	700.00
				Add Water Charges @ 1%	7.00
				TOTAL	707.00
				Add CPOH @ 15%	106.05
				TOTAL	813.05
				Cost of 29.84 Kwh	813.05
				Cost per Kwh	27.25
				Say	27.25

Kerala Water Authority
PRICE

	Cost index **37.29%**				10.16
	Total with Cost index				37.41

171 Specification Code: 100.7.2

100.7.2 Bailing out water with engine and pumpset above 5 HP upto 10 HP including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete.
NEW DATA (Prepared based on PHED SDB - Item No.1070

Code	Description	Unit	Quantity	Rate	Amount
0011	Hire charges of Pump set of capacity 4000 litres/hour Hire charges of Engine (Per Day) charges for cost of service of operating staff, cost of lubricating oil, diesel / petrol / kerosene oil, other consumables for running the plant and machinery and all the taxes.	Day	1.0	700.00	700.00
				TOTAL	700.00
				Add Water Charges @ 1%	7.00
				TOTAL	707.00
				Add CPOH @ 15%	106.05
				TOTAL	813.05
				Cost of 59.68 Kwh	813.05
				Cost per Kwh	13.62
				Say	13.6

Kerala Water Authority
PRICE

	Cost index **37.29%**				5.07
	Total with Cost index				18.67

172 Specification Code: 100.7.3

100.7.3 Bailing out water with engine and pumpset above 10 HP upto 20 HP including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete. NEW DATA (Prepared based on PHED SDB - Item No.1070

Code	Description	Unit	Quantity	Rate	Amount

0011	Hire charges of Pump set of capacity 4000 litres/hour Hire charges of Engine (Per Day) charges for cost of service of operating staff, cost of lubricating oil, diesel / petrol / kerosene oil, other consumables for running the plant and machinery and all the taxes.	Day	1.0	700.00	700.00

TOTAL	700.00
Add Water Charges @ 1%	7.00
TOTAL	707.00
Add CPOH @ 15%	106.05
TOTAL	813.05
Cost of 119.36 Kwh	813.05
Cost per Kwh	6.81
Say	6.8

Kerala Water Authority
PRICE

	Cost index **37.29%**				2.54
	Total with Cost index				9.34

173 Specification Code: 100.98.1008

100.98.1008 Engaging Coolie

Code	Description	Unit	Quantity	Rate	Amount
0115	Coolie	Day	1.0	558.00	558.00
				TOTAL	558.00
				Add Water Charges @ 1%	5.58
				TOTAL	563.58

Add CPOH @ 15%	84.54
TOTAL	648.12
Cost of 1.0 Day	648.12
Cost per Day	648.12
Say	648.1

	Cost index **37.29%**				241.68
	Total with Cost index				889.78

174 Specification Code: 2.6.1

2.6 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.

2.6.1 All kinds of soil

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. Average output of Hydraulic Excavator per hour = 30cum MACHINERY:				
0020	Hydraulic Excavator (3D) with driver and fuel	Day	0.041	7000.00	287.00
0018	Hire and running charges of loader LABOUR:	Day	0.041	5000.00	205.00
0128	Mate Beldar/	Day	0.32	617.00	197.44
0115	Coolie	Day	1.2	558.00	669.60
				TOTAL	1359.04

Add Water Charges @ 1%	13.59
TOTAL	1372.63
Add CPOH @ 15%	205.89
TOTAL	1578.52
Cost of 10.0 cum	1578.52
Cost per cum	157.85
Say	157.85

	Cost index **37.29%**				58.86
	Total with Cost index				216.71

175 Specification Code: od321965/2021_2022

Kerala Water Authority
PRICE

od321965/2021_2022 :Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over
areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth,
disposed earth to be levelled and neatly dressed for manhole.Second depth 1.5m to 3m

Code	Description	Unit	Quantity	Rate	Amount	Remarks
2.6.1	Rate as per item number 2.6.1 of SH: Earth Work	cum	1.00000	157.85	157.85	
2.26.1	Rate as per item number 2.26.1 of SH: Earth Work	cum	1.00000	78.45	78.45	
				TOTAL	236.30	
				cost for one cum	236.30	
				say	236.30	

Cost index **37.29 %**	88.12
Total with Cost index	324.42

176 Specification Code: od321964/2021_2022

od321964/2021_2022 ::Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over
areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth,
disposed earth to be levelled and neatly dressed for manhole. Third Depth 3m to 4.5m

Code	Description	Unit	Quantity	Rate	Amount	Remarks
2.6.1	Rate as per item number 2.6.1 of SH: Earth Work	cum	1.00000	157.85	157.85	
2.26.1	Rate as per item number 2.26.1 of SH: Earth Work	cum	2.00000	78.45	156.90	
				TOTAL	314.75	
				cost for one cum	314.75	
				say	314.75	

Cost index **37.29 %**	117.37
Total with Cost index	432.12

Kerala Water Authority
PRICE

177 Specification Code: od320708/2021_2022

od320708/2021_2022 :Earth work in excavation by mechanical means (Hydraulic excavator)/manual means in
foundation trenches or drains (not exceeding 1.5 m in width or 10sqm on plan) including dressing of sides and
ramming of bottom, lift of 4.5m to 6m, including getting out the excavated soil and disposal of surplus excavated soil
as directed within a lead of 50m. Fourth depth 4.5m to 6m

Fourth depth 4.5m to 6m

Code	Description	Unit	Quantity	Rate	Amount	Remarks
2.6.1	Rate as per item number 2.6.1 of SH: Earth Work	cum	1.00000	157.85	157.85	
2.26.1	Rate as per item number 2.26.1 of SH: Earth Work	cum	3.00000	78.45	235.35	
				TOTAL	393.20	
				cost for one cum	393.20	

say	393.20

Cost index **37.29 %**	146.62
Total with Cost index	539.82

178 Specification Code: 100.6.1

SUBHEAD : **100.0**

KWA APPROVED DATA

100.6.1

Providing steel sheet shoring to the sides of the trenches to depths of above 4.00 m but not exceeding 6.00m using 6 mm M.S. sheet 0.50 M wide stiffen on edges with 50 mm x 50mm x 6 mm M.S. angles driving down vertically on either side one after another in lines and levels with suitable pile driving equipments and accessories to a maximum depth of 0.50 M below the bottom of the proposed excavation 0.5 M above ground level suitably braced by horizontal walling pieces at 75 x 150 mm x 8 mm angles on either side at intervals not exceeding 1.50M and horizontal screw jack type struts at 1.50M intervals and maintaining the shoring till the pipes are laid and works are completed, dismantling, cleaning and restacking for reuse including all labour, hire charges and conveyance for equipments, tools and plants and sundries etc. complete.

