

**GOVERNMENT OF RAJASTHAN**  
**Rajasthan Urban Sector Development Program**

**BIDDING DOCUMENT**

for the

**Construction, Commissioning and Operation of Fecal Sludge Treatment Plant of  
capacity 20 m<sup>3</sup>/day at Phulera**

**Part 2– Price Bid**

**Issued on:** \_\_\_\_\_, 2017

**Invitation for Bids No.:** \_\_\_\_\_

**Package No.:** \_\_\_\_\_

**Employer:** Local Self Government Department (LSGD), Government of Rajasthan

Represented by Rajasthan Urban Infrastructure Development Project (RUIDP)

**Country:** India



# Letter of Price Bid

---- on letterhead paper of the bidder ----

Date: .....

Package No.: .....

Invitation for Bid No.: .....

To:

**The Project Director,**

Rajasthan Urban Infrastructure Development Project (RUIDP)

First Floor, AVS Building, Jawahar Circle,

JLN Marg, Malviya Nagar, Jaipur, Rajasthan

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB) 8.
- (b) We offer to execute in conformity with the Bidding Documents the following Works:  
\_\_\_\_\_  
\_\_\_\_\_
- (c) The total price of our Bid, excluding any discounts offered in item (d) below is: INR [Insert amount in figures], [insert amount in words]
- (d) The discounts offered and the methodology for their application are as follows:  
\_\_\_\_\_
- (e) Our Bid shall be valid for a period of **120** days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
- (f) If our Bid is accepted, we commit to obtain a performance security in accordance with the Bidding Documents.
- (g) We have paid, or will pay the following commissions, gratuities, or fees with respect to the bidding process or execution of the Contract:

Name of Recipient	Address	Reason	Amount
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- (h) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed.
- (i) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.
- (j) We agree to permit ADB or its representative to inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors appointed by ADB.

Name .....

In the capacity of .....

Signed .....

Duly authorized to sign the Bid for and on behalf of .....

Date .....

.....

## Preamble to Bill of Quantities

1. The Bill of Quantities (BOQ) shall be read in conjunction with the Instructions to Bidders, General and Particular Conditions of Contract, Specifications, and Drawings.
2. The quantities given in the BOQ are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Employer's Representative, and valued at the rates and prices bid in the priced BOQ, where applicable, and otherwise at such rates and prices as the Employer's Representative may fix within the terms of the Contract.
3. The rates and prices bid in the priced Bill of Quantities shall, except as otherwise provided under the Contract, include all construction equipment, labor, supervision, materials, surveying, setting out, erection, maintenance, all lead and lift, insurance, profit, taxes, and duties, together with all general risks, liabilities, and obligations set out or implied in the Contract.
4. General directions and descriptions of work and Materials are not necessarily repeated nor summarized in the Bill of Quantities. References to the relevant sections of the Contract documentation shall be made before entering prices against each item in the priced Bill of Quantities.
5. The method of execution and measurement of completed work for payment shall be in accordance to the respective procedures provided in the Technical Specifications under this Contract and in the absence of which shall be in accordance to the relevant BIS Standard and Standard Specification of the State of Rajasthan or Standard Specification published by the Central Public Works Department, Government of India as the case may be.
6. All defective works are liable to be demolished, rebuilt and defective materials replaced by the Contractor at his own cost and time
7. In view of the site location and their prevailing condition, it is mandatory to the Contractor to visit the site and make himself thoroughly familiar with the site conditions, access and account for all possible difficulties and other requirements mentioned elsewhere in his bid prior to submission. When a Contractor submits his bid for this work, it will be considered that he has quoted for this work with full and complete knowledge of the site and prevailing conditions, and no claim for additional compensation shall be entertained on this account.
8. Description of items in this BOQ is by itself not complete, and for a full description the BOQ should be read together with the Technical Specifications and Drawings. Rates quoted in the BOQ are deemed to have included all aspects covered in the Preamble and Technical Specifications, and all features and details shown in the Drawings.
9. The Bidder shall, in the course of studying the bid document, point out all his/her remarks on the documents and make all his/her queries to the Employer who will study these remarks and clarify any discrepancy between the Bidding Documents.
10. Submissions shall be strictly in accordance with the documents and shall not be qualified in any way. The Bidder shall not alter the text of the BOQ.
11. Extra items and excess items of work and any change of quantities of an item shall not vitiate the Contract. The Contractor shall be bound to execute extra items of work and any change in quantity of work as directed by the Engineer. The rates for extras will be as per rates decided under Contract Conditions. If actual quantities of work executed under the respective item exceeds or falls short of the quantity given in BOQ, quoted price shall remain firm for the entire Contract.

12. For the evaluation process, if requested by the Evaluation Committee, the Contractor shall provide a sheet analysis for all priced items showing how the rate entered was derived.
13. The rates shall be deemed to include all the cost of Works described in the Bidding Documents to operate, maintain and manage the system and services in project area as per the scope of work.
14. The Bidder shall satisfy himself/herself as to the meaning of every item in the BOQ. The rates and prices inserted in the BOQ by the bidder shall be deemed to cover all costs, taxes, customs and import duties, levies, profits, risks, liabilities, insurance and obligations set forth or implied in the bid, as well as proper operation, maintenance and management of the Works including, but not limited to the following:
  - (i) All labour and Materials including consumables;
  - (ii) All temporary work of every description required including over ground pumping and other requirements to avoid disruption to the service whilst maintenance or repair work is carried out;
  - (iii) The provision and use of all equipment, tools and Plant of every kind, whether mechanical or non-mechanical, required for the expeditious carrying out of the Works in their proper sequence;
  - (iv) Provision for scaffolding, staging, guard rails, temporary stairs, temporary access during execution, approach roads up to the Site for the movement of vehicles, and heavy excavation machinery with supporting transport facility;
  - (v) Provision for excavation, back-filling, bringing to the Site extra fill for back-fill, making good and reinstating surfaces, disposing of surplus material, dealing with all ground water, storm runoff and wastewater flows, and for work in close proximity to other utility apparatus including protecting that apparatus;
  - (vi) Provision for work on pipe line corridors such as traffic control measures, safety barriers, obtaining any approvals and permits from authorities, and reinstatement of surfaces;
  - (vii) Cooperation and coordination of the work with related authorities, other Contractors and utilities, including obtaining their permission before starting the related Works if required; and
  - (viii) Providing security arrangements to guard the Site and premises at all times and to maintain strict control on the movement of Materials and labor until the completion of the work.
15. All electricity costs and initial connection charges etc. associated with operations shall be paid by the Employer directly to the electricity service provider. The power connections shall be obtained in the name of the Employer, the charges of which will be paid by PHED/RUIDP/TMC directly to electricity department or reimbursed under provisional sum if paid by the Contractor.
16. Rock is defined as all material that, in the opinion of the Employer's Representative, require use of metal wedges and sledgehammers, or the use of compressed air drilling for their removal, and that cannot be extracted by ripping with a tractor of at least 150 brake horsepower (BHP) with a single, rear-mounted, heavy-duty ripper. Blasting is prohibited for rock excavations in this specific area.
17. The serviceable materials, recovered while shifting of utilities as ascertained by the Project Manager, shall be deposited at designated store yards or as directed by the Project Manager. No payment shall be made to the Contractor in this regard.
18. Works itemized in the BOQ will be subject to measurement. Such measurement will be in the unit of measurement shown the BOQ and payment shall be made on the measured quantities.
19. Any item of work which is specified and required for the proper operation, maintenance and management of Works, but not included or itemized in the BOQ, shall be treated as an extra item and will be paid separately.

