



# **Asian Development Bank (ADB) Assisted Delhi Water Supply Improvement Investment Program**

## **BIDDING DOCUMENT**

**For  
Procurement  
of**

**DWSIIP/ 01: Distribution Network Improvement in UGR Command Areas C-02 and C-03 Targeting Continuous Pressurized Water Supply and DMA Based NRW Reduction and Providing House Service Connections**

**Under International Competitive Bidding  
(Following ADB's single stage two envelope bidding procedure)**

## **Volume 5 PRICE BID**



**Executing Agency:**

**Delhi Jal Board,  
Varunalaya  
Jhandewalan  
Karol Bagh  
New Delhi-110005  
INDIA**



**Consultant/PMC:**

**NJS Consultants Co., Ltd.  
*In Joint Venture with*  
ICRA Management Consulting Services Limited  
TATA Consulting Engineers Ltd. &  
NJS Engineers India Pvt. Ltd.**

---

## Letter of Price Bid

### **Note-**

*The bidder must accomplish the Letter of Price Bid on its letter head clearly showing the bidder's complete name and address.*

Date: .....

ICB No.: .....

Invitation for Bid No.: .....

To: [ . . .insert complete name of the employer . . . ]

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 and the Technical Bid submitted for the following Works. [ . . .insert narrative . . . ]
- (c) The total price of our Bid, excluding any discounts offered in item (d) below is:

[amount of foreign currency in words], [amount in figures], and [amount of local currency in words], [amount in figures]

*The total bid price from the Summary of Bill of Quantities should be entered by the bidder inside this box. Absence of the total bid price in the Letter of Price Bid may result in the rejection of the bid.*

- (d) The discounts offered and the methodology for their application are: [ . . .insert discounts and methodology for their application if any . . . ]
- (e) Our Bid shall be valid for a period of [ . . .insert bid validity period as specified in ITB 18.1 of the BDS . . . ] 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.<sup>1</sup>

Name of Recipient	Address	Reason	Amount
.....	.....	.....	.....
.....	.....	.....	.....

- (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 .....

<sup>1</sup> If none has been paid or is to be paid, indicate "None".

---

# Bill of Quantities

## 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, Employers Requirements, 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 quoted 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, together with all general risks, liabilities, and obligations set out or implied in the Contract. The GST shall be paid Extra as applicable depending upon the nature of work/ supply/service.
4. A rate or price shall be entered against each item in the priced Bill of Quantities, whether quantities are stated or not. The cost of items against which the Contractor has failed to enter a rate or price shall be deemed covered by other rates and prices entered in the Bill of Quantities. The units and rates in figures entered into the Bill of Quantities should be typewritten or if written by hand, must be in print form. Bill of Quantities not presented accordingly may be considered nonresponsive.
5. The whole cost of complying with the provisions of the Contract shall be included in the Items provided in the priced Bill of Quantities, and where no items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related Items of Work.
6. General directions and descriptions of work and materials are not necessarily repeated or 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.
7. Arithmetic errors will be corrected by the Employer as follows:
  - 7.1. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Employer there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected.
  - 7.2. If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected.
  - 7.3. If there is a discrepancy between the bid price in the Summary of Bill of Quantities and the bid amount in item (c) of the Letter of Bid, the bid price in the Summary of Bill of Quantities will prevail and the bid amount in item (c) of the Letter of Bid will be corrected.
  - 7.4. If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a), (b), and (c) above.
8. 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.
9. The method of execution and measurement of completed work for payment shall be in accordance to the respective procedures provided in the Standard Specifications or Particular Specifications under this Contract and in the absence of which shall be in accordance to the relevant BIS Standard and Standard Specification of the National Capital Region, Delhi or Standard Specification published by the Central Public Works Department, Government of India as the case may be.

10. Rock shall be ordinary rock or hard rock however excavation with blasting is not permitted and contractor should use of metal wedges and sledgehammers, or the use of compressed air drilling for their removal, if that cannot be extracted by ripping with a tractor of at least 150 brakehorsepower (BHP) with a single, rear-mounted, heavy-duty ripper.
11. All defective works are liable to be demolished, rebuilt and defective materials replaced by the Contractor at his own cost and time
12. 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.
13. Description of items in this BOQ is by itself not complete, and for a full description the BOQ should be read together with the Standard 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.
14. The Bidder shall, in the course of studying the Bidding 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.
15. 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.
16. Extra and excess items of work shall not vitiate the Contract. The Contractor shall be bound to execute extra items of work as directed by the Engineer. The rates for extra items will be as per rates decided under Contract Conditions.
17. 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.
18. The rates shall be deemed to include all the cost of Works described in the Bidding Documents to design, construction, operate, maintain and manage the water supply system and services in service area of the Project as per the scope of work.
19. 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 of construction equipment, labour, supervision, materials, erection, costs, customs and import duties, profits, together with all general risks, liabilities, insurance and obligations set forth or implied in the Contract, as well as proper operation, maintenance and management of the Works including, but not limited to the following:
  - (i) All labor 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) All temporary works required to establish the Zones / DMA boundary, for example valving, capping off, interconnections etc all works complete, including those areas which are presently being directly supplied from transmission mains to bring them under the UGR supply regimes.
  - (iv) 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;
  - (v) 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;
  - (vi) 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

- 
- and wastewater flows, and for work in close proximity to other utility apparatus including protecting that apparatus;
- (vii) 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 and compliance with the safeguards documents as in Employers Requirements;
  - (viii) 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
  - (ix) 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. The supply of plant and equipment and all costs in connection therewith.
  - (x) The supply, operation, repair/replacement, maintaining in good order and ultimate return to the Employer, of all necessary measurement and recording equipment required to undertake the contract efficiently, including all pipe and valve locators, temporary flow meters, pressure gauges, pressure/level transducers, data loggers and all leak detection equipment, etc.
  - (xi) Hydrostatic testing, disinfection, neutralising of highly disinfected water discharges, and commissioning of new mains and service connections.