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PRICE

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 m2.				
100.6.S.2	Rate as per item Number100.6.S.2 of SH: KWA Approved Data Hire charges of MS sheet (1/20 of cost)	sqm	1.0	160.85	160.85(A)
100.6.S.3	Rate as per item Number100.6.S.3 of SH: KWA Approved Data Hire charges of MS angles (1/20 of cost)	sqm	1.0	33.05	33.05(A)
100.6.S.4	Rate as per item Number100.6.S.4 of SH: KWA Approved Data Hire charges of walling pieces (1/25 of cost)	sqm	1.0	19.50	19.50(A)

100.6.S.5	Rate as per item Number100.6.S.5 of SH: KWA Approved Data Fabricating MS sheet o.5 m wide 7 m long stiffened on 3 edges (1/20 cost as per sub data)	sqm	1.0	62.05	62.05(A)
100.6.S.6	Rate as per item Number100.6.S.6 of SH: KWA Approved Data Driving down the sheet pile and shoring.	sqm	1.0	160.70	160.70(A)
100.6.S.7	Rate as per item Number100.6.S.7 of SH: KWA Approved Data Dismantling the sheet pile after use, cleaning and stacking properly.	sqm	1.0	80.35	80.35(A)
100.6.S.8	Rate as per item Number100.6.S.8 of SH: KWA Approved Data Labour charges for rectifying the damages of sheet piles during driving down & Protective Measures.	sqm	1.0	36.00	36.00(A)
				TOTAL	552.50
				AddWater Charges @ 1% except on A ie on (552.5-552.5=0.0)	.00
				TOTAL	552.50
				AddCPOH @ 15% except on A ie on (552.5-552.5=0.0)	.00
				Cost of 1 m2	552.50
				Cost per 1 m2	552.50
				Say	552.5

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PRICE

	Cost index **37.29%**				206.03
	Total with Cost index				758.53

179 Specification Code: 4.1.8

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.8 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL:				
0293	Stone Aggregate(single size): 40 mm nominal size nominal size (0.70 cum -7.5% for voids i.e. 0.05 =0.65 cum)	cum	0.65	1300.00	845.00
0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.24	1350.00	324.00
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	0.65	112.79	73.31
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.24	103.77	24.90
0982	Coarse sand (zone III)	cum	0.47	1350.00	634.50
2203	Carriage of Coarse sand	cum	0.47	103.77	48.77
0367	Portland Cement	tonne	0.17	4940.00	839.80
2209	Carriage of Cement LABOUR:	tonne	0.17	92.24	15.68
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90

Kerala Water Authority
PRICE

9999	Sundries-	L.S	13.52	2.00	27.04

TOTAL	4327.24
Add Water Charges @ 1%	43.27
TOTAL	4370.51
Add CPOH @ 15%	655.58
TOTAL	5026.09
Cost of 1.0 cum	5026.09
Say	5026.1

	Cost index **37.29%**				1874.23
	Total with Cost index				6900.33

180 Specification Code: 5.1.2

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PRICE

5.1: Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:

5.1.2 1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.57	1350.00	769.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.28	1350.00	378.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	103.77	88.20
0982	Coarse sand (zone III)	cum	0.425	1350.00	573.75

2203	Carriage of Coarse sand	cum	0.425	103.77	44.10
0367	Portland Cement (0.2833 cum)	tonne	0.4	4940.00	1976.00
2209	Carriage of Cement	tonne	0.4	92.24	36.90
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	14.3	2.00	28.60

TOTAL	5768.78
Add Water Charges @ 1%	57.69
TOTAL	5826.47
Add CPOH @ 15%	873.97
TOTAL	6700.44
Cost of 1.0 cum	6700.44
Say	6700.45

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PRICE

	Cost index **37.29%**				2498.60
	Total with Cost index				9199.05

181 Specification Code: 5.9.1

5.9 Centering and shuttering including strutting, etc. and removal of form for:

5.9.1 Foundations, footings, bases of columns, etc for mass concrete

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for footing size 2.7mx2.7mx 1.00m Contact area = 10.8sqm MATERIAL: Assuming shuttering material will become unserviceable after use of 40 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 25% of cost				
7319	wall form panel 1250x500 mm Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	860.00	292.40
7326	Corner angle 45x45x5 mm 1.50 m long Qty taken for cost of using once = 4x0.85/40=0.085	each	0.085	240.00	20.40
7327	100 mm channel shoulder 2.5 m long Qty taken for cost of using once = 8x0.85/40=0.17	each	0.17	910.00	154.70
7328	Double clip (bridge clip) Qty taken for cost of using once = 16x0.85/40 = 0.34	each	0.34	76.00	25.84
7329	Single clip Qty taken for cost of using once = 8x0.85/40 = 0.17	each	0.17	59.00	10.03
7330	M.S. Tube 40 mm dia Qty taken for cost of using once = 10.8x0.85/40 = 0.2295	metre	0.2295	215.00	49.34
9999	Sundries-Assembly nuts 7 bolts Qty taken for cost of using once = 1040x0.85/40 = 22.10	L.S	22.1	2.00	44.20
9977	Carriage LABOUR	L.S	78.0	2.00	156.00
0116	Fitter(grade1)	Day	0.75	738.00	553.50
0114	Beldar	Day	1.5	558.00	837.00

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9999	Sundries-Suttering oil	L.S	52.0	2.00	104.00
9999	Sundries-	L.S	26.0	2.00	52.00

TOTAL	2299.41
Add Water Charges @ 1%	22.99
TOTAL	2322.40
Add CPOH @ 15%	348.36
TOTAL	2670.76
Cost of 10.8 sqm	2670.76
Cost per sqm	247.29
Say	247.3

	Cost index **37.29%**				92.22
	Total with Cost index				339.52

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182 Specification Code: 4.1.3

4.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:

4.1.3 1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL:				
0295	Stone Aggregate(single size):20 mm nominal size nominal size	cum	0.67	1350.00	904.50
0297	Stone Aggregate(single size): 10 mm nominal size nominal size	cum	0.22	1350.00	297.00

2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.89	103.77	92.36
0982	Coarse sand (zone III)	cum	0.445	1350.00	600.75
2203	Carriage of Coarse sand	cum	0.445	103.77	46.18
0367	Portland Cement (0.2225 cum)	tonne	0.32	4940.00	1580.80
2209	Carriage of Cement	tonne	0.32	92.24	29.52
0155	Mason (average)	Day	0.1	709.00	70.90
0114	Beldar	Day	1.63	558.00	909.54
0101	Bhisti	Day	0.7	617.00	431.90
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	14.3	2.00	28.60

TOTAL	5073.95
Add Water Charges @ 1%	50.74
TOTAL	5124.69
Add CPOH @ 15%	768.70
TOTAL	5893.39
Cost of 1.0 cum	5893.39
Say	5893.4

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	Cost index **37.29%**				2197.65
	Total with Cost index				8091.05

183 Specification Code: 5.7

SUBHEAD : **5.0**

REINFORCED CEMENT CONCRETE

5.7 Reinforced cement concrete work in well - steining excluding the cost of centering, shuttering, finishing and reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand (Zone - III) : 3 graded stone aggregate 20 mm nominal size)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum MATERIAL:				
4.1.2	Rate as per item Number4.1.2 of SH: Concrete work LABOUR	cum	1.0	6259.65	6259.65(A)
0115	Coolie Extra labour involved coolie	Day	0.08	558.00	44.64
				AddWater Charges @ 1% except on A ie on (6304.29-6259.65=44.6401)	.45
				TOTAL	6304.74
				AddCPOH @ 15% except on A ie on (6304.74-6259.65=45.0901)	6.76
				TOTAL	6311.50
				Cost of 1.0 cum	6311.50
				Cost of 1 cum	6311.50
				Say	6311.5