20. All rules and regulations of the labor department, contract labor Laws, provident fund and employee state insurance and connected Laws, and all other Laws of the land are to be complied with by the Bidder within the quoted rates.
21. The Employer will provide required space for construction of service centers, office and stores may be in government stores or at suitable locations. No land will be provided by the Employer to the Contractor for constructing any structure for his labor, workman and supervisory camps, unauthorized hutments, at the Site or within the premises. The Contractor shall make his/her own arrangements for the same outside the premises/boundary. These, if any, shall be with the knowledge of and prior approval of the Employer's Representative.
22. The Provisional Sum included and so designated in the BOQ shall be expended in whole or in part at the direction and discretion of the Project Manager in accordance with the Conditions of Contract. It will be used by the Project Manager for nominated Contractor/sub-contractors, line agencies, installation of power connections/power feeder by the electricity department, third party inspecting agencies, charges levied by statutory electrical, telephone, or other authorities, or for other miscellaneous works. The use of the Provisional Sum will also be for relocation of utilities above or underground that conflict with the existing or permanent line or level of the Works, independent sampling and laboratory testing, any investigation, as directed by the Project Manager, replacement or compensation for plants and trees removed due to the Works etc. as directed by the Project Manager.
23. Operation Service costs which include operation, maintenance and management of entire system or a part of the system, **shall not be less than 15% of the cost of works**. If bidder's evaluated bid price for Operation Service Cost is less than the cost proposed above, bidder will provide additional performance security for the difference O&M amount valid for entire O&M period.

24. Metric System and Abbreviations

Millilitre	ml
Million Litres per Day	mld
Million Litre	ML
Litre	ltr
Linear meter	m
Gram	gm
Square metre	m <sup>2</sup>
Cubic metre	m <sup>3</sup>
Number	No.
Kilogram	kg
Lump Sum	LS
Indian Rupees	Rs
Millimetre	mm
Square Centimetre	cm <sup>2</sup>
Square Millimetre	mm <sup>2</sup>

25. The abbreviations used in the Specification and BOQ shall be read as follows:

IS	Indian Standard
BHP	Brake Horsepower
BS	British Standard
Cm or CM or cm	Centimeter
Cum or CUM	Cubic Meter
MM or mm	Millimeter /s
Rm or RM or RMT	Running Meters
Sqm	Square Meters
SqKm	Square Kilometers
Qty.	Quantity
Drg./Dwg.	Drawing
No. or Nos.	Number or Numbers
PCC	Plain Cement Concrete
RCC	Reinforced Cement Concrete
INR	Indian Rupees



# Bill of Quantities

**Name of work: Construction, Commissioning and Operation of Fecal Sludge Treatment Plant of capacity 20 m3/day at Phulera**

**Abstract of Bid Prices**

<b>Sl. No.</b>	<b>Item Description</b>	<b>Total Amount (INR)</b>
<b>1.0</b>	SCHEDULE 1 - Construction of FSTP and related works	
<b>2.0</b>	Schedule 2: Operation and Maintenance Services	
<b>3.0</b>	Provisional sum	<b>5,00,000</b>
	Total Bid Price	

## SCHEDULE 1 - Construction of FSTP and related works

SI No.	Description	Unit	Quantity	Rate (INR Rs.)	Amount (INR Rs.)
<b>Part A : Civil Works</b>					
<b>Earthwork- Excavation</b>					
1.00	Earth work in excavation in foundation, trenches etc. including dressing of sides and ramming of bottoms, including getting out the excavated material, refilling after laying pipe/ foundation and disposal of surplus excavated material at a lead upto 50m suitable site as per direction of Engineer for following depths, below natural ground / Road top level.				
	In all types soils/ saturated soil such as moorum, sand, sandy silt, clay, black cotton soil, kankar, etc.				
1.1	Upto 1.5 m depth	Cum	3140.00		
1.2	Depth of excavation above 1.5 m and upto 3.0 m	Cum	565.00		
1.3	Depth of excavation above 3.0 m and upto 4.5	Cum	280.00		
1.4	Add extra over above for excavation in saturated soil, silt and sludge where pumping or bailing out of water is required including shoring strutting where required and dewatering, where width is upto 6 metre.				
1.5	Excavation from Encountered depth of water table 0.0 to 1.5 m	Cum	125.00		
<b>Refilling work</b>			0.00		
2.00	Earth filling with available surplus soil excavated from foundations and taken only from outside of building plinth in layers not exceeding 20cm in depth, consolidating each deposited layer including ramming and watering and consolidation with lead up to 50 m and lift upto 1.5 m.	Cum	7010.00		
2.1	Filling with locally available river sand at all levels including watering, ramming consolidating and dressing complete including cost of sand	Cum	3590.00		
<b>Stone Soling</b>			0.00		
3.00	Supplying and filling in basement with Stone soling 40mm dia down size and filling the pores with the dust, in layers of not more than 15cm thick, well rammed, watered and consolidated etc., complete complying with standard specification.	cum	410.00		
<b>Plain Cement Concrete (P.C.C)</b>			0.00		
4.00	Providing, laying and compacting plain/ reinforced cement concrete of specified grade in foundation/ leveling course/ pile cap using concrete mixer and vibrater complete including cost of form work, as per drawing and technical specifications and as per clause 1100, 1500,1700,2100 of MoRT&H specification including all scaffolding material, labour, machinery.		0.00		
	PCC Grade M -15	Cum	335.00		
<b>Damp Proof Cement</b>			0.00		
5.00	Providing and laying damp-proof course 50mm thick with cement concrete 1:2:4(1 cement : 2 coarse sand :4 graded stone aggregate 20mm nominal size)	Nos	175.00		
<b>Random rubble stone masonry</b>			0.00		