The GST shall be paid Extra as applicable depending upon the nature of work/ supply/service.

- 20. All electricity costs and initial connection charges etc associated with operation services, including the electricity charges for the Customer Relation Management Centres, shall be paid by DJB directly to the electricity service provider. The power connections shall be obtained in the name of DJB, the charges of which will be paid by DJB directly to electricity department or reimbursed under provisional sum if paid by the Contractor.
- 21. 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.
- 22. 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.
- 23. 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.
- 24. 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.
- 25. DJB will provide required space for construction of Customer Relation Management Centres may be in DJB campuses or at suitable locations. The office and stores need to be arranged by the Contractor at his own cost. No land will be provided by the Employer to the Contractor for constructing any structure for his labor, workman and supervisory camps, un-authorized 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. The bidders price should include all of these costs.
- 26. No claims or requests for extension of time will be considered for investigations, remedial work or consequent delays if the DMA boundary is breached, or boundary valves are operated by others, including DJB's operations personnel, if any, after DMA formation. However, if the water supply regime is changed in the Service area during the course of the Contract to supply new developments in nearby areas, any physical work required to remedy the DMA boundary will be eligible for payment under BOQ items, but no claims or extensions of time will be considered for such work or for any associated investigative work, etc.
- 27. Where it is beneficial for small modifications to be made to the contract boundary, during the period of the Contract, in order to benefit from supply patterns or to simplify/optimize hydraulic boundaries,

adjustments may be made to the contract boundary following agreement with the Engineer, the E.E.'s and other Contractors in adjacent areas, and subject to DJB's approval in principle. No claims or extensions of time will be allowed for such contract boundary adjustments.

28. The Employer will not take over any excess materials ordered by the Contractor. The Contractor must therefore minimize over-ordering of materials. Procurement shall therefore be undertaken in stages, material requirements being refined and finalized as the project proceeds. Where small quantities of materials are envisaged in BOQ, their procurement shall not be implemented until quantities have been confirmed from site investigations and DMA design work, etc. At the start of the contract, the Contractor shall submit to the Engineer for approval details of his proposed staged procurement strategy, including a mitigation strategy for materials that have long lead-in times or manufacturing/delivery periods. For his initial procurement, the Contractor may propose to procure up to 30% of the quantities in BOQ for items requiring significant quantities to be procured (for example DMA meters, major pipe items, etc.). Approval of his strategy by the Engineer shall not relieve the Contractor of his responsibility to minimize the over-ordering of materials and the ultimate disposal of surplus materials, the costs of which are deemed to be included in the contract rates.
29. The terms of payment for the BOQ items are included in Schedule 3: Contractor's Payment section of Section 8, Conditions of Contract, Vol 1.
30. Items left blank shall be deemed to have been included in other items. The TOTAL for each BOQ and the TOTAL of the Summary shall be deemed to be the total price for executing the Works in complete accordance with the Contract, whether or not each individual item has been priced.
31. 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 Employer's Representative in accordance with the Conditions of Contract. It will be used by the Employer's Representative for nominated specialist 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 towards fees / deposits for permissions for work or for relocation of utilities above or underground that conflict with the existing or permanent line or level of the Works, procurement of satellite imagery, organising of workshops, Independent Auditor, DAB or for other miscellaneous works. The use of the Provisional Sum will also be for independent sampling and laboratory testing, as directed by the Employer's Representative, replacement or compensation for plants and trees removed due to the Work requirement as directed by the Employer's Representative.
32. Operation Service costs (Total of Bill 3) which include operation, maintenance and management of entire system, shall not be less than 30% of design build costs (Bill 1 & 2). If bidder's evaluated bid price for Operation Service Cost is less than the cost proposed above, Operation Service Costs will be increased and design build costs will be accordingly reduced to keep the evaluated amount of entire scope of services same. Adjustment for such amount shall be done by the Employer in consultation with the successful bidder before award of contract.
33. The unit for payment of Operation Services should be as follows:
  - 33.1. **For the period between Initial Taking Over Date and Final Taking Over Date:** Based on monthly fee quoted by the Bidder. In case of Sectional Final Taking Over after commissioning DMA wise the monthly fee will be proportionately reduced based upon the volume of water catering to the particular DMAs which are commissioned with respect to the total estimated supply to the project area at the end Design Build Period (48 months from commencement) as per Section 6: Employers Requirement.
  - 33.2. **For the period between Final Taking Over Date to Contract Completion:** Based upon the MLD of water supplied to the service area measured at the inlet to all the 4 UGR's within the project area. In case of Sectional Final Taking Over of the commissioned DMA's the payment for Operations Services will be done based upon the volume of water supplied to the individual DMA's. Once all the DMA's are commissioned at the end of the Design Build Period the payment will be made as per the MLD of water supply at the 4 UGR's with the guaranteed minimum payment towards the guaranteed estimated year wise water supply quantity as per Section 6: Employers Requirements.