	Cost index **37.29%**				2353.56
	Total with Cost index				8665.06

184 Specification Code: od322181/2021_2022

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od322181/2021_2022 :Centering and shuttering including strutting, propping etc. and removal of form for etc. for cover
slab (Including 20% extra for circular works):
Foundations, footings, bases of columns, etc for mass concrete

Code	Description	Unit	Quantity	Rate	Amount	Remarks
5.9.12	Rate as per item number 5.9.12 of SH: Reinforced Cement Concrete	sqm	1.20000	184.15	220.98	
				TOTAL	220.98	
				cost for one sqcm	220.98	
				say	220.98	

Cost index **37.29 %**	82.40
Total with Cost index	303.38

185 Specification Code: od317483/2021_2022

od317483/2021_2022 :Centering and shuttering including strutting, etc. and removal of form for Wellstening
(including 20% extra for circular works)

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Code	Description	Unit	Quantity	Rate	Amount	Remarks
5.9.12	Rate as per item number 5.9.12 of SH: Reinforced Cement Concrete	sqm	1.20000	184.15	220.98	
				TOTAL	220.98	
				cost for one sqm	220.98	
				say	220.98	

Cost index **37.29 %**	82.40
Total with Cost index	303.38

186 Specification Code: 5.22.4

5.22 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level

5.22.4 Hot rolled deformed bars

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 quintal MATERIAL: Deformed twisted steel bars = 1.00q Wastage 5% = 0.05q Total = 1.05q				
1005	Twisted steel/deformed bars	quintal	1.05	4600.00	4830.00
2205	Carriage of Steel	tonne	0.105	92.24	9.69
9999	Sundries-Cover block LABOUR: For straightening, cutting, bending, binding and placing in position	L.S	26.0	2.00	52.00
0102	Blacksmith 1st class	Day	1.0	738.00	738.00
0114	Beldar	Day	1.0	558.00	558.00
9999	Sundries-and binding wire	L.S	26.91	2.00	53.82
				TOTAL	6241.51
				Add Water Charges @ 1%	62.42
				TOTAL	6303.93
				Add CPOH @ 15%	945.59
				TOTAL	7249.52
				Cost of 100.0 kilogram	7249.52
				Cost per kilogram	72.50
				Say	72.5

	Cost index **37.29%**				27.04

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	Total with Cost index				99.54

187 Specification Code: 13.9.1

13.9 Cement plaster 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement.

13.9.1 12 mm cement plaster

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Cement mortar 1:3 (1 cement : 3 coarse sand)				
3.8	Rate as per item Number3.8 of SH: Mortars LABOUR:	cum	0.144	4664.55	671.70
0155	Mason (average)	Day	0.67	709.00	475.03
0115	Coolie	Day	0.75	558.00	418.50
0101	Bhisti	Day	0.92	617.00	567.64
9999	Sundries-Scaffolding and sundries	L.S	12.61	2.00	25.22
0367	Portland Cement	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	Day	0.27	709.00	191.43
0115	Coolie	Day	0.27	558.00	150.66
9999	Sundries-Scaffolding and sundries.	L.S	8.06	2.00	16.12
				TOTAL	2616.94
				Add Water Charges @ 1%	26.17
				TOTAL	2643.11
				Add CPOH @ 15%	396.47
				TOTAL	3039.58

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Cost of 10.0 sqm	3039.58
Cost per sqm	303.96
Say	303.95

	Cost index **37.29%**				113.34
	Total with Cost index				417.29

188 Specification Code: 19.16

SUBHEAD : **19.0**

DRAINAGE

19.16 Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS: 10910 on 12 mm dia steeel bar conforming to IS:1786, having minimum cross section as 23 mm x 25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufactures permanent identification mark to be visible even after fixing including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size)Complete as per design

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Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. Details:				
7354	Plastic encapsulated M.S. foor rest 30x20x15 cm	each	1.0	110.00	110.00
9988	Carriage and sundries Cement concrete 1:3:6 (0.30x0.20x15)=0.009 cum)	L.S	1.82	2.00	3.64

4.2.5	Rate as per item Number4.2.5 of SH: Concrete work LABOUR:	cum	0.009	6966.75	62.70(A)
0123	Mason (brick layer) Ist class	Day	0.02	738.00	14.76
0124	Mason (brick layer)2nd class	Day	0.2	679.00	135.80
0114	Beldar	Day	0.05	558.00	27.90

AddWater Charges @ 1% except on A ie on (354.8-62.7=292.1)	2.92
TOTAL	357.72
AddCPOH @ 15% except on A ie on (357.72-62.7=295.02)	44.25
TOTAL	401.95
Cost of 1.0 each	401.95
Cost of 1 each	401.95
Say	401.95

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	Cost index **37.29%**				149.89
	Total with Cost index				551.84

189 Specification Code: 19.21.1

SUBHEAD : **19.0**

DRAINAGE

19.21 Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix(1 cement:2 coarse sand: 4 graded stone aggregate 20 mm nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement and making necessary channels for the drain etc. complete.

19.21.1 For pipes 100 to 250 mm diameter

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one connection MATERIAL: coarse sand: 4 grade stone aggregate 20 mm nominal size) =0.30x0.30x0.23 m = 0.0207 cum Less pipe: 1/2x3.14x0.23x0.23x0.23 = 0.0096 cum = 0.0111 cum say 0.01 cum				
4.1.3	Rate as per item Number4.1.3 of SH: Concrete work 12 mm cement plaster 1:3 (1 cement: 3 coarsed sand) finished with a floating coat of neat cement 2x0.35x0.35=0.25 sqm	cum	0.01	5893.40	58.93(A)
13.9.1	Rate as per item Number13.9.1 of SH: Finishing LABOUR: (for cutting holes average size 30x30 cm in 23 cm thick wall and making channel etc.)	sqm	0.25	303.95	75.99(A)
0123	Mason (brick layer) Ist class	Day	0.12	738.00	88.56
0124	Mason (brick layer)2nd class	Day	0.12	679.00	81.48
0114	Beldar	Day	0.25	558.00	139.50
9999	Sundries - Add for delay sundries etc	L.S	20.15	2.00	40.30
				AddWater Charges @ 1% except on A ie on (484.76-134.92=349.84)	3.50
				TOTAL	488.26
				AddCPOH @ 15% except on A ie on (488.26-134.92=353.34)	53.00
				TOTAL	541.25
				Cost of 1.0 each	541.25

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Say	541.25

	Cost index **37.29%**				201.83
	Total with Cost index				743.08

190 Specification Code: od322481/2021_2022

od322481/2021_2022 :Conveying from casting yard and fixing the RCC cover slab of various size dia, 25cm thick
including cost of 5kg cement/E

Code	Description	Unit	Quantity	Rate	Amount	Remarks
0367	Portland Cement	tonne	0.00500	4940.00	24.70	
0155	Mason (average)	Day	0.25000	709.00	177.25	
0115	Coolie	Day	0.25000	558.00	139.50	
9999	Sundries	L.S	30.00000	2.00	60.00	
				TOTAL	401.45	
				Add Water Charges @ 1%	4.01	
				Add CPOH @ 15%	60.82	
				cost for one No	466.28	
				say	466.28	

Cost index **37.29 %**	173.88
Total with Cost index	640.16

191 Specification Code: 100.41.33

100.41.33 Supplying and fixing 500mm dia CI manhole cover with frame(medium duty) charges including all cost, labour charges etc complete.

