

BIHAR URBAN INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED

Annexure - 7 Volume-II

REVISED FINANCIAL BID

FOR

CONSTRUCTING OF INTERCEPTION & DIVERSION WORKS INCLUDING 6 PUMPING STATIONS, RISING MAIN, NEW TAPPINGS FOR 9 DRAINS (NAYA TOLA BASTI NALA,MILAN CHOWK & TARA BHAWAN NALA, WARD NO 8 NALA,WARD NO 9 NALA, STATION ROAD NALA(1st), STATION ROAD NALA(2ND) AND DURGA STHAN NALA AND WARD NO 3 NALA) CONTROLLED WITH SCADA & CONSTRUCTION OF SEWAGE TREATMENT PLANT OF CAPACITY 9 MLD INCLUDING DISPOSAL & REUSE FACILITY WITH 2 MONTHS TRIAL, RUN, TESTING, COMMISSIONING & MAINTENANCE OF COMPLETE SYSTEM ON DESIGN BUILD OPERATE&TRANSFER (DBOT) BASIS & THERE AFTER OPERATION & MAINTENANCE FOR 15 YEARS FOR NAUGACHIYA TOWN.

UNDER
"NAMAMI GANGE" SCHEME

CONSTRUCTING OF INTERCEPTION & DIVERSION WORKS INCLUDING 6 PUMPING STATIONS, RISING MAIN, NEW TAPPINGS FOR 9 DRAINS (NAYA TOLA BASTI NALA,MILAN CHOWK & TARA BHAWAN NALA, WARD NO 8 NALA,WARD NO 9 NALA, STATION ROAD NALA(1st), STATION ROAD NALA(2ND) AND DURGA STHAN NALA AND WARD NO 3 NALA) CONTROLLED WITH SCADA & CONSTRUCTION OF SEWAGE TREATMENT PLANT OF CAPACITY 9 MLD INCLUDING DISPOSAL & REUSE FACILITY WITH 2 MONTHS TRIAL, RUN, TESTING, COMMISSIONING & MAINTENANCE OF COMPLETE SYSTEM ON DESIGN BUILD OPERATE& TRANSFER (DBOT) BASIS & THERE AFTER OPERATION & MAINTENANCE FOR 15 YEARS FOR NAUGACHIYA TOWN

ABSTRACT OF TOTAL COST

SEWAGE TREATMENT PLANT AND I & D ALLIED WORKS INCLUDING SPSs

Grand Summary

No.	Component	Price		
1.	Design-Build price for STP and allied infrastructure (Schedule A)			
2	Design-Build price for I & D and allied Works including SPSs (Schedule B)			
3 A.	Total O & M Price of STP for 15 years			
3 B	NPV of Total O & M Price of STP for 15 years			
4 A.	4 A. Total O & M Price of I & D works including SPSs for 15 years			
4 B	4 B NPV of Total O & M Price of I & D works including SPSs for 15 years			
5.	Cost of Land requirement for setting up the STP facility as indicated in the bid			
	ce based on quoted O&M prices including price of 2+3A+4A+5) =			
[in figur	es]			
[In word	[In words]			
Total Price based on NPV of quoted O&M prices including price of land (1+2+3B+4B+5) =				
[in figures]				
[In word	's]			

SCHEDULE A

 $\begin{tabular}{ll} Table & 2- Price Schedule: PART A (STP-9 MLD capacity) - Design-Build Price \\ \end{tabular}$

S.N.	Works Activity	Design-Build Price
1	Design, Build, Commissioning, trial and run of STP of capacity 09 mld along with the provision of online waste-water quality analyzer to measure, analyze and control PH, TSS, COD, BOD, TOC etc	
Break-up of Pr	rice of item 1 above	
1A	Civil and Structural Works (including that required for disposal and reuse)	
1B	Installation, testing and commissioning of Electro – mechanical and Instrumentation equipment and accessories including equipments for electricity generation from solar photovoltaic arrangement.	
С	Ancillary works like, internal roads, area grading etc.	
	Total Design Build Price	
	Amount in Words	

Indicative Flow

Indicative Flow for the purpose of evaluation of bids during the Operations Period shall be as follows:

Table - 3

Year of Operations	Indicative Sewage flow rate for STP (MLD)*
1- Year One	6.0
2- Year Two	6.2
3- Year Three	6.4
4- Year Four	6.6
5- Year Five	6.9
6- Year Six	7.1
7- Year Seven	7.3
8- Year Eight	7.5
9- Year Nine	7.8
10- Year Ten	8.0
11- Year Eleven	8.2
12- Year Twelve	8.4
13- Year Thirteen	8.6
14- Year Fourteen	8.8
15- Year Fifteen	9.0

^{*&}quot;Indicative flow rate for STP" means the rate of sewage flow which is projected by the Owner to be available for treatment in the STP facility for each of the 15 years of the O & M period.

Table 4 - Price Schedule
PARTS B & C (STP) and Annual O&M Price and Additional O&M Price

Year of	Currency	Total Annual	NPV factor	Value e=
Operat	INR	O&M Price,	(d)	c*d
ions		assuming		
		Indicative	(Based on	
		Sewage Flow	discount	
		reaching the	factor of 10%	
		STP	p.a.)	
)		
1			0.909	
2			0.826	
3			0.751	
4			0.683	
5			0.621	
6			0.564	
7			0.513	
8			0.467	
9			0.424	
10			0.386	
11			0.350	
12			0.319	
13			0.290	
14			0.263	
15			0.239	

The area of the land that is required for the STP, roads, drains and other appurtenant reuse infrastructure in accordance square meters.

Cost of Land

S. N.	Component			
1.	Area of Land Required for STP as per given Technology by Bidder SQM			
2.	Price of Land per square meter	3953		
Total Price of Land(INR):				
Amoun	Amount in Words:			

1.9 Part D (STP)The Electricity Consumption guaranteed by the bidder

Table 6 - Part D (STP) Guaranteed Electricity Consumption

Year of Operations	Guaranteed Electricity Consumption for the year (KWh / MLD)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	

Notes B:

- 1. Bidder shall indicate the land requirement for STP, roads, drains and other appurtenant structures in Square Metres, along with calculations considering the proposed treatment process.
- 2. The Bidder shall provide along with the price schedule a separate table giving details of taxes, GST, duties, levies and other applicable taxes considered by him and included in the prices offered under Part A& Part B.
- 3. The prices quoted in each of the sub parts of the Price Schedules shall be supported by sufficient justification, financial model and support materials / calculations showing the methods and the rates assumed at arriving these numbers.

Signature of the Bidder Name of the Bidders Rubber stamp with Designation Signature of the Engineer Name of the Engineer Designation

Date

 Table - 7
 Price for Operation & Maintenance of STP for 15 years

S1.	Description	Lump Sum Price														
No.	_	1 ST	2^{nd}	3 rd	4 th	5 th	6 th	7^{th}	8 th	9 th	10 th	11 th	12 th	13 th	14 th	15 th
		Yea	Yea	Yea	Year	Year	Year	Yea	Yea	Yea	Year	Year	Year	Year	Year	Year
		r	r	r				r	r	r						
	Fixed Price															
1	O & M cost including Spare Parts, tools and tackles Manpower, repair & maintenance of civil works, electromechanical works and all other costs related to operation and maintenance of STP facility but excluding energy consumption.															
	Variable Price															
2	Cost of electrical Energy consumption per year (Guaranteed Electricity Consumption for the year per MLD x Base Rate of Electricity Tariff.)															
3	Indicative Sewage Flow rate for STP & MPS (MLD)															
4	Cost of Energy* (2x3)	6.0	6.2	6.4	6.6	6.9	7.1	7.3	7.5	7.8	8.0	8.2	8.4	8.6	8.8	9.0
	Total Price for O&M of STP for 15 years (1+4)				111											

Note:- The O&M cost arrived in this table for the respective years should be taken to the column (a) of table 4 for the respective years

SCHEDULE "B"

I&D & Allied works

Table 8, Design-Build Price of I& D with Allied works including SPSs.

S.N.	Works Activity Design-Build Pri						
1	DESIGNING, CONSTRUCTING OF INTERCEPTION & DIVERSION WORKS INCLUDING 6 PUMPING STATIONS, RISING MAIN, NEW TAPPINGS FOR 9 DRAINS (NAYA TOLA BASTI NALA,MILAN CHOWK & TARA BHAWAN NALA, WARD NO 8						
	NALA,WARD NO 9 NALA, STATION ROAD NALA(1 st), STATION ROAD NALA(2 ND) AND DURGA STHAN NALA AND WARD NO 3 NALA) CONTROLLED WITH SCADA.						
Break-up of Pr	rice of item 1 above						
1A	Civil & Electromechanical Works of I & D Works (including SPSs and Rising Main)						
	Total Design Build Price						
	Amount in Words						

Table-9
Indicative Sewage Flow Rate for SPS

Year of	Indicative Sewage flow rate (MLD)						
Operations	SPS A	SPS B	SPS C	SPS D	SPS E	SPS F	
1st year	0.50	3.79	0.14	0.300	0.300	0.320	
2 nd Year	0.511	3.878	0.143	0.307	0.307	0.328	
3 rd year	0.523	3.966	0.146	0.314	0.314	0.336	
4 th year	0.533	4.054	0.149	0.321	0.321	0.344	
5 th Year	0.545	4.142	0.152	0.328	0.328	0.352	
6 th year	0.556	4.230	0.155	0.335	0.335	0.360	
7 th Year	0.567	4.318	0.158	0.342	0.342	0.368	
8 th year	0.579	4.406	0.161	0.350	0.350	0.376	
9 th year	0.590	4.494	0.164	0.357	0.357	0.384	
10 th year	0.602	4.582	0.167	0.364	0.364	0.392	
11 th year	0.613	4.670	0.17	0.371	0.371	0.400	
12 th year	0.624	4.758	0.173	0.378	0.378	0.408	
13 th year	0.635	4.846	0.176	0.385	0.385	0.416	
14 th year	0.657	4.934	0.178	0.392	0.392	0.424	
15 th year	0.670	5.11	0.18	0.400	0.400	0.440	

Indicative Sewage flowrate for SPS means the rate of sewage flow which is projected by the Owner to be available for handling in the SPSfor each of the 15 years of the O&M period.

O&M Price for Operation and Maintenance of the I&D Works, rising Main, Drains with Six Sewage Pumping Stations in each of the 15 years of the Operations Period as provided in the table below

Table-10

Year of Operations	Diging Main and CDCs		NPV Factor (Based on discount factor of 10% p.a.)	NPV of O&M Price Col 5 = Col 2 *
	In Figures	In words		Col 4
(1)	(2)	(3)	(4)	(5)
1			0.909	
2			0.826	
3			0.751	
4			0.683	
5			0.621	
6			0.564	
7			0.513	
8			0.467	
9			0.424	
10			0.386	
11			0.350	
12			0.319	
13			0.290	
14			0.263	
15			0.239	
		NPV of Total O&M	Price for 15 years	

PART C – Guaranteed Electricity Consumption for SPS

The Electricity Consumption guaranteed by the bidder shall be as under: For SPS A (at Naya tola basti Nala)

Year of Operations	Guaranteed Annual Energy Consumptionfor Sewage flow rate (KWh / MLD of Sewage pumped over the year)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	

The Electricity Consumption guaranteed by the bidder shall be as under: For SPS B (at Maa tara bhawan tola Nala)

Year of Operations	Guaranteed Annual Energy Consumption for Sewage flow rate (KWh / MLD of Sewage pumped over the year)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	

The Electricity Consumption guaranteed by the bidder shall be as under: For SPS C (at Ward no -8 nala)

Year of Operations	Guaranteed Annual Energy Consumption for Sewage flow rate (KWh / MLD of Sewage pumped over the year)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	

The Electricity Consumption guaranteed by the bidder shall be as under: For SPS D (at ward no-9 Nala)

Year of Operations	Guaranteed Annual Energy Consumption for Sewage flow rate (KWh / MLD of Sewage pumped over the year)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	

The Electricity Consumption guaranteed by the bidder shall be as under: For SPS E (at Durga sthan chowk Nala) Table-15

Year of Operations	Guaranteed Annual Energy Consumption for Sewage flow rate (KWh / MLD of Sewage pumped over the year)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	

The Electricity Consumption guaranteed by the bidder shall be as under: For SPS F (at ward no-3 Nala)

Year of Operations	Guaranteed Annual Energy Consumption for Sewage flow rate (KWh / MLD of Sewage pumped over the year)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	

Summary of O & M Price

Year	I&D Allied		Quoted Bid Price for 15 Years O&M													
	works,	SPS A	SPS B	SPS C	SPS D	SPS E	SPS F	Total Price								
	rising mains							(2+3+4+5+6+7+8)								
1	2	3	4	5	6	7	8	9								
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13						_										
14																
15																
Total																

O & M COST OF I&D ALLIAD WORKS, RISING MAIN FOR 15 YEARS _Table-18

Year of Operation	Annual O&M rate in figures In Rs	In words In Rs
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
Total O&M price for 15 years		
Amount in words in Rs		

Table-19
Price for Operation & Maintenance of SPSA for 15 years

S1.	Description	Lump Sum Price														
No.		1 ST	2^{nd}	3 rd	4 th	5 th	6 th	7^{th}	8 th	9 th	10 th	11 th	12^{th}	13 th	14 th	15 th
		Yea	Yea	Ye	Year	Year	Year	Yea	Yea	Yea	Yea	Yea	Yea	Yea	Yea	Yea
		r	r	ar				r	r	r	r	r	r	r	r	r
	Fixed Price															
1	O & M cost including Spare															
	Parts, tools and tackles															
	Manpower, repair &															
	maintenance of civil works,															
	electromechanical works and															
	all other costs related to															
	operation and maintenance															
	of SPS facility but excluding															
	energy consumption.															
	Variable Price															
	variable i lice															
2	Cost of electrical Energy															
	consumption per MLD of															
	sewage pumped (Guaranteed															
	Energy Consumption per															
	MLD x Base Rate of															
	Electricity Tariff.)															
3	Indicative Sewage Flow to	0.5	0.51	0.5	0.53	0.54	0.55	0.56	0.57	0.59	0.60	0.61	0.62	0.63	0.65	0.67
	be pumped per year – MLD		1	23	3	5	6	7	9		2	3	4	5	7	
4																
4	Cost of Energy* (2x3)															
	Total Price for O&M of															
	SPS-A for 15 years (1+4)															

Price for Operation & Maintenance of SPSB for 15 years

S1.	Description						ım Pric									
No.	1	1 ST	2^{nd}	3 rd	4 th	5 th	6 th	7^{th}	8 th	9 th	10^{th}	11 th	12 th	13 th	14 th	15 th
		Yea	Yea	Ye	Year	Year	Year	Yea	Yea	Yea	Yea	Yea	Yea	Yea	Yea	Yea
		r	r	ar				r	r	r	r	r	r	r	r	r
	Fixed Price															
1	O & M cost including Spare Parts, tools and tackles Manpower, repair & maintenance of civil works, electromechanical works and all other costs related to operation and maintenance of SPS facility but excluding energy consumption.															
	Variable Price															
2	Cost of electrical Energy consumption per MLD of sewage pumped (Guaranteed Energy Consumption per MLD x Base Rate of Electricity Tariff.)															
3	Indicative Sewage Flow to be pumped per year – MLD	3.79	3.87 8	3.9 66	4.05 4	4.14	4.23	4.31 8	4.40 6	4.49 4	4.58 2	4.67	4.75 8	4.84 6	4.93 4	5.11
4	Cost of Energy* (2x3) Total Price for O&M of SPS-A for 15 years (1+4)															

Price for Operation & Maintenance of SPS C for 15 years

S1.	Description						ım Pric									
No.	1	1 ST	2^{nd}	$3^{\rm rd}$	4 th	5 th	6 th	7 th	8 th	9 th	10^{th}	11 th	12 th	13 th	14 th	15 th
		Yea	Yea	Ye	Year	Year	Year	Yea	Yea	Yea	Yea	Yea	Yea	Yea	Yea	Yea
		r	r	ar				r	r	r	r	r	r	r	r	r
	Fixed Price															
1	O & M cost including Spare Parts, tools and tackles Manpower, repair & maintenance of civil works, electromechanical works and all other costs related to operation and maintenance of SPS facility but excluding energy consumption.															
	Variable Price															
2	Cost of electrical Energy consumption per MLD of sewage pumped (Guaranteed Energy Consumption per MLD x Base Rate of Electricity Tariff.)															
3	Indicative Sewage Flow to be pumped per year – MLD	0.14	0.14	0.1 46	0.14 9	0.15	0.15 5	0.15 8	0.16 1	0.16 4	0.16 7	0.17	0.17	0.17 6	0.17 8	0.18
4	Cost of Energy* (2x3) Total Price for O&M of															
	SPS-A for 15 years (1+4)															

Price for Operation & Maintenance of SPS D for 15 years

S1.	Description						ım Pric									
No.	r r	1 ST	2^{nd}	3 rd	4^{th}	5 th	6 th	7 th	8^{th}	9 th	10^{th}	11 th	12 th	13 th	14 th	15 th
		Yea	Yea	Ye	Year	Year	Year	Yea	Yea	Yea	Yea	Yea	Yea	Yea	Yea	Yea
		r	r	ar				r	r	r	r	r	r	r	r	r
	Fixed Price															
1	O & M cost including Spare Parts, tools and tackles Manpower, repair & maintenance of civil works, electromechanical works and all other costs related to operation and maintenance of SPS facility but excluding energy consumption.															
	Variable Price															
2	Cost of electrical Energy consumption per MLD of sewage pumped (Guaranteed Energy Consumption per MLD x Base Rate of Electricity Tariff.)															
3	Indicative Sewage Flow to be pumped per year – MLD	0.3	0.30	0.3 14	0.32	0.32	0.33	0.34	0.35	0.35 7	0.36 4	0.37	0.37	0.38	0.39	0.4
4	Cost of Energy* (2x3)															
	Total Price for O&M of SPS-A for 15 years (1+4)															

Price for Operation & Maintenance of SPS E for 15 years

Sl.	Description					ump Su										
No.	1	1^{ST}	2^{nd}	3 rd	4 th	5 th	6 th	$7^{\rm th}$	8 th	9 th	10^{th}	11 th	12 th	13 th	14 th	15 th
		Yea	Yea	Ye	Year	Year	Year	Yea	Yea	Yea	Yea	Yea	Yea	Yea	Yea	Yea
		r	r	ar				r	r	r	r	r	r	r	r	r
	Fixed Price															
1	O & M cost including Spare															
	Parts, tools and tackles															
	Manpower, repair &															
	maintenance of civil works,															
	electromechanical works and															
	all other costs related to															
	operation and maintenance															
	of SPS facility but excluding															
	energy consumption.															
	Variable Price															
	variable i fice															
2	Cost of electrical Energy															
	consumption per MLD of															
	sewage pumped (Guaranteed															
	Energy Consumption per															
	MLD x Base Rate of															
	Electricity Tariff.)		0.26						0.00	0.00	0.0			0.25	0.51	
3	Indicative Sewage Flow to	0.3	0.30	0.3	0.32	0.32	0.33	0.34	0.35	0.35	0.36	0.37	0.37		0.39	0.4
4	be pumped per year – MLD		7	14	1	8	5	2		7	4	1	8	5	2	
4	Cost of Energy* (2x3)															
	Total Price for O&M of															
	SPS-A for 15 years (1+4)															

Price for Operation & Maintenance of SPS F for 15 years

Sl.	Description					Lump Su										
No.		1^{ST}	2^{nd}	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th	11 th	12 th	13 th	14 th	15 th
		Yea	Yea	Ye	Year	Year	Year	Yea	Yea	Yea	Yea	Yea	Yea	Yea	Yea	Yea
		r	r	ar				r	r	r	r	r	r	r	r	r
	Fixed Price															
1	O & M cost including Spare Parts, tools and tackles															
	Manpower, repair &															
	maintenance of civil works,															
	electromechanical works and															
	all other costs related to															
	operation and maintenance															
	of SPS facility but excluding															
	energy consumption.															
	Variable Price															
2	Cost of electrical Energy															
	consumption per MLD of															
	sewage pumped (Guaranteed															
	Energy Consumption per															
	MLD x Base Rate of															
3	Electricity Tariff.)	0.22	0.22	0.2	0.24	0.25	0.26	0.26	0.27	0.20	0.20	0.4	0.40	0.41	0.42	0.44
3	Indicative Sewage Flow to	0.32	0.32	0.3	0.34	0.35	0.36	0.36	0.37	0.38	0.39	0.4	0.40	0.41	0.42	0.44
4	be pumped per year – MLD		ð	30	4			ð	6	4			8	6	4	
4	Cost of Energy* (2x3)															
	Total Price for O&M of															
	SPS-A for 15 years (1+4)															

SCHEDULE "B"

I&D & Allied works

I&D Nallah - I_Naya Tola Basti Nallah

Item Description	Quantity	Total Amount
Drain construction Cost	Detailes are attached	
Outfall Structure cost	Detailes are attached	
Generator Room cost	Detailes are attached	
Operator Quarter Cost	Detailes are attached	
Elctrical Component	Detailes are attached	
DG Cost	Detailes are attached	
Rising Main cost	Detailes are attached	
Pump and screen cost	Detailes are attached	
Total Cost		

1.1: BOQ of Drain

SI. No.	Name of Drains/ Nallah falling in Ganga River	Length of Drain (m) to be Constructed	Drain X-Section (sq.m)	Velocity (m/sec)	Flow (MLD)	effective flow area	Flow (MLD)	Width	Height	Rate	Drain Cost	Width	Height	I&D	Remark
1	Naya Tola basti Nala	225	0.015	0.09	0.12	10%	0.20	0.50	0.50			0.50	0.50	Pumping	TO STP

1.2 BOQ for Outfall Structures

				Rate	Amount
SI no.	Description of Item	Unit	Quantity	(INR)	(INR)
1	Earth work excavation in foundation trenches or drains including dressing of sides and ramming of bottoms, lift as follows, including getting out the excavated soil and disposal of surplus excavated soil as directed, with all lead and lift complete as per the specification and as directed by the Engineer. All kinds of soils				
1.1.1	Upto1.50m depth	Cum	17.10		
1.1.1	1.5 m to 3 m	cum	14.40		
2	Sand filling upto 300mm in Plinth including watering and compacting in layers of 150 mm thick as per specifications and as directed by the Engineer.	cum	3.42		
3	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - all work upto plinth level in 1:3:6 (1 Cement : 3 coarse sand : 6 granded ston e)	Cum	5.88		
4	Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of spec grade for cem Concified reinforced ent rete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement, M-20 grade reinforced cement concrete.	Cum	21.41		
5	Cen and trin Shuttering strut Prop g including ting, ping etc. and removal of form	sqm	63.00		

	for vertical walls			
6	Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars TMTC - 500 (Quantity at 90 kg/cum)	Kg	1926.90	
	Carriage of the following materials from quarry to work site including loading, unloading and staking at work site as per specification & direction of E/I.			
7	Aggregate	Cum	45.40	
	San d	Cum	22.70	
	Ce men t	MT	20.3862	
	Ste el	MT	1.9269	
8	Wrought iron and mild steel welded work (using angles, square bars, tees and channel grills, grating frames, gates and tree guards of any size and design etc. including cost of screens and wel rods or bolts and nuts complete fixed ding in position but without the cost of excavation and concrete for fixing which will be paid separately		240.00	
	Erection of gates (a) 30% item NO- 8		240.00	
8.0	Cen and trin Shuttering strut prop g including ting, ping etc. and removal of form for Roof slab			
8.1	For roof slab	Sqm	18.00	

8.2	Weather shade,Chajjas, corbels etc. including edges	Sqm	1.20	
9.0	Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars		9.00	
	steel quantities	kg	810.00	
10.0	Brick work with bricks of class designation 100A in foundations and plinth in :Extra for Brick work in superstructure above plinth level upto floor V cum	Cum	5.87	
11.0	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse san d) (for Internal walls)	Sqm	25.50	
12.0	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse san d) (for ceiling)		18.00	
13.0	20 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse san d) (for External walls)	Sqm	26.40	
14.0	Wall painting with paint of approved plastic emulsion brand and manufacture to give an even shade: Two or more coats on new work (for Internal walls)	Sqm	25.50	

SI					Amount
no.	Description of Item	Unit	Quantity	(INR)	(INR)
15.0		Sqm	25.50		
	work (for ceiling)				
	Appying one coat of cement primer of approved brand and				
16.0	manufacture on wall surface	Sqm	18.00		
	(for External walls)				
17.0	Providing wood work in frames of door, window clerestory windows and other frames, wrought framed and fixed in position in local wood for Door	Cum	26.40		
18.0	Providing and fixing paneled or paneled and glazed shutters for doors, windows and clerestory windows including black enameled MS butt hinges with necessary screws excluding panelling which will be paid for separately - 30 mm thick		0.50		
	For Doors	Sqm	1.80		
19.0	Providing and fixing glazing in aluminium door, window V shutters and partition etc with PVC / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer incharge. (Cost of aluminium snap bading shall be paid in basic item). With	Sqm	0.50		

glass pans of 5.50 mm thickness (Weight not less than 13.75 kg/sqm)			
Providing and laying Ceramic glazed floor tiles (400x400) mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS:13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours such as White, Ivory, Grey, Fume, 20.0 Red, Brown, 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.	Sqm	18.00	
Total Cost, Rs			

1.3 BOQ of Generator Room

SI. No.	Item description	Unit	Quantity	Rate	Amount
31. 140.	Earth work	Onit	Quartity	(INR)	(INR)
1.0	Earthwork in excavation in foundation trenches or drains (not exceeding 1.5 m width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m including getting out the excavated soil and disposals of surplus excavated soil as directed, within a lead of 50 m.				
1.1	(For all kinds of soil) From 0 m to 1.5 m	Cum	22.54		
1.2	From 1.5 m to 3 m	Cum	1.35		
2.0	Supplying and Filling on plinth with local sand and under floors including watering, ramming consolidating and dressing complete. For Generater room	Cum	7.20		
3.0	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - all work upto plinth level In 1:3:6 (1 Cement : 3 coarse sand : 6 granded stone upto 20 mm nominal size) Providing and laying in position machine batched, machine mixed, and	Cum	7.33		
4.0	machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement, M-20 grade reinforced cement concrete.				
4.1	For Footings	Cum	1.44		
4.2	Column below GL up to Plinth	Cum	0.26		
4.3	Plinth beams	Cum	1.61		
4.4	For columns above Ground levels	Cum	0.87		
4.5	Lintel beams	Cum	1.43		
4.6	Roof Beams	Cum	1.33		
4.7	For roof slab	Cum	4.32		
4.8	For Sunshades over Door & Windows :	Cum	0.23		
5.0	Centring and Shuttering including strutting, propping etc. and removal of form for				
5.1	For footing – F	Sqm	4.80		
5.2	Column upto GL – C	Sqm	4.60		
5.3	Plinth beams :	Sqm	14.00		
6.0	Centring and Shuttering including strutting, propping etc. and removal of form for	Sqm			
6.1	Lintel beams	Sqm	12.40		
6.2	Roof beams	Sqm	12.40		
7.0	Centring and Shuttering including strutting, propping etc. and removal of form for				
,.0	Column	Sqm	15.09		
8.0	Centring and Shuttering including strutting, propping etc. and removal of form for Roof slab				
8.1	For roof slab	Sqm	24.00		
8.2	Weather shade, Chajjas, corbels etc. including edges	Sqm	4.13		
9.0	Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars				
	steel quantities	MT	1.34		
10.0	Brick work with bricks of class designation 100A in foundations and plinth in :Extra for Brick work in superstructure above plinth level upto floor V cum	Cum	17.53		
11.0	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for Internal walls)	Sqm	64.48		
12.0	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for ceiling)				
	Generator room	Sqm	24.00		

13.0	20 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for External walls)	Sqm	89.54	
14.0	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade: Two or more coats on new work (for Internal walls)	Sqm	64.48	
15.0	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade: Two or more coats on new work (for ceiling)	Sqm	24.00	
16.0	Appying one coat of cement primer of approved brand and manufacture on wall surface (for External walls)	Sqm	89.54	
17.0	Providing wood work in frames of door, window clerestory windows and other frames, wrought framed and fixed in position in local wood for Door	Cum	0.16	
18.0	Providing and fixing paneled or paneled and glazed shutters for doors, windows and clerestory windows including black enameled MS butt hinges with necessary screws excluding panelling which will be paid for separately - 30 mm thick			
	For Doors	Sqm	4.20	
19.0	Providing and fixing glazing in aluminium door, window V shutters and partition etc with PVC / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer incharge. (Cost of aluminium snap bading shall be paid in basic item). With glass pans of 5.50 mm thickness (Weight not less than 13.75 kg/sqm)	Sqm	4.32	
20.0	Providing and laying Ceramic glazed floor tiles (400x400) mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS:13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours such as White, Ivory, Grey, Fume, Red, Brown, 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.			
	Generater room	Sqm	24.00	
21.0	Cement plaster skirting (upto 30 cm height) with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement. 18 mm thick	Sqm	2.70	
22.0	Providing and laying in situ five course water proofing treatment with glass fibre tissue reinforced bitumen over roof consisting of first coat of bitumen primer @ 0.40 kg per sqm, 2nd and 4th courses of bonding material 1.60 kg per sqm which shall consist of blown type bitumen of grade 85/25 conforming to IS: 702, third layer of glass fibre tissue course as specified, fifth, the top most layer of stone grit 6 mm and down size or pea-seized gravel sprad @ 6 dm³ per sqm including preparation of surface excluding grading for slope etc. compete.	Sqm	24.00	
23.0	Providing and fixing on wall face unplastidsed-PVC (working pressure 4 kgf per sqm) rain water pipes conforming to IS: 4985 including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion. 110 mm diameter	m	13.50	
24.0	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 wateing lead.	Cum	14.86	
	Carriage of Materials :			
	Aggregate	Cum	16.66	
	Coarse Sand	Cum	31.07	
25.0	Local Sand Compat	Cum	7.20	
	Cement Steel	MT MT	6.01 0.14	
	Brick (1000 Nos)	IVII	8.59	
	Total Cost			
	10141 0031			

1.4 BOQ of Operators Quarter

SI. No	I tem description	Unit	Quantity	Rate (INR)	Amount (INR)
1	Earthwork in excavation in foundation trenches or drains (not exceeding 1.5 m width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m including getting out the excavated soil and disposals of surplus excavated soil as directed, within a lead of 50 m. (For all kinds of soil)			(Huk)	(TMK)
1.1	From 0 m to 1.5 m	Cum	36.72		
1.2	From 1.5 m to 3 m	Cum	3.24		
2	Supplying and Filling on plinth with local sand and under floors including watering, ramming consolidating and dressing complete.	Cum	18.82		
3	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - all work upto plinth level in 1:3:6 (1 Cement : 3 coarse sand : 6 granded stone)	Cum	23.51		
4	Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement, M-20 grade reinforced cement concrete.				
4.1	For Columnn Footing	Cum	4.48		
4.2	For Column below GL up to plinth	Cum	0.74		
4.3	For Plinth beams-PB	Cum	5.08		
4.4	For columns above GL	Cum	2.45		
4.5	For lintel beams	Cum	2.04		
4.6	For Roof beams	Cum	3.59		
4.7	For Roof slab	Cum	12.03		
4.8	For Parapet	Cum	2.39		
5	Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement, M-20 grade reinforced cement concrete.				
5.1	Sunshade over Windows	Cum	0.89		
5.2	For Lofts & Racks	Cum	1.88		
6	Centring and Shuttering including strutting, propping etc. and removal of form for				
6.1	For Columnn Footing (C1 F1)	Sqm	10.80		
6.2	For Column below GL up to plinth	Sqm	51.36		
6.3	For Plinth beams-PB	Sqm	41.65		
6.4	For columns above GL	Sqm	42.66		
6.5	For lintel beams	Sqm	23.43		
6.6	For Roof beams	Sqm	30.97		
6.7	For Roof slab	Sqm	131.94		
6.8	For Parapet	Sqm	4.90		
7	Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars	MT	4.14		
8	Brick work with bricks of class designation 100A in foundations and plinth in :Extra for Brick work in superstructure above plinth level upto floor V cum	Cum	31.58		
9	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for Internal walls)	Sqm	167.68		
10	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for ceiling)	Sqm	58.41		
11	20 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for External walls)	Sqm	147.88		