---

The payment for operation services will be as per the provisions of Schedule 3 – Contractors Payment and achievement of Performance Target stipulated as per Schedule 5 of Conditions of Contract, Section 8, Vol 1.

34. The Contractor has to ensure availability of minimum manpower during the Operation Services period as stipulated under Clause No 6.5, Personnel Requirement, Section 6, Employers Requirement. The Contractor need to submit details of manpower deployed on monthly basis as a part of their Operating Performance Report (OPR). Penalty will be levied at the rate of 10% of the annual O&M fee per month (maximum penalty 100% of annual O&M fee) in case the Contractor is unable to demonstrate availability of the following manpower.
35. The Asset Replacement Fund as indicated in Bill 4 includes the assets to be replaced during the Operation Services period as per Clause No 6.1.15, Operation and Maintenance, Section 6, Employers Requirement, Volume 1 and as per the provision of the Conditions of Contract Clause No 14.18.
36. The payment for Public Outreach Component during the design build contract will be made on monthly basis based upon the deployment of resources as per the manning schedule of Public Outreach provided in Section 6: Employers Requirement and the payment breakup will be as indicated in Schedule 3 – Contractor's Payment under Section 8. The price quoted by the Contractor for this component should include cost of all workshops, peptalks, street shows, campaigns under Public Outreach as a part of Employers Requirements. In case of non compliance of the minimum manpower deployment of public outreach penalty will be imposed at the rate of 1% of the annual budget of public outreach / day from the monthly payments (including all bills) due to the contractor with the limit of deduction can be 100% of the public outreach budget for that year.
37. The Daywork Schedule is included to cater for the probability of unforeseen work, outside the items included in the Bill of Quantities. The description of daywork schedule are as below:

#### General

- (a) Work shall not be executed on a Daywork basis except by written order of the Engineer. Bidders shall enter basic rates for Daywork items in the Schedules, which rates shall apply to any quantity of Daywork ordered by the Engineer. Nominal quantities have been indicated against each item of Daywork, and the extended total for Daywork shall be carried forward as a Provisional Sum to the Summary Total Bid Amount. Unless otherwise adjusted, payments for Daywork shall be subject to price adjustment in accordance with the provisions in the Conditions of Contract.

#### Daywork Labor

- (b) In calculating payments due to the Contractor for the execution of Daywork, the hours for labor will be reckoned from the time of arrival of the labor at the job site to execute the particular item of Daywork to the time of return to the original place of departure, but excluding meal breaks and rest periods. Only the time of classes of labor directly doing work ordered by the Engineer and for which they are competent to perform will be measured. The time of gangers (charge hands) actually doing work with the gangs will also be measured but not the time of foremen or other supervisory personnel.
- (c) The Contractor shall be entitled to payment in respect of the total time that labor is employed on Daywork, calculated at the basis rates entered by him in the Schedule of Daywork Rates: 1. Labor. The rates for labor shall be deemed to cover all costs to the Contractor including (but not limited to) the amount of wages paid to such labor, transportation time, overtime, subsistence allowances, and any sums paid to or on behalf of such labor for social benefits in accordance with (Country of Borrower) law, as well as Contractor's profit; overheads; superintendence; liabilities and insurance and allowance to labor; timekeeping and clerical and office work; the use of consumable stores, water, lighting, and power; the use and repair of stagings, scaffolding workshops, and stores portable power tools; manual plant and tools; supervision by the Contractor's staff, foremen, and other supervisory personnel; and charges incidental to the foregoing. The rates shall be stated in the local currency, but payments will be made in the following currency proportions:



- foreign:            percent    *[The bidder shall state the percentage in a common foreign currency equivalent required for payment and the exchange rates and official sources used]*
- local:            percent    *[To be stated by bidder]*

#### .Daywork Materials

- (d) The Contractor shall be entitled to payment in respect of materials used for Daywork (except for materials for which the cost is included in the percentage addition to labor costs as detailed heretofore), at the rates entered by him in the Schedule of Daywork Rates: 2. Materials and shall be deemed to include overhead charges and profit as follows;
- the rates for materials shall be calculated on the basis of the invoiced price, freight, insurance, handling expenses, damage, losses, etc., and shall provide for delivery to store for stockpiling at the Site. The rates shall be stated in local currency but payment will be made in the following currency proportions:
    - foreign:            percent    *[The bidder shall state the percentage in a common foreign currency equivalent required for payment and the exchange rates and official sources used]*
    - local:            percent    *[To be stated by bidder]*
  - the cost of hauling materials for use on work ordered to be carried out as Daywork from the store or stockpile on the Site to the place where it is to be used will be paid in accordance with the terms for Labor and Constructional Plant in this Schedule.