Code	Description	Unit	Quantity	Rate	Amount

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	Details of Cost For 1 No. Materials				
1356	500 mm dia cover with frame (medium duty)	each	1.0	4400.00	4400.00
9999	Sundries-Carriage of CI Man hole cover Labour	L.S	25.0	2.00	50.00
0155	Mason (average)	Day	0.25	709.00	177.25
0115	Coolie	Day	0.25	558.00	139.50

TOTAL	4766.75
Add Water Charges @ 1%	47.67
TOTAL	4814.42
Add CPOH @ 15%	722.16
TOTAL	5536.58
Cost of 1.0 no	5536.58
Cost of each	5536.58
Say	5536.6

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	Cost index **37.29%**				2064.60
	Total with Cost index				7601.2

192 Specification Code: 2.25

2.25 Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 cum. LABOUR:				

0128	Mate	Day	0.2	617.00	123.40
0115	Coolie	Day	2.5	558.00	1395.00
0101	Bhisti	Day	0.2	617.00	123.40

TOTAL	1641.80
Add Water Charges @ 1%	16.42
TOTAL	1658.22
Add CPOH @ 15%	248.73
TOTAL	1906.95
Cost of 10.0 cum	1906.95
Cost per cum	190.69
Say	190.7

	Cost index **37.29%**				71.11
	Total with Cost index				261.81

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193 Specification Code: od317581/2021_2022

od317581/2021_2022 :Removal of excess earth by lorry for minimum mechanical conveyance and less cost of erath

Code	Description	Unit	Quantity	Rate	Amount	Remarks
2241	Good earth	cum	1.00000	129.71	129.71	
0979	Royalty for good earth	cum	-1.00000	40.00	-40.00	
				TOTAL	89.71	
				Add Water Charges @ 1%	.90	
				Add CPOH @ 15%	13.59	
				cost for one cum	104.20	
				say	104.20	

Cost index **37.29 %**	38.86
Total with Cost index	143.06

194 Specification Code: od322505/2021_2022

od322505/2021_2022 :Providing protection works to the Electric post by using 3nos of Kattadi poles and removing the
same after completion of work.

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	25 to 40cm dia Kattadi poles 6m long (25%)	No	1.00000	56.25	56.25	
9999	Sundries	L.S	1.00000	2.00	2.00	
100.98.16	Rate as per item number 100.98.16 of SH: KWA Approved Data	kg	1.00000	197.70	197.70	
0115	Coolie	Day	1.00000	558.00	558.00	
				TOTAL	813.95	
				Add Water Charges @ 1%	6.16	
				Add CPOH @ 15%	93.36	
				cost for one No	913.47	
				say	913.47	

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Cost index **37.29 %**	242.55
Total with Cost index	1156.02

195 Specification Code: od322511/2021_2022

od322511/2021_2022 :Providing protection works to avoid damages to the water supply lines etc. by using earth filled
gunny bags and as temporary bund

Code	Description	Unit	Quantity	Rate	Amount	Remarks
KW17	Empty bag for Earth Filling.	No	1.00000	1.28	1.28	
2.6.1	Rate as per item number 2.6.1 of SH: Earth	cum	1.00000	157.85	157.85	

	Work					

0114	Beldar	Day	1.00000	558.00	558.00	
9999	Sundries	L.S	1.00000	2.00	2.00	
0114	Beldar	Day	1.00000	558.00	558.00	
0114	Beldar	Day	1.00000	558.00	558.00	
0115	Coolie	Day	1.00000	558.00	558.00	
				TOTAL	2393.13	
				Add Water Charges @ 1%	22.35	
				Add CPOH @ 15%	338.64	
				cost for one No	2754.13	
				say	2754.13	

Cost index **37.29 %**	1026.46
Total with Cost index	3780.59

196 Specification Code: 16.84

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16.84 Laying old cement concrete interlocking paver blocks of any design/ shape laid in required line, level, curvature, colour and pattern over and including 50 mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge. (Old CC paver blocks shall be supplied by the department free of cost.)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL: Beading layer 50mm thick				
0982	Coarse sand (zone III) Qty = 10x 0.05 = 0.50 cum	cum	0.5	1350.00	675.00
2203	Carriage of Coarse sand	cum	0.5	103.77	51.89
0983	Fine sand (zone IV)	cum	0.15	900.00	135.00

2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand LABOUR:	cum	0.15	103.77	15.57
0123	Mason (brick layer) Ist class	Day	0.5	738.00	369.00
0124	Mason (brick layer)2nd class	Day	0.5	679.00	339.50
0114	Beldar	Day	1.0	558.00	558.00
0115	Coolie	Day	0.5	558.00	279.00

TOTAL	2422.96
Add Water Charges @ 1%	24.23
TOTAL	2447.19
Add CPOH @ 15%	367.08
TOTAL	2814.27
Cost of 10.0 sqm	2814.27
Cost per sqm	281.43
Say	281.45

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	Cost index **37.29%**				104.95
	Total with Cost index				386.4

197 Specification Code: 5.1.3

5.1: Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:

5.1.3 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 1 cum MATERIAL				
0295	Stone Aggregate(single size):20 mm nominal size	cum	0.67	1350.00	904.50
0297	Stone Aggregate(single size): 10 mm nominal size	cum	0.22	1350.00	297.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.89	103.77	92.36
0982	Coarse sand (zone III)	cum	0.445	1350.00	600.75
2203	Carriage of Coarse sand	cum	0.445	103.77	46.18
0367	Portland Cement (0.2225 of cement)	tonne	0.32	4940.00	1580.80
2209	Carriage of Cement	tonne	0.32	92.24	29.52
0155	Mason (average)	Day	0.17	709.00	120.53
0114	Beldar	Day	2.0	558.00	1116.00
0101	Bhisti	Day	0.9	617.00	555.30
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	Day	0.07	370.00	25.90
9999	Sundries-	L.S	14.3	2.00	28.60

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TOTAL	5453.44
Add Water Charges @ 1%	54.53
TOTAL	5507.97
Add CPOH @ 15%	826.20
TOTAL	6334.17
Cost of 1.0 cum	6334.17
Say	6334.15

	Cost index **37.29%**				2362.00
	Total with Cost index				8696.15

198 Specification Code: 16.79

SUBHEAD : **16.0**

ROAD WORK

16.79 Providing , laying spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm) to wet mix macadam (WMM) specification including premixing the material with water at OMC in mechanical mix plant, carriage of mixed material by tipper to site, for all leads & lifts, laying in uniform layers with mechanical paver finisher in sub - base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achieve the desired density, complete as per specifications and directions of Engineer - in-Charge.