12	Wall painting with plastic emulsion paint of approved brand an	Sqm	226.09		
13	Appying one coat of cement primer of approved brand and manufacture on wall surface (for External walls)	Sqm	191.98		
14	Providing wood work in frames of door, window clerestory windows and other frames, wrought framed and fixed in position in local wood	Cum	0.50		
15	Providing and fixing paneled or paneled and glazed shutters for doors, windows and clerestory windows including black enameled MS butt hinges with necessary screws excluding panelling which will be paid for separately - 30 mm thick	Sqm	6.93		
16	Providing and fixing glazing in aluminium door, window ventilator shutters and partition etc with PVC / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer incharge. (Cost of aluminium snap bading shall be paid in basic item). With glass pans of 5.50 mm thickness (Weight not less than 13.75 kg/sqm)				
16.1	For Windows	Sqm	8.28		
16.2	For Ventilators	Sqm	0.72		
17	Providing and fabricating and fixing of M S grill for window protection etc ,. As per specification, drawing and as directed by the engineer				
	For Windows & Ventilators	kg	9.00		
18	Providing and laying in situ five course water proofing treatment with glass fibre tissue reinforced bitumen over roof consisting of first coat of bitumen primer @ 0.40 kg per sqm, 2nd and 4th courses of bonding material 1.60 kg per sqm which shall consist of blown type bitumen of grade 85/25 conforming to IS: 702, third layer of glass fibre tissue course as specified, fifth, the top most layer of stone grit 6 mm and down size or pea-seized gravel sprad @ 6 dm³ per sqm including preparation of surface excluding grading for slope etc. compete.				
18.1	Slope concrete	Sqm	74.92		
19	Providing and laying Ceramic glazed floor tiles 400x400 mm (thickness to be specified by the manufacturer) of 1 st quality conforming to IS: 13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours such as white, Ivory, Grey, Fume, Red, Brown, laid on 20 mm thick cement motar 1:4 (1 cement: 4 Coarse sand) including grouting the joints with white cement and matching pigments etc, complete.				
	Total quantity		58.41		
20	Providing and fixing first quality ceramic glazed wall tiles conforming to 1S 15622 (thickness to be specified by the manufacturer) of approved maike in all colours shades except burgundy, bottle green, black of any size as approved by engineer incharge in skirting risers of steps and dados over 12 mm thick bed of cement mortar (1:3) and jointing with grey cement slurry at 3.3 kg per sqm including pointing in white cement mixed with pigment of matching shade complete				
	Total quantity	Rmt	55.67		
21	Providing and laying Ceramic glazed floor tiles 400x400 mm (thickness to be specified by the manufacturer) of 1st quality conforming to 1s: 13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours except white, Ivory, Grey, Fume, Red, Brown, laid on 20 mm thick cement motar 1:4 (1 cement: 4 Coarse sand) including grouting the joints with White cement and matching pigments etc, complete.				
21.1	Toilet	Sqm	5.85		
22	Providing and laying Ceramic glazed floor tiles 400x400 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS: 13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours except white, Ivory, Grey, Fume, Red, Brown, laid on 20 mm thick cement motar 1:4 (1 cement: 4 Coarse sand) including grouting the joints with White cement and matching pigments etc, complete.				
22.1	Toilet Walls	Sqm	17.54		
			l	l	

			1	<u> </u>
23	Providing and fixing on wall face unplastidsed-PVC(working pressure 4 kgf per sqm) rain water pipes conforming to IS: 4985 including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion	Rmt	15.60	
24	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 wateing lead.	Cum	25.88	
	Carriage of Materials :			
	Aggregate	Cum	52.34	
	Coarse Sand	Cum	68.34	
25	Local Sand	Cum	18.82	
25	Cement	MT	18.80	
	Steel	MT	0.00	
	Brick (1000 Nos)		15.48	
	Total Cost			
26.0	Plumbing work :		•	•
26.1	Stainless steel kitchen sink - without drain board 470 mm X 420 mm bowl depth 178 mm	No.	1	
26.2	Salem Stainless steel AISI - 304 (18/8) Round basin 405 mm X 355 mm	No.	2	
26.3	PTMT - Soap Dish/Holder 138 mm X 102 mm X 75 mm	No.	3	
26.4	White vitreous china dual purpose closet (Anglo Indian W.C.) suitable for use as squatting pan or European type water closet as per manufacturer's specifications	No.	1	
26.4.1	White Vitreous china 10 lit. (full flush) capacity controlled low levelflushing cistern with all fittings	No.	1	
26.5	C.P.brass toilet paper holder of standard size	No.	3	
26.6	PTMT - Towel Rail (600 mm)	No.	3	
26.7	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.			
26.7.1	15 mm nominal outer dia Pipes	m	25	
26.7.2	25 mm nominal outer dia Pipes	m	25	
26.7.3	32 mm nominal outer dia Pipes	m	15	
26.8	uPVC pipes (working pressure 4 kg / cm2) Single socketed			
26.8.1	Pipe 75 mm	m	30	
26.8.2	110 mm	m	30	
26.9	15 mm C.P. brass tap with elbow operation lever	No.	4	
26.10	Gunmetal non-return valve-horizontal (screwed end) 25 mm	No.	1	
26.10	Dia	NO.	'	
26.11	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, ISI: 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	lit	2000	
26.12	Brass full way valve with C.I. wheel (screwed end) 40 mm dia	No	1	
26.13	Gunmetal non-return valve-horizontal (screwed end) 25 mm Dia	No	1	
26.14	Constructing brick masonry chamber for underground C.I. inspection chamber and bends with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover with frame to be not less than 38kg (weight of cover 23 kg and weight of frame 15 kg), R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand), finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design : With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	No	1	
	per standard design: With common burnt clay F.P.S. (non			

24 15	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	No	1	
26.16	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. – 35	No	1	
	Total Cost of Sanitary items			
	Total Cost			

1.5 BOQ FOR Electrical Components For Pump-house

	1.5 BOQ FOR Electrical				
SI.No	Description	Unit	Quantity	Rate (INR)	Amount (INR)
1.0	EARTHING				
1.1	Neutral Earthing - Earthing with Copper earth plate 600mmx600mmx3mm thick including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering pipe of 2.7m long etc with charcoal/coke and salt as required.	No	2		
1.2	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc with charcoal/coke and salt as required.	No	2		
2.0	LT PANEL BOARD (Indoor type)				
2.1	Supplying and fixing following way prewired SP&N MCB distribution board of steel sheet for 240 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, earth bar, din bar, detachable gland plate, interconnections, powder painted including earthing etc. as required. (But without MCB/ RCCB/ Isolator) 2 + 8 way/10 way, Double door	No	1		
2.2	MCCB DISTRIBUTION BOARDS				
	Providing and fixing 100A rating and 16KA breaking capacity and pole TP MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, ets as required.	No	1		
2.3	MINIATURE CIRCUIT BREAKERS				
	Supplying and fixing 32A, triple pole and neutral, 415V, "C" curve, miniature circuit breaker for inductive load of triple pole and neutral in the existing MCB DB complete with connections, testing and committening etc as required.	No	2		
2.4	MINIATURE CIRCUIT BREAKERS				
	Supplying and fixing 32A, single pole and neutral, 240V, "C" curve, miniature circuit breaker for inductive load of single pole and neutral in the existing MCB DB complete with connections, testing and committening etc as required.	No	1		
2.5	EARTHING				
	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc with charcoal/coke and salt as required.	No	2		
3.0	DISTRIBUTION BOARD				
	Supply and fixing 4+12 way, single door, horizontal type thee pole and neutral, sheet steel, MCB DB, 415V, on surface/recess, complete with tinned copper bus bar, nuetral				
3.1	bus bar, earth bar, din bar, interconnections, powdered painted including earthing etc as required. (but without MCB/RCCB/isolators)	m	1		
	painted including earthing etc as required. (but without	""	1		
	painted including earthing etc as required. (but without MCB/RCCB/isolators)	No	2		
	painted including earthing etc as required. (but without MCB/RCCB/isolators) EARTHING Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering				
3.2	painted including earthing etc as required. (but without MCB/RCCB/isolators) EARTHING Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc with charcoal/coke and salt as required.				
3.2	painted including earthing etc as required. (but without MCB/RCCB/isolators) EARTHING Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc with charcoal/coke and salt as required. CABLES Supply & laying of LT UG cable having Copper conductor PVC insulated, Sheathed, galvanised steel wire /steel tap				
3.2	painted including earthing etc as required. (but without MCB/RCCB/isolators) EARTHING Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc with charcoal/coke and salt as required. CABLES Supply & laying of LT UG cable having Copper conductor PVC insulated, Sheathed , galvanised steel wire /steel tap armoured cable with PVC outer sheathing 1.1 KV class)	No	2		
4.1	painted including earthing etc as required. (but without MCB/RCCB/isolators) EARTHING Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc with charcoal/coke and salt as required. CABLES Supply & laying of LT UG cable having Copper conductor PVC insulated, Sheathed, galvanised steel wire /steel tap armoured cable with PVC outer sheathing 1.1 KV class) 4Cx16 sq mm + 2x16 sq mm earth wire	No m	2		
4.1 4.2	painted including earthing etc as required. (but without MCB/RCCB/isolators) EARTHING Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc with charcoal/coke and salt as required. CABLES Supply & laying of LT UG cable having Copper conductor PVC insulated, Sheathed , galvanised steel wire /steel tap armoured cable with PVC outer sheathing 1.1 KV class) 4Cx16 sq mm + 2x16 sq mm earth wire	No m m	1 6.5		
4.1 4.2 4.3	painted including earthing etc as required. (but without MCB/RCCB/isolators) EARTHING Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc with charcoal/coke and salt as required. CABLES Supply & laying of LT UG cable having Copper conductor PVC insulated, Sheathed , galvanised steel wire /steel tap armoured cable with PVC outer sheathing 1.1 KV class) 4Cx16 sq mm + 2x16 sq mm earth wire 4Cx10 sq mm + 2x10 sq mm earth wire	No m m m	2 1 6.5 15		
4.1 4.2 4.3 4.4	painted including earthing etc as required. (but without MCB/RCCB/isolators) EARTHING Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc with charcoal/coke and salt as required. CABLES Supply & laying of LT UG cable having Copper conductor PVC insulated, Sheathed , galvanised steel wire /steel tap armoured cable with PVC outer sheathing 1.1 KV class) 4Cx16 sq mm + 2x16 sq mm earth wire 4Cx10 sq mm + 2x4 sq mm earth wire 4Cx4 sq mm + 2x4 sq mm earth wire 2Cx2.5 sq mm + 1x2.5 sq mm earth wire SUPPLY & FIXING OF LUMINARIES, SOCKETS	No m m m	2 1 6.5 15		
3.2 4 4.1 4.2 4.3 4.4 5.0	painted including earthing etc as required. (but without MCB/RCCB/isolators) EARTHING Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc with charcoal/coke and salt as required. CABLES Supply & laying of LT UG cable having Copper conductor PVC insulated, Sheathed , galvanised steel wire /steel tap armoured cable with PVC outer sheathing 1.1 KV class) 4Cx16 sq mm + 2x16 sq mm earth wire 4Cx10 sq mm + 2x4 sq mm earth wire 4Cx4 sq mm + 2x4 sq mm earth wire 2Cx2.5 sq mm + 1x2.5 sq mm earth wire SUPPLY & FIXING OF LUMINARIES, SOCKETS AND SWITCHES	M m m m	2 1 6.5 15		
3.2 4 4.1 4.2 4.3 4.4 5.0 5.1	painted including earthing etc as required. (but without MCB/RCCB/isolators) EARTHING Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc with charcoal/coke and salt as required. CABLES Supply & laying of LT UG cable having Copper conductor PVC insulated, Sheathed ,galvanised steel wire /steel tap armoured cable with PVC outer sheathing 1.1 KV class) 4Cx16 sq mm + 2x16 sq mm earth wire 4Cx10 sq mm + 2x4 sq mm earth wire 4Cx4 sq mm + 2x4 sq mm earth wire 2Cx2.5 sq mm + 1x2.5 sq mm earth wire SUPPLY & FIXING OF LUMINARIES, SOCKETS AND SWITCHES	Mo m m m Mo	1 6.5 15 14		
3.2 4 4.1 4.2 4.3 4.4 5.0 5.1 5.2	painted including earthing etc as required. (but without MCB/RCCB/isolators) EARTHING Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc with charcoal/coke and salt as required. CABLES Supply & laying of LT UG cable having Copper conductor PVC insulated, Sheathed ,galvanised steel wire /steel tap armoured cable with PVC outer sheathing 1.1 KV class) 4Cx16 sq mm + 2x16 sq mm earth wire 4Cx10 sq mm + 2x40 sq mm earth wire 4Cx4 sq mm + 2x4 sq mm earth wire 2Cx2.5 sq mm + 1x2.5 sq mm earth wire SUPPLY & FIXING OF LUMINARIES, SOCKETS AND SWITCHES 120W Gate lamp with fitting 40W flourescent lamp	Mo Mo No	1 6.5 15 14		

6	POWER CONNECTION				
	Main power supply connection from				
	the nearest BSEB source to SPS				
	premises i/c Poles,cables,HT jointing				
	Kit and all associated works as per				
	Technical specifications and direction				
	of EIC.up to Punping Station including				
	providing of poles, wires, cables etc.	Job	1		
7	Transformer of required capacity				
	including H.T. panels-(incoming				
	&Outgoing) with all associated works				
	as per Technical specifications and				
	direction of EIC.	Job	1		
8	Main L.T. Panel including incoming				
	Panel, bus coupler, APFC Panel Load				
	Distribution Panel and all associated				
	accessories.	Job	1		
	Total Cost			ı	

1.6 BOQ for DG SET

	1.6 BOQ for DG SEI					
SI.No	Description	Unit	Quantity	Rate (INR)	Amount (INR)	
1.0	DIESEL GENERATOR 50 KVA					
1.1	SITC of 50 KVA, 40KW, 415V, 50 Hz, comprising of Perkins Engine Coupled to Stamford make Alternator, complete with all Standard accessories and ATS with Acoustic enclosure.	No	1			
1.2	EARTHING					
1.2.1	Neutral Earthing - Earthing with Copper earth plate 600mmx600mmx3mm thick including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering pipe of 2.7m long etc with charcoal/coke and salt as required.	No	2			
1.2.2	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement andwateringpipeetc with charcoal/coke and salt as required.	No	2			
2.0	LT PANEL BOARD (Indoor type)					
2.1	Supplying and fixing 4 ways surface/recess mounting, vertical type, 415V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCB's, with provision of 100A TP 16KA MCCB as incommer, interconnection between incomer MCCB and bus bars (but without MCB,s /MCCB's) as required. (Note: Vertical type MCB TPDB is normally used where 3 phase outlets are required.)	No	1			
2.2	MCCB DISTRIBUTION BOARDS					
	Providing and fixing 100A rating and 16KA breaking capacity and pole TP MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, ets as required.	No	1			
2.3	MINIATURE CIRCUIT BREAKERS					
	Supplying and fixing 32A, triple pole and neutral, 415V, "C" curve, miniature circuit breaker for inductive load of triple pole and neutral in the existing MCB DB complete With connections, testing and committoning etc as required.	No	2			
2.4	MINIATURE CIRCUIT BREAKERS					
	Supplying and fixing 32A, single pole and neutral, 240V, "C" curve, miniature circuit breaker for inductive load of single Pole and neutral in the existing MCB DB complete With connections, testing and commitioning etc as required.	No	1			
2.5	EARTHING					
	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement andwateringpipeetc with charcoal/coke and salt as required.	No	2			
3.0	DISTRIBUTION BOARD					
3.1	Supply and fixing 4+12 way, single door, horizontal type thee pole and neutral, sheet steel, MCB DB, 415V, on surface/recess, complete with tinned copper bus bar, nuetral bus bar, earth bar, din bar, interconnections, powdered painted including earthing etc as required. (but without MCB/RCCB/isolators)	m	1			
3.2	EARTHING					
	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement andwateringpipeetc with charcoal/coke and salt as required.	No	2			
4.0	CABLES					
	Supply & laying of LT UG cable having Copper conductor PVC insulated, Sheathed , galvanised steel wire /steel tap armoured cable with PVC outer sheathing 1.1 KV class)					
4.1	4Cx16 sq mm + 2x16 sq mm earth wire	m	1			
4.2	4Cx10 sq mm + 2x10 sq mm earth wire	m	6.5			
4.2	TOATO 34 HILL F ZATO 34 HILL COLUT WILE	111	0.5			

4.3	4Cx4 sq mm + 2x4 sq mm earth wire	m	15		
4.4	2Cx2.5 sq mm + 1x2.5 sq mm earth wire	m	14		
5.0	SUPPLY & FIXING OF LUMINARIES, SOCKETS AND SWITCHES				
5.1	120W Gate lamp with fitting	No	2		
5.2	40W flourescent lamp	No	4		
5.3	70W MH Lamp for site lighting	No	4		
5.4	Single switched socket with multi purpose	No	2		
5.5	Switches	No	6		
	Total Cost			·	

1.7 BOQ FOR SITC of Mechanical Components at each Pumping Station

SI.No	Description	Quantity	Units	Rate	Amount
1	Manually Cleaned Bar Screen				
	SITC of the screen, shall be of removable type and shall consist of a welded stainless steel (AISI410) frame with vertical flats spaced at 30 mm. The flats shall not be less than 10 mm in thickness and not less than 50 mm deep. The flats shall not have any joint. The spacing between the flats shall be uniform and preferably so maintained by adequate number of spacers, which shall be so located as not to interfere with the raking operation. To facilitate the manual cleaning of the screen the inclination of the screen shall be between 45° and 60° to the horizontal. Single piece screen width should not be more than 1.5 m.Two numbers stainless steel rollers shall be fixed on each side of frame to facilitate rolling contact with guide channel during lifting and lowering of screen.				
1.2	(500 X 1500) mm	4	Nos		
2	Providing, erecting and giving test of Non clog sewage submersible pump set with SS CF8 M impeller, Cl casing, SS 316 shaft suitable for 3 Ph ,415 V ,50 Hz A.C. Supply, submersible motor having TEFC encloouser with class F insulation and IP 68 protection. The pump shall be operated at 1450 RPM . The scope shall include required accessories viz automatic coupling device, guide pipe, ,chain with shakle, flat submersible cable upto starter panel through suitable GI pipe (30 mtr 3 Core flat copper for each pump with necessary electrical connection with the starter panel and as per specifications. (HP)				
	1.5 HP				
	4 Pumps for 2 lean, 1 peak and 1 average flow				
	2 pumps for lean flow	2	nos		
	1 pump for peak flow	1	nos		
	1 pump for average flow	1	nos		
3	Providing Supplying erection testing and commissioning of 2 Tonne capacity Mobile Crane				
3.1	1 T Capacity for 7 m lift.	1	Nos		
	Total Cost, Rs				

1.8 BOQ FOR Rising Main

		1.0	BOG F	JIV 1V13	iiig wie	4111
SI. No.	Description of Item	Unit	No.	Quantity	Rate (Amount (INR)
1.0	Excavating trenches of required width for pipes cables, etc., including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 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 consolidating each deposited layer by ramming, watering etc., and disposing of surplus excavated soil as directed, within a lead of 50 m.					
	0.0 to 1.5 mtr. Depth					
1.1	do - in all kindes of soil - 100%	m	Quantity as per data sheet enclosed	4.09		
2.0	Supplying and Filling in plinth with local sand and under floors including , watering, ramming consolidation and dressing complete.	cum	Quantity as per data sheet enclosed	409.45		
3.0	Providing and laying S&S Centrifugally Cast (Spun) / Ductile Iron. Pipes conforming to IS: 8329:DI-K9					
3.1	150.00	m	1	3639.6		
4	Providing push on joints to Centifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes inculding testing of joints and the cost of rubber gasket (one at every 6m).					
4.1	150.00	Joint	607	607		
5.0	Providing and laying D.I. specials of class K-12 suitable for push- on jointing as per IS: 9523:					
5.1	Bends-As per BS 4772 code					
	90 degree (63.5 Kg)	kg	444.50	444.50		
5.2	Taper-As per BS 4772 code 300x200mm (34.5 Kq)	1	24.50	24.50		
	300x200mm (34.5 kg) Tee-As per BS 4772 code	kg	34.50	34.50		
5.3	300x300x300 mm (79.5 Kg)	kg	79.50	79.50		
6.0	Providing and fixing C.I. sluice valves (with cap) complete with bolts, nuts, rubber insertions etc.(the tail pieces if required will be paid separately)					
6.1	150.00	No	3.00	3.00		
7.0	Providing and fixing C.1. sluice valves for Scouring (with cap) complete with bolts, nuts, rubber insertions etc. (the tail pieces if required will be paid separately)					
7.1	150.00	No	3.00	3.00		
8.0	Providing & Constructing masonry Chamber 1.5x1.5x1.5 m inside, in brick work in cement mortar 13 cl cement: 3 coarse sand) for valve, with cast insitu RCC slab with necessary reinforcment. The valve chamber shall be plastered with CM 1.4. A levelling coars of M10 shall be provided. The cost is inclusive of excavation, disposal and construction of valve chamber with moduar bricks plasting with cement mortar with all lead and lift etc., as per specification & drawing.					
8.1	Sluice valve chambers	No	3.00	3.00		
8.2	Scour valve chambers	No	3.00	3.00		
9.0	Providing and constructing of the RCC Thrust Blocks for DI bends including the excavations of soils up to the required depth disposal of soils after refilling with selected available earth, providing PCC including cost of labours, materials tools, curing etc., complete as per drawing and as directed by the Engineer (inclusive of cost of steel)					
	90 degree	No	7.00	2.00		
9.1	Enter Total pipe length	3639.56	m	m		
***	Percentage of CC Road in town	70.00	%	%		
	Percentage of Asphalt Road in town	30.00	%	%		
10	Dismantling and restoration of roads :					
10.1	Dismantling of cement concrete pavement (dismantling of cement concrete pavements by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum — in volume and stock pilling at designated locations and disposal of dismantled materials up to a lead of 1000 metres, stacking serviceable and unserviceable material	cum	1	343.94		
10.2	Dismantalling of flexible Pavements (dismantling of flexible pavements and disposal of dismantled materials up to a lead of 1000 m, stacking serviceable and unserviseable materials separately)					
	Bituminous courses by mechanical means	cum	1	49.13		
	Granular courses by manualmeans	cum	1	573.23		
11	Restoration of road as per the specification and as directed by the engineer					
11.1	Restoration of CC road					
a	Compacting original ground supporting subgrade (Loosening of the ground upto a level of 500 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of table 300-2 for subgrade construction.) Rolling with vibratory roller	cum	1	1637.80		

b	Wet Mix Macadam - Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the material with water at OMC in mechanical mix plant carriage of mixed mathod of tipper to site, laying in uniform layers with paver in sub-base/base course on a well prepared surface and compacting with vibratory roller to achieve the desired density complete as per Specification	cum	1	122.84	
С	Cement Concrete Pavement (Construction of un-reinforced, dowel jointed, plain cement concrete pavement over a prepared sub base with 43 grade cement @ 400 kg per cum, coarse and fine aggregate conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a batching and mixing plant as per approved mix design, transported to site, laid with a fixed form or sign form paver, spread, compacted and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, sealant primer, joint sealant, debonding strip, dowel bar, tile rod, admixtures as approved, curing compound,finishing to lines and grades as per drawing)	cum	7	343.94	
	Pavement Courses – Granular				
12	Granular Sub-base with Close graded Material (By Mix in Place Method) - Construction of Granular sub-base(GSB) by providing close graded Material, spreading in uniform layers with motor grader on prepared surface, inking by mix in place method by rotavator at OMC, and compacting with vibratory power roller to achieve the desired density, complete as per Technical Specification				
		cum	1		
	Total for Grading II Matrerial (50% of Total)	cum		171.97	
	Total for Grading I Matrerial (50% of Total)	cum		171.97	
b	Wet Mix Macadam - Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the material with water at OMC in mechanical mix plant carriage of mixed mathod of tipper to site, laying in uniform layers with paver in sub-base/base course on a well prepared surface and compacting with vibratory roller to achieve the desired density complete as per Specification	cum	1	573.23	
	Pavement Courses – Bituminous				
	Prime Coat - Providing and applying primer coat with Bitumen emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.6kg/sqm using mechnical means complete	sqm	1	2292.92	
С	Tack Coat - Providing and applying tack coat with Bitumen emulsion using emulsion pressure distributor at the rate of 0.2 kg per sqm on the prepared bituminous/granular surface cleaned with mechancial broom.	sqm	1	2292.92	
c	Providing and laying Dense graded bituminous macadam with 100-120 TPH batch HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5 % by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, with a deciration of the production of the produ	cum	1	57.32	
	Total Cost Pr				

I&D Nallah -II_Milan Chowk and Tara Bhawan Nallah

Item Description	Quantity	Rate
Drain construction Cost	Detailes are attached	
Outfall Structure cost	Detailes are attached	
Generator Room cost	Detailes are attached	
Operator Quarter Cost	Detailes are attached	
Elctrical Component	Detailes are attached	
DG Cost	Detailes are attached	
Rising main cost	Detailes are attached	
Pump and screen cost	Detailes are attached	
Total Cos		

				2.1:	BOQ	Drair	1 Co	nstr	uctio	on						
SI. No.	Name of Drains/ Nallah falling in Ganga River	Length of Drain (m) to be constructed	Drain X- Section (sq.m)	(m/sec	Flow	flow			Widt h	Heig ht	Rate	Drain Cost	Widt h	Height	I&D	Remark
1	Milan Chowk nala	125	0.039	0.27	0.92	10%	0.01 37	1.18	0.50	1.00			1.00	1.00	Gravity/Dive rsion	Maa Tara Bhawan Nala Tola
2	Maa Tara Bhawan Nala Tola	225	0.081	0.28	1.94	10%	0.00 69	0.60	0.50	0.50			0.50	0.50	Pumping	TO STP
			Total Rs	Cost,												

	2.2: BOQ FOR	Outfa	all Stru	ictures	
SI no.	Description of Item	Unit	Quantity	Rate (INR)	Amount (INR)
1	Earth work excavation in foundation trenches or drains including dressing of sides and ramming of bottoms, lift as follows, including getting out the excavated soil and disposal of surplus excavated soil as directed, with all lead and lift complete as per the specification and as directed by the Engineer. All kinds of soils				
111	Upto1.50m depth	cum	45.89		
1.1.1	1.5 m to 3 m	cum	44.00		
2	Sand filling upto 300mm in Plinth including watering and compacting in layers of 150 mm thick as per specifications and as directed by the Engineer.	cum	9.18		
3	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - all work upto plinth level in 1:3:6 (1 Cement : 3 coarse sand : 6 granded stone)	Cum	6.50		
4	Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of Reinforce specified grade for d cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement, M-20 grade reinforced cement concrete.	Cum	23.25		
5	Centring and Shuttering including strutting, propping etc. and removal of form for vertical walls	sqm	79.09		
6	Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars TMTC - 500 (Quantity at 90 kg/cum)	Kg	2092.50		
	Carriage of the following materials from quarry to work site including loading, unloading and staking at work site as per specification & direction of E/I.				
7	Aggregate	Cum	45.00		
	Sand	Cum	22.50		
	Cement Steel	MT MT	20.0613		
8	Wrought iron and mild steel welded work (using angles, square bars, tees and channel grills, grating frames, gates and tree guards of any size and design etc. including cost of screens and welding rods or bolts and nuts complete fixed in position but without the cost of Excavation and concrete for fixing which will be paid separately	Kg	240.00		
	Erection of gates (a) 30% item NO- 8	Kg	240.00		
8.0	Centring and Shuttering including strutting, propping etc. and removal of form for Roof slab				
8.1	For roof slab	Sqm	16.00		
8.2	Weather shade,Chajjas, corbels etc. including edges	Sqm	1.20		
9.0	Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars		8.00		
	steel quantities	Kg	720.00		
10.0	Brick work with bricks of class designation 100A in foundations and plinth in :Extra for Brick work in superstructure above plinth level upto floor V cum	Cum	5.52		
11.0	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for Internal walls)	Sqm	24.00		_
12.0	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for ceiling)		16.00		
13.0	20 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for External walls)	Sqm	24.90		

SI no.		Description of Item	Unit	Quantity	Rate (INR)	Amount (INR)
14.0	manufactu	ing with plastic emulsion paint of approved brand and ure to give an even shade : Two or more coats on new Internal walls)	Sqm	24.00		
15.0		ing with plastic emulsion paint of approved brand and are to give an even shade: Two or more coats on new ceiling)	Sqm	24.00		
16.0	manufactu	one coat of cement primer of approved brand and ure on wall surface rnal walls)	Sqm	16.00		
17.0	windows	wood work in frames of door, window clerestory and other frames, wrought framed and fixed in local wood for Door	Cum	24.90		
18.0	doors, w enameled	and fixing paneled or paneled and glazed shutters for indows and clerestory windows Including black MS butt hinges with necessary screws excluding which will be paid for separately - 30 mm thick		0.50		
	For Doors		Sqm	1.80		
19.0	shutters a complete of Enginee paid in b	and fixing glazing in aluminium door, window V and partition etc with PVC / neoprene gasket etc. as per the architectural drawings and the directions er incharge. (Cost of aluminium snap bading shall be assic item). With glass pans of 5.50 mm thickness ot less than 13.75 kg/sqm)	Sqm	0.50		
20.0	(thickness conformin or equiva Fume, Rec cement :	and laying Ceramic glazed floor tiles (400x400) mm to to be specified by the manufacturer) of 1st quality g to IS:13755 of NITCO, ORIENT, SOMANY, KAJARIA elent make in colours such as White, Ivory, Grey, d, Brown, laid on 20 mm thick cement mortar 1:4 (14 coarse sand) including grouting the joints with white and matching pigments etc, complete.	sqm	16.00		
		Total Cost, Rs				