#### Daywork Contractor's Equipment

- (e) The Contractor shall be entitled to payments in respect of Contractor's Equipment already on Site and employed on Daywork at the basic rental rates entered by him in the Schedule of Daywork Rates:3. Contractor's Equipment. The said rates shall be deemed to include due and complete allowance for depreciation, interest, indemnity and insurance, repairs, maintenance, supplies, fuel, lubricants, and other consumables, and all overhead profit and administrative costs related to the use of such equipment. The cost of drivers, operators, and assistants will be paid for separately as described under the section on Daywork Labor.
- (f) In calculating the payment due to the Contractor's Equipment employed on Daywork, only the actual number of working hours will be eligible for payment, except that where applicable and agreed with the Engineer, the traveling time from the part of the Site where the Construction Plant was located when ordered by the Engineer to be employed on Daywork and the time for return journey thereto shall be included for payment.
- (g) The basic rental rates for Contractor's Equipment employed on Daywork shall be stated in local currency but payments to the Contractor will be made in currency proportions as follows:
- (i) foreign:            percent    *[The bidder shall state the percentage in a common foreign currency equivalent required for payment and the exchange rates and official sources used]*
  - (ii) local:            percent    *[To be stated by Bidder]*

#### 38. Metric System and Abbreviations

Millilitre	ml
Million Litres per Day	ml/d
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>

39. 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.	Drawing
No. or Nos.	Number or Numbers
PCC	Plain Cement Concrete
RCC	Reinforced Cement Concrete
Rs.	Indian Rupees

40. Bidders to assess & include cost towards general items like survey, Design, Drawings, Documents, SIP Preparation in their overall cost.

Schedule 1: Design Build : Civil Works, Distribution Works, Electro Mechanical Works and Other Services