Code	Description	Unit	Quantity	Rate	Amount

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	Details of cost for 225 cum (495 tonne) (A) Material conforming to table..... 45 mm to 22.4 mm Q 30% = 89.10 cum Qty for 0292, 0293, 0294, 0295 codes = 89.10/4 = 22.275 cum Qty for 2206,2202 codes = 89.10/2 = 44.55 cum 22.4 mm to 2.36 mm @ 40% = 118.80 cum Qty for 0.294, 0295 codes = 118.80/4 = 29.70 cum Qty for 1179 code = 118.80/2 = 59.40 cum 2.36 mm to 75 microon @ 30% = 89.10 cum Qty for 2903, 2904 codes = 89.10/2 =				

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	44.55 cum				
0292	Stone Aggregate(single size):50 mm nominal size	cum	22.275	1000.00	22275.00
0293	Stone Aggregate(single size): 40 mm nominal size	cum	22.275	1300.00	28957.50
0294	Stone Aggregate(single size):25 mm nominal size	cum	22.275	1350.00	30071.25
0295	Stone Aggregate(single size):20 mm nominal size	cum	22.275	1350.00	30071.25
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	44.55	112.79	5024.79
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	44.55	103.77	4622.95
0294	Stone Aggregate(single size):25 mm nominal size	cum	29.7	1350.00	40095.00

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0295	Stone Aggregate(single size):20 mm nominal size	cum	29.7	1350.00	40095.00
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	59.4	900.00	53460.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	118.8	103.77	12327.88
2903	Stone chippings/ screenings 4.75 mm nominla size	cum	44.55	1400.00	62370.00
2904	Stone chippings/ screenings 150 micron nominal size	cum	44.55	1400.00	62370.00
2203	Carriage of Coarse sand (B) Machinery	cum	89.1	103.77	9245.91
0059	Wet Mix Plant 60 TPH @ 75 tonne capacity	hour	6.6	800.00	5280.00
0070	Generator 100 KVA/125	hour	6.0	250.00	1500.00

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0057	Water Tanker 5 to 6 KL Capacity 5 km lead with one trip per hour	hour	3.0	150.00	450.00
0052	Front end loader 1 cum bucket capacity (incl POL) Tipper 10 tonne capacity (taking lead = 10 km) = 495 x 10 = 4950 t. km	hour	6.0	900.00	5400.00
0053	Tipper -5 cum Add 10% of cost of carriage to cover loading and unloading Xx 10/100 = 14850.00x 10/100	tonne km	4950.0	3.00	14850.00(X)
0065	Paver finisher Mechanical 100 TPH	hour	6.0	800.00	4800.00
0054	Vibratory roller 8 to 10 tonne (C) Labour	hour	3.9	600.00	2340.00
0128	Mate	Day	0.48	617.00	296.16
0139	Skilled Beldar (for floor rubbing etc.)	Day	2.0	617.00	1234.00
0114	Beldar	Day	10.0	558.00	5580.00

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Tagged TOTAL	442716.7(Y)

Add Water Charges @ 1%	4427.17
TOTAL	447143.86
Add CPOH @ 15%	67071.58
TOTAL	515936.25
Cost of 225.0 cum	515936.25
Cost of 1 cum	2293.05
Say	2293.05

	Cost index **37.29%**				855.08
	Total with Cost index				3148.13

199 Specification Code: od320999/2021_2022

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od320999/2021_2022 :Supplying, conveying and laying 20/25mm dia PVC best quality Pipe, 10kg/cm2,including
specials for diverting near manholes

Code	Description	Unit	Quantity	Rate	Amount	Remarks
100.98.230	Rate as per item number 100.98.230 of SH: KWA Approved Data	metre	1.15000	27.95	32.14	
100.9.2	Rate as per item number 100.9.2 of SH: KWA Approved Data	metre	1.00000	26.50	26.50	
				TOTAL	58.64	
				cost for one metre	58.64	
				say	58.64	

Cost index **37.29 %**	9.88
Total with Cost index	68.52

8 APP G -ADDITIONING PROVISION FOR HEADER PIPE,VALVE,MANHOLE COVERS ETC.IN PUMP HOUSES9 APP H - SUPPLYING AND PROVIDING BLOWER ARRANGEMENT FOR AERATION SUITABLE TO COLLECTION WELL AND ALL INSTALLATION CHARGE AND ELECTRICAL FITTINGS - 3NOS.10 APP I- SUPPLY AND ERECTION OF 65KWA DIESEL / PETROL GENERATORS -3 NOS.11 APP J- INSTALLATIONS EARTHING ,CABLING ,CONTROL PANNEL, ELECTRIC CONNECTION ,KSEB DOCUMENTATIONS AND SUPPORTING STRUCTRE12 APP K- ROAD RESTORATION CHARGES

200 Specification Code: od323265/2021_2022

od323265/2021_2022 :Shoulder Cutting

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Restoration charge - As per order No.GO(Ms)No.59/2020/PWD Dtd.30-07-2020 Tvpm PW(H)D, Excluding GST	sqm	1.00000	1366.76	1366.76	
				TOTAL	1366.76	
				Add Water Charges @ 1%	13.67	
				Add CPOH @ 15%	207.06	
				cost for one sqm	1587.49	
				say	1587.49	

Cost index **37.29 %**	.00
Total with Cost index	1587.49

Kerala Water Authority
PRICE

201 Specification Code: od323295/2021_2022

od323295/2021_2022 :Concrete road surface

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Restoration charge - As per order No.GO(Ms)No.59/2020/PWD Dtd.30-07-2020 Tvpm PW(H)D, Excluding GST	sqm	1.00000	4887.00	4887.00	

TOTAL	4887.00
cost for one sqm	4887.00
say	4887.00

Cost index **37.29 %**	.00
Total with Cost index	4887.0

202 Specification Code: od323297/2021_2022

od323297/2021_2022 :100mm thick interlocking tiled road surface

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Restoration charge - As per order No.GO(Ms)No.59/2020/PWD Dtd.30-07-2020 Tvpm PW(H)D, Excluding GST	sqm	1.00000	3747.10	3747.10	
				TOTAL	3747.10	
				cost for one sqm	3747.10	
				say	3747.10	

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PRICE

Cost index **37.29 %**	.00
Total with Cost index	3747.1

203 Specification Code: od323298/2021_2022

od323298/2021_2022 :BM & BC road surface restoration charge

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Restoration charge - As per order No.GO(Ms)No.59/2020/PWD Dtd.30-07-2020 Tvpm PW(H)D, Excluding GST	sqm	1.00000	3633.49	3633.49	

TOTAL	3633.49
cost for one sqm	3633.49
say	3633.49

Cost index **37.29 %**	.00
Total with Cost index	3633.49

204 Specification Code: od323299/2021_2022

od323299/2021_2022 :Tar road cut restoration charge

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Restoration charge - As per order No. GO (Ms) No.59/2020/PWD dtd.30.07.2020 Tvpm PW(H)D, Excluding GST	sqm	1.00000	3086.87	3086.87	
				TOTAL	3086.87	
				cost for one sqm	3086.87	
				say	3086.87	

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PRICE

Cost index **37.29 %**	.00
Total with Cost index	3086.87

13 APP -L SUPPLY ERECTION TRAIL RUN & COMMISSIONING OF PUMPSET AT LIFTING STATIONSupply erection ,Trial run and commissioning of Pumpset

205 Specification Code: od326612/2021_2022

od326612/2021_2022 :Supply, erection, testing, and commissioning of new generation non clog Submersible motor
pump set having suitable discharge and head, including all accessories such as cost of the panel board with an
ammeter, voltmeter, phase indicating lamps, change over switch, main switch, cost of soft starter, cable from panel
board to starter, starter to motor, capacitors suction pipe, foot valve, Non return valve, suction and delivery pipes of
required length, pressure gauge, earthing and wiring materials, cables etc. complete.