2.3 BOQ of Generator Room

	2.3 BOQ of G			Rate	Amount
SI. No.	Item description	Unit	Quantity	(INR)	(INR)
	Earth work Earthwork in excavation in foundation trenches or drains (not exceeding				
1.0	1.5 m width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m including getting out the excavated soil and disposals of surplus excavated soil as directed, within a lead of 50 m.				
1 1	(For all kinds of soil) From 0 m to 1.5 m	Cum	22.54		
1.1	From 1.5 m to 3 m	Cum	1.35		
1.2	1.5 11 (6 5 11	Cum	1.33		
2.0	Supplying and Filling on plinth with local sand and under floors including watering, ramming consolidating and dressing complete. For Generater room	Cum	7.20		
3.0	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - all work upto plinth level In 1:3:6 (1 Cement : 3 coarse sand : 6 granded stone upto 20 mm	Cum	7.33		
4.0	nominal size) Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of				
4.0	centering, shuttering, finishing and reinforcement, M-20 grade reinforced cement concrete.				
4.1	For Footings	Cum	1.44		
4.2	Column below GL up to Plinth	Cum	0.26		
4.3	Plinth beams	Cum	1.61		
4.4	For columns above Ground levels	Cum	0.87		
4.5	Lintel beams	Cum	1.43		
4.6	Roof Beams	Cum	1.33		
4.7	For roof slab	Cum	4.32		
4.8	For Sunshades over Door & Windows :	Cum	0.23		
5.0	Centring and Shuttering including strutting, propping etc. and removal of form for				
5.1	For footing – F	Sqm	4.80		
5.2	Column upto GL – C	Sqm	4.60		
5.3	Plinth beams :	Sqm	14.00		
6.0	Centring and Shuttering including strutting, propping etc. and removal of form for	Sqm			
6.1	Lintel beams	Sqm	12.40		
6.2	Roof beams	Sqm	12.40		
7.0	Centring and Shuttering including strutting, propping etc. and removal of form for				
	Column	Sqm	15.09		
8.0	Centring and Shuttering including strutting, propping etc. and removal of form for Roof slab				
8.1	For roof slab	Sqm	24.00		
8.2	Weather shade,Chajjas, corbels etc. including edges	Sqm	4.13		
9.0	Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars				
	steel quantities	MT	1.34		
10.0	Brick work with bricks of class designation 100A in foundations and plinth in :Extra for Brick work in superstructure above plinth level upto floor V cum	Cum	17.53		
11.0	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for Internal walls)	Sqm	64.48		
12.0	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for ceiling)				
	Generator room	Sqm	24.00		

13.0	20 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for External walls)	Sqm	89.54	
14.0	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade: Two or more coats on new work (for Internal walls)	Sqm	64.48	
15.0	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade : Two or more coats on new work (for ceiling)	Sqm	24.00	
16.0	Appying one coat of cement primer of approved brand and manufacture on wall surface (for External walls)	Sqm	89.54	
17.0	Providing wood work in frames of door, window clerestory windows and other frames, wrought framed and fixed in position in local wood for Door	Cum	0.16	
18.0	Providing and fixing paneled or paneled and glazed shutters for doors, windows and clerestory windows including black enameled MS butt hinges with necessary screws excluding panelling which will be paid for separately - 30 mm thick			
	For Doors	Sqm	4.20	
19.0	Providing and fixing glazing in aluminium door, window V shutters and partition etc with PVC / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer incharge. (Cost of aluminium snap bading shall be paid in basic item). With glass pans of 5.50 mm thickness (Weight not less than 13.75 kg/sqm)	Sqm	4.32	
20.0	Providing and laying Ceramic glazed floor tiles (400x400) mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS:13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours such as White, Ivory, Grey, Fume, Red, Brown, 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.			
	Generater room	Sqm	24.00	
21.0	Cement plaster skirting (upto 30 cm height) with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement. 18 mm thick	Sqm	2.70	
22.0	Providing and laying in situ five course water proofing treatment with glass fibre tissue reinforced bitumen over roof consisting of first coat of bitumen primer @ 0.40 kg per sqm, 2nd and 4th courses of bonding material 1.60 kg per sqm which shall consist of blown type bitumen of grade 85/25 conforming to IS: 702, third layer of glass fibre tissue course as specified, fifth, the top most layer of stone grit 6 mm and down size or pea-seized gravel sprad @ 6 dm³ per sqm including preparation of surface excluding grading for slope etc. compete.	Sqm	24.00	
23.0	Providing and fixing on wall face unplastidsed-PVC (working pressure 4 kgf per sqm) rain water pipes conforming to IS :4985 including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion. 110 mm diameter	m	13.50	
24.0	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 wateing lead.	Cum	14.86	
	Carriage of Materials :			
	Aggregate	Cum	16.66	
	Coarse Sand	Cum	31.07	
25.0	Local Sand Compat	Cum	7.20	
	Cement Steel	MT MT	6.01 0.14	
	Brick (1000 Nos)	IVII	8.59	
	Total Cost			
	10141 0031			

2.4 BOQ of Operators Quarter

	2.4 802 01	perators Quarter					
SI. No	Item description	Unit	Quantity	Rate (INR)	Amount (INR)		
1	Earthwork in excavation in foundation trenches or drains (not exceeding 1.5 m width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m including getting out the excavated soil and disposals of surplus excavated soil as directed, within a lead of 50 m. (For all kinds of soil)						
1.1	From 0 m to 1.5 m	Cum	36.72				
1.2	From 1.5 m to 3 m	Cum	3.24				
2	Supplying and Filling on plinth with local sand and under floors including watering, ramming consolidating and dressing complete.	Cum	18.82				
3	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - all work upto plinth level in 1:3:6 (1 Cement: 3 coarse sand: 6 granded stone)	Cum	23.51				
4	Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement, M-20 grade reinforced cement concrete.						
4.1	For Columnn Footing	Cum	4.48				
4.2	For Column below GL up to plinth	Cum	0.74				
4.3	For Plinth beams-PB	Cum	5.08				
4.4	For columns above GL	Cum	2.45				
4.5	For lintel beams	Cum	2.04				
4.6	For Roof beams	Cum	3.59				
4.7	For Roof slab	Cum	12.03				
4.8	For Parapet	Cum	2.39				
5	Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement, M-20 grade reinforced cement concrete.						
5.1	Sunshade over Windows	Cum	0.89				
5.2	For Lofts & Racks	Cum	1.88				
6	Centring and Shuttering including strutting, propping etc. and removal of form for						
6.1	For Columnn Footing (C1 F1)	Sqm	10.80				
6.2	For Column below GL up to plinth	Sqm	51.36				
6.3	For Plinth beams-PB	Sqm	41.65				
6.4	For columns above GL	Sqm	42.66				
6.5	For lintel beams	Sqm	23.43				
6.6	For Roof beams	Sqm	30.97				
6.7	For Roof slab	Sqm	131.94				
6.8	For Parapet	Sqm	4.90				
7	Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars	MT	4.14				
8	Brick work with bricks of class designation 100A in foundations and plinth in :Extra for Brick work in superstructure above plinth level upto floor V cum	Cum	31.58				
9	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for Internal walls)	Sqm	167.68				
10	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for ceiling)	Sqm	58.41				
11	20 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for External walls)	Sqm	147.88				

12	Wall painting with plastic emulsion paint of approved brand an	Sqm	226.09	
13	Appying one coat of cement primer of approved brand and manufacture on wall surface	Sqm	191.98	
14	(for External walls) Providing wood work in frames of door, window clerestory windows and other frames, wrought framed and fixed in	Cum	0.50	
14	position in local wood	Cuili	0.50	
15	Providing and fixing paneled or paneled and glazed shutters for doors, windows and clerestory windows including black enameled MS butt hinges with necessary screws excluding panelling which will be paid for separately - 30 mm thick	Sqm	6.93	
16	Providing and fixing glazing in aluminium door, window ventilator shutters and partition etc with PVC / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer incharge. (Cost of aluminium snap bading shall be paid in basic item). With glass pans of 5.50 mm thickness (Weight not less than 13.75 kg/sqm)			
16.1	For Windows	Sqm	8.28	
16.2	For Ventilators	Sqm	0.72	
17	Providing and fabricating and fixing of M S grill for window protection etc ,. As per specification, drawing and as directed by the engineer			
	For Windows & Ventilators	kg	9.00	
18	Providing and laying in situ five course water proofing treatment with glass fibre tissue reinforced bitumen over roof consisting of first coat of bitumen primer @ 0.40 kg per sqm, 2nd and 4th courses of bonding material 1.60 kg per sqm which shall consist of blown type bitumen of grade 85/25 conforming to IS: 702, third layer of glass fibre tissue course as specified, fifth, the top most layer of stone grit 6 mm and down size or pea-seized gravel sprad @ 6 dm³ per sqm including preparation of surface excluding grading for slope etc. compete.			
18.1	Slope concrete	Sqm	74.92	
19	Providing and laying Ceramic glazed floor tiles 400x400 mm (thickness to be specified by the manufacturer) of 1 st quality conforming to IS: 13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours such as white, Ivory, Grey, Fume, Red, Brown, laid on 20 mm thick cement motar 1:4 (1 cement: 4 Coarse sand) including grouting the joints with white cement and matching pigments etc, complete.			
	Total quantity		58.41	
20	Providing and fixing first quality ceramic glazed wall tiles conforming to IS 15622 (thickness to be specified by the manufacturer) of approved maike in all colours shades except burgundy, bottle green, black of any size as approved by engineer incharge in skirting risers of steps and dados over 12 mm thick bed of cement mortar (1:3) and jointing with grey cement slurry at 3.3 kg per sqm including pointing in white cement mixed with pigment of matching shade complete			
	Total quantity	Rmt	55.67	
21	Providing and laying Ceramic glazed floor tiles 400x400 mm (thickness to be specified by the manufacturer) of 1st quality conforming to 1s: 13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours except white, Ivory, Grey, Fume, Red, Brown, laid on 20 mm thick cement motar 1:4 (1 cement: 4 Coarse sand) including grouting the joints with White cement and matching pigments etc, complete.			
21.1	Toilet	Sqm	5.85	
22	Providing and laying Ceramic glazed floor tiles 400x400 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS: 13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours except white, Ivory, Grey, Fume, Red, Brown, laid on 20 mm thick cement motar 1:4 (1 cement: 4 Coarse sand) including grouting the joints with White cement and matching pigments etc, complete.			
22.1	Toilet Walls	Sqm	17.54	
-4.1		Sqiii	.7.54	

15.60		
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52.34		
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26.15	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	No	1	
26.16	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. – 35	No	1	
	Total Cost of Sanitary items		·	
	Total Cost			

2.5 BOQ For Electrical Components For Pump-house

	2.5 BOQ For Electrical (Comp	onents	For Pur	np-hous
SI.No	Description	Unit	Quantity	Rate (INR)	Amount (INR)
1.0	EARTHING				
1.1	Neutral Earthing - Earthing with Copper earth plate 600mmx600mmx3mm thick including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering pipe of 2.7m long etc with charcoal/coke and salt as required.	No	2		
1.2	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc with charcoal/coke and salt as required.	No	2		
2.0	LT PANEL BOARD (Indoor type)				
2.1	Supplying and fixing following way prewired SP&N MCB distribution board of steel sheet for 240 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, earth bar, din bar, detachable gland plate, interconnections, powder painted including earthing etc. as required. (But without MCB/ RCCB/ Isolator) 2 + 8 way/10 way, Double door	No	1		
2.2	MCCB DISTRIBUTION BOARDS				
	Providing and fixing 100A rating and 16KA breaking capacity and pole TP MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, ets as required.	No	1		
2.3	MINIATURE CIRCUIT BREAKERS				
	Supplying and fixing 32A, triple pole and neutral, 415V, "C" curve, miniature circuit breaker for inductive load of triple pole and neutral in the existing MCB DB complete with connections, testing and committed as required.	No	2		
2.4	MINIATURE CIRCUIT BREAKERS				
	Supplying and fixing 32A, single pole and neutral, 240V, "C" curve, miniature circuit breaker for inductive load of single pole and neutral in the existing MCB DB complete with connections, testing and committening etc as required.	No	1		
2.5	EARTHING				
	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc with charcoal/coke and salt as required.	No	2		
3.0	DISTRIBUTION BOARD				
3.1	Supply and fixing 4+12 way, single door, horizontal type thee pole and neutral, sheet steel, MCB DB, 415V, on surface/recess, complete with tinned copper bus bar, nuetral bus bar, earth bar, din bar, interconnections, powdered painted including earthing etc as required. (but without MCB/RCCB/isolators)	m	1		
3.2	EARTHING				
	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc with charcoal/coke and salt as required.	No	2		
4	CABLES				
	Supply& laying of LT UG cable having Copper conductor PVC insulated, Sheathed, galvanised steel wire /steel tap armoured cable with PVC outer sheathing 1.1 KV class)				
4.1	4Cx16 sq mm + 2x16 sq mm earth wire	m	1		
4.2	4Cx10 sq mm + 2x10 sq mm earth wire	m	6.5		
4.3	4Cx4 sq mm + 2x4 sq mm earth wire	m	15		
4.4	2Cx2.5 sq mm + 1x2.5 sq mm earth wire	m	14		
5.0	SUPPLY & FIXING OF LUMINARIES, SOCKETS AND SWITCHES				
5.1	120W Gate lamp with fitting	No	2		
5.2	40W flourescent lamp	No	4		
5.3	70W MH Lamp for site lighting	No	4		
5.4	Single switched socket with multi purpose	No	2		
5.5	Switches	No	6		
	•				

6	POWER CONNECTION			
	Main power supply connection from			
	the nearest BSEB source to SPS			
	premises i/c Poles,cables,HT jointing			
	Kit and all associated works as per			
	Technical specifications and direction			
	of EIC.up to Punping Station including			
	providing of poles, wires, cables etc.	JOB	1	
7	Transformer of required capacity			
	including H.T. panels-(incoming			
	&Outgoing) with all associated works			
	as per Technical specifications and			
	direction of EIC.	JOB	1	
8	Main L.T. Panel including incoming			
	Panel, bus coupler, APFC Panel Load			
	Distribution Panel and all associated			
	accessories.	JOB	1	
	Total Cost			

2.6 BOQ FOR DG SET

	2.6 BOQ FOR DG SET				
SI.No	Description	Unit	Quantity	Rate (INR)	Amount (INR)
1.0	DIESEL GENERATOR				
1.1	SITC of 50 KVA, 40KW, 415V, 50 Hz, comprising of Perkins Engine Coupled to Stamford make Alternator, complete with all Standard accessories and ATS with Acoustic enclosure.	No	1		
1.2.1	Neutral Earthing - Earthing with Copper earth plate 600mmx600mmx3mm thick including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering pipe of 2.7m long etc with charcoal/coke and salt as required.	No	2		
1.2.2	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement andwateringpipeetc with charcoal/coke and salt as required.	No	2		
2.0	LT PANEL BOARD (Indoor type)				
2.1	Supplying and fixing 4 ways surface/recess mounting, vertical type, 415V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCB's, with provision of 100A TP 16KA MCCB as incommer, interconnection between incomer MCCB and bus bars (but without MCB,s /MCCB's) as required. (Note: Vertical type MCB TPDB is normally used where 3 phase outlets are required.)	No	1		
2.2	MCCB DISTRIBUTION BOARDS				
I	Providing and fixing 100A rating and 16KA breaking capacity and pole TP MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, ets as required.	No	1		
2.3	MINIATURE CIRCUIT BREAKERS				
i	Supplying and fixing 32A, triple pole and neutral, 415V, "C" curve, miniature circuit breaker for inductive load of triple pole and neutral in the existing MCB DB complete With connections, testing and commitioning etc as required.	No	2		
2.4	MINIATURE CIRCUIT BREAKERS				
; i	Supplying and fixing 32A, single pole and neutral, 240V, "C" curve, miniature circuit breaker for inductive load of single Pole and neutral in the existing MCB DB complete With connections, testing and commitioning etc as required.	No	1		
2.5	EARTHING				
- - -	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement andwateringpipeetc with charcoal/coke and salt as required.	No	2		
3.0	DISTRIBUTION BOARD				
İ	Supply and fixing 4+12 way, single door, horizontal type thee pole and neutral, sheet steel, MCB DB, 415V, on surface/recess, complete with tinned copper	m	1		
İ	bus bar, nuetral bus bar, earth bar, din bar, interconnections, powdered painted including earthing etc as required. (but without MCB/RCCB/isolators)		'		
	EARTHING Pody Forthing Forthing with Ci corth pine 4 Em long		<u> </u>		
] - -	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement andwateringpipeetc with charcoal/coke and salt as required.	No	2		
4.0	CABLES				
i	Supply & laying of LT UG cable having Copper conductor PVC insulated, Sheathed, galvanised steel wire /steel tap armoured cable with PVC outer sheathing 1.1 KV class)			_	
i	conductor PVC insulated,Sheathed ,galvanised steel wire /steel tap armoured cable with PVC outer sheathing 1.1 KV	m	1		

4.3	4Cx4 sq mm + 2x4 sq mm earth wire	m	15	
4.4	2Cx2.5 sq mm + 1x2.5 sq mm earth wire	m	14	
5.0	SUPPLY & FIXING OF LUMINARIES, SOCKETS AND SWITCHES			
5.1	120W Gate lamp with fitting	No	2	
5.2	40W flourescent lamp	No	4	
5.3	70W MH Lamp for site lighting	No	4	
5.4	Single switched socket with multi purpose	No	2	
5.5	Switches	No	6	
	Total Cost			

2.7 BOQ FOR SITC of Mechanical Components at each Pumping Station

SI.No	Description	Quantity	Units	Rate	Amount
1	Manually Cleaned				
	SITC of the screen, shall be of removable type and shall consist of a welded stainless steel (AISI410) frame with vertical flats spaced at 30 mm. The flats shall not be less than 10 mm in thickness and not less than 50 mm deep. The flats shall not have any joint. The spacing between the flats shall be uniform and preferably so maintained by adequate number of spacers, which shall be so located as not to interfere with the raking operation. To facilitate the manual cleaning of the screen the inclination of the screen shall be between 45° and 60° to the horizontal. Single piece screen width should not be more than 1.5 m.Two numbers stainless steel rollers shall be fixed on each side of frame to facilitate rolling contact with guide channel during lifting and lowering of screen.				
1.2	(500 X 1500) mm	4	Nos		
2	Providing, erecting and giving test of Non clog sewage submersible pump set with SS CF8 M impeller,Cl casing,SS 316 shaft suitable for 3 Ph ,415 V , 50 Hz A.C. Supply, submersible motor having TEFC encloouser with class F insulation and IP 68 protection .The pump shall be operated at 1450 RPM. The scope shall include required accessories viz automatic coupling device,guide pipe,,chain with shakle,flat submersible cable upto starter panel through suitable GI pipe (30 mtr 3 Core flat copper for each pump with necessary electrical connection with the starter panel and as per specifications. (HP)				
	10HP				
	4 Pumps for 2 lean, 1 peak and 1 average flow				
	2 pumps for lean flow	2	nos		
	1 pump for peak flow	1	nos		
	1 pump for average flow	1	nos		
3	Providing Supplying erection testing and commissioning of 2 Tonne capacity Mobile Crane				
3.1	1 T Capacity for 7 m lift.	1	Nos		
	Total Cost, Rs				

2.8: BOQ FOR Rising Main

SI. No.	Description of Item	Unit	quantit y	Rate (INR)	Amount (INR)	
1.0the	Excavating trenches of required width for pipes cables, etc., including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m including getting out 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.					
	0.0 to 1.5 mtr. Depth					
1.1	do - in all kindes of soil - 100%	m	2.70			
2.0	Supplying and Filling in plinth with local sand and under floors including , watering, ramming consolidation and dressing complete.	cum	269.64			
3.0	Providing and laying S&S Centrifugally Cast (Spun) / Ductile Iron. Pipes conforming to IS: 8329 :DI-K9					
3.1	300.00	m	1997.3			
4	Providing push on joints to Centifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes inculding testing of joints and the cost of rubber gasket (one at every 6m).					
4.1	300.00	Joint	333			
5.0	Providing and laying D.I. specials of class K-12 suitable for push on jointing as per IS: 9523:					
E 1	Bends-As per BS 4772 code					
5.1	90 degree (63.5 Kg)	kg	317.50			
5.2	Taper-As per BS 4772 code					
5.2	300x200mm (34.5 Kg)	kg	34.50			
	Tee-As per BS 4772 code					
5.3	300x300x300 mm (79.5 Kg)	kg	79.50			
6.0	Providing and fixing C.1. sluice valves (with cap) complete with bolts, nuts, rubber insertions etc.(the tail pieces if required will be paid separately)					
6.1	300.00	No	3.00			
7.0	Providing and fixing C.1. sluice valves for Scouring (with cap) complete with bolts, nuts, rubber insertions etc.(the tail pieces if required will be paid separately)					
7.1	300.00	No	3.00			
8.0	Providing & Constructing masonry Chamber 1.5x1.5x1.5 m inside, in brick work in cement mortar 1:3 (1 cement : 3 coarse sand) for valve, with cast insitu RCC slab with necessary reinforcment. The valve chamber shall be plastered with CM 1:4, A levelling coars of M10 shall be provided. The cost is inclusive of excavation, disposal and construction of valve chamber with moduar bricks plasting with cement mortar with all lead and lift etc., as per specification & drawing.					
8.1	Sluice valve chambers	No	3.00			
8.2	Scour valve chambers	No	3.00			
9.0	Providing and constructing of the RCC Thrust Blocks for DI bends including the excavations of soils up to the required depth, disposal of soils after refilling with selected available earth, providing PCC including cost of labours, materials tools, curing etc., complete as per drawing and as directed by the Engineer (inclusive of cost of steel)					
	90 degree	No	2.00			
9.1	Enter Total pipe length	1997.34	m			
7.1	Percentage of CC Road in town	70.00	%			
	Percentage of Asphalt Road in town	30.00	%			
10 [Dismantling and restoration of roads :					
10.1	Dismantling of cement concrete pavement (dismantling of cement concrete pavements by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock pilling at designated locations and disposal of dismantled materials up to a lead of 1000 metres, stacking serviceable and unserviceable material	cum	188.75			

	Dismantalling of flexible Pavements (dismantling of flexible pavements and disposal of dismantled materials up to a lead of 1000 m, stacking serviceable and unserviseable materials separately)			
10.2	Bituminous courses by mechanical means	cum	26.96	
	Granular courses by manualmeans	cum	314.58	
11	Restoration of road as per the specification and as directed by the engineer			
11.1	Restoration of CC road			
а	Compacting original ground supporting subgrade (Loosening of the ground upto a level of 500 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of table 300-2 for subgrade construction.) Rolling with vibratory Roller	cum	898.80	
b	Wet Mix Macadam - Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the material with water at OMC in mechanical mix plant carriage of mixed mathod of tipper to site, laying in uniform layers with paver in subbase/base course on a well prepared surface and compacting with vibratory roller to achieve the desired density complete as per Specification	cum	67.41	
с	Cement Concrete Pavement (Construction of un-reinforced, dowel jointed, plain cement concrete pavement over a prepared sub base with 43 grade cement @ 400 kg per cum, coarse and fine aggregate conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a batching and mixing plant as per approved mix design, transported to site, laid with a fixed form or slip form paver, spread, compacted and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, sealant primer, joint sealant, debonding strip, dowel bar, tie rod, admixtures as approved, curing compound, finishing to lines and grades as per drawing)	cum	188.75	
	Pavement Courses – Granular			
12	Granular Sub-base with Close graded Material (By Mix in Place Method) - Construction of Granular sub-base(GSB) by providing close graded Material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method by rotavator at OMC, and compacting with vibratory power roller to achieve the desired density, complete as per Technical			
	Specification Total for Grading II Matrerial (50% of Total)	cum	94.37	
	Total for Grading I Matrerial (50% of Total)	cum	94.37	
b	Wet Mix Macadam - Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the material with water at OMC in mechanical mix plant carriage of mixed mathod of tipper to site, laying in uniform layers with paver in sub-base/base course on a well prepared surface and compacting with vibratory roller to achieve the desired density complete as per Specification	cum	314.58	
	Pavement Courses – Bituminous			
	Prime Coat - Providing and applying primer coat with Bitumen emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.6kg/sqm using mechnical means complete	sqm	1258.32	
С	Tack Coat - Providing and applying tack coat with Bitumen emulsion using emulsion pressure distributor at the rate of 0.2 kg per sqm on the prepared bituminous/granular surface cleaned with mechancial broom .	sqm	1258.32	
	Providing and laying Dense graded bituminous macadam with 100-120 TPH batch HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5 % by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specifications Clause 507. (Grading II -19mm nominal size)	cum	31.46	
	Toati Cost, R	s		

I&D Nallah III_Ward No 8 Nallah								
Item Description	Quantity	Total Amount						
Drain construction Cost	Detailes are attached							
Outfall Structure cost	Detailes are attached							
Generator Room cost	Detailes are attached							
operator Quarter Cost	Detailes are attached							
Elctrical Component	Detailes are attached							
DG Cost	Detailes are attached							
Rising main cost	Detailes are attached							
Pump and screen cost	Detailes are attached							
Total Cost								

3.1: BOQ FOR Drain Construction

SI.	. No.	Name of Drains/ Nallah falling in Ganga River	Length of Drain (m) to be Constructed	Drain X- Section (sq.m)	Velocity (m/sec)		effective flow area	Flow	Flow (MLD)	Width	Height	Rate	Drain Cost	Width	Height	I&D	Remark
	1	Ward no 8 Nala	250	0.098	0.11	0.90	10%	0.016	1.38	1.00	1.50			1.00	1.50	Pumping	TO STP

3.2 BOQ FOR Outfall Structures

3.2 BOQ	2 FOR Outfall Structures						
Description of Item	Unit	Quantity	Rate (INR)	Amount (INR)			
Earth work Excavation in foundation trenches or drains including dressing of sides and ramming of bottoms, lift as follows, including getting out the excavated soil and disposal of surplus excavated soil as directed, with all lead and lift complete as per the specification and as directed by the Engineer. All kinds of soils							
Upto1.50m depth	cum	38.10					
1.5 m to 3 m	cum	27.90					
Sand filling upto 300mm in Plinth including watering and compacting in layers of 150 mm thick as per specifications and as directed by the Engineer.	cum	7.62					
Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - all work upto plinth level in 1:3:6 (1 Cement : 3 coarse sand : 6 granded stone)	Cum	5.35					
Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement, M-20 grade reinforced cement concrete.	Cum	19.21					
Centring and Shuttering including strutting, propping etc. and removal of form for vertical walls	sqm	56.00					
Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars TMTC - 500 (Quantity at 90 kg/cum)	Kg	1728.90					
Carriage of the following materials from quarry to work site including loading, unloading and staking at work site as per specification & direction of E/I.	Cum	40.42					
	_						
	_						
Wrought iron and mild steel welded work (using angles, square bars, tees and channel grills, grating frames, gates and tree guards of any size and design etc. including cost of screens and welding rods or bolts and nuts complete fixed in	Kg	240.0000					
Erection of gates (a) 30% item NO- 8		240.0000					
Centring and Shuttering including strutting, propping etc. and removal of form for Roof slab							
For roof slab	Sqm	16.00					
Weather shade,Chajjas, corbels etc. including edges	Sqm	1.20					
Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars		8.00					
steel quantities	Kg	720.00					
Brick work with bricks of class designation 100A in foundations and plinth in :Extra for Brick work in superstructure above plinth level upto floor V cum	Cum	5.52					
12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for Internal walls)	Sqm	24.00					
12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for ceiling)		16.00					
20 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for External walls)	Sqm	24.90					
	Earth work Excavation in foundation trenches or drains including dressing of sides and ramming of bottoms, lift as follows, including getting out the excavated soil and disposal of surplus excavated soil as directed, with all lead and lift complete as per the specification and as directed by the Engineer. All kinds of soils Upto1.50m depth 1.5 m to 3 m Sand filling upto 300mm in Plinth including watering and compacting in layers of 150 mm thick as per specifications and as directed by the Engineer. Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - all work upto plinth level in 1:3:6 (1 Cement : 3 coarse sand : 6 granded stone) Providing and laying in position machine batched, machine mixed, and machine whateld design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering, inishing and reinforcement, M-20 grade reinforced cement concrete. Centring and Shuttering including strutting, propping etc. and removal of form for vertical walls Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars TMTC - 500 (Quantity at 90 kg/cum) Carriage of the following materials from quarry to work site including loading, unloading and staking at work site as per specification & direction of E/I. Aggregate Sand Cement Steel Wrought iron and mild steel welded work (using angles, square bars, tees and channel grills, grating frames, gates and tree guards of any size and design etc. including cost of screens and welding rods or bolts and nuts complete fixed in position but without the cost of excavation and concrete for fixing which will be paid separately Frection of gates (a) 30% item NO- 8 Centring and Shuttering including strutting, propping etc. and removal of form for Roof slab Weather shade, Chajjas, corbels etc. including straightening, cutting, bending, placing in posi	Earth work Excavation in foundation trenches or drains including dressing of sides and ramming of bottoms, lift as follows, including getting out the excavated soil and disposal of surplus exeavated soil as directed, with all lead and lift complete as per the specification and as directed by the Engineer. All kinds of soils Upto1.50m depth 1.5 m to 3 m Cum Sand filling upto 300mm in Plinth including watering and compacting in layers of 150 mm thick as per specifications and as directed by the Engineer. Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - all work upto plinth level in 1:3:6 (1 Cement : 3 coarse sand : 6 granded stone) Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement, M-20 grade reinforced cement concrete. Centring and Shuttering including strutting, propping etc. and removal of form for vertical walls Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars TMTC - 500 (Quantity at 90 kg/cum) Carriage of the following materials from quarry to work site including loading, unloading and staking at work site as per specification & direction of E/I. Aggregate Cum Carriage of the following materials from quarry to work site including loading, unloading and staking at work site as per specification & direction of E/I. Aggregate Cum Steel Steel MT Wrought iron and mild steel welded work (using angles, square bars, tees and channel grills, grating frames, gates and tree guards of any size and design etc. including cost of screens and welding rods or bolts and nuts complete fixed in position but without the cost of excavation and concrete for fixing which will be paid separately Frection of gates (a) 30% item NO-8 Centring a	Earth work Excavation in foundation trenches or drains including dressing of sides and ramming of bottoms, lift as follows, including getting out the excavated soil and disposal of surplus excavated soil as directed, with all lead and lift complete as per the specification and as directed by the Engineer. All kinds of soils Upto 1.5 m to 3 m cum 33.10 Li 5 m to 3 m cum 27.90 Sand filling upto 300mm in Plinth including watering and compacting in layers of 150 mm thick as per specifications and as directed by the Engineer. Providing and laying in position cement concrete of specifications and as directed by the Engineer. Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of specified grade excluding the cost of centring and shuttering - all work upto plinth level in 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone) Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering. Froviding and Shuttering including strutting, propping etc. and removal of form for vertical walls Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars TMTC - 500 (Quantity at 90 kg/cum) Carriage of the following materials from quarry to work site including loading, unloading and staking at work site as per specifications direction of E/I. Aggregate Steel Wrought iron and mild steel welded work (using angles, square bars, tees and channel grills, grating frames, gates and tree guards of any size and design etc. including cost of screens and welding rods or botts and ruts complete fixed in position but without the cost of excavation and concrete for fixing which will be paid separately Frection of gates (a) 30% item NO-8 Centring and Shuttering including strutting, propping etc. and removal of form for Roof slab W	Earth work Excavation in foundation trenches or drains including dressing of sides and ramming of bottoms, lift a solitorous, including getting out the excavated soil and disposal of surplus excavated soil as directed, with all lead and lift complete as per the specification and as directed by the Engineer. 1.5 m to 3 m			