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax ) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
<b>A</b>	<b>CIVIL WORKS-PIPE WORKS</b>											
<b>1</b>	<b>EARTHWORK</b>											
1.1	Earth work in excavation by mechanical means (Hydraulic Excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.											
1.1.1	All kind of soils	cum	147833.12									
1.2	Excavation work by mechanical means (Hydraulic excavator)/ manual means in foundation trenches or drains (not exceeding 1.5m in 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 disposal of surplus excavated soils as directed, within a lead of 50 m.											
1.2.1	Ordinary Rocks	cum	17392.16									
1.2.2	Hard Rocks (blasting prohibited)	cum	8696.10									
1.3	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth, lead upto 50m and lift upto 1.5m, as directed by Engineer-in-charge.											
1.3.1	All kind of Soil	cum	16871.28									
1.4	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth, lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge.											
1.4.1	Ordinary Rocks	cum	1984.86									
1.4.2	Hard Rocks (blasting prohibited)	cum	992.43									
1.5	Extra for every additional lift of 1.5 mtr or part thereof in excavation/banking excavated or stacked materials											
1.5.1	All kind of soils	cum	5122.27									
1.5.2	Ordinary/ hard rocks	cum	903.82									
1.6.1	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth: consolidating each deposited layer by ramming and watering, lead up to 50m and lift upto 1.5m.	cum	193869.41									
1.6.2	Supplying and filling in plinth with standard sand under floors, including watering, ramming, consolidating and dressing complete.	cum	869.61									
1.7	Disposal of moorum/building rubbish/malba/similar unserviceable, dismantled or waste material by mechanical transport including loading, transporting, unloading to approved municipal dumping ground for lead upto 10 Km for all lifts, complete as per direction of Engineer-in-charge.	cum	13136.01									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
<b>2</b>	<b>CONCRETE WORK</b>											
2.1	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - All work upto plinth level											
2.1.1	1:2:4 (1 Cement : 2 coarse sand (Zone III): 4 graded stone aggregate 20 mm nominal size)	cum	665.35									
<b>3</b>	<b>REINFORCED CEMENT CONCRETE WORK</b>											
3.1	Centring and shuttering including strutting, propping etc. and removal of form for all heights:											
3.1.1	Foundations, footings, bases of columns etc. for mass concrete.	sqm	1915.98									
3.1.2	Wall (any thickness) including attached pilasters, buttresses, plinth and string courses etc.	sqm	20856.03									
3.2	Steel Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete											
3.2.1	Thermo-Mechanically Treated bars of grade Fe-500D or more.	kg	287436.46									
3.3	Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixture for all leads, having continuous agitated mixture, manufactured as per mix design of specified grade for reinforced cement concrete work, including pumping of R.M.C from transit mixture to site of laying, excluding the cost of centering, shuttering finishing and reinforcement, including cost of admixtures in recommended proportions as per IS:9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer-in-charge. All works upto plinth level. (Note: Cement content considered in this item is @ 330 kg/cum Excess /less cement used as per design mix)	cum	3351.17									
3.4	Providing, hoisting and fixing upto floor five level precast reinforced cement concrete in small lintels not exceeding 1.5 m clear span upto floor five level, including the cost of required centring, shuttering but, excluding the cost of reinforcement, with 1:1.5:3 (1 cement: 1.5 coarse sand (Zone III): 3 Graded stone aggregate 20 mm nominal size).	cum	475.64									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
4	<b>Misc. Work</b>											
4.1	Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS : 10910 on 12mm dia steel bar conforming to IS : 1786 having minimum cross section as 23 mmx25mm and over all minimum length 263 mm and width as 165mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement: 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.	each	3337.00									
4.2	Dismantling of flexible pavement (bituminous courses) by mechanical means and disposal of dismantled material upto a lead of 1 KM, as per direction of Engineer-in-charge.	cum	3036.29									
4.3	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer in charge.											
4.3.1	Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	cum	10199.31									
5	<b>Piping Work</b>											
5.2	Disinfecting C.I./D.I water mains by flushing with water containing bleaching powder @ 0.5 gms per litre of water and cleaning the same with fresh water, operation to be repeated three times including getting the sample of water from the disinfected main tested in the municipal laboratory.											
5.2.1	100 mm diameter	100mtr	234226									
5.2.2	150mm diameter	100mtr	23480									
5.2.3	200 mm diameter	100mtr	9143.00									
5.2.4	250 mm diameter	100mtr	5702									
5.2.5	300 mm diameter	100mtr	3626									
5.2.6	350 mm diameter	100mtr	2934									
5.2.7	400 mm diameter	100mtr	1967									
5.2.8	450mm diameter	100mtr	0									
5.2.9	500mm diameter	100mtr	4252.00									
5.2.10	600mm diameter	100mtr	914									
5.2.11	700mm diameter	m	1461									
5.2.12	800mm diameter	m	238									
5.3	Carriage of materials by Mechanical transport including loading, unloading and stacking for 3km (average) R.C.C pipe, steel cylinder, R.C. pipes, S.C.I. pipes, C.I. pipes and unreinforced cement pipes.											
5.3.1	For 100mm dia. Pipe	100m	234226									
5.3.2	For 150mm dia pipe	100m	23480									
5.3.3	For 200mm dia pipe	100m	9143									
5.3.4	For 250mm dia pipe	100m	5702									
5.3.5	For 300mm dia pipe	100m	3626									
5.3.6	For 350mm dia pipe	100m	2934.00									
5.3.7	For 400mm dia pipe	100m	1967									
5.3.8	For 450mm & 500 mm dia pipe	100m	1548.00									
5.3.9	For 600, 700, 750 & 800 mm dia pipe	100m	403									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
5.4	Providing/Supplying & Installation at site ISI Mark Ductile Iron motorised/electrically actuated Sluice valves of rating PN 1.0 with EPDM rubber gaskets, rubber sheet and MS nuts & bolts as per requirements, field testing and commissioning complete as per specifications, including all cost of materials, providing flange joints two number, labour required, transportation up to site, loading, unloading & stacking etc. complete as per IS 14846 specifications or as directed by Engineer-In-Charge. All valves shall be alongwith dismantling joints.											