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	AS per KWA /HO/SP-333/2014 dtd.18.3.2016 of the Managing Director KWA Submersible motor pump set up to 10HP	Hp	1.00000	18135.00	18135.00	

TOTAL	18135.00
Add Water Charges @ 1%	181.35
Add CPOH @ 15%	2747.45
cost for one Hp	21063.80
say	21063.80

Cost index **37.29 %**	.00
Total with Cost index	21063.8

206 Specification Code: od326613/2021_2022

od326613/2021_2022 :Supply, erection, testing, and commissioning of new generation non clog Submersible motor
pump set having suitable discharge and head, including all accessories such as cost of the panel board with an
ammeter, voltmeter, phase indicating lamps, change over switch, main switch, cost of soft starter, cable from panel
board to starter, starter to motor, capacitors suction pipe, foot valve, Non return valve, suction and delivery pipes of
required length, pressure gauge, earthing and wiring materials, cables etc. complete

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PRICE

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	As per KWA /HO/SP-333/20214 dtd.10.3.2016 of the Managing Director KWA submersible motor pump set 11HP to100 HP	Hp	1.00000	16325.00	16325.00	

TOTAL	16325.00
Add Water Charges @ 1%	163.25
Add CPOH @ 15%	2473.24
cost for one Hp	18961.49
say	18961.49

Cost index **37.29 %**	.00
Total with Cost index	18961.49

Kerala Water Authority
PRICE

DATA ANALYSIS
O&M

PRICE EST NO:

STP-Providing skilled and experienced personnals for the monitoring of the day to day operation and maintenance of the all systems for STP

1 Specification Code: od341341/2021_2022

od341341/2021_2022 :Plant Manager

Providing skilled and experienced personnals for the monitoring of the day to day operation and maintenance of the all systems

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Plant Manager	Day	1.00000	1563.28	1563.28	
				TOTAL	1563.28	
				cost for one Day	1563.28	
				say	1563.28	

Cost index **37.29 %**	.00
Total with Cost index	1563.28

2 Specification Code: 100.98.1030

100.98.1030 Engaging Operator (pile/ Special Machine)

Kerala Water Authority
PRICE

Code	Description	Unit	Quantity	Rate	Amount
0157	Operator (Pile/Special machine)	Day	1.0	738.00	738.00
				TOTAL	738.00
				Add Water Charges @ 1%	7.38
				TOTAL	745.38
				Add CPOH @ 15%	111.81
				TOTAL	857.19
				Cost of 1.0 Day	857.19
				Cost per Day	857.19
				Say	857.2

	Cost index **37.29%**				319.65
	Total with Cost index				1176.85

3 Specification Code: 100.98.1032

100.98.1032 Engaging Technician

Code	Description	Unit	Quantity	Rate	Amount
0160	Technician	Day	1.0	775.00	775.00
				TOTAL	775.00
				Add Water Charges @ 1%	7.75
				TOTAL	782.75
				Add CPOH @ 15%	117.41
				TOTAL	900.16
				Cost of 1.0 Day	900.16
				Cost per Day	900.16
				Say	900.15

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PRICE

	Cost index **37.29%**				335.67
	Total with Cost index				1235.82

4 Specification Code: 100.98.1009

100.98.1009 Engaging Fitter (grade 1)

Code	Description	Unit	Quantity	Rate	Amount

0116	Fitter(grade1)	Day	1.0	738.00	738.00

TOTAL	738.00
Add Water Charges @ 1%	7.38
TOTAL	745.38
Add CPOH @ 15%	111.81
TOTAL	857.19
Cost of 1.0 Day	857.19
Cost per Day	857.19
Say	857.2

	Cost index **37.29%**				319.65
	Total with Cost index				1176.85

Kerala Water Authority
PRICE

5 Specification Code: 100.98.1008

100.98.1008 Engaging Coolie

Code	Description	Unit	Quantity	Rate	Amount
0115	Coolie	Day	1.0	558.00	558.00
				TOTAL	558.00
				Add Water Charges @ 1%	5.58
				TOTAL	563.58
				Add CPOH @ 15%	84.54
				TOTAL	648.12
				Cost of 1.0 Day	648.12
				Cost per Day	648.12
				Say	648.1

	Cost index **37.29%**				241.68
	Total with Cost index				889.78

6 Specification Code: 100.98.1036

100.98.1036 Supply of Security Guard without gun.

Code	Description	Unit	Quantity	Rate	Amount
0164	Security guard without gun (8 hours shift duty per day)	Day	1.0	617.00	617.00
				TOTAL	617.00
				Add Water Charges @ 1%	6.17
				TOTAL	623.17
				Add CPOH @ 15%	93.48
				TOTAL	716.65
				Cost of 1.0 each	716.65
				Say	716.65

Kerala Water Authority
PRICE

	Cost index **37.29%**				267.24
	Total with Cost index				983.89

STP-Periodical cleaning STP units

7 Specification Code: 2.31

2.31 Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 sqm LABOUR:				
0114	Beldar	Day	1.08	558.00	602.64
0115	Coolie	Day	0.6	558.00	334.80
				TOTAL	937.44
				Add Water Charges @ 1%	9.37
				TOTAL	946.81
				Add CPOH @ 15%	142.02
				TOTAL	1088.83
				Cost of 100.0 sqm	1088.83
				Cost per sqm	10.89
				Say	10.9

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PRICE

	Cost index **37.29%**				4.06
	Total with Cost index				14.96

STP-Upkeep of Civil structures, maintaining Landscaping etc.

8 Specification Code: od341334/2021_2022

od341334/2021_2022 :Maintaining the garden as per the direction of department officers

*Maintaining the garden as per the direction of department officers including engaging gardeners daily, cost of manure for gardening, hire charges for gardening tools, lawn mover,etc. for the proper maintenance of garden and premises.
Cost of manure, pesticides and hire for tools*

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Maintaining the garden as per the direction of department officers	Month	1.00000	5264.39	5264.39	
				TOTAL	5264.39	

cost for one Month	5264.39
say	5264.39

Cost index **37.29 %**	.00
Total with Cost index	5264.39

9 Specification Code: 13.99.1

13.99 Painting with synthetic enamel paint of approved brand and manufacture ofrequired colour to give an even shade :

13.99.1 One or more coats on old work

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm MATERIAL				
0833	Synthetic enamel paint in black or chocolate shade	Litre	0.7	170.00	119.00
9977	Carriage of paint and materials LABOUR	L.S	0.52	2.00	1.04
0131	Painter	Day	0.36	679.00	244.44
0115	Coolie	Day	0.36	558.00	200.88
9999	Sundries-	L.S	2.73	2.00	5.46
9999	Sundries-Brushes sand paper etc.	L.S	5.33	2.00	10.66
9999	Sundries-	L.S	8.06	2.00	16.12
				TOTAL	597.60
				Add Water Charges @ 1%	5.98
				TOTAL	603.58
				Add CPOH @ 15%	90.54
				TOTAL	694.12
				Cost of 10.0 sqm	694.12

Kerala Water Authority
PRICE

Cost per sqm	69.41
Say	69.4

	Cost index **37.29%**				25.88
	Total with Cost index				95.28

10 Specification Code: 13.51.2

13.51 Painting with silicon & acrylic emulsion based water thinnable sealer of approved brand and manufacture on wet or patchy portion of plastered surfaces:

13.51.2 Two coats

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm MATERIAL:				
0801	Silicon and acrylic emulsion	Litre	2.88	130.00	374.40
9977	Carriage	L.S	0.52	2.00	1.04
9999	Sundries-Putty etc. LABOUR:	L.S	2.73	2.00	5.46
0131	Painter	Day	0.43	679.00	291.97
0115	Coolie	Day	0.43	558.00	239.94
9999	Sundries-Brushes, sand paper etc.	L.S	8.53	2.00	17.06
9999	Sundries-	L.S	17.26	2.00	34.52
				TOTAL	964.39
				Add Water Charges @ 1%	9.64
				TOTAL	974.03
				Add CPOH @ 15%	146.10
				TOTAL	1120.13
				Cost of 10.0 sqm	1120.13

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PRICE

Cost per sqm	112.01
Say	112.0

	Cost index **37.29%**				41.76
	Total with Cost index				153.76

STP-Annual Chemicals charges

11 Specification Code: od341336/2021_2022

od341336/2021_2022 :Supply of liquid chlorine in Tonne Cylinders (5 PPM dosage)

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Supply of liquid chlorine in Tonne Cylinders (3.5 PPM dosage) 	kg	1.00000	26.45	26.45	
				TOTAL	26.45	
				cost for one kg	26.45	
				say	26.45	

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PRICE

Cost index **37.29 %**	.00
Total with Cost index	26.45

12 Specification Code: od341337/2021_2022

od341337/2021_2022 :Supply and delivery of Hydrated lime as per specification (7 PPM dosage)

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Supply and delivery of Hydrated lime as per specification (7 PPM dosage) 	kg	1.00000	14.05	14.05	
				TOTAL	14.05	

cost for one kg	14.05
say	14.05

Cost index **37.29 %**	.00
Total with Cost index	14.05

13 Specification Code: od341342/2021_2022

od341342/2021_2022 :Supply and delivery of Alum at (7 PPM dosage) as per specification

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Supply and delivery of Alum at (7 PPM dosage) as per specification 	kg	1.00000	13.75	13.75	
				TOTAL	13.75	
				cost for one kg	13.75	
				say	13.75	

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PRICE

Cost index **37.29 %**	.00
Total with Cost index	13.75

14 Specification Code: od341344/2021_2022

od341344/2021_2022 :Other Chemicals

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Other Chemicals	L.S	1.00000	50000.00	50000.00	
				TOTAL	50000.00	
				Add Water Charges @ 1%	500.00	
				Add CPOH @ 15%	7575.00	
				cost for one L.S	58075.00	

say	58075.00

Cost index **37.29 %**	.00
Total with Cost index	58075.0

STP-Major repairs and maintenance of Electro Mechanical work (Break down maintanence).

15 Specification Code: od341350/2021_2022

od341350/2021_2022 :Repairs to Motor and Punpsets , rewinding of motors and its assembly and putting into use for the break down maintenance for the pumps of the following considering the salvage values of the components.

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	i	No	1.00000	60000.00	60000.00	
				TOTAL	60000.00	
				cost for one set	60000.00	
				say	60000.00	

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PRICE

Cost index **37.29 %**	.00
Total with Cost index	60000.0

STP-Others

16 Specification Code: od341340/2021_2022

od341340/2021_2022 :Testing and calibration of electrical meters and relays,ammeter and voltmeters,cranes and hoists,testing of ELCB,testing of earth pit,testing and cathodic protection of MS line,environmental monitoring,sludge testing,transformer testing and other inspection charges payable to inspecting agencies excluding the Govt.agencies.

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Testing and calibration of electrical meters and relays,ammeter and voltmeters and other inspection charges payable to inspecting agencies excluding Govt.agencies.	No	1.00000	5000.00	5000.00	

TOTAL	5000.00
cost for one No	5000.00
say	5000.00

Cost index **37.29 %**	.00
Total with Cost index	5000.0

17 Specification Code: od341348/2021_2022

od341348/2021_2022 :Attending the repairs in the valves,actuators,electro magnetic flow meters and connected works

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Attending the repairs in the valves,actuators,electro magnetic flow meters and connected works	No	1.00000	5000.00	5000.00	
				TOTAL	5000.00	
				cost for one No	5000.00	
				say	5000.00	

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PRICE

Cost index **37.29 %**	.00
Total with Cost index	5000.0

18 Specification Code: od341349/2021_2022

od341349/2021_2022 :Attending repairs in the E.O.T crane including changing of spare if any during servicing

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Attending repairs in the E.O.T crane including changing of spare if any during servicing	No	1.00000	4000.00	4000.00	
				TOTAL	4000.00	

cost for one No	4000.00
say	4000.00

Cost index **37.29 %**	.00
Total with Cost index	4000.0

19 Specification Code: od341351/2021_2022

od341351/2021_2022 :Transformer air filtration and topup oil in transformer,replacement of tap changing mechanism,replacement of dial thermometer,replacement of terminal bushes(HT),painting of the transformer etc.

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Transformer air filtration and topup oil in transformer	No	1.00000	5000.00	5000.00	
				TOTAL	5000.00	
				cost for one No	5000.00	
				say	5000.00	

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Cost index **37.29 %**	.00
Total with Cost index	5000.0

20 Specification Code: od341352/2021_2022

od341352/2021_2022 :Attending emergency repair works in starter like replacement of fixed contacts,moving contacts,auxilary contacts,replacement of over load relays,replacement of timer,no volt coil,repair work in switches like replacement of fixed contacts,moving contacts,fuse carrier sets.HRC fuse base and carriers,replacement of isolator,isolator bridges,repair of oil circuit breaker and air circuit breaker like replacement of fixed contacts,moving contacts,replacement of operating mechanism sets,tripping mechanism sets,no volt coils control circuit etc.

Code	Description	Unit	Quantity	Rate	Amount	Remarks

MR	Attending emergency repair works in starter like replacement of fixed contacts,moving contacts	No	1.00000	5000.00	5000.00	

TOTAL	5000.00
cost for one No	5000.00
say	5000.00

Cost index **37.29 %**	.00
Total with Cost index	5000.0

21 Specification Code: od341353/2021_2022

od341353/2021_2022 :Hire charges of Tools and Plants required for the day to day operation of the Plant and equipment s

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Hire charges of Tools and Plants required for the day to day operation of the Plant and equipment s	No	1.00000	5000.00	5000.00	
				TOTAL	5000.00	
				cost for one No	5000.00	
				say	5000.00	

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Cost index **37.29 %**	.00
Total with Cost index	5000.0

22 Specification Code: od341354/2021_2022

od341354/2021_2022 :Supply and maintenance of emergency personal and fire fighting equipment s including periodical check up,refilling and getting sanction from concerned departments,license renewal etc except renewal of Factories and Boilers and Electrical Inspectorate

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Supply and maintenance of emergency personal and fire fighting equipment s including periodical check up,refilling and getting sanction from concerned departments,license renewal etc except renewal of Factories and Boilers and Electrical Inspectorate	No	1.00000	5000.00	5000.00	
				TOTAL	5000.00	
				cost for one No	5000.00	
				say	5000.00	

Cost index **37.29 %**	.00
Total with Cost index	5000.0

23 Specification Code: od341355/2021_2022

od341355/2021_2022 :Repair and maintenance of control/instrumentation cabling,communication cabling,instrumentation cabling etc for the proper upkeep of SCADA and telemetry system including repair of all faulty components whenever necessary