6.00	Random rubble stone masonry work in cement mortar with mechanical mixer in foundation (at any level) complete as per drawing and technical specification and as per clause 1000 and 1400 of MoRT&H specification including all scaffolding material, labour, machinery but excluding pointing and plastering. In cement mortar 1:4 (1 cement : 4 coarse sand)	cum	375.00		
	<b>Reinforced Cement Concrete (R.C.C), M20</b>		0.00		
7.00	Reinforced cement concrete work in vertical and horizontal fins individually or forming box louvers, facias and eaves boards upto two stories excluding the cost of centring, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20mm nominal size).	Cum	130.00		
	<b>Reinforced Cement Concrete (R.C.C), M25</b>		0.00		
8.00	Reinforced cement concrete work in beams, suspended floors, roofs having slope upto 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases upto two stories excluding the cost of centring, shuttering, finishing and reinforcement:		0.00		
	M-25 Grade Concrete (1:1:2 (1 cement : 1 coarse sand : 2 graded stone aggregate 20 mm nominal size) -As per design mix)	Cum	1.00		
9.00	<b>Reinforced Cement Concrete (R.C.C), M30</b>		0.00		
9.1	Providing and laying in position specified grade of reinforced cement concrete excluding the cost of centring, shuttering, finishing and reinforcement - All work upto plinth level : M30 concrete, based on design mix	Cum	95.00		
9.2	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. upto two stories excluding cost of centring, shuttering, finishing and reinforcement :M30 concrete, based on design mix	Cum	130.00		
9.3	Reinforced cement concrete work in beams, suspended floors, roofs having slope upto 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases upto two stories excluding the cost of centring, shuttering, finishing and reinforcement::M30 concrete, based on design mix	Cum	60.00		
	<b>Reinforcement</b>		0.00		
####	Reinforcement for R.C.C. work at all levels including straightening, cutting, bending, placing in position and binding all complete.		0.00		
	Thermo-Mechanically Treated bars.	MT	45.00		
	<b>Centering/ Shuttering</b>		0.00		
####	Centring and shuttering with plywood or steel sheet upto two stories or height upto 7.5 metre above plinth level including strutting, propping etc. and removal of form for :		0.00		
11.1	Foundations, footings, bases of columns, etc. for mass concrete	sqm	1925.00		

11.2	Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc	sqm	1070.00		
11.3	Suspended floors, roofs, landings, balconies and access platform	sqm	235.00		
11.4	Lintels, beams, plinth beams, girders, bressumers and cantilevers	sqm	275.00		
11.5	Weather shade, Chajjas, corbels etc., including edges.	sqm	52.00		
	<b>Precast slabs</b>		0.00		
####	Providing and fixing in position precast R.C.C. manhole cover and frame of required shape and approved quality		0.00		
12.1	Rectangular shape 600x600mm internal dimensions	Nos	56.00		
12.2	Circular shape 600 mm diameter interal dimensions	Nos	34.00		
12.3	1.64X1.64X0.075m	Nos	1.00		
12.4	1.24X0.74X0.075m	Nos	2.00		
12.5	1.24X0.77X0.075m	Nos	2.00		
12.6	0.64X0.50X0.075m	Nos	14.00		
12.7	Rectangular shape 600x450mm internal dimensions	Nos	8.00		
12.8	Rectangular shape 600x600mm internal dimensions	Nos	6.00		
	<b>RCC cover</b>		0.00		
####	Manufacturing, supplying and fixing Precast Reinforced Cement Concrete slabs of following thickness in RCC 1:2:4 (one cement, two sand and four aggregates), using following HBGS jelly including cost of reinforcement steel in position but including cost of moulding charges, casting of slab, finishing, curing and fixing in position in all floors etc., complete complying with standard specification and as directed.		0.00		
	50mm thick precast slab using 20mm HBGS jelly	Sqm	4.00		
	<b>Drain cover</b>		0.00		
####	Providing and fixing precast storm water drain covers with reinforcements of thickness 50mm and size 600 mm X 1000 mm able to withstand loads of 10 kg/cm <sup>2</sup> . Includes cost of supply, shuttering if made at site and others- complete	Sqm	270.00		
####	<b>Solid Block masonry</b>		0.00		
15.1	Brick work with FPS bricks of class designation 75 in superstructure above plinth level upto two stories in all shapes and sizes in : Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	288.00		
15.2	Brick work with FPS bricks of class designation 100 in superstructure above plinth level upto two stories in all shapes and sizes in : Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	37.00		
	<b>Plastering with mortar, 1:4</b>		0.00		
####	Cement plastering including T&P, scaffolding, material and complete labour, including cost of water, curing, racking of joints etc. with 20 mm cement plaster of mix :		0.00		
	1:4 (1 cement : 4 fine/ coarse sand)	Sqm	6046.00		
	Total plastering		0.00		
####	<b>White wash</b>		0.00		
17.1	White washing with lime to give an even shade:		0.00		