5.4.1	200mm dia.	each	65									
5.5	Providing/Supplying & Installation at site ISI Mark Ductile Iron manually operated Sluice valves of rating PN 1.0 with EPDM rubber gaskets, rubber sheet and MS nuts & bolts as per requirements, field testing and commissioning complete as per specifications, including all cost of materials, providing flange joints two number, labour required, transportation up to site, loading, unloading & stacking etc. complete as per IS 14846 specifications or as directed by Engineer-In-Charge. All valves shall be alongwith dismantling joints.											
5.5.1	100mm dia.	each	585									
5.5.2	150mm dia.	each	130									
5.6	Providing/Supplying & Installation at site ISI Mark Ductile Iron manually operated Scour valves of rating PN 1.0 with EPDM rubber gaskets, rubber sheet and MS nuts & bolts as per requirements, field testing and commissioning complete as per specifications, including all cost of materials, providing flange joints two number, labour required, transportation up to site, loading, unloading & stacking etc. complete as per IS 14846 specifications or as directed by Engineer-In-Charge. All valves shall be alongwith dismantling joints.											
5.6.1	100MMDIA.	each	67									
	Providing/Supplying & Installation at site ISI Mark Ductile Iron motorised/electrically actuated modulating duty Butterfly Control Valves of rating PN 1.0 with EPDM rubber gaskets, rubber sheet and MS nuts & bolts as per requirements, field testing and commissioning complete as per specifications, including all cost of materials, providing flange joints two number, labour required, transportation up to site, loading, unloading & stacking etc. complete as per latest IS code and specifications or as directed by Engineer-In-Charge.											
	150MMDIA.	each	3.00									
	200MMDIA.	each	18.00									
	250MMDIA.	each	33.00									
	300MMDIA.	each	11.00									
	400MMDIA.	each	1.00									
	500MMDIA.	each	1.00									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
	Providing and laying S&S Centrifugally Cast Spun) / Ductile Iron Pipes conforming to IS : 8329 excluding excise duty component.											
	100 mm dia Ductile Iron Class K-9 pipes	meter	52.00									
	150 mm dia Ductile Iron Class K-9 pipes	meter	301.00									
	200 mm dia Ductile Iron Class K-9 pipes	meter	558.95									
	250 mm dia Ductile Iron Class K-9 pipes	meter	235.50									
	300 mm dia Ductile Iron Class K-9 pipes	meter	661.66									
	350 mm dia Ductile Iron Class K-9 pipes	meter	1609.12									
	400 mm dia Ductile Iron Class K-9 pipes	meter	512.00									
	450 mm dia Ductile Iron Class K-9 pipes	meter	0.00									
	500 mm dia Ductile Iron Class K-9 pipes	meter	2516.00									
	600 mm dia Ductile Iron Class K-9 pipes	meter	328.00									
	700 mm dia Ductile Iron Class K-9 pipes	meter	1461.00									
	800 mm dia Ductile Iron Class K-9 pipes	meter	97.50									
5.1(a)	Providing and laying S&S Centrifugally Cast Spun) / Ductile Iron Pipes conforming to IS : 8329 excluding excise duty component.											
5.1.1(a)	100 mm dia Ductile Iron Class K-7 pipes	meter	234174									
5.1.2(a)	150 mm dia Ductile Iron Class K-7 pipes	meter	23169									
5.1.3(a)	200 mm dia Ductile Iron Class K-7 pipes	meter	537									
5.1.4(a)	250 mm dia Ductile Iron Class K-7 pipes	meter	0									
5.1.5(a)	300 mm dia Ductile Iron Class K-7 pipes	meter	1512									
5.1.6(a)	350 mm dia Ductile Iron Class K-7 pipes	meter	0									
5.1.7(a)	400 mm dia Ductile Iron Class K-7 pipes	meter	0									
5.1(b)	Providing push-on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and the cost of rubber gasket :											
5.1.1(b)	DI 100mm	joint	42582									
5.1.2(b)	DI 150mm	joint	4267									
5.1.3(b)	DI 200mm	joint	199									
5.1.4(b)	DI 250mm	joint	43									
5.1.5(b)	DI 300mm	joint	395									
5.1.6(b)	DI 350mm	joint	293									
5.1.7(b)	DI 400mm	joint	93									
5.1.8(b)	DI 450 mm	joint	0									
5.1.9(b)	DI 500 mm	joint	458									
5.1.10(b)	DI 600 mm	joint	60									
5.1.11(b)	DI 700 mm	joint	265.00									
5.1.12(b)	DI 800 mm	joint	18.00									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
5.1(c)	Providing and laying D.I specials of class K-12 suitable for push-on joints as per IS:9523 excluding excise duty component..											
5.1.1(c)	Upto 600mm dia.	quintal	1278									
5.1.2(c)	Above 600mm dia.	quintal	100									
5.1(d)	Providing and laying D.I specials of class K-12 suitable for mechanical joints as per IS:9523excluding excise duty component..											
5.1.1(d)	Upto 600mm dia.	quintal	319.47									
5.1.2(d)	Above 600mm dia.	quintal	25									
5.6	Providing Mild Steel Pipes fabricated/manufactured out of MS plate of steel grade Fe 410 as per IS 3589:2001 or out of HR coils of same/equivalent grade; coated internally with food grade epoxy and externally/outside with epoxy coating; complete in all respect; with upto date amendments in relevant IS codes and as directed by Engineer In Charge. These rates are excluding excise duty component											
	150 mm nominal dia (clear internal dia) pipes of 4.5 mm thickness (min)	meter	10									
	200 mm nominal dia (clear internal dia) pipes of 5 mm thickness (min)	meter	8047									
	250 mm nominal dia (clear internal dia) pipes of 5 mm thickness (min)	meter	5467									
	300 mm nominal dia (clear internal dia) pipes of 5 mm thickness (min)	meter	1452.34									
	350 mm nominal dia (clear internal dia) pipes of 6 mm thickness (min)	meter	1325									
	400 mm nominal dia (clear internal dia) pipes of 6 mm thickness (min)	meter	1455									
	450 mm nominal dia (clear internal dia) pipes of 6 mm thickness (min)	meter	0									
	500 mm nominal dia (clear internal dia) pipes of 6 mm thickness (min)	meter	1736.00									
	600 mm nominal dia (clear internal dia) pipes of 8 mm thickness (min)	meter	586									
	700 mm nominal dia (clear internal dia) pipes of 8 mm thickness (min)	meter	0									
	800 mm nominal dia (clear internal dia) pipes of 8 mm thickness (min)	meter	140.50									
5.7	Labour for cutting CI/DI pipes with steel saw											
	DI 100mm	each cut	7033.00									
	DI 150mm	each cut	703.00									
	DI 200mm	each cut	73.00									
	DI 250mm	each cut	7.00									
	DI 300mm	each cut	63.85									
	DI 350mm	each cut	49.00									
	DI 400mm	each cut	15.00									
	DI 450 mm	each cut	0.00									
	DI 500 mm	each cut	76.00									
	DI 600 mm	each cut	10.00									
	DI 700 mm	each cut	44.00									
	DI 800 mm	each cut	3.00									



Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
5.8	Welding by Gas or electric plant including transportation of plant at site etc. complete	cm	958321.95									
	Providing Mild Steel Specials fabricated/manufactured out of MS plate of steel grade Fe 410 as per IS 3589:2001 or out of HR coils of same/equivalent grade; coated internally with food grade epoxy and externally/outside with epoxy coating; complete in all respect; with upto date amendments in relevant IS codes and as directed by Engineer In Charge. These rates are excluding excise duty component											
	150 mm nominal dia (clear internal dia) pipes of 4.5 mm thickness (min)	kg	24.97									
	200 mm nominal dia (clear internal dia) specials of 5 mm thickness (min)	kg	6709.88									
	250 mm nominal dia (clear internal dia) specials of 5 mm thickness (min)	kg	7040.79									
	300 mm nominal dia (clear internal dia) specials of 5 mm thickness (min)	kg	7473.98									
	350 mm nominal dia (clear internal dia) specials of 6 mm thickness (min)	kg	9252.31									
	400 mm nominal dia (clear internal dia) specials of 6 mm thickness (min)	kg	8372.08									
	450 mm nominal dia (clear internal dia) specials of 6 mm thickness (min)	kg	12503.38									
	500 mm nominal dia (clear internal dia) specials of 6 mm thickness (min)	kg	7468.74									
	600 mm nominal dia (clear internal dia) specials of 8 mm thickness (min)	kg	5273.62									
	700 mm nominal dia (clear internal dia) specials of 8 mm thickness (min)	kg	1442.70									
	800 mm nominal dia (clear internal dia) specials of 8 mm thickness (min)	kg	1018.03									
6	<b>Trenchless Technology:</b>											
6.1	<b>Auger Boring</b>											
6.1.1	Installation of Product pipe by Auger Boring method in mixed soil type at required depth to correct grade and alignment; complete as per specifications and as directed by the Engineer-In -Charge. (Cost of product pipe, Excavation of Entry and Exit pit, Shoring/strutting, Backfilling, Disposal of surplus Earth, Road Cutting & restoration, Dewatering etc will be paid seperately.											
6.1.1.1	upto 300 mm diameter	mtr	14976.14									
6.1.1.2	300-450 mm diameter	mtr	2779.88									
6.1.1.3	450-600 mm diameter	mtr	2322.00									
6.1.1.4	600 - 900 mm diameter	mtr	140.50									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
	<b>GROUND PENETRATING RADAR SURVEY</b>											
6.1.2	Conducting ground penetrating radar survey in a corridor 4-6 mtr width to detect buried utilities like pipes, cables etc in such corridor. Marking of the detected utilities on the map of corridor with information of location and depth to the top of the various utilities detected work to be conducted using 500 Mhz and 300 Mhz antenna for best possible resolution and penetration.	mtr	20218.52									
7	<b>HOUSE SERVICE CONNECTIONS</b>											
7.1	<b>SERVICE CONNECTION - FROM DI PIPE</b>											
7.1.1	Providing house service connection from old to new water distribution main up to water meter which includes providing and fixing of DI strap saddle having outer body of ductile iron, seal/gasket of EPDM, strap with integrated bolt of stainless steel, nut and washer of carbon steel etc., having total minimum weight of 1.5 kg, hex nipple of 8mm bore size SS 304, female threaded adopter with one sided compression, GI pipe of Class 'B' conforming to relevant IS code of 15mm nominal bore with all fittings up to 1.5m length for above ground and MDPE pipe of minimum PE 80 grade, PN 16, 20mm OD up to 4 meter length with all fittings i/c compression elbow in underground portion., including tapping and boring in new water distribution main; complete in all respect as per the directions of Engineer-In-Charge.	each	96162.00									
7.2	<b>Providing and fixing GI pipes complete with GI fittings including trenching and refilling etc.</b>											
	<b>External Work</b>											
7.2.1	15 mm dia nominal bore	mtr	16262.00									
7.2.2	20 mm dia nominal bore	mtr	1039.00									
7.2.3	25 mm dia nominal bore	mtr	994.00									
7.2.4	40 mm dia nominal bore	mtr	19230.00									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
7.3	<b>CONSUMER METER TESTING</b>											
7.3.1	Testing of existing working consumer meter for accuracy check in DJB approved lab. Including removing and re-installation of tested meters as per detailed specification. (For 5 years period)											
7.3.1.1	15 mm	each.	88452									
7.3.1.2	20 mm	each.	4811									
7.3.1.3	25 mm	each.	2886									
7.4	Carrying out volumetric test of water meter installed by contractor at customer location bypassing water through water meter & the same measurement in a container(20 ltrs) having measuring scale											
7.4.1	15mm	each	884.00									
7.4.2	20mm	each	53.00									
7.4.3	25mm	each	20.00									
7.4.4	Designing, providing & constructing test benches for testing 10 Nos 15 mm to 50 mm dia meters including all necessary accessories like pumps, pressure gauges, piping, measuring tank, valves etc	Nos.	1									
	Providing and erecting 1.6m high corrugated G. I. Sheet barricading supported on safeda ballies 100mm dia. 2m high placed at 2.5m centre to centre; corrugated G. I. sheets fixed with nails of required length and dia to safeda ballies i/c excavating holes of size 0.3 x 0.3 x 0.4 m, getting out the excavated soil and then returning the soil i/c consolidating by ramming and watering etc. all complete i/c disposal of surplus excavated earth within a lead of 50m and painting on full surface of C. G. I sheet (on one side) with bright paint of red & white colour in vertical stripes 0.3m wide alternately as directed by Engineer-in-charge. (The barricading dismantled on completion of the work shall remain the property of contractor.	sqm	26470.40									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
<b>1</b>	<b>CONSUMER METER (Including brass stop cock)</b>											