Kerala Water Authority
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Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Repair and maintenance of control/instrumentation cabling,communication cabling,instrumentation cabling etc for the proper upkeep of SCADA and telemetry system including repair of all faulty components whenever necessary	No	1.00000	6000.00	6000.00	
				TOTAL	6000.00	
				cost for one No	6000.00	
				say	6000.00	

Cost index **37.29 %**	.00
Total with Cost index	6000.0

24 Specification Code: od341356/2021_2022

od341356/2021_2022 :Maintenance of SCADA system like Hardware including servers,printers,monitors etc for control room Scada,office stationary items.software for control room Scada,ups for control room including batteries,interface to regional telemetry system, etc including replacing of all faulty components whenever necessary

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Maintenance of SCADA system like Hardware including servers	No	1.00000	8000.00	8000.00	
				TOTAL	8000.00	
				cost for one No	8000.00	
				say	8000.00	

Cost index **37.29 %**	.00
Total with Cost index	8000.0

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PRICE

25 Specification Code: od341357/2021_2022

od341357/2021_2022 :Replacement of Catridge one time between 5 to 10 years

One time- Rs. 400000/- Equal divide for 10 years 400000/10=40000

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Replacement of Catridge one time between 5 to 10 years	L.S	1.00000	40000.00	40000.00	
				TOTAL	40000.00	
				cost for one L.S	40000.00	
				say	40000.00	

Cost index **37.29 %**	.00
Total with Cost index	40000.0

26 Specification Code: od341347/2021_2022

od341347/2021_2022 :Vehicle hire charges

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Vehicle hire charges	No	12.00000	12000.00	144000.00	
				TOTAL	144000.00	
				Add Water Charges @ 1%	1440.00	
				Add CPOH @ 15%	21816.00	
				cost for one No	167256.00	
				say	167256.00	

Cost index **37.29 %**	.00
Total with Cost index	167256.0

27 Specification Code: od341358/2021_2022

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od341358/2021_2022 :Generator Fuel charges

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Generator Fuel charges . Deisel consumption @56.9 L/Hour	hour	56.90000	100.00	5690.00	
				TOTAL	5690.00	
				Add Water Charges @ 1%	56.90	
				Add CPOH @ 15%	862.03	
				cost for one hour	6608.93	
				say	6608.93	

Cost index **37.29 %**	-.00
Total with Cost index	6608.93

STP-Annual Operation and Maintenance for 9 years (2nd year to 9th year)

28 Specification Code: od341346/2021_2022

od341346/2021_2022 :Annual Operation and Maintenance for 9 years (2nd year to 9th year)

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Annual Operation and Maintenance for 9 years (2nd year to 9th year)	No	1.00000	6844540.33	6844540.33	
				TOTAL	6844540.33	
				cost for one No	6844540.33	
				say	6844540.33	

Cost index **37.29 %**	.00
Total with Cost index	6844540.33

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Sewer- Operation and maintenance for one year

29 Specification Code: od341335/2021_2022

od341335/2021_2022 :Labour for operation the well and connected works(Operator,Work assistant,fitter,electrician,Technician etc) as per the direction of departmental officers.

Code	Description	Unit	Quantity	Rate	Amount	Remarks
0157	Operator (Pile/Special machine)	Day	2190.00000	738.00	1616220.00	
0115	Coolie	Day	2190.00000	558.00	1222020.00	
0160	Technician	Day	365.00000	775.00	282875.00	
MR	electrician	Day	365.00000	1175.00	428875.00	
0116	Fitter(grade1)	Day	365.00000	738.00	269370.00	
				TOTAL	3819360.00	
				Add Water Charges @ 1%	38193.60	

Add CPOH @ 15%	578633.04
cost for one No	4436186.64
say	4436186.64

Cost index **37.29 %**	1468498.22
Total with Cost index	5904684.86

30 Specification Code: od341339/2021_2022

od341339/2021_2022 :Annul maintenance(Day today if needed) of electrical, civil ,mechanical and other connected items and including replacement damaged of electrical , mechanical and civil, Including painting of items as per the direction of departmental officials

Code	Description	Unit	Quantity	Rate	Amount	Remarks
0115	Coolie	Day	365.00000	558.00	203670.00	
MR	Replacement/ Repair of electrical items (Including painting existing items)	L.S	1.00000	200000.00	200000.00	
MR	Replacement/Repair of mechanical items (Including motor, painting existing items, etc)	L.S	1.00000	250000.00	250000.00	
MR	Replacement/Repair of civil items and (Including painting existing items)	L.S	1.00000	200000.00	200000.00	
				TOTAL	853670.00	
				cost for one No	853670.00	
				say	853670.00	

Cost index **37.29 %**	75948.54
Total with Cost index	929618.54

31 Specification Code: od341343/2021_2022

od341343/2021_2022 :Consumable Cotton waste ,Lubricants (oil and Grease)soap ,chemicals,Glass ware,safety equipment & Devices, Cleaning etc.. for wet well and pumping station

Kerala Water Authority
PRICE

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Cotton waste ,Lubricants (oil and Grease)soap ,chemicals,Glass ware,safety equipment & Devices, Cleaning etc.. for wet well and pumping station	No	12.00000	10000.00	120000.00	
				TOTAL	120000.00	
				cost for one No	120000.00	
				say	120000.00	

Cost index **37.29 %**	.00
Total with Cost index	120000.0

32 Specification Code: od341345/2021_2022

od341345/2021_2022 :Sewer line,well maintenance - Sewer cleaners including necessary accessories required for cleaning of sewer lines with safety equipment.

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Code	Description	Unit	Quantity	Rate	Amount	Remarks
0129	Sewer Man	Day	365.00000	558.00	203670.00	
0115	Coolie	Day	365.00000	558.00	203670.00	
0116	Fitter(grade1)	Day	365.00000	738.00	269370.00	
MR	Rent for sewer cleaning machine	L.S	1.00000	150000.00	150000.00	
				TOTAL	826710.00	
				Add Water Charges @ 1%	8267.10	
				Add CPOH @ 15%	125246.57	
				cost for one No	960223.67	
				say	960223.67	

Cost index **37.29 %**	293098.90
Total with Cost index	1253322.57

33 Specification Code: od341347/2021_2022

od341347/2021_2022 :Vehicle hire charges

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Vehicle hire charges	No	12.00000	12000.00	144000.00	
				TOTAL	144000.00	
				Add Water Charges @ 1%	1440.00	
				Add CPOH @ 15%	21816.00	
				cost for one No	167256.00	
				say	167256.00	

Cost index **37.29 %**	.00
Total with Cost index	167256.0

Sewer-O&M for 2nd year to 10th Year

34 Specification Code: od341338/2021_2022

Kerala Water Authority
PRICE

od341338/2021_2022 :Operation and Maintenance for 9 years (2nd year to 10th year)

Code	Description	Unit	Quantity	Rate	Amount	Remarks
MR	Operation and Maintenance for 9 years (2nd year to 10th year)	No	1.00000	8332996.39	8332996.39	
				TOTAL	8332996.39	
				cost for one No	8332996.39	
				say	8332996.39	

Cost index **37.29 %**	.00
Total with Cost index	8332996.39