	New work (three or more coats)	Sqm	176.00		
17.2	White washing one coat with freshly burnt white shell lime in all floors including cost of lime, blue powder, fevicol type gum, brushes, scaffolding charges, etc., complete complying with standard specification and as directed by the engineer in charge	sqm	184.00		
17.3	Finishing walls with water proofing cement paint of required shade :New work (Two or more coats applied @ 3.84 kg/10 sqm).	Sqm	184.00		
####	<b>Door and Windows</b>		0.00		
18.1	Providing and fixing 1mm thick M.S. sheet sliding-shutters with frame and diagonal braces of 40x40x6mm angle iron, 3mm M.S. gusset plates at the junction and corners 25mm dia pulley, 40x40x6mm angle and T-iron guide at the top and bottom respectively including applying a priming coat of approved steel primer.	Sqm	9.00		
18.2	Providing and fixing fully panelled /partly panelled double leaf shutters frame for windows and ventilators as per approved design and drawings with approved steel fittings as per Annexure 'A' and width of styles, bottom and top rails 75mm including intermediate rails 50mm wide, beading of 25mm x 15mm size on both faces :shesham wood	Sqm	2.00		
18.3	Providing and fixing factory made Pre-laminated particle board flat pressed three layer or graded wood particle board with one side decorative finish and other side balancing lamination conforming to IS: 12823 Grade I Type II, of approved design, and edges sealed with water resistant paint and lipped with aluminium 'U' type edge beading all-round the shutter, including fixing with angle cleat, grip strip, cadmium plated steel screws including fixing of aluminium hinges 100x63x4 mm etc. complete as per architectural drawing and direction of Engineer-in-Charge	Sqm	4.00		

18.4	24 mm thick factory made PVC door shutters made of styles and rails of a uPVC hollow section of size 59x24 mm and wall thickness 2 mm ± 0.2 mm with inbuilt edging on both sides. The styles and rails mitred and joined at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 20x20 mm and 1 mm ± 0.1 mm wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x24 mm and 2 mm ± 0.2 mm wall thickness fixed to the shutter styles by means of plastic/ galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm ± 0.1 mm wall thickness . The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge. (For W.C. and bathroom door shutter).	Sqm	2.00		
18.5	Providing and fixing fully panelled /partly panelled double leaf shutters frame for windows and ventilators as per approved design and drawings with approved steel fittings as per Annexure 'A' and width of styles, bottom and top rails 75mm including intermediate rails 50mm wide, beading of 25mm x 15mm size on both faces :shesham wood	Sqm	4.00		
	<b>Ladder</b>				
####	Providing, fabricating and erecting MS ladder of 450mm wide made of 65 x 65 x 6mm angle iron and 20mm MS bars for walkway to top of the room including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer complete in all respect as per specifications and the direction of the Engineer.	M	3.00		
	<b>Flooring</b>		0.00		
####	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded 20mm nominal size stone aggregate) finished with a floating coat of neat cement including cement slurry, but excluding the cost of nosing of steps etc. complete- 40 mm thick	Sqm	72.00		
	<b>Roof</b>		0.00		
####	Providing and fixing corrugated AC. sheet roofing including vertical/ curved surface fixed with p J clamp, heavy gauge GI pipe, inclusive labour charges	Sqm	109.00		
####	<b>Pavement</b>		0.00		
22.1	Earth work in excavation for roadway, including trimming bottom and side slopes in accordance with requirement of line, grades and cross sections, including disposal of surplus material with all lift and lead upto 1000 metre as per MoRT&H specification clause 301. In all soil types Compacting original ground	cum	1272.00		

22.2	Loosening upto a level of 500 mm below the subgrade level watered, graded and compacted in layers by vibratory roller 8-10 tonne to meet requirement of table 300-2 for subgrade construction as per MoRT&H specification clause 305.3.4.	cum	1110.00		
	Filling of shoulders with earth				
22.3	Construction of subgrade and earthen shoulders with approved material obtained from borrow area with all lifts & leads, transporting to site, spreading, grading to required slope and compacted in layers not exceeding 200mm thickness at OMC, with vibratory roller of 80-100 KN static weight or more to attain a density 97% maximum dry density to meet requirement of table No. 300-2 as per MoRT&H specification clause 305. (Lead taken upto 5 km)	cum	28.00		
	<b>Granular Sub base</b>		0.00		
22.4	Construction of granular sub-base by providing coarse graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete. Grade 1 material		0.00		
	TOTAL	cum	1462.00		
	<b>Wet Mix Macadam</b>		0.00		
22.5	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 Material by tipper to site, laying in uniform layers with paver finisher in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density		0.00		
	TOTAL	cum	1027.00		
	<b>Prime Coat</b>		0.00		
22.6	Providing and laying primer coat over prepared surface of granular base with bitumen emulsion as per IS 8887 and approved quality @0.6kg / Sqm with the help of spray set filled on bitumen container after cleaning the surface including removing of binding material and other foreign matter with wire brushes and compressed air to receive bituminous treatment complete as per clause 502 of MoRT&H specification including all material, labour, machinery	Cum	2750.00		
	<b>Bituminous Macadam</b>		0.00		



22.7	Providing and laying bituminous macadam in 50/75 mm compacted thickness on prepared surface with specified graded crushed stone aggregates as per Table 500-4, Grading-II for base/ binding course, loading of aggregate with F.E. loader, heating and mixing of stone aggregate and bitumen in computerised hot mix plant, transported to site by tippers to paver, laid over a previously prepared surface with paver finisher fitted with electronic sensing device to the required grade, level and alignment and rolling with power roller and vibratory compactor as per clauses 501.6 and 501.7 to achieve the desired compaction complete as per clause 504 of MoRT&H specification and including all material, labour, machinery, lighting, guarding and maintenance of diversion but excluding cost of primer/ tack coat. With Bitumen VG-grade 30 @ 3.3% (percentage by weight of total mix)	Cum	138.00		
	<b>Bituminous Concrete</b>		0.00		
22.8	Providing and laying 25-45 mm compacted thickness Bituminous Concrete as per design mix (approved by Engineer) on prepared surface with specified grade stone aggregate as per Table - 500-18 with bitumen for wearing course including loading of aggregate with F.E. loader and hot mixing of stone aggregate and bitumen (including cost of anti-stripping compound wherever required) in computerised hot mix plant, transporting the mixed material by tippers to paver and laying with paver finisher fitted with electronic sensing device (as per clause 504-3.5) to the required level and grade and compacting by power rollers and vibratory rollers or 150 to 250 KN pneumatic tyred roller with TP = 0.7 Mpa, to achieve the desired density complete as per clause 509 of MoRT&H specification including all material, labour, machinery, lighting, guarding and maintenance of diversion but excluding primer/tack coat. Grade-II with Bitumen VG-grade 30 @ 6% (percent by weight of total mix)	Cum	83.00		
	<b>Concrete layer</b>		0.00		