SI no.		Description of Item	Unit	Quantity	Rate (INR)	Amount (INR)
14.0	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade: Two or more coats on new work (for Internal walls)			24.00		
15.0	and manu	ing with plastic emulsion paint of approved brand facture to give an even shade: Two or more coats ork (for ceiling)	Sqm	24.00		
16.0	Appying one coat of cement primer of approved brand and manufacture on wall surface (for External walls)			16.00		
17.0	Providing wood work in frames of door, window windows and other frames, wrought framed and position in local wood for Door		Cum	24.90		
18.0	for doors, enameled	and fixing paneled or paneled and glazed shutters windows and clerestory windows including black MS butt hinges with necessary screws excluding which will be paid for separately - 30 mm thick		0.50		
	For Doors		Sqm	1.80		
19.0	shutters a complete directions bading sh	and fixing glazing in aluminium door, window V nd partition etc with PVC / neoprene gasket etc. as per the architectural drawings and the of Engineer incharge. (Cost of aluminium snap all be paid in basic item). With glass pans of 5.50 ness (Weight not less than 13.75 kg/sqm)	Sqm	0.50		
20.0	Providing and laying Ceramic glazed floor tiles (400x400) mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS: 13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours such as White, Ivory, Grey, Fume, Red, Brown, 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.			16.00		
		Total Cost, Rs				

3.3 BOQ FOR Generator Room

	3.3 BOQ FOR Generator Room							
SI. No.	Item description	Unit	Quantity	Rate (INR)	Amount (INR)			
	Earth work							
1.0	Earthwork in excavation in foundation trenches or drains (not exceeding 1.5 m width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m including getting out the excavated soil and disposals of surplus excavated soil as directed, within a lead of 50 m.							
1.1	(For all kinds of soil) From 0 m to 1.5 m	Cum	22.54					
1.2	From 1.5 m to 3 m	Cum	1.35					
2.0	Supplying and Filling on plinth with local sand and under floors including watering, ramming consolidating and dressing complete. For Generater room	Cum	7.20					
3.0	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - all work upto plinth level in 1:3:6 (1 Cement : 3 coarse sand : 6 granded stone upto 20 mm nominal size)	Cum	7.33					
4.0	Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement, M-20 grade reinforced cement concrete.							
4.1	For Footings	Cum	1.44					
4.2	Column below GL up to Plinth	Cum	0.26					
4.3	Plinth beams	Cum	1.61					
4.4	For columns above Ground levels	Cum	0.87					
4.5	Lintel beams	Cum	1.43					
4.6	Roof Beams	Cum	1.33					
4.7	For roof slab	Cum	4.32					
4.8	For Sunshades over Door & Windows :	Cum	0.23					
5.0	Centring and Shuttering including strutting, propping etc. and removal of form for							
5.1	For footing - F	Sqm	4.80					
5.2	Column upto GL - C	Sqm	4.60					
5.3	Plinth beams :	Sqm	14.00					
6.0	Centring and Shuttering including strutting, propping etc. and removal of form for	Sqm						
6.1	Lintel beams	Sqm	12.40					
6.2	Roof beams	Sqm	12.40					
7.0	Centring and Shuttering including strutting, propping etc. and removal of form for							
	Column	Sqm	15.09					
8.0	Centring and Shuttering including strutting, propping etc. and removal of form for Roof slab							
8.1	For roof slab	Sqm	24.00					
8.2	Weather shade,Chajjas, corbels etc. including edges	Sqm	4.13					
9.0	Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars							
	steel quantities	MT	1.34					
10.0	Brick work with bricks of class designation 100A in foundations and plinth in :Extra for Brick work in superstructure above plinth level upto floor V cum	Cum	17.53					
11.0	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for Internal walls)	Sqm	64.48					
12.0	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for ceiling)							
	Generator room	Sqm	24.00					

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13.0	20 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for External walls)	Sqm	89.54	
14.0	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade: Two or more coats on new work (for Internal walls)	Sqm	64.48	
15.0	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade : Two or more coats on new work (for ceiling)	Sqm	24.00	
16.0	Appying one coat of cement primer of approved brand and manufacture on wall surface (for External walls)	Sqm	89.54	
17.0	Providing wood work in frames of door, window clerestory windows and other frames, wrought framed and fixed in position in local wood for Door	Cum	0.16	
18.0	Providing and fixing paneled or paneled and glazed shutters for doors, windows and clerestory windows including black enameled MS butt hinges with necessary screws excluding panelling which will be paid for separately - 30 mm thick			
	For Doors	Sqm	4.20	
19.0	Providing and fixing glazing in aluminium door, window V shutters and partition etc with PVC / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer incharge. (Cost of aluminium snap bading shall be paid in basic item). With glass pans of 5.50 mm thickness (Weight not less than 13.75 kg/sqm)	Sqm	4.32	
20.0	Providing and laying Ceramic glazed floor tiles (400x400) mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS:13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours such as White, Ivory, Grey, Fume, Red, Brown, 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.			
	Generater room	Sqm	24.00	
21.0	Cement plaster skirting (upto 30 cm height) with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement. 18 mm thick	Sqm	2.70	
22.0	Providing and laying in situ five course water proofing treatment with glass fibre tissue reinforced bitumen over roof consisting of first coat of bitumen primer @ 0.40 kg per sqm, 2nd and 4th courses of bonding material 1.60 kg per sqm which shall consist of blown type bitumen of grade 85/25 conforming to IS: 702, third layer of glass fibre tissue course as specified, fifth, the top most layer of stone grit 6 mm and down size or pea-seized gravel sprad @ 6 dm³ per sqm including preparation of surface excluding grading for slope etc. compete.	Sqm	24.00	
23.0	Providing and fixing on wall face unplastidsed-PVC (working pressure 4 kgf per sqm) rain water pipes conforming to IS: 4985 including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion. 110 mm diameter	m	13.50	
24.0	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 wateing lead.	Cum	14.86	
	Carriage of Materials :			
	Aggregate	Cum	16.66	
	Coarse Sand	Cum	31.07	
25.0	Local Sand Compat	Cum	7.20	
	Cement Steel	MT	6.01	
	Steel Brick (1000 Nos)	MT	0.14 8.59	
	Total Cost			
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3.4 BOQ FOR of Operators Quarter

SI. No	Item description	Unit	Quantity	Rate (INR)	Amount (INR)
1	Earthwork in excavation in foundation trenches or drains (not exceeding 1.5 m width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m including getting out the excavated soil and disposals of surplus excavated soil as directed, within a lead of 50 m. (For all kinds of soil)			· ·····y	(·····)
1.1	From 0 m to 1.5 m	Cum	36.72		
1.2	From 1.5 m to 3 m	Cum	3.24		
2	Supplying and Filling on plinth with local sand and under floors including watering, ramming consolidating and dressing complete.	Cum	18.82		
3	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - all work upto plinth level in 1:3:6 (1 Cement: 3 coarse sand: 6 granded stone)	Cum	23.51		
4	Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement, M-20 grade reinforced cement concrete.				
4.1	For Columnn Footing	Cum	4.48		
4.2	For Column below GL up to plinth	Cum	0.74		
4.3	For Plinth beams-PB	Cum	5.08		
4.4	For columns above GL	Cum	2.45		
4.5	For lintel beams	Cum	2.04		
4.6	For Roof beams	Cum	3.59		
4.7	For Roof slab	Cum	12.03		
4.8	For Parapet	Cum	2.39		
5	Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement, M-20 grade reinforced cement concrete.				
5.1	Sunshade over Windows	Cum	0.89		
5.2	For Lofts & Racks	Cum	1.88		
6	Centring and Shuttering including strutting, propping etc. and removal of form for				
6.1	For Columnn Footing (C1 F1)	Sqm	10.80		
6.2	For Column below GL up to plinth	Sqm	51.36		
6.3	For Plinth beams-PB	Sqm	41.65		
6.4	For columns above GL	Sqm	42.66		
6.5	For lintel beams	Sqm	23.43		
6.6	For Roof beams	Sqm	30.97		
6.7	For Roof slab	Sqm	131.94		
6.8	For Parapet	Sqm	4.90		
7	Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars	MT	4.14		
8	Brick work with bricks of class designation 100A in foundations and plinth in :Extra for Brick work in superstructure above plinth level upto floor V cum	Cum	31.58		
9	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for Internal walls)	Sqm	167.68		
10	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for celling)	Sqm	58.41		
11	20 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) ((for External walls)	Sqm	147.88		

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12	Wall painting with plastic emulsion paint of approved brand an	Sqm	226.09		
13	Appying one coat of cement primer of approved brand and manufacture on wall surface (for External walls)	Sqm	191.98		
14	Providing wood work in frames of door, window clerestory windows and other frames, wrought framed and fixed in position in local wood	Cum	0.50		
15	Providing and fixing paneled or paneled and glazed shutters for doors, windows and clerestory windows including black enameled MS butt hinges with necessary screws excluding panelling which will be paid for separately - 30 mm thick	Sqm	6.93		
16	Providing and fixing glazing in aluminium door, window ventilator shutters and partition etc with PVC / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer incharge. (Cost of aluminium snap bading shall be paid in basic item). With glass pans of 5.50 mm thickness (Weight not less than 13.75 kg/sqm)				
16.1	For Windows	Sqm	8.28		
16.2	For Ventilators	Sqm	0.72		
17	Providing and fabricating and fixing of M S grill for window protection etc ,. As per specification, drawing and as directed by the engineer				
	For Windows & Ventilators	kg	9.00		
18	Providing and laying in situ five course water proofing treatment with glass fibre tissue reinforced bitumen over roof consisting of first coat of bitumen primer @ 0.40 kg per sqm, 2nd and 4th courses of bonding material 1.60 kg per sqm which shall consist of blown type bitumen of grade 85/25 conforming to IS: 702, third layer of glass fibre tissue course as specified, fifth, the top most layer of stone grit 6 mm and down size or pea-seized gravel sprad @ 6 dm ³ per sqm including preparation of surface excluding grading for slope etc. compete.				
18.1	Slope concrete	Sqm	74.92		
19	Providing and laying Ceramic glazed floor tiles 400x400 mm (thickness to be specified by the manufacturer) of 1 st quality conforming to IS: 13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours such as white, Ivory, Grey, Fume, Red, Brown, laid on 20 mm thick cement motar 1:4 (1 cement: 4 Coarse sand) including grouting the joints with white cement and matching pigments etc, complete.				
	Total quantity		58.41		
20	Providing and fixing first quality ceramic glazed wall tiles conforming to 1S 15622 (thickness to be specified by the manufacturer) of approved maike in all colours shades except burgundy, bottle green, black of any size as approved by engineer incharge in skirting risers of steps and dados over 12 mm thick bed of cement mortar (1:3) and jointing with grey cement slurry at 3.3 kg per sqm including pointing in white cement mixed with pigment of matching shade complete				
	Total quantity	Rmt	55.67		
21	Providing and laying Ceramic glazed floor tiles 400x400 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS: 13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours except white, Ivory, Grey, Fume, Red, Brown, laid on 20 mm thick cement motar 1:4 (1 cement: 4 Coarse sand) including grouting the joints with white cement and matching pigments etc, complete.				
21.1	Tollet	Sqm	5.85		
22	Providing and laying Ceramic glazed floor tiles 400x400 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS: 13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours except white, Ivory, Grey, Fume, Red, Brown, laid on 20 mm thick cement motar 1:4 (1 cement: 4 Coarse sand) including grouting the joints with white cement and matching pigments etc, complete.				
22.1	Toilet Walls	Sqm	17.54		
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Cum Cum Cum MT MT No. No. No.	25.88 52.34 68.34 18.82 18.80 0.00 15.48 1 2 3		
Cum Cum MT MT No. No. No.	68.34 18.82 18.80 0.00 15.48		
Cum Cum MT MT No. No. No.	68.34 18.82 18.80 0.00 15.48		
No. No. No. No.	18.82 18.80 0.00 15.48 1 2 3		
NO. No. No. No.	18.80 0.00 15.48 1 2 3		
No. No. No. No.	0.00 15.48 1 2 3		
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	lit No No	m 30 No. 4 No. 1 lit 2000 No 1 No 1	m 30 No. 4 No. 1 lit 2000 No 1 No 1

26.15	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	No	1	
26 16	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D 35	No	1	
	Total Cost of Sanitary items			
	Total Cost			

3.5 BOQ FOR Electrical Components For Pump-house

61.51	3.5 BOQ FOR Electric			Rate	Amount	
SI.No	Description	Unit	Quantity	(INR)	(INR)	
1.0	EARTHING					
	Neutral Earthing - Earthing with Copper earth plate					
1.1	600mmx600mmx3mm thick including accesseries, and providing masonary enclosure with cover plate having locking	No	2			
	arrangement and watering pipe of 2.7m long etc with	140				
	charcoal/coke and salt as required.					
	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm					
1.2	dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering	No	2			
	pipe etc with charcoal/coke and salt as required.					
2.0	LT PANEL BOARD (Indoor type)					
	Supplying and fixing following way prewired SP&N MCB distribution board of steel sheet for 240 volts on surface/					
	recess complete with loose wire box, terminal connectors for					
2.1	all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC	No	1			
2.1	insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, earth bar, din bar, detachable	No	'			
	gland plate, interconnections, powder painted including					
	earthing etc. as required. (But without MCB/ RCCB/ Isolator) 2 + 8 way/10 way, Double door					
2.2	MCCB DISTRIBUTION BOARDS					
_	Providing and fixing 100A rating and 16KA breaking capacity and pole TP MCCB in existing cubicle panel board including					
	drilling holes in cubicle panel, making connections, ets as	No	1			
2.3	required. MINIATURE CIRCUIT BREAKERS					
2.3	Supplying and fixing 32A, triple pole and neutral, 415V, "C"				 	
	curve, miniature circuit breaker for inductive load of triple	No	No 2			
	pole and neutral in the existing MCB DB complete with connections, testing and committioning etc as required.					
2.4	MINIATURE CIRCUIT BREAKERS					
	Supplying and fixing 32A, single pole and neutral, 240V, "C"					
	curve, miniature circuit breaker for inductive load of single pole and neutral in the existing MCB DB complete with	No	1			
	connections, testing and commitioning etc as required.					
2.5	EARTHING					
	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm					
	dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering	No	2			
	pipe etc with charcoal/coke and salt as required.					
3.0	DISTRIBUTION BOARD					
	Supply and fixing 4+12 way, single door, horizontal type thee pole and neutral, sheet steel, MCB DB, 415V, on					
3.1	surface/recess, complete with tinned copper bus bar, nuetral	m	1			
	bus bar, earth bar, din bar, interconnections, powdered painted including earthing etc as required. (but without					
	MCB/RCCB/isolators)					
3.2	EARTHING					
	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm					
	dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering	No	2			
	pipe etc with charcoal/coke and salt as required.		<u>L</u>			
4	CABLES					
	Supply & laying of LT UG cable having Copper conductor PVC					
	insulated, Sheathed, galvanised steel wire /steel tap armoured cable with PVC outer sheathing 1.1 KV class)					
4.1	4Cx16 sq mm + 2x16 sq mm earth wire	m	1		 	
4.2	4Cx10 sq mm + 2x10 sq mm earth wire	m	6.5		1	
4.3	4Cx4 sq mm + 2x4 sq mm earth wire	m	15			
4.4			14			
5.0	SUPPLY & FIXING OF LUMINARIES, SOCKETS AND SWITCHES					
5.1	120W Gate lamp with fitting	No	2			
5.2	40W flourescent lamp	No	4		1	
0.2	70W MH Lamp for site lighting	No	4			
5.3	70W Will Earlip for Site lighting				I	
	Single switched socket with multi purpose	No	2			
5.3		No No	2 6			

6	POWER CONNECTION			
	Main power supply connection from			
	the nearest BSEB source to SPS			
	premises i/c Poles,cables,HT jointing			
	Kit and all associated works as per			
	Technical specifications and direction			
	of EIC.up to Punping Station including			
	providing of poles, wires, cables etc.	JOB	1	
7	Transformer of required capacity			
	including H.T. panels-(incoming			
	&Outgoing) with all associated works			
	as per Technical specifications and			
	direction of EIC.	JOB	1	
8	Main L.T. Panel including incoming			
	Panel, bus coupler, APFC Panel Load			
	Distribution Panel and all associated			
	accessories.	JOB	1	
	Total Cost			

3.6 BOQ FOR DG SET

1.1 SPP 1.1 SP	Description DIESEL GENERATOR 50 KVA SITC of 50 KVA, 40KW, 415V, 50 Hz, comprising of Perkins	Unit	Quantity	Rate (INR)	Amount (INR)
1.1 SP 1.1 nn a	SITC of 50 KVA, 40KW, 415V, 50 Hz, comprising of				4
1.1 PE n a					
	Engine Coupled to Stamford make Alternator, complete with all Standard accessories and ATS with Acoustic enclosure. EARTHING	No	1		
	Neutral Earthing - Earthing with Copper earth plate				
i.	oction cartining - Earthing with copper earth plate 500mmx600mmx3mm thick including accesseries, and providing masonary enclosure with cover plate having ocking arrangement and watering pipe of 2.7m long etc with charcoal/coke and salt as required.	No	2		
1.2.2 n a	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement andwateringpipeetc with charcoal/coke and salt as required.	No	2		
2.0 L	T PANEL BOARD (Indoor type)				
v s ir 2.1 w ir b	Supplying and fixing 4 ways surface/recess mounting, vertical type, 415V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, nclusive of 200A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCB's, with provision of 100A TP 16KA MCCB as incommer, nterconnection between incomer MCCB and bus bars (but without MCB,s /MCCB's) as required. (Note: Vertical type MCB TPDB is normally used where 3 phase outlets are required.)	No	1		
2.2 N	MCCB DISTRIBUTION BOARDS				
c b	Providing and fixing 100A rating and 16KA breaking capacity and pole TP MCCB in existing cubicle panel coard including drilling holes in cubicle panel, making connections, ets as required.	No	1		
	MINIATURE CIRCUIT BREAKERS				
4 ir e	Supplying and fixing 32A, triple pole and neutral, 115V, "C" curve, miniature circuit breaker for nductive load of triple pole and neutral in the existing MCB DB complete with connections, testing and commitioning etc as required.	No	2		
2.4 N	MINIATURE CIRCUIT BREAKERS				
2 ir e	Supplying and fixing 32A, single pole and neutral, 240V, "C" curve, miniature circuit breaker for nductive load of single pole and neutral in the existing MCB DB complete with connections, testing and commitioning etc as required.	No	1		
2.5 E	EARTHING				
4 n a	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement andwateringpipeetc with charcoal/coke and salt as required.	No	2		
3.0	DISTRIBUTION BOARD				
ty 3 1 4	Supply and fixing 4+12 way, single door, horizontal ype thee pole and neutral, sheet steel, MCB DB, 415V, on surface/recess, complete with tinned copper	m	1		
ir e	ous bar, nuetral bus bar, earth bar, din bar, nterconnections, powdered painted including earthing etc as required. (but without MCB/RCCB/isolators)				
	EARTHING Body Earthing - Earthing with Gi earth pipe 4.5m long,				
4 n a	40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement andwateringpipeetc with charcoal/coke and salt as required.	No	2		
4.0	CABLES				
c ir a	Supply & laying of LT UG cable having Copper conductor PVC nsulated, Sheathed ,galvanised steel wire /steel tap armoured cable with PVC outer sheathing 1.1 KV class)				
	4.1 4Cx16 sq mm + 2x16 sq mm earth wire		1		
4.1 4	TOX TO SQ TIME T ZX TO SQ TIME GALLET WILD				4

4.3	4Cx4 sq mm + 2x4 sq mm earth wire	m	15		
4.4	2Cx2.5 sq mm + 1x2.5 sq mm earth wire	m	14		
5.0	SUPPLY & FIXING OF LUMINARIES, SOCKETS AND SWITCHES				
5.1	120W Gate lamp with fitting	No	2		
5.2	40W flourescent lamp	No	4		
5.3	70W MH Lamp for site lighting	No	4		
5.4	Single switched socket with multi purpose	No	2		
5.5	Switches	No	6		
	Total Cost			·	

3.7.: BOQ FOR Rising Main

SI. No.	Description of Item	Unit	Quantity	Rate (Amount (INR)
1.0	Excavating trenches of required width for pipes cables, etc., including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 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 consolidating each deposited layer by ramming, watering, and disposition of surplus excavated soil as directed, within a lead of 50 m.				
	0.0 to 1.5 mtr. Depth				
1.1	do - in all kindes of soil - 100%	m	3.19		
2.0	Supplying and Filling in plinth with local sand and under floors including , watering, ramming consolidation and dressing complete.	cum	318.64		
3.0	Providing and laying S&S Centrifugally Cast (Spun) / Ductile Iron. Pipes conforming to IS: 8329:DI-K9				
3.1	100.00	m	3034.7		
4	Providing push on joints to Centifugally (Spun) Cast Iron Pipes or Ductlle Iron Pipes inculding testing of joints and the cost of rubber gasket (one at every 6m).				
4.1	100.00	Joint	506		
5.0	Providing and laying D.I. specials of class K-12 suitable for push-on jointing as per IS: 9523:				
5.1	Bends-As per BS 4772 code				
	90 degree (63.5 Kg)	kg	317.50		
5.2	Taper-As per BS 4772 code 300x200mm (34.5 Kg)		34.50		
5.3	300x200mm (34.5 Kg) Tee-As per BS 4772 code	kg	34.50		
5.5	300x300x300 mm (79.5 Kg)	kg	79.50		
	·		77.50		
6.0	Providing and fixing C.1. sluice valves (with cap) complete with 0 bolts, nuts, rubber insertions etc.(the tail pieces if required will be paid separately)				
6.1	100.00	No	3.00		
7.0	Providing and fixing C.I. sluice valves for Scouring (with cap) complete with bolts, nuts, rubber insertions etc. (the tail pieces if required will be paid separately)				
7.1	100.00	No	3.00		
8.0	Providing & Constructing masonry Chamber 1.5x1.5x1.5x1.5 m inside, in brick work in cement mortar 1:3 (1 cement: 3 coarse sand) for valve, with cast insitu RCC slab with necessary reinforcment. The valve chamber shall be plastered with CM 1:4, A levelling coars of M10 shall be provided. The cost is inclusive of excavation, disposal and construction of valve chamber with moduar bricks plasting with cement mortar with all lead and lift etc., as per specification & drawing.				
8.1	Sluice valve chambers	No	3.00		
8.2	Scour valve chambers	No	3.00		
9.0	Providing and constructing of the RCC Thrust Blocks for DI bends including the excavations of soils up to the required depth, disposal of soils after refilling with selected available earth, providing PCC including cost of labours, materials tools, curing etc., complete as per drawing and as directed by the Engineer (inclusive of cost of steel)				
	90 degree	No	2.00		
9.1	Enter Total pipe length	3034.69	m		
	Percentage of CC Road in town	70.00	%		
	Percentage of Asphalt Road in town	30.00	%		
10	Dismantling and restoration of roads :				
10.1	Dismantling of cement concrete pavement (dismantling of cement concrete pavements by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock pilling at designated locations and disposal of dismantled materials up to a lead of 1000 metres, stacking serviceable and unserviceable material	cum	286.78		
10.2	Dismantalling of flexible Pavements(dismantling of flexible pavements and disposal of dismantled materials up to a lead of 1000 m, stacking serviceable and unserviseable materials separately)				
	Bituminous courses by mechanical means	cum	40.97		
	Granular courses by manualmeans	cum	477.96		
	1	<u> </u>			

11	Restoration of road as per the specification and as directed by the engineer			
11.1	Restoration of CC road			
а	Compacting original ground supporting subgrade (Loosening of the ground upto a level of 500 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of table 300-2 for subgrade construction.) Rolling with vibratory roller	cum	1365.61	
b	Wet Mix Macadam - Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the material with water at OMC in mechanical mix plant carriage of mixed mathod of tipper to site, laying in uniform layers with paver in sub-base/base course on a well prepared surface and compacting with vibratory roller to achieve the desired density complete as per Specification	cum	102.42	
С	Cement Concrete Pavement (Construction of un-reinforced, dowel jointed, plain cement concrete pavement over a prepared sub base with 43 grade cement @ 400 kg per cum, coarse and fine aggregate conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a batching and mixing plant as per approved mix design, transported to site, laid with a fixed form or slip form paver, spread, compacted and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, sealant primer, joint sealant, debonding strip, dowel bar, tie rod, admixtures as approved, curing compound, finishing to lines and grades as per drawing)	cum	286.78	
	Pavement Courses - Granular			
12	Granular Sub-base with Close graded Material (By Mix in Place Method) - Construction of Granular sub-base(GSB) by providing close graded Material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method by rotavator at OMC, and compacting with vibratory power roller to achieve the desired density, complete as per Technical Specification			
		cum		
	Total for Grading II Matrerial (50% of Total)	cum	143.39	
	Total for Grading I Matrerial (50% of Total)	cum	143.39	
b	Wet Mix Macadam - Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the material with water at OMC in mechanical mix plant carriage of mixed mathod of tipper to site, laying in uniform layers with paver in sub-base/base course on a well prepared surface and compacting with vibratory roller to achieve the desired density complete as per Specification	cum	477.96	
	Pavement Courses - Bituminous			
	Prime Coat - Providing and applying primer coat with Bitumen emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.6kg/sqm using mechnical means complete	sqm	1911.85	
c	Tack Coat - Providing and applying tack coat with Bitumen emulsion using emulsion pressure distributor at the rate of 0.2 kg per sqm on the prepared bituminous/granular surface cleaned with mechancial broom .	sqm	1911.85	
	Providing and laying Dense graded bituminous macadam with 100-120 TPH batch HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5 % by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specifications Clause 507. (Grading II -19mm nominal size)	cum	47.80	
	Total Cost, Rs			

3.8: BOQ FOR SITC of Mechanical Components at each Pumping Station

SI.No	Description	Quantity	Units	Rate	Amount
1	Manually Cleaned Bar Screen				
	SITC of the screen, shall be of removable type and shall consist of a welded stainless steel (AISI410) frame with vertical flats spaced at 30 mm. The flats shall not be less than 10 mm in thickness and not less than 50 mm deep. The flats shall not have any joint. The spacing between the flats shall be uniform and preferably so maintained by adequate number of spacers, which shall be so located as not to interfere with the raking operation. To facilitate the manual cleaning of the screen the inclination of the screen shall be between 45° and 60° to the horizontal. Single piece screen width should not be more than 1.5 m.Two numbers stainless steel rollers shall be fixed on each side of frame to facilitate rolling contact with guide channel during lifting and lowering of screen.				
1.2	(500 X 1500) mm	4	Nos		
2	Providing, erecting and giving test of Non clog sewage submersible pump set with SS CF8 M impeller,CI casing,SS 316 shaft suitable for 3 Ph ,415 V , 50 Hz A.C. Supply, submersible motor having TEFC encloouser with class F insulation and IP 68 protection .The pump shall be operated at 1450 RPM .The scope shall include required accessories viz automatic coupling device,guide pipe,,chain with shakle,flat submersible cable upto starter panel through suitable GI pipe (30 mtr 3 Core flat copper for each pump with necessary electrical connection with the starter panel and as per specifications. (HP)				
	0.5 HP				
	4 Pumps for 2 lean, 1 peak and 1 average flow			_	
	2 pumps for lean flow	2	Nos		
	1 pump for peak flow	1	Nos		
	1 pump for average flow	1	Nos		
3	Providing Supplying erection testing and commissioning of 2 Tonne capacity Mobile Crane				
3.1	1 T Capacity for 7 m lift.	1	Nos		
	Total Cost, Rs				

I&D Nallah	_IV -Ward No 9 Nallah								
Item Description	Quantity	Total Amount							
Drain construction Cost	Detailes are attached								
Outfall Structure cost	Detailes are attached								
Generator Room cost	Detailes are attached								
Operator Quarter Cost	Detailes are attached								
Elctrical Component	Detailes are attached								
DG Cost	Detailes are attached								
Rising main cost	Detailes are attached								
Pump and screen cost									
Total Cos	Total Cost, Rs								

	4.1: BOQ FOR Drain Construction																
SI	I. No.	Name of Drains/ Nallah falling in Ganga River	Length of Drain (m) to be constructed	Drain X- Section (sq.m)	Velocity (m/sec)	Flow (MLD)	effective flow area	Flow	Flow (MLD)	Width	Height	Rate	Drain Cost	Width	Height	I&D	Remark
	1	Ward no 9 Nala	250	0.022	0.10	0.19	10%	0.0152	1.31	1.00	1.50			1.00	1.50	Pumping	TO STP

4.2. BOQ FOR Outfall Structures

	4.2. 800	Q FOR Outfall Structures						
SI no.	Description of Item	Unit	Quantity	Rate (INR)	Amount (INR)			
1	Earth work excavation infoundation trenches or drains including dressing of sides and ramming of bottoms, lift as follows, including getting out the excavated soil and disposal of surplus excavated soil as directed, with all lead and lift complete as per the specification and as directed by the Engineer. All kinds of soils							
	Upto1.50m depth	Cum	17.10					
1.1.1	1.5 m to 3 m	Cum	14.40					
2	Sand filling upto 300mm in Plinth including watering and compacting in layers of 150 mm thick as per specifications and as directed by the Engineer.	Cum	3.42					
3	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - all work upto plinth level in 1:3:6 (1 Cement: 3 coarse sand: 6 granded stone)	Cum	5.88					
4	Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement, M-20 grade reinforced cement concrete.	Cum	21.41					
5	Centring and Shuttering including strutting, propping etc. and removal of form for vertical walls	Sqm	63.00					
6	Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars TMTC - 500 (Quantity at 90 kg/cum)	Kg	1926.90					
	Carriage of the following materials from quarry to work site including loading, unloading and staking at work site as per specification & direction of E/I.	C: :::::	45.40					
7	Aggregate	Cum	45.40					
	Sand	Cum	22.70					
	Cement	MT	20.3862					
8	Steel Wrought iron and mild steel welded work (using angles, square bars, tees and channel grills, grating frames, gates and tree guards of any size and design etc. including cost of screens and welding rods or bolts and nuts complete fixed in position but without the cost of excavation and concrete for fixing which will be paid separately	MT Kg	1.9269					
	Erection of gates (a) 30% item NO- 8		240.0000					
8.0	Centring and Shuttering including strutting, propping etc. and removal of form for Roof slab							
8.1	For roof slab	Sqm	18.00					
8.2	Weather shade,Chajjas, corbels etc. including edges	Sqm	1.20					
9.0	Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars		9.00					
	steel quantities	Kg	810.00					
10.0	Brick work with bricks of class designation 100A in foundations and plinth in :Extra for Brick work in superstructure above plinth level upto floor V cum	Cum	5.87					
11.0	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for Internal walls)	Sqm	25.50					
12.0	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for ceiling)		18.00					

SI no.	Description of Item	Unit	Quantity	Rate (INR)	Amount (INR)
13.0	20 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for External walls)	Sqm	26.40		
14.0	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade: Two or more coats on new work (for Internal walls)	Sqm	25.50		
15.0	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade: Two or more coats on new work (for ceiling)	Sqm	25.50		
16.0	Appying one coat of cement primer of approved brand and manufacture on wall surface (for External walls)	Sqm	18.00		
17.0	Providing wood work in frames of door, window clerestory windows and other frames, wrought framed and fixed in position in local wood for Door	Cum	26.40		
18.0	Providing and fixing paneled or paneled and glazed shutters for doors, windows and clerestory windows including black enameled MS butt hinges with necessary screws excluding panelling which will be paid for separately - 30 mm thick		0.50		
	For Doors	Sqm	1.80		
19.0	Providing and fixing glazing in aluminium door, window V shutters and partition etc with PVC / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer incharge. (Cost of aluminium snap bading shall be paid in basic item). With glass pans of 5.50 mm thickness (Weight not less than 13.75 kg/sqm)	Sqm	0.50		
20.0	Providing and laying Ceramic glazed floor tiles (400x400) mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS:13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours such as White, Ivory, Grey, Fume, Red, Brown, 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.		18.00		
	Total Cost, Rs				