22.9	Providing and laying un-reinforced, dowel jointed, plain cement concrete mix in pavement over a prepared sub base with 43 grade cement, 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 complete as per drawing and as per clause 602, 112 of MoRT&H specification including all material, labour, machinery, lighting, guarding and maintenance of diversion.M20 grade concrete		0.00		
	<b>Total</b>	cum	231.00		
	<b>Wearing course</b>		0.00		
####	Providing and laying reinforced cement concrete wearing coat M-30 grade at any level including formwork and reinforcement @ 75kg/cum complete as per drawing and technical specification and as per clause 2702 of MoRT&H Specification including all material, labour, machinery etc.		0.00		
	<b>Total</b>	cum	58.00		
	<b>Kerb stone</b>		0.00		
22.1	Providing and fixing at or near ground level precast cement concrete in kerbs, edgings etc. as per approved pattern and setting in position with cement mortar 1:3 (1 Cement : 3 coarse sand) including the cost of required centring, shuttering and finishing smooth with 6mm thick cement plaster 1:3 (1 cement : 3 fine sand) on exposed surfaces complete.1:2:4 ( 1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size).	cum	18.00		
####	<b>Manhole</b>		0.00		
23.1	Supplying and fixing C.I cover with frame for manholes:		0.00		
23.2	300 mm diameter C.I. cover (medium duty) the weight of the cover to be not less than 45 kg.	Nos	4.00		
23.3	450x700 mm rectangular C.I. cover (light duty) the weight of the cover to be not less than 25 kg	Nos	2.00		
23.4	400x700 mm rectangular C.I. cover (light duty) the weight of the cover to be not less than 25 kg	Nos	12.00		
####	<b>Storm water grating</b>		0.00		
24.1	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.		0.00		

	Providing and fixing wrought iron gratings of dimensions 200 mm x 300 mm in RCC walls of storm water drains at a distance of 5 metre, thickness of grating 10 mm.	Quintal	1.50		
	<b>Filter Media</b>		0.00		
####	Providing and laying of coarse aggregate size as below after washing & sieving to make it free from fines & dust.		0.00		
25.1	Aggregates 90 mm to 120 mm	cum	6.00		
25.2	Stone Aggregate (Single size) : 20 mm nominal size	cum	35.00		
25.3	Stone Aggregate (Single size) : 10 mm nominal size	cum	36.00		
25.4	Random rubble dry stone Kharanja (soling) filling.	cum	2.00		
25.5	Aggregates 70 mm to 50 mm	cum	109.00		
25.6	Aggregates 12 mm to 16 mm	cum	80.00		
25.7	Aggregates 5 mm to 7 mm	cum	80.00		
25.8	Coarse Sand	cum	119.00		
	<b>Waste water pipes</b>		0.00		
####	Providing at site, lowering & laying of pipes in openings of the side walls, aligning & jointing of PVC-U pipes (SN 8) as per IS 15328 (amended up to date) and as per specifications, for pipe length as per drawing and specification including making necessary holes in the wall, plastering both sides and hydraulic field testing (including the cost and conveyance of water to site for testing) and commissioning etc complete as directed by Engineer.		0.00		
26.1	110mm dia UPVC inlet	RMT	518.00		
26.2	110mm dia UPVC outlet	RMT	1.00		
26.3	110mm dia UPVC pipe	RMT	1.00		
26.4	110 mm dia PVC-Tees	Nos	49.00		
26.5	160 mm nominal dia	RMT	109.00		
26.6	6 inch dia T piece	Nos	32.00		
26.7	6 inch elbow	Nos	4.00		
26.8	4 inch elbow	Nos	40.00		
26.9	4 inch tee piece	Nos	20.00		
####	2"pipe	RMT	6.00		
26.1	4 inch vent pipe	RMT	51.00		
####	4 inch vent cowl	Nos	43.00		
26.1	55mm dia pipe	RMT	8.00		
####	Elbow fixing to pipe - 55 mm	Nos	1.00		
26.2	End cap to sampling pipe 110 mm	Nos	4.00		
####	110mm dia perforated pipe	RMT	7.00		
26.2	110mm elbows	Nos	56.00		
####	160mm bend	Nos	5.00		
26.2	6 inch perforated pipe with 100 perforations at 0,45,90,135 and 180 degree per metre length. Hole dimensions in excess of 10 mm diameter	RMT	240.00		
	<b>Water supply pipe lines</b>				

####	Providing and fixing Unplasticized Polyvinyl Chloride (UPVC) pipes, having thermal stability for hot & cold water supply including all UPVC plain & threaded fittings. This included jointing of pipes & fittings with one step UPVC solvent cement, clamping to walls at intervals of 1 metre using MS clamps, trenching, refilling & testing of joints complete as per direction of Engineer in Charge 1" pipe	Rmt	100.00		
####	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes bends, tees, jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. 32 mm nominal outer dia pipes	Rmt	10.00		
####	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :	Nos	5.00		
	<b>Utility ducts under rigid pavement</b>		0.00		
####	Providing and Laying Reinforced cement concrete pipe NP4/ prestressed concrete pipe for culverts including jointing ends and fixing collar with cement mortar 1:2 complete as per clause 1000 & 2900 of MoRT&H specification including all material, labour form work, machinery. Pipes to be laid at an interval of every 25 metres below road		0.00		
	200 mm internal diameter	Rmt	66.00		
	<b>Utility access manholes</b>		0.00		
####	Constructing brick masonry manhole in cement mortar 1:4 ( 1 cement : 4 coarse sand ) 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 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size) inside plastering 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement complete as per standard design : Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) : With bricks with class designation 75	Nos	23.00		
32	<b>Sanitary fittings</b>		0.00		
32.1	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require :		0.00		
32.2	White Vitreous China Wash basin size 630x450 mm with a single 15 mm C.P. brass pillar taps.	Nos	1.00		