4.3 BOQ FOR of Generator Room

	4.3 BOQ FOR C			Rate	Amount
SI. No.	Item description	Unit	Quantity	(INR)	(INR)
1.0	Earth work Earthwork in excavation in foundation trenches or drains (not exceeding 1.5 m width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m including getting out the excavated soil and disposals of surplus excavated soil as directed, within a lead of 50 m. (For all kinds of soil)				
1.1	From 0 m to 1.5 m	Cum	22.54		
1.2	From 1.5 m to 3 m	Cum	1.35		
2.0	Supplying and Filling on plinth with local sand and under floors including watering, ramming consolidating and dressing complete. For Generater room	Cum	7.20		
3.0	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - all work upto plinth level in 1:3:6 (1 Cement : 3 coarse sand : 6 granded stone upto 20 mm nominal size) Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of specified grade for	Cum	7.33		
4.0	reinforced cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement, M-20 grade reinforced cement concrete.				
4.1	For Footings	Cum	1.44		
4.2	Column below GL up to Plinth	Cum	0.26		
4.3	Plinth beams	Cum	1.61		
4.4	For columns above Ground levels	Cum	0.87		
4.5	Lintel beams	Cum	1.43		
4.6	Roof Beams	Cum	1.33		
4.7	For roof slab	Cum	4.32		
4.8	For Sunshades over Door & Windows :	Cum	0.23		
5.0	Centring and Shuttering including strutting, propping etc. and removal of form for				
5.1	For footing - F	Sqm	4.80		
5.2	Column upto GL - C	Sqm	4.60		
5.3	Plinth beams :	Sqm	14.00		
6.0	Centring and Shuttering including strutting, propping etc. and removal of form for	Sqm			
6.1	Lintel beams	Sqm	12.40		
6.2	Roof beams	Sqm	12.40		
7.0	Centring and Shuttering including strutting, propping etc. and removal of form for				
	Column	Sqm	15.09		
8.0	Centring and Shuttering including strutting, propping etc. and removal of form for Roof slab				
8.1	For roof slab	Sqm	24.00		
8.2	Weather shade,Chajjas, corbels etc. including edges	Sqm	4.13		
9.0	Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars				
	steel quantities	MT	1.34		
10.0	Brick work with bricks of class designation 100A in foundations and plinth in :Extra for Brick work in superstructure above plinth level upto floor V cum	Cum	17.53		
11.0	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for Internal walls)	Sqm	64.48		
12.0	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for ceiling)				
	Generator room	Sqm	24.00		

	1			T	r
13.0	20 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for External walls)	Sqm	89.54		
14.0	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade : Two or more coats on new work (for Internal walls)	Sqm	64.48		
15.0	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade : Two or more coats on new work (for ceiling)	Sqm	24.00		
16.0	Appying one coat of cement primer of approved brand and manufacture on wall surface (for External walls)	Sqm	89.54		
17.0	Providing wood work in frames of door, window clerestory windows and other frames, wrought framed and fixed in position in local wood for Door	Cum	0.16		
18.0	Providing and fixing paneled or paneled and glazed shutters for doors, windows and clerestory windows including black enameled MS butt hinges with necessary screws excluding panelling which will be paid for separately - 30 mm thick				
	For Doors	Sqm	4.20		
19.0	Providing and fixing glazing in aluminium door, window V shutters and partition etc with PVC / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer incharge. (Cost of aluminium snap bading shall be paid in basic item). With glass pans of 5.50 mm thickness (Weight not less than 13.75 kg/sqm)	Sqm	4.32		
20.0	Providing and laying Ceramic glazed floor tiles (400x400) mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS:13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours such as White, Ivory, Grey, Fume, Red, Brown, 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.				
	Generater room	Sqm	24.00		
21.0	Cement plaster skirting (upto 30 cm height) with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement. 18 mm thick	Sqm	2.70		
22.0	Providing and laying in situ five course water proofing treatment with glass fibre tissue reinforced bitumen over roof consisting of first coat of bitumen primer @ 0.40 kg per sqm, 2nd and 4th courses of bonding material 1.60 kg per sqm which shall consist of blown type bitumen of grade 85/25 conforming to IS: 702, third layer of glass fibre tissue course as specified, fifth, the top most layer of stone grit 6 mm and down size or pea-seized gravel sprad @ 6 dm³ per sqm including preparation of surface excluding grading for slope etc. compete.	Sqm	24.00		
23.0	Providing and fixing on wall face unplastidsed-PVC (working pressure 4 kgf per sqm) rain water pipes conforming to IS: 4985 including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion. 110 mm diameter	m	13.50		
24.0	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 wateing lead.	Cum	14.86		
	Carriage of Materials :				
	Aggregate	Cum	16.66		
	Coarse Sand	Cum	31.07		
25.0	Local Sand	Cum	7.20		
	Cement	MT	6.01		
	Steel	MT	0.14		
	Brick (1000 Nos)		8.59		
	Total Cost				

4.4 BOQ FOR of Operators Quarter

			tors Quarter	Rate	Amount
SI. No	I tem description	Unit	Quantity	(INR)	(INR)
1	Earthwork in excavation in foundation trenches or drains (not exceeding 1.5 m width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m including getting out the excavated soil and disposals of surplus excavated soil as directed, within a lead of 50 m. (For all kinds of soil)				
1.1	From 0 m to 1.5 m	Cum	36.72		
1.2	From 1.5 m to 3 m	Cum	3.24		
2	Supplying and Filling on plinth with local sand and under floors including watering, ramming consolidating and dressing complete.	Cum	18.82		
3	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - all work upto plinth level in 1:3:6 (1 Cement : 3 coarse sand : 6 granded stone)	Cum	23.51		
4	Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement, M-20 grade reinforced cement concrete.				
4.1	For Columnn Footing	Cum	4.48		
4.2	For Column below GL up to plinth	Cum	0.74		
4.3	For Plinth beams-PB	Cum	5.08		
4.4	For columns above GL	Cum	2.45		
4.5	For lintel beams	Cum	2.04		
4.6	For Roof beams	Cum	3.59		
4.7	For Roof slab	Cum	12.03		
4.8	For Parapet	Cum	2.39		
5	Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement, M-20 grade reinforced cement concrete.				
5.1	Sunshade over Windows	Cum	0.89		
5.2	For Lofts & Racks	Cum	1.88		
6	Centring and Shuttering including strutting, propping etc. and removal of form for				
6.1	For Columnn Footing (C1 F1)	Sqm	10.80		
6.2	For Column below GL up to plinth	Sqm	51.36		
6.3	For Plinth beams-PB	Sqm	41.65		
6.4	For columns above GL	Sqm	42.66		
6.5	For lintel beams	Sqm	23.43		
6.6	For Roof beams	Sqm	30.97		
6.7	For Roof slab	Sqm	131.94		
6.8	For Parapet	Sqm	4.90		
	Reinforcement for R. C. C work including straightening,	· ·			
7	cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars	MT	4.14		
8	Brick work with bricks of class designation 100A in foundations and plinth in :Extra for Brick work in superstructure above plinth level upto floor V cum	Cum	31.58		
9	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for Internal walls)	Sqm	167.68		
10	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for ceiling)	Sqm	58.41		
11	20 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for External walls)	Sqm	147.88		

	_		ı	T	T
12	Wall painting with plastic emulsion paint of approved brand an	Sqm	226.09		
13	Appying one coat of cement primer of approved brand and manufacture on wall surface (for External walls)	Sqm	191.98		
14	Providing wood work in frames of door, window clerestory windows and other frames, wrought framed and fixed in position in local wood	Cum	0.50		
15	Providing and fixing paneled or paneled and glazed shutters for doors, windows and clerestory windows including black enameled MS butt hinges with necessary screws excluding panelling which will be paid for separately - 30 mm thick	Sqm	6.93		
16	Providing and fixing glazing in aluminium door, window ventilator shutters and partition etc with PVC / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer incharge. (Cost of aluminium snap bading shall be paid in basic item). With glass pans of 5.50 mm thickness (Weight not less than 13.75 kg/sqm)				
16.1	For Windows	Sqm	8.28		
16.2	For Ventilators	Sqm	0.72		
17	Providing and fabricating and fixing of M S grill for window protection etc ,. As per specification, drawing and as directed by the engineer				
	For Windows & Ventilators	kg	9.00		
18	Providing and laying in situ five course water proofing treatment with glass fibre tissue reinforced bitumen over roof consisting of first coat of bitumen primer @ 0.40 kg per sqm, 2nd and 4th courses of bonding material 1.60 kg per sqm which shall consist of blown type bitumen of grade 85/25 conforming to IS: 702, third layer of glass fibre tissue course as specified, fifth, the top most layer of stone grit 6 mm and down size or pea-seized gravel sprad @ 6 dm ³ per sqm including preparation of surface excluding grading for slope etc. compete.				
18.1	Slope concrete	Sqm	74.92		
19	Providing and laying Ceramic glazed floor tiles 400x400 mm (thickness to be specified by the manufacturer) of 1 st quality conforming to IS: 13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours such as white, Ivory, Grey, Fume, Red, Brown, laid on 20 mm thick cement motar 1:4 (1 cement: 4 Coarse sand) including grouting the joints with white cement and matching pigments etc, complete.				
	Total quantity		58.41		
20	Providing and fixing first quality ceramic glazed wall tiles conforming to 1S 15622 (thickness to be specified by the manufacturer) of approved maike in all colours shades except burgundy, bottle green, black of any size as approved by engineer incharge in skirting risers of steps and dados over 12 mm thick bed of cement mortar (1:3) and jointing with grey cement slurry at 3.3 kg per sqm including pointing in white cement mixed with pigment of matching shade complete				
	Total quantity	Rmt	55.67		
21	Providing and laying Ceramic glazed floor tiles 400x400 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS: 13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours except white, Ivory, Grey, Fume, Red, Brown, laid on 20 mm thick cement motar 1:4 (1 cement: 4 Coarse sand) including grouting the joints with white cement and matching pigments etc, complete.				
21.1	Tollet	Sqm	5.85		
22	Providing and laying Ceramic glazed floor tiles 400x400 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS: 13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours except white, Ivory, Grey, Fume, Red, Brown, laid on 20 mm thick cement motar 1:4 (1 cement: 4 Coarse sand) including grouting the joints with white cement and matching pigments etc, complete.				
22.1	Toilet Walls	Sqm	17.54		
		1	l	<u> </u>	

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Providing and fixing on wall face unplastidsed-PVC(working pressure 4 kgf per sqm) rain water pipes conforming to IS: 4985 including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion	Rmt	15.60		
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 wateing lead.	Cum	25.88		
Carriage of Materials :				
Aggregate	Cum	52.34		
Coarse Sand	Cum	68.34		
Local Sand	Cum	18.82		
Cement	MT	18.80		
Steel	MT	0.00		
Brick (1000 Nos)		15.48		
Total Cost				
Plumbing work :		I		
Stainless steel kitchen sink - without drain board 470 mm X				
420 mm bowl depth 178 mm	No.	1		
Salem Stainless steel AISI - 304 (18/8) Round basin 405 mm X 355 mm	No.	2		
PTMT - Soap Dish/Holder 138 mm X 102 mm X 75 mm	No.	3		
White vitreous china dual purpose closet (Anglo Indian W.C.) suitable for use as squatting pan or European type water closet as per manufacturer's specifications	No.	1		
White Vitreous china 10 lit. (full flush) capacity controlled low levelflushing cistern with all fittings	No.	1		
C.P.brass toilet paper holder of standard size	No.	3		
PTMT - Towel Rail (600 mm)	No.	3		
Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.				
15 mm nominal outer dia Pipes	m	25		
25 mm nominal outer dia Pipes	m	25		
32 mm nominal outer dia Pipes	m	15		
uPVC pipes (working pressure 4 kg / cm2) Single socketed				
	m	30		
' '				
dia	No.	1		
Providing and placing on terrace (at all floor levels) polyethylene water storage tank, ISI: 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	lit	2000		
Brass full way valve with C.I. wheel (screwed end) 40 mm dia	No	1		
Gunmetal non-return valve-horizontal (screwed end) 25 mm dia	No	1		
Constructing brick masonry chamber for underground C.I. inspection chamber and bends with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover with frame to be not less than 38kg (weight of cover 23 kg and weight of frame 15 kg), R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand), finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design : With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	No	1		
	is a past including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion Filling available excavated earth (excluding rock) in trenches, pinth, sides of foundations etc. in layers not exceeding 20 cm in depth: consolidating each deposited layer by ramming and watering lead. Carriage of Materials: Aggregate Coarse Sand Local Sand Cement Steel Brick (1000 Nos) Total Cost Plumbing work: Stainless steel kitchen sink - without drain board 470 mm X 420 mm bowl depth 178 mm Salem Stainless steel AISI - 304 (18/8) Round basin 405 mm X 355 mm PTMT - Soap Dish/Holder 138 mm X 102 mm X 75 mm White vitreous china dual purpose closet (Anglo Indian W.C.) suitable for use as squatting pan or European type water closet as per manufacturer's specifications White Vitreous china 10 lit. (full flush) capacity controlled low levelflushing cistern with all fittings C.P. brass toilet paper holder of standard size PTMT - Towel Rail (600 mm) Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plane & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. 15 mm nominal outer dia Pipes 25 mm nominal outer dia Pipes 25 mm nominal outer dia Pipes 25 mm nominal outer dia Pipes 35 mm 10 mm 15 mm C.P. brass tap with elbow operation lever Gunmetal non-return valve-horizontal (screwed end) 25 mm dia Providing and placing on terrace (at all floor levels) polyethylene water storage tank, ISI: 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank. Brass full way valve with C.I. wheel (screwed end) 25 mm dia Constructing brick masonry chamber for underground C.I. inspection chamber and bends with bricks in cement	is design including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion Cum graving 10 mm gap for thermal expansion Cum in depth: consolidating each deposited layer by ramming and watering lead. Carriage of Materials: Aggregate Cum Coarse Sand Cum Coarse Sand Cum Coment Cement MT Steel Brick (1000 Nos) Total Cost Plumbing work: Stainless steel kitchen sink - without drain board 470 mm X Agonem bowl depth 178 mm Salem Stainless steel AISI - 304 (18/8) Round basin 405 mm X 355 mm No. White vitreous china dual purpose closet (Anglo Indian W.C.) suitable for use as squatting pan or European type water closet as per manufacturer's specifications White Vitreous china 10 lit. (full flush) capacity controlled low levelflushing cistern with all filtings C.P. brass toilet paper holder of standard size PTMT - Towel Rall (600 mm) Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having hermal stability for hot & cold water supply, including all CPVC, plain & brass threaded fittings, including king the pipe with camps at 1.00 m spacing. This including king the pipe with clamps at 1.00 m spacing. This including king the pipe with clamps at 1.00 m spacing. This including lothing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. 15 mm nominal outer dia Pipes 25 mm nominal outer dia Pipes 32 mm nominal outer dia Pipes 32 mm nominal outer dia Pipes 33 mm nominal outer dia Pipes 45 mm 56 mm C.P. brass tap with elbow operation lever Gunmetal non-return valve-horizontal (screwed end) 25 mm dia Constructing brick masonry chamber for underground C.1. inspection chamber with frame (light duty) 455x610 mm there and bends with cist. Is: 12701 marked, with cover and suitable locking arrangement and making necessary hotes for inlet, outlet and overflow pipes but without fittings and the base support for tank. Brass full way valve with C.1. wheel (screwed end) 25 mm dia Constructin	is destinated in planting with seal ring conforming to IS. 5382 leaving 10 mm gap for thermal expansion 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. Carriage of Materials: Aggregate C. Cum 52.34 Aggregate C. Cum 68.34 Local Sand C. Cum 18.82 Cement MT 18.80 Steel MT 10.00 Brick (1000 Nos) T. Total Cost Flumbing work: Stainless steel kitchen sink - without drain board 470 mm X No. 15.48 Total Cost Plumbing work: Stainless steel kitchen sink - without drain board 470 mm X No. 1 Salem Stainless steel kitchen sink - without drain board 470 mm X No. 1 Salem Stainless steel kitchen sink - without drain board 470 mm X No. 2 Plumbing work: Stainless steel kitchen sink - without drain board 470 mm X No. 1 Salem Stainless steel AISI - 304 (18/8) Round basin 405 mm No. 2 White vitroous china dual purpose closet (Anglo Indian W.C.) suitable for use as squatting pan or European type water closed as per manufacturer's specifications White vitroous china dual purpose closet (Anglo Indian W.C.) suitable for use as squatting pan or European type water closed as per manufacturer's specifications White vitroous china 10 lit. (full flush) capacity controlled low levelflushing cistern with all fittings C.P. Brass tollet paper holder of standard size No. 3 PTMT - Towel Rail (600 mm) No. 1 Povelshing and fishing historialist of Polyviny Chloride (CPVC) plan is brass threaded fittings, including thing the pitch with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. 15 mm nominal outer dia Pipes 25 mm cominal outer dia Pipes 25 mm cominal outer dia Pipes 25 mm nominal outer dia Pipes 27 mm cominal outer dia Pipes 28 mm nominal outer dia Pipes 29 mm cominal outer dia Pipes 30 mm cominal outer dia Pipes 30 mm cominal outer dia P	is design including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion 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. Carriage of Materials: Carriage of Materials: Corne Sand Corne

26.15	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	No	1	
26.16	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D 35	No	1	
	Total Cost of Sanitary items		·	
	Total Cost			

4.5 BOQ FOR Electrical Components For Pump-house

61.51	4.5 BOQ FOR Electric			Rate	Amount
SI.No	Description	Unit	Quantity	(INR)	(INR)
1.0	EARTHING				
	Neutral Earthing - Earthing with Copper earth plate				
1.1	600mmx600mmx3mm thick including accesseries, and providing masonary enclosure with cover plate having locking	No	2		
1.1	arrangement and watering pipe of 2.7m long etc with	140			
	charcoal/coke and salt as required.				
	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm				
1.2	dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering	No	2		
	pipe etc with charcoal/coke and salt as required.				
2.0	LT PANEL BOARD (Indoor type)				
	Supplying and fixing following way prewired SP&N MCB distribution board of steel sheet for 240 volts on surface/				
	recess complete with loose wire box, terminal connectors for				
	all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC				
2.1	insulated copper conductor up to terminal blocks, tinned	No	1		
	copper bus bar, neutral link, earth bar, din bar, detachable gland plate, interconnections, powder painted including				
	earthing etc. as required. (But without MCB/ RCCB/ Isolator) 2 + 8 way/10 way, Double door				
2.2	MCCB DISTRIBUTION BOARDS				
	Providing and fixing 100A rating and 16KA breaking capacity and pole TP MCCB in existing cubicle panel board including				
	drilling holes in cubicle panel, making connections, ets as	No	1		
2.3	required. MINIATURE CIRCUIT BREAKERS				
2.3	Supplying and fixing 32A, triple pole and neutral, 415V, "C"				
	curve, miniature circuit breaker for inductive load of triple	No	2		
	pole and neutral in the existing MCB DB complete with connections, testing and committening etc as required.				
2.4	MINIATURE CIRCUIT BREAKERS				
	Supplying and fixing 32A, single pole and neutral, 240V, "C"				
	curve, miniature circuit breaker for inductive load of single pole and neutral in the existing MCB DB complete with	No	1		
	connections, testing and committioning etc as required.				
2.5	EARTHING				
	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm				
	dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering	No	2		
	pipe etc with charcoal/coke and salt as required.				
3.0	DISTRIBUTION BOARD				
	Supply and fixing 4+12 way, single door, horizontal type				
3.1	thee pole and neutral, sheet steel, MCB DB, 415V, on surface/recess, complete with tinned copper bus bar, nuetral	m	1		
5.1	bus bar, earth bar, din bar, interconnections, powdered painted including earthing etc as required. (but without	'''			
	MCB/RCCB/isolators)				
3.2	EARTHING				
	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm				
	dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering	No	2		
	pipe etc with charcoal/coke and salt as required.				
4	CABLES				
	Supply & laying of LT UG cable having Copper conductor PVC				
	insulated, Sheathed, galvanised steel wire /steel tap armoured cable with PVC outer sheathing 1.1 KV class)				
	asa. ca cable with 1 ve outer sheating 1.1 KV class)				
A 1	4Cv16 cg mm + 2v16 cg mm earth wire		1		
4.1	4Cx16 sq mm + 2x16 sq mm earth wire	m m	1 6.5		
4.1 4.2 4.3	4Cx10 sq mm + 2x10 sq mm earth wire	m m m	1 6.5 15		
4.2		m	6.5		
4.2 4.3 4.4	4Cx10 sq mm + 2x10 sq mm earth wire 4Cx4 sq mm + 2x4 sq mm earth wire 2Cx2.5 sq mm + 1x2.5 sq mm earth wire SUPPLY & FIXING OF LUMINARIES, SOCKETS	m m	6.5 15		
4.2 4.3 4.4 5.0	4Cx10 sq mm + 2x10 sq mm earth wire 4Cx4 sq mm + 2x4 sq mm earth wire 2Cx2.5 sq mm + 1x2.5 sq mm earth wire SUPPLY & FIXING OF LUMINARIES, SOCKETS AND SWITCHES	m m m	6.5 15 14		
4.2 4.3 4.4 5.0 5.1	4Cx10 sq mm + 2x10 sq mm earth wire 4Cx4 sq mm + 2x4 sq mm earth wire 2Cx2.5 sq mm + 1x2.5 sq mm earth wire SUPPLY & FIXING OF LUMINARIES, SOCKETS AND SWITCHES 120W Gate lamp with fitting	m m m	6.5 15 14		
4.2 4.3 4.4 5.0 5.1 5.2	4Cx10 sq mm + 2x10 sq mm earth wire 4Cx4 sq mm + 2x4 sq mm earth wire 2Cx2.5 sq mm + 1x2.5 sq mm earth wire SUPPLY & FIXING OF LUMINARIES, SOCKETS AND SWITCHES 120W Gate lamp with fitting 40W flourescent lamp	m m m	6.5 15 14		
4.2 4.3 4.4 5.0 5.1	4Cx10 sq mm + 2x10 sq mm earth wire 4Cx4 sq mm + 2x4 sq mm earth wire 2Cx2.5 sq mm + 1x2.5 sq mm earth wire SUPPLY & FIXING OF LUMINARIES, SOCKETS AND SWITCHES 120W Gate lamp with fitting 40W flourescent lamp 70W MH Lamp for site lighting	m m m	6.5 15 14 2 4		
4.2 4.3 4.4 5.0 5.1 5.2 5.3	4Cx10 sq mm + 2x10 sq mm earth wire 4Cx4 sq mm + 2x4 sq mm earth wire 2Cx2.5 sq mm + 1x2.5 sq mm earth wire SUPPLY & FIXING OF LUMINARIES, SOCKETS AND SWITCHES 120W Gate lamp with fitting 40W flourescent lamp	m m m No No No	6.5 15 14 2 4		

6	POWER CONNECTION			
	Main power supply connection from			
	the nearest BSEB source to SPS			
	premises i/c Poles,cables,HT jointing			
	Kit and all associated works as per			
	Technical specifications and direction			
	of EIC.up to Punping Station including			
	providing of poles, wires, cables etc.	JOB	1	
7	Transformer of required capacity			
	including H.T. panels-(incoming			
	&Outgoing) with all associated works			
	as per Technical specifications and			
	direction of EIC.	JOB	1	
8	Main L.T. Panel including incoming			
	Panel, bus coupler, APFC Panel Load			
	Distribution Panel and all associated			
	accessories.	JOB	1	
	Total Cost		I.	

4.6 BOQ FOR DG SET

	4.6 BOQ FOR DG SET				
SI.No	Description	Unit	Quantity	Rate (INR)	Amount (INR)
1.0	DIESEL GENERATOR 50 KVA				
1.1	SITC of 50 KVA, 40KW, 415V, 50 Hz, comprising of Perkins Engine Coupled to Stamford make Alternator, complete with all Standard accessories and ATS with Acoustic enclosure. EARTHING	No	1		
	Neutral Earthing - Earthing with Copper earth plate				
1.2.1	600mmx600mmx3mm thick including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering pipe of 2.7m long etc with charcoal/coke and salt as required.	No	2		
1.2.2	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement andwateringpipeetc with charcoal/coke and salt as required.	No	2		
2.0	LT PANEL BOARD (Indoor type)				
2.1	Supplying and fixing 4 ways surface/recess mounting, vertical type, 415V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCB's, with provision of 100A TP 16KA MCCB as incommer, interconnection between incomer MCCB and bus bars (but without MCB,s /MCCB's) as required. (Note: Vertical type MCB TPDB is normally used where 3 phase outlets are required.)	No	1		
2.2	MCCB DISTRIBUTION BOARDS				
	Providing and fixing 100A rating and 16KA breaking capacity and pole TP MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, ets as required.	No	1		
	MINIATURE CIRCUIT BREAKERS				
	Supplying and fixing 32A, triple pole and neutral, 415V, "C" curve, miniature circuit breaker for inductive load of triple pole and neutral in the existing MCB DB complete with connections, testing and committed in the complete with connections.		2		
2.4	MINIATURE CIRCUIT BREAKERS				
	Supplying and fixing 32A, single pole and neutral, 240V, "C" curve, miniature circuit breaker for inductive load of single pole and neutral in the existing MCB DB complete with connections, testing and commitioning etc as required.		1		
2.5	EARTHING				
	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement andwateringpipeetc with charcoal/coke and salt as required.	No	2		
3.0	DISTRIBUTION BOARD				
2 1	Supply and fixing 4+12 way, single door, horizontal type thee pole and neutral, sheet steel, MCB DB, 415V, on surface/recess, complete with tinned copper	m	1		
	bus bar, nuetral bus bar, earth bar, din bar, interconnections, powdered painted including earthing etc as required. (but without MCB/RCCB/isolators)				
	EARTHING Body Earthing - Earthing with Gi earth pipe 4.5m long,				
	40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement andwateringpipeetc with charcoal/coke and salt as required.	No	2		
4.0	CABLES				<u> </u>
	Supply & laying of LT UG cable having Copper conductor PVC insulated,Sheathed ,galvanised steel wire /steel tap				
	armoured cable with PVC outer sheathing 1.1 KV class)				
	· · · · · · · · · · · · · · · · · · ·	m	1		

4.3	4Cx4 sq mm + 2x4 sq mm earth wire	m	15	
4.4	2Cx2.5 sq mm + 1x2.5 sq mm earth wire	m	14	
5.0	SUPPLY & FIXING OF LUMINARIES, SOCKETS AND SWITCHES			
5.1	120W Gate lamp with fitting	No	2	
5.2	40W flourescent lamp	No	4	
5.3	70W MH Lamp for site lighting	No	4	
5.4	Single switched socket with multi purpose	No	2	
5.5	Switches	No	6	
	Total Cost			

4.7: BOQ FOR Rising Main

SI. No.	Description of Item	Unit	Quantity	Rate (Amount (INR)
1.0	Excavating trenches of required width for pipes cables, etc., including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 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 consolidating each deposited layer by ramming, watering etc., and disposing of surplus excavated soil as directed, within a lead of 50 m.				
	0.0 to 1.5 mtr. Depth				
1.1	do - in all kindes of soil - 100%	m	2.65		
2.0	Supplying and Filling in plinth with local sand and under floors including, watering, ramming consolidation and dressing complete.	cum	264.92		
3.0	Providing and laying S&S Centrifugally Cast (Spun) / Ductile Iron. Pipes conforming to IS: 8329:DI-K9				
3.1	100.00	m	2523.1		
4	Providing push on joints to Centifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes inculding testing of joints and the cost of rubber gasket (one at every 6m).				
4.1	100.00	Joint	421		
5.0	Providing and laying D.I. specials of class K-12 suitable for pushon jointing as per IS: 9523:				
5.1	Bends-As per BS 4772 code 90 degree (63.5 Kg)	ka	127.00		
	90 degree (63.5 Kg) Taper-As per BS 4772 code	kg	127.00		
5.2	300x200mm (34.5 Kg)	kg	34.50		
5.3	Tee-As per BS 4772 code				
5.5	300x300x300 mm (79.5 Kg)	kg	79.50		
6.0	Providing and fixing C.I. sluice valves (with cap) complete with bolts, nuts, rubber insertions etc.(the tail pieces if required will be paid separately)				
6.1	100.00	No	3.00		
7.0	Providing and fixing C.I. sluice valves for Scouring (with cap) complete with bolts, nuts, rubber insertions etc. (the tail pieces if required will be paid separately)				
7.1	100.00	No	3.00		
8.0	Providing & Constructing masonry Chamber 1.5x1.5x1.5 m inside, in brick work in cement mortar 1:3 (1 cement: 3 coarse sand) for valve, with cast insitu RCC slab with necessary reinforcment. The valve chamber shall be plastered with CM 1:4, A levelling coars of M10 shall be provided. The cost is inclusive of excavation, disposal and construction of valve chamber with moduar bricks plasting with cement mortar with all lead and lift etc., as per specification& drawing.				
8.1	Sluice valve chambers	No	3.00		
8.2	Scour valve chambers	No	3.00		
9.0	Providing and constructing of the RCC Thrust Blocks for DI bends including the excavations of soils up to the required depth disposal of soils after refilling with selected available earth, providing PCC including cost of labours, materials tools, curring etc., complete as per drawing and as directed by the Engineer (inclusive of cost of steet)				
	90 degree	No	2.00		
9.1	Enter Total pipe length	2523.08	m		
	Percentage of CC Road in town	70.00	%		
	Percentage of Asphalt Road in town	30.00	%		
10	Dismantling and restoration of roads :				
10.1	Dismantling of cement concrete pavement (dismantling of cement concrete pavements by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock pilling at designated locations and disposal of dismantled materials up to a lead of 1000 metres, stacking serviceable and unserviceable material	cum	238.43		
10.2	Dismantalling of flexible Pavements(dismantling of flexible pavements and disposal of dismantled materials up to a lead of 1000 m, stacking serviceable and unserviseable materials separately)				
	Bituminous courses by mechanical means	cum	34.06		
	Granular courses by manualmeans	cum	397.39		