32.3	Providing and fixing water closet squatting pan (Indian type W.C. pan ) with 100mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required :		0.00		
	White Vitreous china Orissa pattern W.C. pan of size 580x440mm with integral type foot rests	Nos.	1.00		
<b>####</b>	<b>Filter material for Anaerobic Filter</b>		0.00		
33.1	Providing and laying Cinders as a Filter Material In AF as per the instruction given by the site engineer in charge.		0.00		
	Filter material in AF	Kg	8.10		
<b>####</b>	<b>Plants</b>		0.00		
	Supply and planting following in gravel filter media, well branched, well established & free from disease of 300 mm min. height, 0.3 m deep hole dug in the gravel media, backfilling the hole watering etc as required. Plants species - reeds, as mentioned in the bid document or directions of the engineer	Nos	280.00		
<b>####</b>	<b>Landscaping</b>		0.00		
35.1	Supplying and stacking of well decayed cow dung manure at site.	cum	50.00		
35.2	Fine dressing the ground.	sqm	1000.00		
35.3	Spreading of sludge farm yard manure or/ and good earth in required thickness (cost of sludge, farm- yard manure or/and good earth to be paid for separately).	cum	50.00		
35.4	Grassing with 'Carpet' grass (selection no. 1) including watering and maintenance of the lawn for 30 days or more till the grass forms a thick lawn free from weeds and fit for moving including supplying good earth if needed.(The good earth shall be paid separately)		0.00		
	With grass Turf	sqm	1000.00		
35.5	Supply and planting following species best quality container grown healthy trees of 3 mt. min. height, well established & free from disease at site in 1.20 m dia holes, 1.20 m deep dug in the ground, mixing the soil with decayed farm yard/sludge manure, backfilling the hole watering etc as required. Plant species such as neem, champa, lantern tree or any locally available species	each	10.00		
35.6	Providing and fixing of 60mm thick precast cement concrete interlocking paver block casted with rubber moulds in approved reflective colour and design having minimum compressive strength of 300 kg/ sq cm. The CC paving blocks be laid on average 50mm thick bed of coarse sand and the joint is to be filled with fine sand. Laying procedure on compacted sub-base as defined. Complete job is to be executed as per the instruction of Engineer incharge. The rates to be inclusive of all lead & Lifts etc. complete as per specifications.	Sqm	50.00		

####	<b>Providing corrugated G.S. sheet roofing</b> including vertical/ curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead and including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete upto any pitch in horizontal/ vertical or curved surfaces) excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	Sqm	30.00		
####	<b>Valve chamber, VC1</b>		0.00		
	<b>Construction of brick masonry valve chamber</b> for different type of valves with 75 class designation brick work in cement mortar 1:4 (1 cement : 4 coarse sand), wall 230mm thick, top cover slab 150mm thick RCC M20 grade (1:1½:3 (1 Cement : 1½ coarse sand : 3 graded stone aggregate 20mm nominal size) with C.I. surface box with hinged cover 100x100x75mm (deep) including earthwork excavation, 100mm thick leveling course of PCC M10 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size) including cost of steel reinforcement not less than 80kg per cum CC, form work, proper curing complete in all respect as per standard specifications and drawings and as directed by Engineer.		0.00		
	60cm x 60cm x 75cm (depth) for 80/100/125/150 mm dia valve	Nos	7.00		
####	<b>Water Storage Tank - Underground Sump</b>		0.00		
38.1	Providing and fixing of Sintex Tank ( 3 layers) 2000 liters capacity under the ground near to store room as a sump tank. includes cost and conveyance of all materials like valve and brackets etc. complete as directed by the Engineer In charge. Excludes cost of excavation and base slab	Liter	2000.00		
	<b>Overhead tank above Store room</b>		0.00		
38.2	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	Liter	3000.00		
####	<b>Borewell Works</b>		0.00		
39.1	Conduct Hydrogeological investigation to determine the most probably spot for bore hole to obtain water. The scientific investigation is to be carried in the presence and in the directions of the engineer and using specialised resistivity measuring instruments.	Nos	3.00		

39.2	Construction of Tube-well upto 100 Meter depth and above in all type of rocks by DTH system and over burden to accommodate casing pipe of following sizes in all types of soils and over burden including lowering of casing pipes,excluding the cost of casing pipes as per IS : 2800 (Part I & II) 1979 specifications. The work would be completed after obtaining sand free water and as per direction of the engineer. The tube well should have a throughout bore as per nominal dia of casing pipe:150 mm dia nominal bore	M	35.00		
39.3	Supply of ERW M.S black casing pipe ISI marked (IS: 4270/1992) of grade Fe410 of following nominal bore sizes at site of work - 150 mm diameter	M	26.00		
39.4	Supply of strainer pipes made of ERW M.S. black pipe ISI mark of following sizes at the site of work including required size of slotting as per IS: 8110 -1985 of following nominal bore sizes at site of work. Nominal bore dia: 150 mm	m	5.00		
39.5	Testing verticality of tube well by plumbing system and yeild test and draw down test by pumping system as per IS: 2800 ( part II) 1979	Nos	1.00		
39.6	Supply and fixing of tube well cover of M.S sheet( 6 mm thick) with nuts and bolts complete for casing size of 150 mm dia	nos	1.00		
39.7	Supply and fixing of MS clamp set of 50 x 6 mm flat iron with nuts and bolts etc for holding the riser pipe assembly of submersible pump set	each set	1.00		
39.8	Installation of submersible motor pump set in tube well complete (labour charges only) including transportation of tripod, pulley block, and any other material required for lowering purpose	each	1.00		
39.9	Providing and lowering of GI flange pipe B class including rubber washer and nuts of 8 mm dis complete in all respect - 50 mm	metre	32.00		
	<b>Gate at the entrance on compund wall</b>		0.00		
####	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete:Gate design as provided by the architect or the engineer	Kg	500.00		
	<b>Tiller for drying beds</b>		0.00		
####	Supply of tiller with trailer arrangement with minimum carrying capacity of 1.5 tons. Details attached in bid document or as specified by engineer	LS	1.00		
	<b>Total - Part A :</b>				
	<b>Part B : Mechanical Works</b>				
	<b>Ball valves</b>		0.00		
1.00	Providing and fixing in place 110 nominal dia ball valve including cost of rubber gasket and hydraulic field test and commisioning as directed by engineer	Nos.	4.00		
	<b>Sludge pump</b>		0.00		