11	Restoration of road as per the specification and as directed by the engineer				
11.1	Restoration of CC road				
а	Compacting original ground supporting subgrade (Loosening of the ground upto a level of 500 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of table 300-2 for subgrade construction.) Rolling with vibratory roller	cum	1	1135.39	
b	Wet Mix Macadam - Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the material with water at OMC in mechanical mix plant carriage of mixed mathod of tipper to site, laying in uniform layers with paver in sub-base/base course on a well prepared surface and compacting with vibratory roller to achieve the desired density complete as per Specification	cum	1	85.15	
С	Cement Concrete Pavement (Construction of un-reinforced, dowel jointed, plain cement concrete pavement over a prepared sub base with 43 grade cement @ 400 kg per cum, coarse and fine aggregate conforming to 15 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a batching and mixing plant as per approved mix design, transported to site, laid with a fixed form or slip form paver, spread, compacted and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, sealant primer, joint sealant, debonding strip, dowel bar, tie rod, admixtures as approved, curing compound, finishing to lines and grades as per drawing)	cum	1	238.43	
	Pavement Courses - Granular				
12	Granular Sub-base with Close graded Material (By Mix in Place Method) - Construction of Granular sub-base(GSB) by providing close graded Material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method by rotavator at OMC, and compacting with vibratory power roller to achieve the desired density, complete as per Technical Specification	cum	1		
	Total for Grading II Matrerial (50% of Total)	cum		119.22	
	Total for Grading I Matrerial (50% of Total)	cum		119.22	
b	Wet Mix Macadam - Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the material with water at OMC in mechanical mix plant carriage of mixed mathod of tipper to site, laying in uniform layers with paver in sub-base/base course on a well prepared surface and compacting with vibratory roller to achieve the desired density complete as per Specification	cum	1	397.39	
	Pavement Courses - Bituminous				
	Prime Coat - Providing and applying primer coat with Bitumen emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.6kg/sqm using mechnical means complete	sqm	1	1589.54	
С	Tack Coat - Providing and applying tack coat with Bitumen emulsion using emulsion pressure distributor at the rate of 0.2 kg per sqm on the prepared bituminous/granular surface cleaned with mechancial broom .	sqm	1	1589.54	
	Providing and laying Dense graded bituminous macadam with 100-120 TPH batch HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5 % by welght of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, withstardy and tandem rollers to achieve the desired compaction as per MoRTH specifications Clause 507. (Grading II - 19mm nominal size)	cum	1	39.74	
	Total Cost, Rs				

4.8: SITC of Mechanical Components at each Pumping Station

SI.No	Description	Quantity	Units	Rate	Amount
1	Manually Cleaned Bar Screen				
	SITC of the screen, shall be of removable type and shall consist of a welded stainless steel (AISI410) frame with vertical flats spaced at 30 mm. The flats shall not be less than 10 mm in thickness and not less than 50 mm deep. The flats shall not have any joint. The spacing between the flats shall be uniform and preferably so maintained by adequate number of spacers, which shall be so located as not to interfere with the raking operation. To facilitate the manual cleaning of the screen the inclination of the screen shall be between 45° and 60° to the horizontal. Single piece screen width should not be more than 1.5 m.Two numbers stainless steel rollers shall be fixed on each side of frame to facilitate rolling contact with guide channel during lifting and lowering of screen.				
1.2	(500 X 1500) mm	4	Nos		
2	Providing, erecting and giving test of Non clog sewage submersible pump set with SS CF8 M impeller,CI casing,SS 316 shaft suitable for 3 Ph ,415 V ,50 Hz A.C. Supply, submersible motor having TEFC encloouser with class F insulation and IP 68 protection .The pump shall be operated at 1450 RPM .The scope shall include required accessories viz automatic coupling device,guide pipe,,chain with shakle,flat submersible cable upto starter panel through suitable GI pipe (30 mtr 3 Core flat copper for each pump with necessary electrical connection with the starter panel and as per specifications. (HP)				
	1				
	4 Pumps for 12 lean, 1 peak and 1 average				
	Lean Flow	2	Nos		
	Peak Flow	1	Nos		
	Average Flow	1	Nos		
3	Providing Supplying erection testing and commissioning of 2 Tonne capacity Mobile Crane				
3.1	1 T Capacity for 7 m lift.	1	Nos		
	Total Cost, Rs				

I&D Nallah V_Sta	I&D Nallah V_Station Road nallah & Durga St							
Item Description	Quantity	Total Amount						
Drain constrution Cost	Detailes are attached							
Outfall Structure cost	Detailes are attached							
Generator Room cost	Detailes are attached							
operator Quarter Cost	Detailes are attached							
Elctrical Component	Detailes are attached							
DG Room Cost	Detailes are attached							
Rising main cost	Detailes are attached							
Pump and screen cost	Detailes are attached							
Total	Total Cost							

	5.1: BOQ FOR Drain Construction															
SI. No.	Name of Drains/ Nallah falling in Ganga River	Length of Drain (m) to be constructed	Drain X- Section (sq.m)	Velocity (m/sec)		effective flow area	Flow	Flow (MLD)	Width	Height	Rate	Drain Cost	Width	Height	I&D	Remark
1	Station Road Nala (1st)	225	0.028	0.10	0.23	10%	0.0024	0.21	0.50	0.50			0.50	0.50	Gravity/Diversion	Durga Sthan Chowk Nala
2	Station Road Nala (2nd)	250	0.027	0.00	0.00	10%	0	0.00	1.00	1.50			1.50	1.50	Gravity/Diversion	Durga Sthan Chowk Nala
3	Durga Sthan Chowk Nala	225	0.036	0.11	0.33	10%	0.0026	0.23	0.50	0.50			0.50	0.50	Pumping	TO STP
	Total Cost, Rs															

5.2.: BOQ FOR Outfall Structures

	5.2.: BOQ FOR	Outrai	Structure	s	
SI no.	Description of Item	Unit	Quantity	Rate (INR)	Amount (INR)
1	Earth work excavation in foundation trenches or drains including dressing of sides and ramming of bottoms, lift as follows, including getting out the excavated soil and disposal of surplus excavated soil as directed, with all lead and lift complete as per the specification and as directed by the Engineer. All kinds of soils				
1.1.1	Upto1.50m depth	cum	17.10		
	1.5 m to 3 m	cum	14.40		
2	Sand filling upto 300mm in Plinth including watering and compacting in layers of 150 mm thick as per specifications and as directed by the Engineer.	cum	3.42		
3	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - all work upto plinth level in 1:3:6 (1 Cement : 3 coarse sand : 6 granded stone)	Cum	5.88		
4	Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement, M-20 grade reinforced cement concrete.	Cum	21.41		
5	Centring and Shuttering including strutting, propping etc.	sqm	63.00		
6	Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars TMTC - 500 (Quantity at 90 kg/cum)	Kg	1926.90		
	Carriage of the following materials from quarry to work site including loading, unloading and staking at work site as per specification & direction of E/I.				
7	Aggregate	Cum	45.40		
,	Sand	Cum	22.70		
	Cement	MT	20.3862		
	Steel	MT	1.9269		
8	Wrought iron and mild steel welded work (using angles, square bars, tees and channel grills, grating frames, gates and tree guards of any size and design etc. including cost of screens and welding rods or bolts and nuts complete fixed in position but without the cost of excavation and concrete for fixing which will be paid separately	Kg	240.0000		
	Erection of gates (a) 30% item NO- 8 Centring and Shuttering including strutting, propping etc.		240.0000		
8.0	and removal of form for Roof slab				
8.1	For roof slab	Sqm	18.00		
8.2	Weather shade,Chajjas, corbels etc. including edges	Sqm	1.20		
9.0	Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars		9.00		
	steel quantities	kg	810.00		
10.0	Brick work with bricks of class designation 100A in foundations and plinth in :Extra for Brick work in superstructure above plinth level upto floor V cum	Cum	5.87		

SI no.	Description of Item	Unit	Quantity	Rate (INR)	Amount (INR)
11.0	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for Internal walls)	Sqm	25.50		
12.0	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for ceiling)		18.00		
13.0	20 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for External walls)	Sqm	26.40		
14.0	Wall painting with plastic emulsion paint of approved bran	Sqm	25.50		
15.0	Wall painting with plastic emulsion paint of approved bran	Sqm	25.50		
16.0	Appying one coat of cement primer of approved brand and manufacture on wall surface (for External walls)	Sqm	18.00		
17.0	Providing wood work in frames of door, window clerestory windows and other frames, wrought framed and fixed in position in local wood for Door	Cum	26.40		
18.0	Providing and fixing paneled or paneled and glazed shutters for doors, windows and clerestory windows including black enameled MS butt hinges with necessary screws excluding panelling which will be paid for separately - 30 mm thick		0.50		
	For Doors	Sqm	1.80		
19.0	Providing and fixing glazing in aluminium door, window V shutters and partition etc with PVC / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer incharge. (Cost of aluminium snap bading shall be paid in basic item). With glass pans of 5.50 mm thickness (Weight not less than 13.75 kg/sqm)	Sqm	0.50		
20.0	Providing and laying Ceramic glazed floor tiles (400x400) mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS:13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours such as White, Ivory, Grey, Fume, Red, Brown, 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.		18.00		
	Total Cost, Rs				

5.3 BOQ FOR of Generator Room

	5.3 BOQ FOR o	f Generator Room					
SI. No.	I tem description	Unit	Quantity	Rate (INR)	Amount (INR)		
	Earth work Earthwork in excavation in foundation trenches or drains (not exceeding						
1.0	1.5 m width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m including getting out the excavated soil and disposals of surplus excavated soil as directed, within a lead of 50 m.						
1.1	(For all kinds of soil) From 0 m to 1.5 m	Cum	22.54				
1.2	From 1.5 m to 3 m	Cum	1.35				
2.0	Supplying and Filling on plinth with local sand and under floors including watering, ramming consolidating and dressing complete. For Generater room	Cum	7.20				
3.0	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - all work upto plinth level in 1:3:6 (1 Cement : 3 coarse sand : 6 granded stone upto 20 mm nominal size)	Cum	7.33				
4.0	Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement, M-20 grade reinforced cement concrete.						
4.1	For Footings	Cum	1.44				
4.2	Column below GL up to Plinth	Cum	0.26				
4.3	Plinth beams	Cum	1.61				
4.4	For columns above Ground levels	Cum	0.87				
4.5	Lintel beams	Cum	1.43				
4.6	Roof Beams	Cum	1.33				
4.7	For roof slab	Cum	4.32				
4.8	For Sunshades over Door & Windows :	Cum	0.23				
5.0	Centring and Shuttering including strutting, propping etc. and removal of form for						
5.1	For footing - F	Sqm	4.80				
5.2	Column upto GL - C	Sqm	4.60				
5.3	Plinth beams :	Sqm	14.00				
6.0	Centring and Shuttering including strutting, propping etc. and removal of form for	Sqm					
6.1	Lintel beams	Sqm	12.40				
6.2	Roof beams	Sqm	12.40				
7.0	Centring and Shuttering including strutting, propping etc. and removal of form for						
	Column	Sqm	15.09				
8.0	Centring and Shuttering including strutting, propping etc. and removal of form for Roof slab						
8.1	For roof slab	Sqm	24.00				
8.2	Weather shade, Chajjas, corbels etc. including edges	Sqm	4.13				
9.0	Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars						
	steel quantities	MT	1.34				
10.0	Brick work with bricks of class designation 100A in foundations and plinth in :Extra for Brick work in superstructure above plinth level upto floor V cum	Cum	17.53				
11.0	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for Internal walls)	Sqm	64.48				
12.0	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for ceiling)						
_	Generator room	Sqm	24.00				

			T	
13.0	20 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for External walls)	Sqm	89.54	
14.0	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade : Two or more coats on new work (for Internal walls)	Sqm	64.48	
15.0	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade: Two or more coats on new work (for ceiling)	Sqm	24.00	
16.0	Appying one coat of cement primer of approved brand and manufacture on wall surface (for External walls)	Sqm	89.54	
17.0	Providing wood work in frames of door, window clerestory windows and other frames, wrought framed and fixed in position in local wood for Door	Cum	0.16	
18.0	Providing and fixing paneled or paneled and glazed shutters for doors, windows and clerestory windows including black enameled MS butt hinges with necessary screws excluding panelling which will be paid for separately - 30 mm thick			
	For Doors	Sqm	4.20	
19.0	Providing and fixing glazing in aluminium door, window V shutters and partition etc with PVC / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer incharge. (Cost of aluminium snap bading shall be paid in basic item). With glass pans of 5.50 mm thickness (Weight not less than 13.75 kg/sqm)	Sqm	4.32	
20.0	Providing and laying Ceramic glazed floor tiles (400x400) mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS:13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours such as White, Ivory, Grey, Fume, Red, Brown, 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.			
	Generater room	Sqm	24.00	
21.0	Cement plaster skirting (upto 30 cm height) with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement. 18 mm thick	Sqm	2.70	
22.0	Providing and laying in situ five course water proofing treatment with glass fibre tissue reinforced bitumen over roof consisting of first coat of bitumen primer @ 0.40 kg per sqm, 2nd and 4th courses of bonding material 1.60 kg per sqm which shall consist of blown type bitumen of grade 85/25 conforming to IS: 702, third layer of glass fibre tissue course as specified, fifth, the top most layer of stone grit 6 mm and down size or pea-seized gravel sprad @ 6 dm³ per sqm including preparation of surface excluding grading for slope etc. compete.	Sqm	24.00	
23.0	Providing and fixing on wall face unplastidsed-PVC (working pressure 4 kgf per sqm) rain water pipes conforming to IS: 4985 including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion. 110 mm diameter	m	13.50	
24.0	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 wateing lead.	Cum	14.86	
	Carriage of Materials :			
	Aggregate	Cum	16.66	
	Coarse Sand	Cum	31.07	
25.0	Local Sand Comput	Cum	7.20	
	Cement Steel	MT MT	6.01	
	Brick (1000 Nos)	MT	0.14 8.59	
	Total Cost			
	10141 0031			

5.4 BOQ FOR Operators Quarter

SI. No	Item description	Unit	Quantity	Rate	Amount
1	Earthwork in excavation in foundation trenches or drains (not exceeding 1.5 m width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m including getting out the excavated soil and disposals of surplus excavated soil as directed, within a lead of 50 m. (For all kinds of soil)			(INR)	(INR)
1.1	From 0 m to 1.5 m	Cum	36.72		
1.2	From 1.5 m to 3 m	Cum	3.24		
2	Supplying and Filling on plinth with local sand and under floors including watering, ramming consolidating and dressing complete.	Cum	18.82		
3	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - all work upto plinth level in 1:3:6 (1 Cement: 3 coarse sand: 6 granded stone)	Cum	23.51		
4	Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement, M-20 grade reinforced cement concrete.				
4.1	For Columnn Footing	Cum	4.48		
4.2	For Column below GL up to plinth	Cum	0.74		
4.3	For Plinth beams-PB	Cum	5.08		
4.4	For columns above GL	Cum	2.45		
4.5	For lintel beams	Cum	2.04		
4.6	For Roof beams	Cum	3.59		
4.7	For Roof slab	Cum	12.03		
4.8	For Parapet	Cum	2.39		
5	Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement, M-20 grade reinforced cement concrete.				
5.1	Sunshade over Windows	Cum	0.89		
5.2	For Lofts & Racks	Cum	1.88		
6	Centring and Shuttering including strutting, propping etc. and removal of form for				
6.1	For Columnn Footing (C1 F1)	Sqm	10.80		
6.2	For Column below GL up to plinth	Sqm	51.36		
6.3	For Plinth beams-PB	Sqm	41.65		
6.4	For columns above GL	Sqm	42.66		
6.5	For lintel beams	Sqm	23.43		
6.6	For Roof beams	Sqm	30.97		
6.7	For Roof slab	Sqm	131.94		
6.8	For Parapet	Sqm	4.90		
7	Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars	MT	4.14		
8	Brick work with bricks of class designation 100A in foundations and plinth in :Extra for Brick work in superstructure above plinth level upto floor V cum	Cum	31.58		
9	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for Internal walls)	Sqm	167.68		
10	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for ceiling)	Sqm	58.41		
11	20 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for External walls)	Sqm	147.88		

12	Wall painting with plastic emulsion paint of approved brand an	Sqm	226.09	
12		Sqiii	220.07	
13	Appying one coat of cement primer of approved brand and manufacture on wall surface (for External walls)	Sqm	191.98	
14	Providing wood work in frames of door, window clerestory windows and other frames, wrought framed and fixed in position in local wood	Cum	0.50	
15	Providing and fixing paneled or paneled and glazed shutters for doors, windows and clerestory windows including black enameled MS butt hinges with necessary screws excluding panelling which will be paid for separately - 30 mm thick	Sqm	6.93	
16	Providing and fixing glazing in aluminium door, window ventilator shutters and partition etc with PVC / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer incharge. (Cost of aluminium snap bading shall be paid in basic item). With glass pans of 5.50 mm thickness (Weight not less than 13.75 kg/sqm)			
16.1	For Windows	Sqm	8.28	
16.2	For Ventilators	Sqm	0.72	
17	Providing and fabricating and fixing of M S grill for window protection etc ,. As per specification, drawing and as directed by the engineer			
	For Windows & Ventilators	kg	9.00	
18	Providing and laying in situ five course water proofing treatment with glass fibre tissue reinforced bitumen over roof consisting of first coat of bitumen primer @ 0.40 kg per sqm, 2nd and 4th courses of bonding material 1.60 kg per sqm which shall consist of blown type bitumen of grade 85/25 conforming to 15: 702, third layer of glass fibre tissue course as specified, fifth, the top most layer of stone grit 6 mm and down size or pea-seized gravel sprad @ 6 dm ³ per sqm including preparation of surface excluding grading for slope etc. compete.			
18.1	Slope concrete	Sqm	74.92	
19	Providing and laying Ceramic glazed floor tiles 400x400 mm (thickness to be specified by the manufacturer) of 1 st quality conforming to 15: 13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours such as white, Ivory, Grey, Fume, Red, Brown, laid on 20 mm thick cement motar 1:4 (1 cement: 4 Coarse sand) including grouting the joints with white cement and matching pigments etc, complete.			
	Total quantity		58.41	
20	Providing and fixing first quality ceramic glazed wall tiles conforming to 1S 15622 (thickness to be specified by the manufacturer) of approved maike in all colours shades except burgundy, bottle green, black of any size as approved by engineer incharge in skirting risers of steps and dados over 12 mm thick bed of cement mortar (1:3) and jointing with grey cement slurry at 3.3 kg per sqm including pointing in white cement mixed with pigment of matching shade complete			
	Total quantity	Rmt	55.67	
21	Providing and laying Ceramic glazed floor tiles 400x400 mm (thickness to be specified by the manufacturer) of 1st quality conforming to 1s: 13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours except white, Ivory, Grey, Fume, Red, Brown, laid on 20 mm thick cement motar 1:4 (1 cement: 4 Coarse sand) including grouting the joints with white cement and matching pigments etc, complete.			
21.1	Toilet	Sqm	5.85	
22	Providing and laying Ceramic glazed floor tiles 400x400 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS: 13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours except white, Ivory, Grey, Fume, Red, Brown, laid on 20 mm thick cement motar 1:4 (1 cement: 4 Coarse sand) including grouting the joints with white cement and matching pigments etc, complete.			
22.1	Toilet Walls	Sqm	17.54	

	ī		1		
23	Providing and fixing on wall face unplastidsed-PVC(working pressure 4 kgf per sqm) rain water pipes conforming to IS: 4985 including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion	Rmt	15.60		
24	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 wateing lead.	Cum	25.88		
	Carriage of Materials :				
	Aggregate	Cum	52.34		
	Coarse Sand	Cum	68.34		
	Local Sand	Cum	18.82		
25	Cement	MT	18.80		
	Steel	MT	0.00		
	Brick (1000 Nos)		15.48		
	Total Cost		10.40		
24.0					
26.0	Plumbing work :	ī	ı	Ī	ı
26.1	Stainless steel kitchen sink - without drain board 470 mm X 420 mm bowl depth 178 mm	No.	1		
26.2	Salem Stainless steel AISI - 304 (18/8) Round basin 405 mm X 355 mm	No.	2		
26.3	PTMT - Soap Dish/Holder 138 mm X 102 mm X 75 mm	No.	3		
26.4	White vitreous china dual purpose closet (Anglo Indian W.C.) suitable for use as squatting pan or European type water closet as per manufacturer's specifications	No.	1		
26.4.1	White Vitreous china 10 lit. (full flush) capacity controlled low levelflushing cistern with all fittings	No.	1		
26.5	C.P.brass toilet paper holder of standard size	No.	3		
26.6	PTMT - Towel Rail (600 mm)	No.	3		
26.7	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.				
26.7.1	15 mm nominal outer dia Pipes	m	25		
26.7.2	25 mm nominal outer dia Pipes	m	25		
26.7.3	32 mm nominal outer dia Pipes	m	15		
26.8	uPVC pipes (working pressure 4 kg / cm2) Single socketed				
26.8.1	pipe 75 mm	m	30		
26.8.2	110 mm	m	30		
26.9	15 mm C.P. brass tap with elbow operation lever	No.	4		
26.10	Gunmetal non-return valve-horizontal (screwed end) 25 mm dia	No.	1		
26.11	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, ISI: 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	lit	2000		
26.12	Brass full way valve with C.I. wheel (screwed end) 40 mm dia	No	1		
26.13	Gunmetal non-return valve-horizontal (screwed end) 25 mm dia	No	1		
26.14	Constructing brick masonry chamber for underground C.I. inspection chamber and bends with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover with frame to be not less than 38kg (weight of cover 23 kg and weight of frame 15 kg), R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand), finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design : With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	No	1		

26.15	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	No	1	
26.16	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D 35	No	1	
	Total Cost of Sanitary items			
	Total Cost			

5.5 BOQ FOR Electrical Components For Pump-house

el r	5.5 BOQ FOR Electric			Rate	Amount
SI.No	Description	Unit	Quantity	(INR)	(INR)
1.0	EARTHING				
	Neutral Earthing - Earthing with Copper earth plate				
1.1	600mmx600mmx3mm thick including accesseries, and providing masonary enclosure with cover plate having locking	No	2		
1	arrangement and watering pipe of 2.7m long etc with	110			
	charcoal/coke and salt as required.				
	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm				
1.2	dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering	No	2		
	pipe etc with charcoal/coke and salt as required.				
2.0	LT PANEL BOARD (Indoor type)				
	Supplying and fixing following way prewired SP&N MCB distribution board of steel sheet for 240 volts on surface/				
	recess complete with loose wire box, terminal connectors for				
2.1	all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC	No	1		
2.1	insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, earth bar, din bar, detachable	NO	'		
	gland plate, interconnections, powder painted including				
	earthing etc. as required. (But without MCB/ RCCB/ Isolator) 2 + 8 way/10 way, Double door				
2.2	MCCB DISTRIBUTION BOARDS				
	Providing and fixing 100A rating and 16KA breaking capacity and pole TP MCCB in existing cubicle panel board including	NI.	4		
	drilling holes in cubicle panel, making connections, ets as	No	1		
2.3	required. MINIATURE CIRCUIT BREAKERS				
	Supplying and fixing 32A, triple pole and neutral, 415V, "C"				
	curve, miniature circuit breaker for inductive load of triple pole and neutral in the existing MCB DB complete with	No	2		
	connections, testing and committioning etc as required.				
2.4	MINIATURE CIRCUIT BREAKERS				
	Supplying and fixing 32A, single pole and neutral, 240V, "C"				
	curve, miniature circuit breaker for inductive load of single pole and neutral in the existing MCB DB complete with	No	1		
	connections, testing and commitioning etc as required.				
2.5	EARTHING				
	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm				
	dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering	No	2		
	pipe etc with charcoal/coke and salt as required.				
3.0	DISTRIBUTION BOARD				
	Supply and fixing 4+12 way, single door, horizontal type thee pole and neutral, sheet steel, MCB DB, 415V, on				
3.1	surface/recess, complete with tinned copper bus bar, nuetral	m	1		
	bus bar, earth bar, din bar, interconnections, powdered painted including earthing etc as required. (but without				
	MCB/RCCB/isolators)				
3.2	EARTHING				
	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm				
	dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering	No	2		
	pipe etc with charcoal/coke and salt as required.				
4	CABLES				
_	Supply & laying of LT UG cable having Copper conductor PVC				
	insulated, Sheathed, galvanised steel wire /steel tap armoured cable with PVC outer sheathing 1.1 KV class)				
4.1	4Cx16 sq mm + 2x16 sq mm earth wire	m	1		1
4.2	4Cx10 sq mm + 2x10 sq mm earth wire	m	6.5		
4.3	4Cx4 sq mm + 2x4 sq mm earth wire	m	15		
4.4	2Cx2.5 sq mm + 1x2.5 sq mm earth wire		14		1
	SUPPLY & FIXING OF LUMINARIES, SOCKETS AND SWITCHES				
E 0	AND SWITTORES	No	2		
5.0 5.1	120W Gate lamp with fitting		ı -		<u> </u>
5.0 5.1 5.2	120W Gate lamp with fitting 40W flourescent lamp	No	4		
5.1	·		4		
5.1 5.2	40W flourescent lamp	No	•		
5.1 5.2 5.3	40W flourescent lamp 70W MH Lamp for site lighting	No No	4		

6	POWER CONNECTION							
	Main power supply connection from							
	the nearest BSEB source to SPS							
	premises i/c Poles,cables,HT jointing							
	Kit and all associated works as per							
	Technical specifications and direction							
	of EIC.up to Punping Station including							
	providing of poles, wires, cables etc.	JOB	1					
7	Transformer of required capacity							
	including H.T. panels-(incoming							
	&Outgoing) with all associated works							
	as per Technical specifications and							
	direction of EIC.	JOB	1					
8	Main L.T. Panel including incoming							
	Panel, bus coupler, APFC Panel Load							
	Distribution Panel and all associated							
	accessories.	JOB	1					
	Total Cost							

5.6 BOQ FOR Electrical Components For Pumphouse

SI.No	5.6 BOQ FOR Electrical Com Description	Unit	Quantity	Rate	Amount
	·			(INR)	(INR)
1.0	DIESEL GENERATOR 50 KVA SITC of 50 KVA, 40KW, 415V, 50 Hz, comprising of				
	Perkins				
1.1	Engine Coupled to Stamford make Alternator, complete with all Standard	No	1		
	accessories and ATS with Acoustic enclosure.				
1.2	EARTHING				
	Neutral Earthing - Earthing with Copper earth plate 600mmx600mmx3mm thick including accesseries, and				
1.2.1	providing masonary enclosure with cover plate having	No	2		
	locking arrangement and watering pipe of 2.7m long etc with charcoal/coke and salt as required.				
	Body Earthing - Earthing with Gi earth pipe 4.5m long,				
1.2.2	40mm dia including accesseries, and providing masonary enclosure with cover plate having locking	No	2		
	arrangement andwateringpipeetc with charcoal/coke and salt as required.				
2.0	LT PANEL BOARD (Indoor type)				
	Supplying and fixing 4 ways surface/recess mounting, vertical type, 415V, TPN MCB distribution board of				
	sheet steel, dust protected , duly powder painted,				
	inclusive of 200A tinned copper bus bar, common				
2.1	neutral link, earth bar, din bar for mounting MCB's, with provision of 100A TP 16KA MCCB as incommer,	No	1		
	interconnection between incomer MCCB and bus bars (but without MCB,s /MCCB's) as required. (Note:				
	Vertical type MCB TPDB is normally used where 3				
2.2	phase outlets are required.) MCCB DISTRIBUTION BOARDS				
2.2	Providing and fixing 100A rating and 16KA breaking		 		
	capacity and pole TP MCCB in existing cubicle panel	No	1		
	board including drilling holes in cubicle panel, making connections, ets as required.				
2.3	MINIATURE CIRCUIT BREAKERS				
	Supplying and fixing 32A, triple pole and neutral, 415V, "C" curve, miniature circuit breaker for				
	inductive load of triple pole and neutral in the	No	2		
	existing MCB DB complete with connections, testing and commitioning etc as required.				
2.4	MINIATURE CIRCUIT BREAKERS				
	Supplying and fixing 32A, single pole and neutral, 240V, "C" curve, miniature circuit breaker for				
	inductive load of single pole and neutral in the	No	1		
	existing MCB DB complete with connections, testing and commitioning etc as required.				
2.5	EARTHING				
	Body Earthing - Earthing with Gi earth pipe 4.5m long,				
	40mm dia including accesseries, and providing masonary enclosure with cover plate having locking	No	2		
	arrangement andwateringpipeetc with charcoal/coke and salt as required.				
3.0	DISTRIBUTION BOARD				
	Supply and fixing 4+12 way, single door, horizontal				
	type thee pole and neutral, sheet steel, MCB DB,				
3.1	415V, on surface/recess, complete with tinned copper bus bar, nuetral bus bar, earth bar, din bar,	m	1		
	interconnections, powdered painted including earthing				
3.2	etc as required. (but without MCB/RCCB/isolators) EARTHING				
3.2	Body Earthing - Earthing with Gi earth pipe 4.5m long,				
	40mm dia including accesseries, and providing masonary enclosure with cover plate having locking	No	2		
	arrangement andwateringpipeetc with charcoal/coke and salt as required.	-			
4.0	CABLES				
	Supply & laying of LT UG cable having Copper				
	conductor PVC insulated,Sheathed ,galvanised steel wire /steel tap				
	armoured cable with PVC outer sheathing 1.1 KV class)				
	uiass <i>)</i>				
4.1	4Cx16 sq mm + 2x16 sq mm earth wire	m	1		
4.2	4Cx10 sq mm + 2x10 sq mm earth wire	m	6.5		
			I		

4.3	4Cx4 sq mm + 2x4 sq mm earth wire	m	15	
4.4	2Cx2.5 sq mm + 1x2.5 sq mm earth wire	m	14	
5.0	SUPPLY & FIXING OF LUMINARIES, SOCKETS AND SWITCHES			
5.1	120W Gate lamp with fitting	No	2	
5.2	40W flourescent lamp	No	4	
5.3	70W MH Lamp for site lighting	No	4	
5.4	Single switched socket with multi purpose	No	2	
5.5	Switches	No	6	
	Total Cost			

5.7 BOQ FOR Rising Main Cost Estimate

investign promises of required width for pipes cables, etc., including excessation for sockets, and drowing of sides, remaining conscilation for cutturing the call are required, in layer in exceeding 20 cm in depth including consolidating each depotated super by promise, watering etc. and disposing of such as exceeding 20 cm in depth including consolidating each depotated super by promise, watering etc. and disposing of such as exceeding 20 cm in depth including consolidating each depotated super by promise, watering etc. and disposing of such as exceeding 20 cm in depth of 5 nm. 20 in all knotices of soil - 100%. 30 in all knotices of soil - 100%. 31 in 30 in			5.7	BUQ F	OK KIS	ing Main
including execution for sockets, and drecking of sizes, ramming of better, socking with 1 an including opting out for executions of the control of the contr	SI. No.	Description of Item	Unit	Quantity		Amount (INR)
Supplying and Filling in plinth with local sand and under Floors Cubding I, vallering I, aimming consolidation and diseasing Cum Cum Cum Cum Cum Cum Cum Cum Cum Cum	1.0	including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 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 consolidating each deposited layer by ramming, watering etc., and disposing of surplus				
Supplying and Filling in plinth with local sand and under floors including, valering, ramming consolidation and desising cum 264.92 organization of the process of the proc	1.1	0.0 to 1.5 mtr. Depth				
2.0 including , watering , marring consolidation and dressing complete. 3.0 Providing and laying \$5.5 Centrifugally Cast (Spun) / Ductile Iron. Providing parts no joints to Centrifugally (Spun) Cast Iron Pipes on Ductile for Pipes inciding legan of joints and the cost of nubber pasket (one at every wint). 4. Through and laying \$0.1 specials of class K-12 suitable for push-rolling and laying \$0.1 specials of class K-12 suitable for push-rolling and laying \$0.1 specials of class K-12 suitable for push-rolling and laying \$0.1 specials of class K-12 suitable for push-rolling specials specials of class K-12 suitable for push-rolling specials specials of class K-12 suitable for push-rolling specials specials of class K-12 suitable for push-rolling specials special specials specials specials specials specials specials specia		do - in all kindes of soil - 100%	m	2.65		
3.1 100.00 m 2523.1 m	2.0	including , watering, ramming consolidation and dressing	cum	264.92		
Providing push on pients to Certificapilly (Spazy) Cast from Piens or agaked (one at every (em) 4.1 Toto 0.0 5.0 Providing and laying D.1 specials of class K-12 suitable for push-onlying as per IS - 523.1 5.1 Bends-As per BS 4772 code 9.0 degree (6.3 5 Kg) 5.2 Taper-As per BS 4772 code 300x200mm (34.5 Kg) 3.3 Te-As per BS 4772 code 100x200mm (34.5 Kg) 3.3 Te-As per BS 4772 code 100x200mm (34.5 Kg) 3.0 Taper-As per BS 4772 code 100x200mm (34.5 Kg) 3.0 Taper-As per BS 4772 code 100x200x20mm (74.5 Kg) 4 kg 79.50 Providing and fining C.1. stucke valves (with cap) complete with boths, robber insertions etc. (the tail pieces if required will be paid separately) 11 00.00 12 Providing and fining C.1. stucke valves for Scouring (with cap) complete with boths, rusts, rubber insertions etc. (the tail pieces if required will be paid separately) 12 providing and fining C.1. stucke valves for Scouring (with cap) complete with boths, rusts, rubber insertions etc. (the tail pieces if required will be paid separately) 13 to 0.00 14 Providing and fining C.1. stucke valves for Scouring (with cap) complete with boths, rusts, rubber insertions etc. (the tail pieces if required will be paid separately) 15 to 0.00 16 Providing and fining C.1. stucke valves for Scouring (with cap) complete with boths, rusts, rubber insertions etc. (the tail pieces if required will be paid separately) 16 to 0.00 17 100 0.00 18 3 0.00 19 Providing and constructing masonry Chamber 1.5x1 5x1.5 m inside, in trick work in cement mortar vith all lead and iff etc., as per specifications density. 18 2 Soour valve chambers 19 0 3 0.00 10 Distance of the Both separately of the Both separately broader with control of the Both separately broader with cement of the Both separately broader with cement of the Both separately broader with cement of the Both separately broader with cement of the Both separately broader with cement of the Both separately broader broader separately broader broader separately broader broader separately broade	3.0					
4 Ductile from Pipes inculting testing of joints and the cost of rubber opatest (one at every rem). 1.1 100.00 Jointing and laying D.I. specials of class K-12 suitable for push- on jointing asper IS: 9523: 5.1 Bends-As per BS 4772 code	3.1	100.00	m	2523.1		
5.0 Providing and laying D.I. specials of class K-12 suitable for push- on jointing as per is 51 '9523'. 5.1 Bends-As per BS 4772 code 9.0 degme (6.3 kg) 5.2 Taper-As per BS 4772 code 9.0 degme (6.3 kg) 1.3 Tee-As per BS 4772 code 9.0 300x200mm (3.4 kg) 1.5 Taper-As per BS 4772 code 9.0 300x200mm (7.5 kg) 8.1 See-As per BS 4772 code 9.0 providing and fixing C.I. stuice valves (with cap) complete with botts, ruts, rutber insertions etc. (the tall pieces if required will be pad supartiely) 1.0 to 100.00 1.0 providing and fixing C.I. stuice valves (with cap) complete with botts, ruts, rutber insertions etc. (the tall pieces if required will be pad supartiely) 1.0 to 00 1.0 providing and fixing C.I. stuice valves for Scouring (with cap) 2.1 to 0.0 No 3.00 2.2 providing and fixing C.I. stuice valves for Scouring (with cap) 2.3 to 00 providing and fixing C.I. stuice valves for Scouring (with cap) 2.4 to 00 providing and fixing C.I. stuice valves for Scouring (with cap) 3.0 providing and fixing C.I. stuice valves for Scouring (with cap) 3.0 providing and fixing C.I. stuice valves for Scouring (with cap) 4.1 to 0.0 No 3.00 2.0 providing a Constructing mascary channer 1.5 at 5st 5 m incide, nutrice work in common mortal 1.3 (I cement 3.0 cares sand) for valve with catherial RCC salve with necessary reinforcement. The valve channers are to 2.5 at with necessary reinforcement. The valve channers are provided to 4 fixing and a string control of valve channers of MID stable provided in Cost is limitative of excavation of stable provided in Cost is limitative of excavation of stable provided in Cost is limitative decided by the control of the RCC Thrust Blocks for D1 bends including the excavations of soils after reflix with all tead and lift etc., as per specifications decided by the control of the RCC Thrust Blocks for D1 bends including the excavations of soils after reflix with all tead and lift etc., as per specifications decided by the control of the provided per CE including cost of shours materi		Ductile Iron Pipes inculding testing of joints and the cost of rubber gasket (one at every 6m).				
5.1 Bends-As per BS 4772 code 90 degree (6.3.5 Kg) kg 127.00 1300:200mm (3.4.5 Kg) kg 14.50 1300:200mm (79.5 Kg) kg 34.50 15.2 Taper-As per BS 4772 code 3000:200mm (79.5 Kg) kg 79.50 3000:2000mm (79.5 Kg) kg 79.50 15.3 Tee-As per BS 4772 code 3000:2000mm (79.5 Kg) kg 79.50 15.5 Tee-As per BS 4772 code 3000:2000mm (79.5 Kg) kg 79.50 15.6 Providing and fibring C.I. studie valves (with cap) complete with bolts, russ, rubber insertions etc. (the tail pieces if required will be paid separately) 16.1 100.00 17.0 complete with bolts, russ, rubber insertions etc. (the tail pieces if required will be paid separately) 18.1 100.00 19.2 Providing a Constructing masonry Chamber 1.5x1.5x1.5x1.5 m inside, in brick work in cement mortar 1:3 (1 cement : 3 coarse sand) for whee with cast institu RSC slab with necessary reinforment. The valves with cast institut RSC slab with necessary reinforment. The valves with cast institut RSC slab with necessary reinforment. The valves with cast institute of excavation or disposal and construction of valve chamber with modular bricks plasting with cement mortar with all lead and lift etc., as per specifications drawing. 8.1 Studies valve chambers 8.2 Socur valve chambers 8.3 Studies valve chambers 8.4 Studies and constructing of the RCC Thrust Blocks for D1 bends including the excavations of soils after retiling with selected available acarth providing pAC constructing of the RCC Thrust Blocks for D1 bends including the excavations of soils after retiling with selected available acarth providing PAC clinicularing cost of bebours, materials tools, curring dc., complete apprehension and disposal of dismantled materials and disposal of dismantled materials apprainted to provide packed to the provided packed to the provided packed to the provided packed to the provided packed to the packed packed packed to the packed p			Joint	421		
5.2 Taper-As per 85 4772 code 300x300x300x300x00mm (34.5 kg) kg 34.50 3.30x300x300x300 mm (79.5 kg) kg 79.50 300x300x300x300 mm (79.5 kg) kg 79.50 300x300x300 mm (79.5 kg) kg 79.50 30x300x300x300 mm (79.5 kg) kg 79.50 3.00 3.00 3.00 7.0 complete with botts, nuts, rubber insertions etc. (the tall pieces if required will be paid separately) 7.1 100.00 8.0 3.00 7.0 required will be paid separately 7.1 100.00 8.0 3.00 8.0 3.00 8.0 3.00 8.0 3.00 8.0 3.00 8.0 3.00 8.0 3.00 8.0 3.00 8.0 3.00 8.1 3 kuice valve chamber 1.5x1.5x1.5x1.5 m inside, in brick work in cement mortar 1.3 (1 cement : 3 coarse sant) for valve, with cast insitu RCC slab with necessary reinforcement. The valve, with cast insitu RCC slab with necessary reinforcement. The valve, with cast insitu RCC slab with necessary reinforcement. The valve, when the slab reinforcement in valve, with cast insitu RCC slab with necessary reinforcement. The valve, with cast insitu RCC slab with necessary reinforcement. The valve, with cast insitu RCC slab with necessary reinforcement. The valve, with cast insitu RCC slab with necessary reinforcement. The valve, with cast insitu RCC slab with necessary reinforcement. The valve, valve, with cast insitu RCC slab with necessary reinforcement. The valve, valve, with cast insitu RCC slab with necessary reinforcement. The valve reinforcement mortar valve all lead and lift etc., as per specifications drawing. 8.1 Sluice valve chambers 8.2 Scour valve chambers 8.3 Sluice valve chambers 8.4 Sluice valve chambers 8.5 Sluice valve chambers 8.6 Sluice valve chambers 8.7 No 3.00 8.9 Sluice valve chambers 8.0 3.00 8.2 Scour valve chambers 8.0 3.00 8.2 Scour valve chambers 8.0 3.00 8.2 Scour valve chambers 8.0 3.00 8.2 Scour valve chambers 8.0 3.00 8.2 Sluice valve chambers 8.0 3.00 8.2 Sluice valve chambers 8.0 3.00 8.0 3.00 8.0 3.00 8.0 3.00 8.0 3.00 8.0 3.00	5.0					
5.2 Taper-As per 65 4772 code 5.3 Tee-As per 65 4772 code 3.00x300x300 mm (79.5 kg) 6.0 Troviding and fixing C.1 stuice valves (with cap) complete with both, nuts, nubber insertions etc. (the tail pieces if required will be paid separately) 6.1 100.00 7.0 Providing and fixing C.1, stuice valves for Scouring (with cap) complete with boths, nuts, nubber insertions etc. (the tail pieces if required will be paid separately) 7.1 100.00 8.0 3.00 Providing and fixing C.1, stuice valves for Scouring (with cap) complete with boths, nuts, nubber insertions etc. (the tail pieces if required with be paid separately) 7.1 100.00 8.0 Providing & Constructing masonry Chamber 1.5x1.5x1.5 m inside, in brick work in cement mortar 1.3 (1 cement: 3 coarse sand) for in brick work in cement mortar 1.3 (1 cement: 3 coarse sand) for in brick work in cement mortar 1.3 (1 cement: 3 coarse sand) for in brick work in cement mortar 1.3 (1 cement: 3 coarse sand) for in brick work in cement mortar with all lead and lift etc., as per specifications drawing. 8.1 Sluice valve chambers 8.2 Scour valve chambers 8.3 Scour valve chambers 8.4 Scour valve chambers 8.6 Scour valve chambers 8.7 Providing and constructing of the RCC Thrust Blocks for Di bends including the occavations of soils up to the required depth disposal of soils after refilling with selected available earth providing PCC including cost of labours, materials tools, curing etc., complete as per drawing and as directed by the Engineer (inclusive of ost of steel) 9.0 degree 8.0 2.00 9.1 Dismantiling and restoration of roads: Dismantiling and restoration of roads: Dismantiling and restoration of steel) Dismantiling and restoration of steel Dismantiling of cement concrete pavements (dismantiling of demantic oncrete pavements) by mechanical means using pneumatic tools, pavements and disposal of dismantiled materials up to a lead of 1000 metres, stacking serviceable and unserviceable and unserviceable and unserviceable and unserviceable and unserviceable and unservi	5.1		ka	127.00		
5.3 Tee-As per 85 4772 code 5.3 Tee-As per 85 4772 code 300x30x00 mm (79 5 Kg) kg 79.50 Providing and fixing C.I. stuice valves (with cap) complete with boils, nuts, rubber insertions etc. (the tail pieces if required will be paid separately) 6.1 100.00 Providing and fixing C.I. stuice valves for Scouring (with cap) complete with boils, nuts, rubber insertions etc. (the tail pieces if required will be paid separately) 7.0 complete with boils, nuts, rubber insertions etc. (the tail pieces if required will be paid separately) 7.1 100.00 Providing & Constructing masonry Chamber 1.5x1.5x1.5x1.5 m inside, in brick work in cement mortar 1:3 (1 cement : 3 coarse sand) for valve, with cast institu RCC slab with necessary reinforment. The valve, with cast institu RCC slab with necessary reinforment. The valve, with cast institut RCC slab with necessary reinforment. The valve institution of valve chamber with modular bricks plasting with cement mortar with all lead and lift etc., as per specifications, drawing. 8.1 Stuice valve chambers 8.2 Scour valve chambers 8.3 Scour valve chambers 8.4 Scour valve chambers 9.0 disposal of soils after refilling with selected available to tols unique excavations of soils up to the required depth disposal of soils after refilling with selected available to tols unique excavations of soils up to the required depth disposal of soils after refilling with selected available to tols unique excavations of soils up to the required depth disposal of soils after refilling with selected available to tols unique excavations of soils up to the required depth disposal of soils after refilling with selected available to tols unique excavations of soils up to the required depth disposal of soils after refilling with selected available tols unique excavations of soils up to the required depth disposal of soils after refilling with selected available to tols unique excavations of soils after refilling with selected available tols unique excavations of soils after refilling with selected ava	5.2		кд	127.00		
300x300x300 mm (79.5 kg) Providing and fising C.1. stulce valves (with cap) complete with both obtes, must, rubber insertions etc. (the tail pieces if required will be paid separately) 6.1 100.00 No 3.00 Providing and fising C.1. stulce valves for Scouring (with cap) complete with boths, nuts, rubber insertions etc. (the tail pieces if required will be paid separately) 7.0 complete with boths, nuts, rubber insertions etc. (the tail pieces if required will be paid separately) 7.1 100.00 No 3.00 Providing & Constructing masonry Chamber 1.5x1.5x1.5 m inside in brick work in cement mortar 1.3 cf cement : 3 coarse sand) for valve, with cast insitu RCC slab with necessary reinforment. The valve chamber shall be plastered with CM 1.4. A levelling coars of M10. shall be provided in The cost is inclusive of excavation , disposal and construction of valve chamber with modurar bricks plasting with cement mortar with all lead and lift etc., as per specifications drawing. 8.1 Stulce valve chambers No 3.00 8.2 Scour valve chambers Providing and executation of soils up to the required depth of the construction of the RCC. Threat Blacks for D1 bends recluding the executation of soils up to the required depth of the required depth of the required depth of the required depth of the required depth of the RCC intension of soils and refliging with selected available earth-providing PCC including cost of labours, materials tooks, curing etc., complete as per drawing and as directed by the Engineer (inclusive of cost of steel) 9.0 degree No 2.00 Enter Total pipe length Percentage of CC Road in town 70.00 9.1 Enter Total pipe length Percentage of Asphalt Road in town 30.00			kg	34.50		
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Granular courses by manualmeans cum 397.39 11 Restoration of road as per the specification and as directed by the	10.2	pavements and disposal of dismantled materials up to a lead of 1000 m, stacking serviceable and unserviseable materials				
Restoration of road as per the specification and as directed by the		Bituminous courses by mechanical means	cum	34.06		
		Granular courses by manualmeans	cum	397.39		
engineer	11	Restoration of road as per the specification and as directed by the engineer				
11.1 Restoration of CC road	11.1	Restoration of CC road				

a	Compacting original ground supporting subgrade (Loosening of the ground upto a level of 500 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of table 300-2 for subgrade construction.) Rolling with vibratory roller	cum	1135.39	
b	Wet Mix Macadam - Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the material with water at OMC in mechanical mix plant carriage of mixed mathod of tipper to site, laying in uniform layers with paver in sub-base/base course on a well prepared surface and compacting with vibratory roller to achieve the desired density complete as per Specification	cum	85.15	
c	Cement Concrete Pavement (Construction of un-reinforced, dowel jointed, plain cement concrete pavement over a prepared sub base with 43 grade cement @ 400 kg per cum, coarse and fine aggregate conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a batching and mixing plant as per approved mix design, transported to site, laid with a fixed form or slip form paver, spread, compacted and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, sealant primer, joint sealant, debonding strip, dowel bar, tie rod, admixtures as approved, curing compound, finishing to lines and grades as per drawing)	cum	238.43	
	Pavement Courses - Granular			
12	Granular Sub-base with Close graded Material (By Mix in Place Method) - Construction of Granular sub-base(GSB) by providing close graded Material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method by rotavator at OMC, and compacting with vibratory power roller to achieve the desired density, complete as per Technical Specification			
		cum		
	Total for Grading II Matrerial (50% of Total)	cum	119.22	
	Total for Grading I Matrerial (50% of Total)	cum	119.22	
b	Wet Mix Macadam - Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the material with water at OMC in mechanical mix plant carriage of mixed mathod of tipper to site, laying in uniform layers with paver in sub-base/base course on a well prepared surface and compacting with vibratory roller to achieve the desired density complete as per Specification	cum	397.39	
	Pavement Courses - Bituminous			
	Prime Coat - Providing and applying primer coat with Bitumen emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.6kg/sqm using mechnical means complete	sqm	1589.54	
с	Tack Coat - Providing and applying tack coat with Bitumen emulsion using emulsion pressure distributor at the rate of 0.2 kg per sgm on the prepared bituminous/granular surface cleaned with mechancial broom.	sqm	1589.54	
	Providing and laying Dense graded bituminous macadam with 100-120 TPH batch HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5 % by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specifications Clause 507. (Grading II -19mm nominal size)	cum	39.74	
	Total Cost, Rs			

5.8 SITC of Mechanical Components at each Pumping Station

SI.No	Description	Quantity	Units	Rate	Amount
1	Manually Cleaned Bar Screen				
	SITC of the screen, shall be of removable type and shall consist of a welded stainless steel (AISI410) frame with vertical flats spaced at 30 mm. The flats shall not be less than 10 mm in thickness and not less than 50 mm deep. The flats shall not have any joint. The spacing between the flats shall be uniform and preferably so maintained by adequate number of spacers, which shall be so located as not to interfere with the raking operation. To facilitate the manual cleaning of the screen the inclination of the screen shall be between 45° and 60° to the horizontal. Single piece screen width should not be more than 1.5 m.Two numbers stainless steel rollers shall be fixed on each side of frame to facilitate rolling contact with guide channel during lifting and lowering of screen.				
1.2	(500 X 1500) mm	4	Nos		
2	Providing, erecting and giving test of Non clog sewage submersible pump set with SS CF8 M impeller,CI casing,SS 316 shaft suitable for 3 Ph ,415 V , 50 Hz A.C. Supply, submersible motor having TEFC encloouser with class F insulation and IP 68 protection .The pump shall be operated at 1450 RPM .The scope shall include required accessories viz automatic coupling device,guide pipe, chain with shakle,flat submersible cable upto starter panel through suitable GI pipe (30 mtr 3 Core flat copper for each pump with necessary electrical connection with the starter panel and as per specifications. (HP)				
	1 HP				
	4 Pumps for 2 lean, 1 peak and 1 average flow	4	Nos		
	lean flow	2	Nos		
	peak flow	1	Nos		
	average flow	1	Nos		
3	Providing Supplying erection testing and commissioning of 2 Tonne capacity Mobile Crane				
3.1	1 T Capacity for 7 m lift.	1	Nos		
	Total Cost, Rs				

I&D Na	allah-VI_ward No.3 Nallah	
Item Description	Quantity	Total Amount
Drain construction Cost	Detailes are attached	
Outfall Structure cost	Detailes are attached	
Generator Room cost	Detailes are attached	
operator Quarter Cost	Detailes are attached	
Elctrical Component	Detailes are attached	
DG Cost	Detailes are attached	
Rising main cost	Detailes are attached	
Pump and screen cost	Detailes are attached	
Total Co		

	6.1: BOQ FOR Drain															
SI. No.	Name of Drains/ Nallah falling in Ganga River	Length of Drain (m) to be constructed	Drain X- Section (sq.m)	Velocity (m/sec)	Flow (MLD)	effective flow area	Flow	Flow (MLD)	Width	Height	Rate	Drain Cost	Width	Height	I&D	Remark
1	Ward no 3 Nala	250	0.061	0.41	2.15	10%	0.0204	1.76	0.50	1.00			0.50	1.00	Pumping	TO STP

6.2.: BIQ FOR Outfall Structures

SI no.	Description of Item	Unit	Quantity	Rate	Amount	
31 110.	·	Offic	Quantity	(INR)	(INR)	
1	Earth work excavation in foundation trenches or drains including dressing of sides and ramming of bottoms, lift as follows, including getting out the excavated soil and disposal of surplus excavated soil as directed, with all lead and lift complete as per the specification and as directed by the Engineer. All kinds of soils					
	Upto1.50m depth	cum	17.10			
1.1.1	1.5 m to 3 m	cum	14.40			
2	Sand filling upto 300mm in Plinth including watering and compacting in layers of 150 mm thick as per specifications and as directed by the Engineer.	cum	3.42			
3	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - all work upto plinth level in 1:3:6 (1 Cement: 3 coarse sand: 6 granded stone) Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of specified grade for reinforced	Cum	5.88			
4	cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement, M-20 grade reinforced cement concrete.	Cum	21.41			
5	Centring and Shuttering including strutting, propping et	sqm	63.00			
6	Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars TMTC - 500 (Quantity at 90 kg/cum)	Kg	1926.90			
7	Carriage of the following materials from quarry to work site including loading, unloading and staking at work site as per specification & direction of E/I.					
•	Aggregate Sand	Cum Cum	45.40 22.70			
	Cement Steel	MT MT	20.3862 1.9269			
8	Wrought iron and mild steel welded work (using angles, square bars, tees and channel grills, grating frames, gates and tree guards of any size and design etc. including cost of screens and welding rods or bolts and nuts complete fixed in position but without the cost of excavation and concrete for fixing which will be paid separately	Kg	240.00			
	Erection of gates (a) 30% item NO- 8	Kg	240.00			
8.0	Centring and Shuttering including strutting, propping etc. and removal of form for Roof slab					
8.1	For roof slab	Sqm	18.00			
8.2	Weather shade,Chajjas, corbels etc. including edges	Sqm	1.20			
9.0	Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars		9.00			
	steel quantities	Kg	810.00			
10.0	Brick work with bricks of class designation 100A in foundations and plinth in :Extra for Brick work in superstructure above plinth level upto floor V cum	Cum	5.87			
11.0	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for Internal walls)	Sqm	25.50			
12.0	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for celling)		18.00			
	20 mm Cement plaster in course sand in 1:3 (1	Sqm	26.40			

SI no.	Description of Item	Unit	Quantity	Rate (INR)	Amount (INR)
14.0	Wall painting with plastic emulsion paint of approved br	Sqm	25.50		
15.0	Wall painting with plastic emulsion paint of approved br	Sqm	25.50		
16.0	Appying one coat of cement primer of approved brand and manufacture on wall surface (for External walls)	Sqm	18.00		
17.0	Providing wood work in frames of door, window clerestory windows and other frames, wrought framed and fixed in position in local wood for Door	Cum	26.40		
18.0	Providing and fixing paneled or paneled and glazed shutters for doors, windows and clerestory windows including black enameled MS butt hinges with necessary screws excluding panelling which will be paid for separately - 30 mm thick		0.50		
	For Doors	Sqm	1.80		
19.0	Providing and fixing glazing in aluminium door, window V shutters and partition etc with PVC / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer incharge. (Cost of aluminium snap bading shall be paid in basic item). With glass pans of 5.50 mm thickness (Weight not less than 13.75 kg/sqm)	Sqm	0.50		
20.0	Providing and laying Ceramic glazed floor tiles (400x400) mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS:13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours such as White, Ivory, Grey, Fume, Red, Brown, laid on 20 mm thick cement mortar 1:4 (1 cement: 4 coarse sand) including grouting the loints with white cement and matching pigments etc, complete.		18.00		
	Total Cost, Rs				

6.3 BOQ FOR Generator Room

	6.3 BOQ FOR	R Generator Room						
SI. No.	Item description	Unit	Quantity	Rate (INR)	Amount (INR)			
1.0	Earth work Earthwork in excavation in foundation trenches or drains (not exceeding 1.5 m width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m including getting out the excavated soil and disposals of surplus excavated soil as directed, within a lead of 50 m.							
	(For all kinds of soil)	_						
1.1	From 0 m to 1.5 m From 1.5 m to 3 m	Cum	22.54 1.35					
2.0	Supplying and Filling on plinth with local sand and under floors including watering, ramming consolidating and dressing complete. For Generater room	Cum	7.20					
3.0	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - all work upto plinth level in 1:3:6 (1 Cement : 3 coarse sand : 6 granded stone upto 20 mm nominal size)	Cum	7.33					
4.0	Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement, M-20 grade reinforced cement concrete.							
4.1	For Footings	Cum	1.44					
4.2	Column below GL up to Plinth	Cum	0.26					
4.3	Plinth beams	Cum	1.61					
4.4	For columns above Ground levels	Cum	0.87					
4.5	Lintel beams	Cum	1.43					
4.6	Roof Beams	Cum	1.33					
4.7	For roof slab	Cum	4.32					
4.8	For Sunshades over Door & Windows :	Cum	0.23					
5.0	Centring and Shuttering including strutting, propping etc. and removal of form for							
5.1	For footing - F	Sqm	4.80					
5.2	Column upto GL - C	Sqm	4.60					
5.3	Plinth beams :	Sqm	14.00					
6.0	Centring and Shuttering including strutting, propping etc. and removal of form for	Sqm						
6.1	Lintel beams	Sqm	12.40					
6.2	Roof beams	Sqm	12.40					
7.0	Centring and Shuttering including strutting, propping etc. and removal of form for							
	Column	Sqm	15.09					
8.0	Centring and Shuttering including strutting, propping etc. and removal of form for Roof slab							
8.1	For roof slab	Sqm	24.00					
8.2	Weather shade,Chajjas, corbels etc. including edges	Sqm	4.13					
9.0	Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated bars							
	steel quantities	MT	1.34					
10.0	Brick work with bricks of class designation 100A in foundations and plinth in :Extra for Brick work in superstructure above plinth level upto floor V cum	Cum	17.53					
11.0	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for Internal walls)	Sqm	64.48					
12.0	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for ceiling)							
	Generator room	Sqm	24.00					

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13.0	20 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for External walls)	Sqm	89.54	
14.0	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade : Two or more coats on new work (for Internal walls)	Sqm	64.48	
15.0	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade : Two or more coats on new work (for ceiling)	Sqm	24.00	
16.0	Appying one coat of cement primer of approved brand and manufacture on wall surface (for External walls)	Sqm	89.54	
17.0	Providing wood work in frames of door, window clerestory windows and other frames, wrought framed and fixed in position in local wood for Door	Cum	0.16	
18.0	Providing and fixing paneled or paneled and glazed shutters for doors, windows and clerestory windows including black enameled MS butt hinges with necessary screws excluding panelling which will be paid for separately - 30 mm thick			
	For Doors	Sqm	4.20	
19.0	Providing and fixing glazing in aluminium door, window V shutters and partition etc with PVC / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer incharge. (Cost of aluminium snap bading shall be paid in basic item). With glass pans of 5.50 mm thickness (Weight not less than 13.75 kg/sqm)	Sqm	4.32	
20.0	Providing and laying Ceramic glazed floor tiles (400x400) mm (thickness to be specified by the manufacturer) of 1st quality conforming to 1S:13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours such as White, Ivory, Grey, Fume, Red, Brown, 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.			
	Generater room	Sqm	24.00	
21.0	Cement plaster skirting (upto 30 cm height) with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement. 18 mm thick	Sqm	2.70	
22.0	Providing and laying in situ five course water proofing treatment with glass fibre tissue reinforced bitumen over roof consisting of first coat of bitumen primer @ 0.40 kg per sqm, 2nd and 4th courses of bonding material 1.60 kg per sqm which shall consist of blown type bitumen of grade 85/25 conforming to IS: 702, third layer of glass fibre tissue course as specified, fifth, the top most layer of stone grit 6 mm and down size or pea-seized gravel sprad @ 6 dm³ per sqm including preparation of surface excluding grading for slope etc. compete.	Sqm	24.00	
23.0	Providing and fixing on wall face unplastidsed-PVC (working pressure 4 kgf per sqm) rain water pipes conforming to IS: 4985 including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion. 110 mm diameter	m	13.50	
24.0	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 wateing lead.	Cum	14.86	
	Carriage of Materials :			
	Aggregate	Cum	16.66	
	Coarse Sand	Cum	31.07	
25.0	Local Sand Coment	Cum	7.20	
	Cement Steel	MT	6.01	
	Steel Brick (1000 Nos)	MT	0.14 8.59	
	Total Cost			
	10141 0031			

6.4 BOQ FOR Operators Quarter

SI. No	Item description	Unit	Quantity	Rate	Amount
1	Earthwork in excavation in foundation trenches or drains (not exceeding 1.5 m width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m including getting out the excavated soil and disposals of surplus excavated soil as directed, within a lead of 50 m. (For all kinds of soil)			(INR)	(INR)
1.1	From 0 m to 1.5 m	Cum	36.72		
1.2	From 1.5 m to 3 m	Cum	3.24		
2	Supplying and Filling on plinth with local sand and under floors including watering, ramming consolidating and dressing complete.	Cum	18.82		
3	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - all work upto plinth level in 1:3:6 (1 Cement: 3 coarse sand: 6 granded stone)	Cum	23.51		
4	Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement, M-20 grade reinforced cement concrete.				
4.1	For Columnn Footing	Cum	4.48		
4.2	For Column below GL up to plinth	Cum	0.74		
4.3	For Plinth beams-PB	Cum	5.08		
4.4	For columns above GL	Cum	2.45		
4.5	For lintel beams	Cum	2.04		
4.6	For Roof beams	Cum	3.59		
4.7	For Roof slab	Cum	12.03		
4.8	For Parapet	Cum	2.39		
5	Providing and laying in position machine batched, machine mixed, and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement, M-20 grade reinforced cement concrete.				
5.1	Sunshade over Windows	Cum	0.89		
5.2	For Lofts & Racks	Cum	1.88		
6	Centring and Shuttering including strutting, propping etc. and removal of form for				
6.1	For Columnn Footing (C1 F1)	Sqm	10.80		
6.2	For Column below GL up to plinth	Sqm	51.36		
6.3	For Plinth beams-PB	Sqm	41.65		
6.4	For columns above GL	Sqm	42.66		
6.5	For lintel beams	Sqm	23.43		
6.6	For Roof beams	Sqm	30.97		
6.7	For Roof slab	Sqm	131.94		
6.8	For Parapet	Sqm	4.90		
7	Reinforcement for R. C. C work including straightening, cutting, bending, placing in position and binding all complete.	MT	4.14		
8	Thermo - Mechanically Treated bars Brick work with bricks of class designation 100A in foundations and plinth in :Extra for Brick work in superstructure above plinth level upto floor V cum	Cum	31.58		
9	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for Internal walls)	Sqm	167.68		
10	12 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for ceiling)	Sqm	58.41		
11	20 mm Cement plaster in course sand in 1:3 (1 cement : 3 coarse sand) (for External walls)	Sqm	147.88		