2.00	Provide sludge transfer submersible pump, head 10 m and power : 3 HP. Brand names as specified in group 1 of RUIDP schedule 2017, detailed specifications of the pump in bid document	Nos.	6.00		
	<b>Submersible pump</b>		0.00		
3.00	Submersible wastewater pump @3cum/hr, 5 m head, 1.1 HP single phase	Nos.	2.00		
	<b>Pumps</b>		0.00		
4.00	Supply and installation of mono block pump to pump water from underground sump to overhead tank . Pump power: 1 HP	Nos	1.00		
5.00	Dewatering pump for reusing final treated water for gardening purpose, to be mounted on a mobile platform. Power power: 2 Hp	Nos	1.00		
6.00	Supply and installation of submersible pump for borewell, with head of 30 m and as specified in bid document	Nos	1.00		
	<b>Hoist for Pump</b>		0.00		
7.00	Structural steel work in single section fixed with or without connecting plate including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	Kg	60.00		
8.00	<b>Providing and fixing mild steel (MS - 316L) grill work for screening</b> of wastewater as per drawing including fixtures, necessary welding and painting with one coat of zinc chromite primer and two coats of epoxy painting complete.(As per instruction of site engineer). Fixing to include necessary L -angles to be anchored to the side walls and rework of the walls to design specifications		0.00		
	Weld grill with vertical spacing between bars of 10 mm and as specified in the drawings	Nos.	2.00		
9.00	<b>Supply, installation and commissioning of FRP sand carbon filter with loaded graded material</b>	Nos	1.00		
	Provide sand and carbon along with necessary accessories such as pumps, multipoint valves and piping. To include all installations, testing and commissioning of the set up. Description of the item as mentioned in bid document		0.00		
####	<b>Supply, installation and commissioning of UV treatment unit - Description as specified in bid document</b>	Nos	1.00		
	<b>Roof for sand carbon filter</b>		0.00		
10.1	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete:	MT	0.50		
####	<b>Supply of Tools as per technical specifications</b>				
11.1	Gum boots	Nos	4.00		
11.2	Plastic drums	Nos	2.00		
11.3	Rakes	Nos	3.00		
11.4	Tarpaulin sheet: 9x9 ft size	Nos	6.00		
11.5	Broom	Nos	4.00		
11.6	pH meter	Nos	1.00		
11.7	Mask	Nos	5.00		
11.8	Spanner	Nos	1.00		



11.9	Gloves	Nos	4.00		
####	First Aid box	Nos	1.00		
11.1	Hose pipe	m	80.00		
####	Shovel	Nos	2.00		
11.1	Wheel barrow	Nos	2.00		
####	Plant trimmer	Nos	1.00		
11.2	Sludge measuring device	Nos	1.00		
			<b>Total - Part B :</b>		
<b>Part C : Electrical Works</b>					
<b>1.00</b>	<b>Electrical</b>		0.00		
1.1	P & F strip type fluorscent tube fitting fabricated from (CRCA sheet and finished with powder coating / stove enamelled paint)/(extruded non corrosive UV resist EP channel) complete with accessories like (OCCB, starter, starter seat)/ EB, rotor holder, terminal block duly prewired with copper conductor including making connection, testing etc. as required. ( without tube): 1x 36 watts with OCCB	Nos	1.00		
1.2	P & F Fluorscent tube rod in existing fixtures as required. 36/40 watts	Nos	1.00		
1.3	Wiring of light point / fan point / exhaust fan point / call bell point with 1.5 sq. mm FR PVC insulated unsheathed 1.1kV grade flexible copper conductor and 1.5 sq.mm FR PVC insulated copper earth conductor (IS:694) of approved make in double lock/ ISI marked single lock pvc casing capping & it's accessories, 18 SWG M.S. box with earth terminal, screwless cage connectors for neutral looping in switch board & false ceiling point, 6 A switch 3.0 mm thick phenolic laminated sheet, zinc plated / brass screws, cup washers , making connections, testing etc. as required. long point upto 10 m	per point	2.00		
1.4	Providing & fixing following modular accessories made out of unbreakable and fire retardant poly carbonate with silver contacts including making connections testing etc. as required,6 A 3 pin shuttered socket, grade 1	per socket	1.00		
<b>Electrical -Operator room</b>			0.00		
1.5	P & F double ball bearing capacitor start ceiling fan of approved make complete with regulator and other accessories as required. 900 mm sweep	each	1.00		
1.6	P & F 1.6 mm thick M.S. Recessed fan box, hexagonal/ round of size 100 mm dia, depth 75mm, 12 mm dia rod fan hook with 100 mm length extended on each side .	each	1.00		
1.7	P & F strip type fluorscent tube fitting fabricated from (CRCA sheet and finished with powder coating / stove enamelled paint)/(extruded non corrosive UV resist EP channel) complete with accessories like (OCCB, starter, starter seat)/ EB, rotor holder, terminal block duly prewired with copper conductor including making connection, testing etc. as required. ( without tube): 1x 36 watts with OCCB	each	2.00		
1.8	P & F Fluorscent tube rod in existing fixtures as required. 36/40 watts	each	2.00		