12	Wall painting with plastic emulsion paint of approved brand an	Sqm	226.09	
	Appying one coat of cement primer of approved brand and	•		
13	manufacture on wall surface (for External walls) Providing wood work in frames of door, window clerestory	Sqm	191.98	
14	windows and other frames, wrought framed and fixed in position in local wood	Cum	0.50	
15	Providing and fixing paneled or paneled and glazed shutters for doors, windows and clerestory windows including black enameled MS butt hinges with necessary screws excluding panelling which will be paid for separately - 30 mm thick	Sqm	6.93	
16	Providing and fixing glazing in aluminium door, window ventilator shutters and partition etc with PVC / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer incharge. (Cost of aluminium snap bading shall be paid in basic item). With glass pans of 5.50 mm thickness (Weight not less than 13.75 kg/sqm)			
16.1	For Windows	Sqm	8.28	
16.2	For Ventilators	Sqm	0.72	
17	Providing and fabricating and fixing of M S grill for window protection etc ,. As per specification, drawing and as directed by the engineer			
	For Windows & Ventilators	kg	9.00	
18	Providing and laying in situ five course water proofing treatment with glass fibre tissue reinforced bitumen over roof consisting of first coat of bitumen primer @ 0.40 kg per sqm, 2nd and 4th courses of bonding material 1.60 kg per sqm which shall consist of blown type bitumen of grade 85/25 conforming to 15: 702, third layer of glass fibre tissue course as specified, fifth, the top most layer of stone grit 6 mm and down size or pea-seized gravel sprad @ 6 dm³ per sqm including preparation of surface excluding grading for slope etc. compete.			
18.1	Slope concrete	Sqm	74.92	
19	Providing and laying Ceramic glazed floor tiles 400x400 mm (thickness to be specified by the manufacturer) of 1 st quality conforming to 15: 13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours such as white, Ivory, Grey, Fume, Red, Brown, Iaid on 20 mm thick cement motar 1:4 (1 cement: 4 Coarse sand) including grouting the joints with white cement and matching pigments etc, complete.			
	Total quantity		58.41	
20	Providing and fixing first quality ceramic glazed wall tiles conforming to 15 15622 (thickness to be specified by the manufacturer) of approved maike in all colours shades except burgundy, bottle green, black of any size as approved by engineer incharge in skirting risers of steps and dados over 12 mm thick bed of cement mortar (1:3) and jointing with grey cement slurry at 3.3 kg per sqm including pointing in white cement mixed with pigment of matching shade complete			
	Total quantity	Rmt	55.67	
21	Providing and laying Ceramic glazed floor tiles 400x400 mm (thickness to be specified by the manufacturer) of 1st quality conforming to 1s: 13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours except white, Ivory, Grey, Fume, Red, Brown, laid on 20 mm thick cement motar 1:4 (1 cement: 4 Coarse sand) including grouting the joints with white cement and matching pigments etc, complete.			
21.1	Toilet	Sqm	5.85	
22	Providing and laying Ceramic glazed floor tiles 400x400 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS: 13755 of NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in colours except white, Ivory, Grey, Fume, Red, Brown, laid on 20 mm thick cement motar 1:4 (1 cement: 4 Coarse sand) including grouting the joints with white cement and matching pigments etc, complete.			
22.1	cement and matching pigments etc, complete. Toilet Walls	Sqm	17.54	
ZZ. I	Tones wans	Jym	17.54	

	T	ı	1	1
23	Providing and fixing on wall face unplastidsed-PVC(working pressure 4 kgf per sqm) rain water pipes conforming to IS: 4985 including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion	Rmt	15.60	
24	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 wateing lead.	Cum	25.88	
	Carriage of Materials :			
	Aggregate	Cum	52.34	
	Coarse Sand	Cum	68.34	
	Local Sand	Cum	18.82	
25	Cement	MT	18.80	
	Steel	MT	0.00	
	Brick (1000 Nos)		15.48	
	Total Cost			
26.0	Plumbing work :			
20.0	Stainless steel kitchen sink - without drain board 470 mm X		1	Ι
26.1	420 mm bowl depth 178 mm	No.	1	
26.2	Salem Stainless steel AISI - 304 (18/8) Round basin 405 mm X 355 mm	No.	2	
26.3	PTMT - Soap Dish/Holder 138 mm X 102 mm X 75 mm	No.	3	
26.4	White vitreous china dual purpose closet (Anglo Indian W.C.) suitable for use as squatting pan or European type water closet as per manufacturer's specifications	No.	1	
26.4.1	White Vitreous china 10 lit. (full flush) capacity controlled low levelflushing cistern with all fittings	No.	1	
26.5	C.P.brass toilet paper holder of standard size	No.	3	
26.6	PTMT - Towel Rail (600 mm)	No.	3	
26.7	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.			
26.7.1	15 mm nominal outer dia Pipes	m	25	
26.7.2	25 mm nominal outer dia Pipes	m	25	
26.7.3	32 mm nominal outer dia Pipes	m	15	
26.8	uPVC pipes (working pressure 4 kg / cm2) Single socketed			
26.8.1	pipe 75 mm	m	30	
	110 mm			
26.8.2		m	30	
26.9	15 mm C.P. brass tap with elbow operation lever Gunmetal non-return valve-horizontal (screwed end) 25 mm	No.	4	
26.10	dia	No.	1	
26.11	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, ISI: 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	lit	2000	
26.12	Brass full way valve with C.I. wheel (screwed end) 40 mm dia	No	1	
26.13	Gunmetal non-return valve-horizontal (screwed end) 25 mm dia	No	1	
26.14	Constructing brick masonry chamber for underground C.I. inspection chamber and bends with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover with frame to be not less than 38kg (weight of cover 23 kg and weight of frame 15 kg), R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand), finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design : With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	No	1	

26.15	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	No	1	
26.16	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D 35	No	1	
	Total Cost of Sanitary items			
	Total Cost			

6.5 BOQ FOR Electrical Components For Pump-house

	6.5 BC	6.5 BOQ FOR Electrical Components For Pump-house					
SI.No	Description	Uı	Init	Quantity	Rate (INR)	Amount (INR)	
1.0	EARTHING						
1.1	Neutral Earthing - Earthing with Copper earth 600mmx600mmx3mm thick including accesse providing masonary enclosure with cover plate arrangement and watering pipe of 2.7m long echarcoal/coke and salt as required.	ries, and having locking N	No	2			
1.2	Body Earthing - Earthing with Gi earth pipe 4.3 dia including accesseries, and providing masor with cover plate having locking arrangement a pipe etc with charcoal/coke and salt as require	nary enclosure nd watering	No	2			
2.0	LT PANEL BOARD (Indoor type)						
2.1	Supplying and fixing following way prewired Si distribution board of steel sheet for 240 volts or recess complete with loose wire box, terminal all incoming and outgoing circuits, duly prewir suitable size FRLS PVC insulated copper conductor up to terminal bloc copper bus bar, neutral link, earth bar, din bar gland plate, interconnections, powder painted earthing etc. as required. (But without MCB/ R 2 + 8 way/10 way, Double door	on surface/connectors for ed with ks, tinned , detachable including	No	1			
2.2	MCCB DISTRIBUTION BOARDS						
	Providing and fixing 100A rating and 16KA bre and pole TP MCCB in existing cubicle panel boa drilling holes in cubicle panel, making connecti required.	ard including	No	1			
2.3	MINIATURE CIRCUIT BREAKERS						
	Supplying and fixing 32A, triple pole and neutr curve, miniature circuit breaker for inductive to pole and neutral in the existing MCB DB com connections, testing and commitioning etc as r	oad of triple plete with	No	2			
2.4	MINIATURE CIRCUIT BREAKERS						
	Supplying and fixing 32A, single pole and neut curve, miniature circuit breaker for inductive le pole and neutral in the existing MCB DB comconnections, testing and commitioning etc as r	oad of single plete with	No	1			
2.5	EARTHING						
	Body Earthing - Earthing with Gi earth pipe 4.9 dia including accesseries, and providing masor with cover plate having locking arrangement a	nary enclosure	No	2			
	pipe etc with charcoal/coke and salt as require						
3.0	pipe etc with charcoal/coke and salt as require DISTRIBUTION BOARD						
3.0		zontal type 15V, on us bar, nuetral owdered	m	1			
	DISTRIBUTION BOARD Supply and fixing 4+12 way, single door, hori thee pole and neutral, sheet steel, MCB DB, 4' surface/recess, complete with tinned copper bus bar, earth bar, din bar, interconnections, painted including earthing etc as required. (bu	zontal type 15V, on us bar, nuetral owdered	m	1			
3.1	DISTRIBUTION BOARD Supply and fixing 4+12 way, single door, hori thee pole and neutral, sheet steel, MCB DB, 4' surface/recess, complete with tinned copper b bus bar, earth bar, din bar, interconnections, painted including earthing etc as required. (bu MCB/RCCB/isolators)	zontal type I5V, on us bar, nuetral bowdered t without Sm long, 40mm hary enclosure nd watering	m No	1			
3.1	DISTRIBUTION BOARD Supply and fixing 4+12 way, single door, hori thee pole and neutral, sheet steel, MCB DB, 4' surface/recess, complete with tinned copper b bus bar, earth bar, din bar, interconnections, painted including earthing etc as required. (bu MCB/RCCB/isolators) EARTHING Body Earthing - Earthing with Gi earth pipe 4.3 dia including accesseries, and providing masor with cover plate having locking arrangement a	zontal type I5V, on us bar, nuetral bowdered t without Sm long, 40mm hary enclosure nd watering					
3.1	DISTRIBUTION BOARD Supply and fixing 4+12 way, single door, hori thee pole and neutral, sheet steel, MCB DB, 4' surface/recess, complete with tinned copper b bus bar, earth bar, din bar, interconnections, painted including earthing etc as required. (bu MCB/RCCB/isolators) EARTHING Body Earthing - Earthing with Gi earth pipe 4.3 dia including accesseries, and providing masor with cover plate having locking arrangement a pipe etc with charcoal/coke and salt as required.	zontal type 5V, on us bar, nuetral powdered t without 5m long, 40mm lary enclosure nd watering ed. N					
3.1	DISTRIBUTION BOARD Supply and fixing 4+12 way, single door, hori thee pole and neutral, sheet steel, MCB DB, 4' surface/recess, complete with tinned copper bus bar, earth bar, din bar, interconnections, painted including earthing etc as required. (bu MCB/RCCB/isolators) EARTHING Body Earthing - Earthing with Gi earth pipe 4.3 dia including accesseries, and providing masor with cover plate having locking arrangement apipe etc with charcoal/coke and salt as require CABLES Supply and laying of LT UG cable having Copper PVC insulated, Sheathed, galvanised steel wire /steel	zontal type 5V, on us bar, nuetral powdered t without 5m long, 40mm hary enclosure nd watering ed. er conductor el tap KV class)					
3.1	DISTRIBUTION BOARD Supply and fixing 4+12 way, single door, hori thee pole and neutral, sheet steel, MCB DB, 4' surface/recess, complete with tinned copper b bus bar, earth bar, din bar, interconnections, painted including earthing etc as required. (bu MCB/RCCB/isolators) EARTHING Body Earthing - Earthing with Gi earth pipe 4.9 dia including accesseries, and providing masor with cover plate having locking arrangement a pipe etc with charcoal/coke and salt as requirecable. CABLES Supply and laying of LT UG cable having Copper PVC insulated, Sheathed, galvanised steel wire /stee armoured cable with PVC outer sheathing 1.1	zontal type 15V, on us bar, nuetral powdered t without 5m long, 40mm lary enclosure nd watering ed. Note: The conductor of the conductor of	No	2			
3.1	DISTRIBUTION BOARD Supply and fixing 4+12 way, single door, hori thee pole and neutral, sheet steel, MCB DB, 4' surface/recess, complete with tinned copper b bus bar, earth bar, din bar, interconnections, painted including earthing etc as required. (bu MCB/RCCB/isolators) EARTHING Body Earthing - Earthing with Gi earth pipe 4.3 dia including accesseries, and providing masor with cover plate having locking arrangement a pipe etc with charcoal/coke and salt as requirecable. CABLES Supply and laying of LT UG cable having Copper PVC insulated, Sheathed, galvanised steel wire /stearmoured cable with PVC outer sheathing 1.1 4Cx16 sq mm + 2x16 sq mm earth wire	zontal type 5V, on us bar, nuetral sowdered t without Som long, 40mm hary enclosure nd watering ed. Provided to the conductor and the co	No	2			
3.1 3.2 4 4.1 4.2	DISTRIBUTION BOARD Supply and fixing 4+12 way, single door, hori thee pole and neutral, sheet steel, MCB DB, 4' surface/recess, complete with tinned copper bus bar, earth bar, din bar, interconnections, painted including earthing etc as required. (bu MCB/RCCB/isolators) EARTHING Body Earthing - Earthing with Gi earth pipe 4.3 dia including accesseries, and providing masor with cover plate having locking arrangement a pipe etc with charcoal/coke and salt as require CABLES Supply and laying of LT UG cable having Copper PVC insulated, Sheathed, galvanised steel wire / steel armoured cable with PVC outer sheathing 1.1 4Cx16 sq mm + 2x16 sq mm earth wire	zontal type 15V, on 15	No m m	1 6.5			
3.1 3.2 4 4.1 4.2 4.3	DISTRIBUTION BOARD Supply and fixing 4+12 way, single door, hori thee pole and neutral, sheet steel, MCB DB, 4' surface/recess, complete with tinned copper bus bar, earth bar, din bar, interconnections, painted including earthing etc as required. (bu MCB/RCCB/isolators) EARTHING Body Earthing - Earthing with Gi earth pipe 4.9 dia including accesseries, and providing masor with cover plate having locking arrangement a pipe etc with charcoal/coke and salt as required. CABLES Supply and laying of LT UG cable having Copper PVC insulated, Sheathed, galvanised steel wire /stee armoured cable with PVC outer sheathing 1.1 4Cx16 sq mm + 2x16 sq mm earth wire 4Cx10 sq mm + 2x10 sq mm earth wire	zontal type 15V, on us bar, nuetral sowdered t without 5m long, 40mm hary enclosure nd watering ed. er conductor el tap KV class)	No m m	2 1 6.5 15			
3.1 3.2 4 4.1 4.2 4.3 4.4	DISTRIBUTION BOARD Supply and fixing 4+12 way, single door, hori thee pole and neutral, sheet steel, MCB DB, 4' surface/recess, complete with tinned copper bus bar, earth bar, din bar, interconnections, painted including earthing etc as required. (bu MCB/RCCB/isolators) EARTHING Body Earthing - Earthing with Gi earth pipe 4.9 dia including accesseries, and providing masor with cover plate having locking arrangement a pipe etc with charcoal/coke and salt as required. CABLES Supply and laying of LT UG cable having Copper PVC insulated, Sheathed, galvanised steel wire /stearmoured cable with PVC outer sheathing 1.1 4Cx16 sq mm + 2x16 sq mm earth wire 4Cx4 sq mm + 2x4 sq mm earth wire 2Cx2.5 sq mm + 1x2.5 sq mm earth wire Supply & Fixing of LUMINARIES, SOCKETS	zontal type 15V, on us bar, nuetral sowdered t without 5m long, 40mm hary enclosure nd watering ed. Productor el tap KV class)	No m m	2 1 6.5 15			
3.1 3.2 4 4.1 4.2 4.3 4.4 5.0	DISTRIBUTION BOARD Supply and fixing 4+12 way, single door, hori thee pole and neutral, sheet steel, MCB DB, 4' surface/recess, complete with tinned copper bus bar, earth bar, din bar, interconnections, painted including earthing etc as required. (bu MCB/RCCB/isolators) EARTHING Body Earthing - Earthing with Gi earth pipe 4.9 dia including accesseries, and providing masor with cover plate having locking arrangement a pipe etc with charcoal/coke and salt as required. CABLES Supply and laying of LT UG cable having Copper PVC insulated, Sheathed, galvanised steel wire /steel armoured cable with PVC outer sheathing 1.1 4Cx16 sq mm + 2x16 sq mm earth wire 4Cx10 sq mm + 2x10 sq mm earth wire 4Cx4 sq mm + 2x4 sq mm earth wire 2Cx2.5 sq mm + 1x2.5 sq mm earth wire Supply & Fixing of LUMINARIES, SOCKETS AND SWITCHES	zontal type ISV, on us bar, nuetral bowdered t without Sm long, 40mm hary enclosure nd watering ed. Pr r r r r r	m m m	1 6.5 15 14			
3.1 3.2 4 4.1 4.2 4.3 4.4 5.0 5.1	Supply and fixing 4+12 way, single door, hori thee pole and neutral, sheet steel, MCB DB, 4' surface/recess, complete with tinned copper b bus bar, earth bar, din bar, interconnections, painted including earthing etc as required. (bu MCB/RCCB/isolators) EARTHING Body Earthing - Earthing with Gi earth pipe 4.9 dia including accesseries, and providing masor with cover plate having locking arrangement a pipe etc with charcoal/coke and salt as required. CABLES Supply and laying of LT UG cable having Copper PVC insulated, Sheathed, galvanised steel wire /stee armoured cable with PVC outer sheathing 1.1 4Cx16 sq mm + 2x16 sq mm earth wire 4Cx10 sq mm + 2x4 sq mm earth wire 4Cx4 sq mm + 2x4 sq mm earth wire 2Cx2.5 sq mm + 1x2.5 sq mm earth wire Supply & Fixing of LUMINARIES, SOCKETS AND SWITCHES	zontal type 15V, on us bar, nuetral powdered t without Som long, 40mm lary enclosure and watering ed. Provided type Note: The conductor of the conductor of	m m m m	1 6.5 15 14			
3.1 3.2 4 4.1 4.2 4.3 4.4 5.0 5.1 5.2	DISTRIBUTION BOARD Supply and fixing 4+12 way, single door, hori thee pole and neutral, sheet steel, MCB DB, 4' surface/recess, complete with tinned copper b bus bar, earth bar, din bar, interconnections, painted including earthing etc as required. (bu MCB/RCCB/isolators) EARTHING Body Earthing - Earthing with Gi earth pipe 4.1 dia including accesseries, and providing masor with cover plate having locking arrangement a pipe etc with charcoal/coke and salt as required. CABLES Supply and laying of LT UG cable having Coppe PVC insulated, Sheathed, galvanised steel wire /steel armoured cable with PVC outer sheathing 1.1 4Cx16 sq mm + 2x16 sq mm earth wire 4Cx4 sq mm + 2x4 sq mm earth wire 2Cx2.5 sq mm + 1x2.5 sq mm earth wire Supply & Fixing of LUMINARIES, SOCKETS AND SWITCHES 120W Gate lamp with fitting	zontal type 5V, on us bar, nuetral powdered t without 5m long, 40mm lary enclosure nd watering ed. N er conductor el tap KV class) r r r	m m m m No	1 6.5 15 14			
3.1 3.2 4 4.1 4.2 4.3 4.4 5.0 5.1 5.2 5.3	DISTRIBUTION BOARD Supply and fixing 4+12 way, single door, hori thee pole and neutral, sheet steel, MCB DB, 4' surface/recess, complete with tinned copper b bus bar, earth bar, din bar, interconnections, painted including earthing etc as required. (bu MCB/RCCB/isolators) EARTHING Body Earthing - Earthing with Gi earth pipe 4.3 dia including accesseries, and providing masor with cover plate having locking arrangement a pipe etc with charcoal/coke and salt as required. CABLES Supply and laying of LT UG cable having Copper PVC insulated, Sheathed, galvanised steel wire /stearmoured cable with PVC outer sheathing 1.1 4Cx16 sq mm + 2x16 sq mm earth wire 4Cx4 sq mm + 2x4 sq mm earth wire 2Cx2.5 sq mm + 1x2.5 sq mm earth wire Supply & Fixing of LUMINARIES, SOCKETS AND SWITCHES 120W Gate lamp with fitting 40W flourescent lamp 70W MH Lamp for site lighting	zontal type 5V, on us bar, nuetral sowdered t without Som long, 40mm hary enclosure nd watering ed. Provided tap KV class) Triping to the conductor Rel tap KV class tap K	m m m m No No No No No	1 6.5 15 14 2 4			

6	POWER CONNECTION			
	Main power supply connection from			
	the nearest BSEB source to SPS			
	premises i/c Poles,cables,HT jointing			
	Kit and all associated works as per			
	Technical specifications and direction			
	of EIC.up to Punping Station including			
	providing of poles, wires, cables etc.	JOB	1	
7	Transformer of required capacity			
	including H.T. panels-(incoming			
	&Outgoing) with all associated works			
	as per Technical specifications and			
	direction of EIC.	JOB	1	
8	Main L.T. Panel including incoming			
	Panel, bus coupler, APFC Panel Load			
	Distribution Panel and all associated			
	accessories.	JOB	1	
	Total Cost			

6.6 BOQ FOR DG SET

	6.6 BOQ FOR DG SET				
SI.No	Description	Unit	Quantity	Rate (INR)	Amount (INR)
1.0	DIESEL GENERATOR 50 KVA				
1.1	SITC of 50 KVA, 40KW, 415V, 50 Hz, comprising of Perkins Engine Coupled to Stamford make Alternator, complete with all Standard accessories and ATS with Acoustic enclosure.	No	1		
1.2	EARTHING				
1.2.1	Neutral Earthing - Earthing with Copper earth plate 600mmx600mmx3mm thick including accesseries, and providing masonary enclosure with cover plate having locking arrangement and watering pipe of 2.7m long etc with charcoal/coke and salt as required.	No	2		
1.2.2	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement andwateringpipeetc with charcoal/coke and salt as required.	No	2		
2.0	LT PANEL BOARD (Indoor type)				
2.1	Supplying and fixing 4 ways surface/recess mounting, vertical type, 415V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCB's, with provision of 100A TP 16KA MCCB as incommer, interconnection between incomer MCCB and bus bars (but without MCB,s /MCCB's) as required. (Note: Vertical type MCB TPDB is normally used where 3 phase outlets are required.)	No	1		
2.2	MCCB DISTRIBUTION BOARDS				
	Providing and fixing 100A rating and 16KA breaking capacity and pole TP MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, ets as required.	No	1		
2.3	MINIATURE CIRCUIT BREAKERS				
	Supplying and fixing 32A, triple pole and neutral, 415V, "C" curve, miniature circuit breaker for inductive load of triple pole and neutral in the existing MCB DB complete with connections, testing and committoning etc as required.	No	2		
2.4	MINIATURE CIRCUIT BREAKERS				
	Supplying and fixing 32A, single pole and neutral, 240V, "C" curve, miniature circuit breaker for inductive load of single pole and neutral in the existing MCB DB complete with connections, testing and commitioning etc as required.	No	1		
2.5	EARTHING				
	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement andwateringpipeetc with charcoal/coke and salt as required.	No	2		
3.0	DISTRIBUTION BOARD				
	Supply and fixing 4+12 way, single door, horizontal type thee pole and neutral, sheet steel, MCB DB,				
3.1	415V, on surface/recess, complete with tinned copper bus bar, nuetral bus bar, earth bar, din bar, interconnections, powdered painted including earthing etc as required. (but without MCB/RCCB/isolators)	m	1		
3.2					
	EARTHING				
	EARTHING Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement andwateringpipeetc with charcoal/coke and salt as required.	No	2		
	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement andwateringpipeetc with	No	2		
4.0	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement andwateringpipeetc with charcoal/coke and salt as required.	No	2		
4.0	Body Earthing - Earthing with Gi earth pipe 4.5m long, 40mm dia including accesseries, and providing masonary enclosure with cover plate having locking arrangement andwateringpipeetc with charcoal/coke and salt as required. CABLES Supply & laying of LT UG cable having Copper conductor PVC insulated, Sheathed, galvanised steel wire /steel tap armoured cable with PVC outer sheathing 1.1 KV	No m	2		

4.3	4Cx4 sq mm + 2x4 sq mm earth wire	m	15	
4.4	2Cx2.5 sq mm + 1x2.5 sq mm earth wire	m	14	
5.0	Supply & Fixing LUMINARIES, SOCKETS AND SWITCHES			
5.1	120W Gate lamp with fitting	No	2	
5.2	40W flourescent lamp	No	4	
5.3	70W MH Lamp for site lighting	No	4	
5.4	Single switched socket with multi purpose	No	2	
5.5	Switches	No	6	
	Total Cost			

6.7 BOQ FOR Rising Main

	0.7 L		OIL ILISI	ing iviairi	
SI. No.	Description of Item	Unit	Quantity	Rate (INR)	Amount (INR)
1.0	Excavating trenches of required width for pipes cables, etc., including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 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 consolidating each deposited layer by ramming, watering etc., and disposing of surplus excavated soil as directed, within a lead of 50 m.				
	0.0 to 1.5 mtr. Depth				
1.1	do - in all kindes of soil - 100%	m	4.37		
2.0	Supplying and Filling in plinth with local sand and under floors including , watering, ramming consolidation and dressing complete.	cum	437.21		
3.0	Providing and laying S&S Centrifugally Cast (Spun) / Ductile Iron. Pipes conforming to IS: 8329:DI-K9				
3.1	100.00	m	4163.9		
4	Providing push on joints to Centifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes inculding testing of joints and the cost of rubber gasket (one at every 6m).				
4.1	100.00	Joint	694		
5.0	Providing and laying D.I. specials of class K-12 suitable for push-on jointing as per IS: 9523:				
5.1	Bends-As per BS 4772 code				
	90 degree (63.5 Kg)	kg	254.00		
5.2	Taper-As per BS 4772 code				
	300x200mm (34.5 Kg)	kg	34.50		
5.3	Tee-As per BS 4772 code				
	300x300x300 mm (79.5 Kg)	kg	79.50		
6.0	Providing and fixing C.I. sluice valves (with cap) complete with bolts, nuts, rubber insertions etc. (the tail pieces if required will be paid separately)				
6.1	100.00	No	3.00		
7.0	Providing and fixing C.I. sluice valves for Scouring (with cap) complete with bolts, nuts, rubber insertions etc. (the tail pieces if required will be paid separately)				
7.1	100.00	No	3.00		
8.0	Providing & Constructing masonry Chamber 1.5x1.5x1.5 m inside, in brick work in cement mortar 1:3 (1 cement : 3 coarse sand) for valve, with cast insitu RCC slab with necessary reinforcment. The valve chamber shall be plastered with CM 1:4, A levelling coars of M10 shall be provided. The cost is inclusive of excavation, disposal and construction of valve chamber with moduar bricks plasting with cement mortar with all lead and lift etc., as per specification & drawing.				
8.1	Sluice valve chambers	No	3.00		
8.2	Scour valve chambers	No	3.00		
9.0	Providing and constructing of the RCC Thrust Blocks for DI bends including the excavations of soils up to the required depth ,disposal of soils after refilling with selected available earth,providing PCC including cost of labours,materials tools,curing etc., complete as per drawing and as directed by the Engineer (inclusive of cost of steet)				
	90 degree	No	2.00		
	Enter Total pipe length	4163.91	m		
9.1	Percentage of CC Road in town		%		
	Percentage of Asphalt Road in town	70.00	%		
10	Dismantling and restoration of roads :	55.00			
10.1	Dismantling of cement concrete pavement (dismantling of cement concrete pavements by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock pilling at designated locations and disposal of dismantled materials up to a lead of 1000 metres, stacking serviceable and unserviceable material	cum	393.49		
	Dismantalling of flexible Pavements (dismantling of flexible pavements				

Dismantalling of flexible Pavements(dismantling of flexible pavements and disposal of dismantled materials up to a lead of 1000 m, stacking serviceable and unserviseable materials separately)

10.2	Bituminous courses by mechanical means	Cum	56.21	
		Cum	655.82	
	Granular courses by manualmeans Restoration of road as per the specification and as directed by the	Cum	033.82	
11	engineer			
11.1	Restoration of CC road			
а	Compacting original ground supporting subgrade (Loosening of the ground upto a level of 500 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of table 300-2 for subgrade construction.) Rolling with vibratory roller	Cum	1873.76	
b	Wet Mix Macadam - Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the material with water at OMC in mechanical mix plant carriage of mixed mathod of tipper to site, laying in uniform layers with paver in sub-base/base course on a well prepared surface and compacting with vibratory roller to achieve the desired density complete as per Specification	Cum	140.53	
c	Cement Concrete Pavement (Construction of un-reinforced, dowel jointed, plain cement concrete pavement over a prepared sub base with 43 grade cement @ 400 kg per cum, coarse and fine aggregate conforming to 1S 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a batching and mixing plant as per approved mix design, transported to site, laid with a fixed form or slip form paver, spread, compacted and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, sealant primer, joint sealant, debonding strip, dowel bar, tie rod, admixtures as approved, curing compound,finishing to lines and grades as per drawing)	cum	393.49	
	Pavement Courses - Granular			
12	Granular Sub-base with Close graded Material (By Mix in Place Method) - Construction of Granular sub-base(GSB) by providing close graded Material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method by rotavator at OMC, and compacting with vibratory power roller to achieve the desired density, complete as per Technical Specification	cum		
		cum		
	Total for Grading II Matrerial (50% of Total)	cum	196.74	
	Total for Grading I Matrerial (50% of Total)	cum	196.74	
b	Wet Mix Macadam - Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the material with water at OMC in mechanical mix plant carriage of mixed mathod of tipper to site, laying in uniform layers with paver in sub-base/base course on a well prepared surface and compacting with vibratory roller to achieve the desired density complete as per Specification	cum	655.82	
	Pavement Courses - Bituminous			
	Prime Coat - Providing and applying primer coat with Bitumen emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.6kg/sqm using mechnical means complete	sqm	2623.26	
С	Tack Coat - Providing and applying tack coat with Bitumen emulsion using emulsion pressure distributor at the rate of 0.2 kg per sqm on the prepared bituminous/granular surface cleaned with mechancial broom .	sqm	2623.26	
	Providing and laying Dense graded bituminous macadam with 100-120 TPH batch HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5 % by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specifications Clause 507. (Grading II -19mm nominal size)	cum	65.58	
	Total Cost, Rs			

6.8: SITC of Mechanical Components at each Pumping Station

	6.8: SITC of Mechanical Components at each Pumping Station						
SI.No	Description	Quantity	Units	Rate	Amount		
1	Manually Cleaned Bar Screen						
	SITC of the screen, shall be of removable type and shall consist of a welded stainless steel (AISI410) frame with vertical flats spaced at 30 mm. The flats shall not be less than 10 mm in thickness and not less than 50 mm deep. The flats shall not have any joint. The spacing between the flats shall be uniform and preferably so maintained by adequate number of spacers, which shall be so located as not to interfere with the raking operation. To facilitate the manual cleaning of the screen the inclination of the screen shall be between 45° and 60° to the norizontal. Single piece screen width should not be more than 1.5 m. Two numbers stainless steel rollers shall be fixed on each side of frame to facilitate rolling contact with guide channel during lifting and lowering of screen.						
1.2	(500 X 1500) mm	4	Nos				
	Providing, erecting and giving test of Non clog sewage submersible pump set with SS CF8 M impeller, CI casing, SS 316 shaft suitable for 3 Ph, 415 V, 50 Hz A.C. Supply, submersible motor having TEFC encloouser with class F insulation and IP 68 protection. The pump shall be operated at 1450 RPM. The scope shall include required accessories viz automatic coupling device, guide pipe,, chain with shakle, flat submersible cable upto starter panel through suitable GI pipe (30 mtr 3 Core flat copper for each pump with necessary electrical connection with the starter panel and as per specifications. (HP)						
	2HP						
	4 Pumps for 2 lean, 1peak and 1 average flow						
	lean flow	2	Nos				
	peak flow	1	Nos				
	average flow	1	Nos				
3	Providing Supplying erection testing and commissioning of 2 Tonne capacity Mobile Crane						
3.1	1 T Capacity for 7 m lift.	1	Nos				
	Total Cost, Rs						

Sr.no.	Item Description	Unit	Qty	Rate	Amount
1	SCADA	Ls	1		
	System				
Total Cost, Rs					