1.9	P & F of IP65 IK10 rated LED bulk head type light fixture made from CRCA sheet steel housing suitable for mounting LED tube system (integral driver), Power consumption of 10-15W , 500-600 lumens system lumen efficiency 70 lm/ watt output suitable for 1x100 W GLS/ 9W CFL bulk head fixtures, life time of 50000 burning hours with 70% initial lumen maintained. CCT 3000° K, 4000° K and 6000° K. Fixture shall be in compliance with CE & KEMA standards. LED Bulk head luminaire 9/10W	each	1.00		
1.10	Pipe Earthing as per IS:3043 with perforated 3.0 Mtr. Long, 40 mm dia. ' B ' class G.I. Pipe including all accessories like nut, bolts, reducer, nipple, wire meshed funnel, and C.C. finished chamber covered with hinged type with locking arrangement C.I. Cover, C.I. Frame of size 300mm x 300 mm and embodying the pipe complete with alternate layers salt and coke/ charcoal, testing of earth resistance as required.	each	1.00		
1.11	Wiring of light point / fan point / exhaust fan point / call bell point with 1.5 sq. mm FR PVC insulated unsheathed 1.1kV grade flexible copper conductor and 1.5 sq.mm FR PVC insulated copper earth conductor (IS:694) of approved make in double lock/ ISI marked single lock pvc casing capping & its accessories, 18 SWG M.S. box with earth terminal, screwless cage connectors for neutral looping in switch board & false ceiling point, 6 A switch 3.0 mm thick phenolic laminated sheet, zinc plated / brass screws, cup washers , making connections, testing etc. as required. long point upto 10 m	per point	4.00		
1.12	P & F ISI marked (IS :3854) 6 amp. flush type switch including cutting hole in tile and making connection testing etc. as required.	nos	4.00		
1.13	P & F ISI marked flush type 120/280 watt rotary step fan regulator including making connection testing etc. as required.	nos	1.00		
1.14	P & F 18 SWG Sheet steel boxes duly finished with two coats of red oxide and with earthing terminal of following sizes (nominal size) on surface or in recessed as required. Size: 150 x 75 x 60 mm	nos	1.00		
1.15	P&F 240/415 V MCB of breaking capacity not less than 10 KA (B/ C/ D tripping characteristic) ISI marked IS 8828(1996)]/ conforming to IEC 60898 in existing board/sheets including making connections with lugs, testing etc. as required. 0.5 to 4 A	nos	1.00		
	<b>Electrical -Others</b>		0.00		
	<b>Street Lighting</b>		0.00		

1.16	Supply and erection of hot dipped galvanised steel swaged tubular pole /GI Conical Pole conforming to IS 2713-1980 (part I to II) with galvanised base plate of size 400mm x 400mm x 7mm in position including excavation of the pit and filling the same with C.C. of M-10/M-20 grade (1:3:6)/ grade(1:1.5:3) from base plate to 50cm above ground level, with the help of steel frame not less than 40 cm dia up to 114.3mm outer dia and 50 cm beyond 114.3mm outer dia around the pole. Duly finished with cement plaster, earthing terminals , cable entry, GI cable sleeve complete as required. The pole shall be galvanised using ISI mark tube for structural purpose.		0.00		
	7/7.5 Mtr. Group 1	Nos	5.00		
1.17	P & F IP-43 protected street light luminaire on existing bracket suitable for FTL, made out from CRCA sheet steel finished with stove enameled paint, having deep drawn aluminium alloy canopy reflector cum control gear tray, clear ribbed acrylic diffuser held with synthetic gasket, with all necessary accessories copper wound ballast, capacitor, starter, holder prewired with pvc insulated copper conductor including making connection testing etc. as required. (without tube). Grade 1	Nos	5.00		
1.18	P & F Fluorscent tube rod in existing fixtures as required. 36/40 watts	Nos	5.00		
1.19	Wiring of 3 pin 6 amp. Light plug point with 1.5 sq. mm FR PVC insulated unsheathed 1.1 kV grade flexible copper conductor and 1.5 sq.mm FR PVC insulated unsheathed 1.1 kV grade copper earth conductor (IS:694) of approved make double lock/ ISI marked single lock pvc casing capping & it's accessories, 18 SWG M.S. box with earth terminal, screwless cage connectors for neutral looping in switch board & false ceiling point, 6 A switch, 6 A socket, 3.0 mm thick phenolic laminated sheet, zinc plated / brass screws, cup washers, making connections, testing etc. as required.Long point. Also includes cost of trenching as and when required and refilling	Nos	5.00		
1.20	Supply and installation of 16 A swtich for controlling power supply to street lights, including providing neccesary panel boxes, connection, accessories . Complete	Nos	1.00		
	<b>Supply to Pumps</b>		0.00		
1.21	Supply and providing 3 phase, 16 amp power supply point housed inside IP65 panel, including cost of panel, erection, cost of manking connections, cables, joints etc. Complete as directed by engineer. Panel dimensions : 300 mm x 300 mm x 150 mm placed at a distance of 500 mm above ground level and made from fire resistant FRV/MS coated with zinc oxide	Nos	6.00		

1.22	Providing & Laying XLPE insulated / P.V.C. sheathed cable of 1.1 KV grade with aluminium conductor Armoured of IS:7098-I/1554-1 approved make in ground as per IS:1255 including excavation of 30cmx75cm size trench, 25 cm thick under layer of sand, second Class bricks covering, refilling earth, compaction of earth, making necessary connection, testing etc. as required of size.		0.00		
	6 Sq.mm, 3 core	rmt	50.00		
1.23	P&F 240/415 V MCB of breaking capacity not less than 10 KA (B/ C/ D tripping characteristic) ISI marked IS 8828(1996)]/ conforming to IEC 60898 in existing board/sheets including making connections with lugs, testing etc. as required.Single pole MCB 6 A to 32 A	Nos	7.00		
1.24	<b>Generator</b>		0.00		
	Supply of 7.5KVA Silent DG.set with comprising of Mahindra make Engine Model 1125GR, 12BHP @ NTP 1500RPM coupled to 7.5KVA Mahindra approved make 3-Phase, 415V, 50Hz alternator mounted on a common Base frame along with other accessories i.e., Fuel tank, Manual Control Panel, Battery with leads and acoustic enclosure.	Nos	1.00		
<b>Total - Part C :</b>					
<b>Grand Total - (Part A+B+C) (INR Rs.):</b>					

**Schedule 2: Operation and Maintenance Services**

<b>Sl. No.</b>	<b>Item Description</b>	<b>Total Quantity</b>	<b>Unit</b>	<b>Rate (INR) In Figures</b>	<b>Total Amount (INR) In Figures</b>
1	Operation and maintenance of plant and ancillary units which will include all activities described in the scope of work complete				
1.1	During the first year	12	month		
1.2	During the second year	12	month		
1.3	During the third year	12	month		
1.4	During the fourth year	12	month		
1.5	During the fifth year	12	month		
<b>2.0</b>	Operation and maintenance of DG set including fuel and spares etc complete during entire O&M period	900	Hours		
	<b>Total operation Service costs</b>				