1.1	Providing and installing Class B consumer water meter on unmetered connections or removing existing defunct meter and installing new Class B consumer water meter as per IS 779-1994 or ISO 4064 including providing and fixing brass stop cock. The water meter shall be inferential type, multi jet, magnetically coupled, having dry dial, Brass / Bronze body, Class 'B' conforming to IS-779: 1994 with up to date amendments or ISO 4064:1993 standard with ISI/EEC certification mark, shall be with protection class of IP-68, complete with connecting pieces and all test certificates, including replacement of all defective fittings and submitting the details of new and old meter readings and new meter location to DJB on regular basis.											
1.1.1	15 mm	Nos.	19924									
1.1.2	20 mm	Nos.	1083									
1.1.3	25 mm	Nos.	650									
1.2	Providing, Installing and Giving satisfactory field testing of domestic Radio Frequency based AMR Class B consumer water meter on unmetered connections or removing existing defunct meter and installing new Class B consumer water meter as per IS 779-1994 or ISO 4064 including providing and fixing brass stop cock. The water meter shall be inferential type, multi jet, magnetically coupled, having dry dial, Brass / Bronze body, Class 'B' conforming to IS-779: 1994 with up to date amendments or ISO 4064:1993 standard with ISI/EEC certification mark, shall be with protection class of IP-68, complete with connecting pieces and all test certificates, including replacement of all defective fittings and submitting the details of new and old meter readings and new meter location to DJB on regular basis. The rate shall include the cost of Handheld for retrieving the data and Software required for the server. The meters shall have a minimum warranty of 5 years.											
1.2.1	15 mm	Nos.	59771									
1.2.2	20 mm	Nos.	3248									
1.2.3	25 mm	Nos.	1949									
	<b>Bill of Quantities - Miscellaneous</b>											
<b>1</b>	<b>EARTHWORK</b>											
1.10	Clearing of jungle including uprooting of rank vegetation, grass, brush wood and saplings of girth upto 30cm measured at a height of 1m above ground level and removal of rubbish of the area cleared of 50m outside the periphery of the cleared	sqm	5.00									
1.11	Open timbering in trenches including strutting and shoring complete. (measurement s to be taken of the face area timbered):											
1.11.1	Depth not exceeding 1.50mtr	sqm	150.00									
1.11.2	Depth exceeding 1.50mtr but not exceeding 3.0mtr	sqm	150.00									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
<b>2</b>	<b>CONCRETE WORK</b>											
2.1.2	1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size)	cum	4.00									
<b>4</b>	<b>Brick Work/Stone Work</b>											
4.1	Brick work with F.P.S. bricks of class designation 75 in foundation and plinth in:											
4.1.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	20.00									
<b>5</b>	<b>Finishing Work</b>											
5.1	12mm thick cement plaster of mix:											
5.1.1	1:4 (1 cement : 4 coarse sand)	sqm	50.00									
5.2	15mm thick cement plaster of mix:											
5.2.1	1:4 (1 cement : 4 coarse sand)	sqm	50.00									
5.3	Neat cement punning	sqm	50.00									
<b>7</b>	<b>Misc. Work</b>											
7.1	Providing and erecting 1.6m high corrugated G. I. Sheet barricading supported on safeda ballies 100mm dia. 2m high placed at 2.5m centre to centre; corrugated G. I. sheets fixed with nails of required length and dia to safeda ballies i/c excavating holes of size 0.3 x 0.3 x 0.4 m, getting out the excavated soil and then returning the soil i/c consolidating by ramming and watering etc. all complete i/c disposal of surplus excavated earth within a lead of 50m and painting on full surface of C. G. I sheet (on one side) with bright paint of red & white colour in vertical stripes 0.3m wide alternately as directed by Engineer-in-charge. (The barricading dismantled on completion of the work shall remain the property of contractor)	sqm	115011.60									
7.2	Demolishing brick work by manually/mechanical means including stacking of serviceable material and disposal of unserviceable material within 50mtr lead as per direction of Engineer-in-Charge											
7.2.1	In cement mortar	cum(L.S)	10									
7.3	Demolishing stone rubble masonry including stacking of serviceable material and disposal of unserviceable material within 50mtr lead as per direction of Engineer-in-Charge											
7.3.1	In cement mortar (Lump sum)	cum	10									
7.4	Demolishing R.C.C. work, manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge.	cum(L.S)	5									
7.5	Hire charges of pump set of capacity 4000 liter/hour	hours	12000									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
	<b>MUKHERJEE NAGAR UGR</b>											
	<b>CARRIAGE OF MATERIALS</b>											
1	Carriage of material By Mechanical Transport including loading, unloading and stacking :-											
	Earth - lead of 3 Km.	Cum	2533.39									
	Earth - lead of 5 Km.	Cum	1809.57									
	Beyond 5 km and upto 10 km	Cum per Km	2533.39									
	Excavated Rock - lead of 3 Km.	cum	698.17									
	Excavated Rock- lead of 5 Km.	cum	523.63									
	Excavated Rock-Beyond 5 km and upto 10 km	cum	523.63									
2	Carriage of Materials by Manual labour including loading, unloading and stacking for lead less than 0.5 Km.											
	<b>EARTHWORK</b>											
	Every additional lead of 50m or part thereof beyond 1st 50m up to 9 such additional leads.	Cum	361.91									
3	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed											
	All kinds of soil	Cum	9890.69									
4	Earth work in excavation by mechanical means (Hydraulic excavator) /manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50 m and lift upto 1.5 m, disposed earth to be levelled and neatly dressed.											
	Ordinary rock	cum	1163.61									
	Hard rock (blasting prohibited)	cum	581.81									
5	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.											
	All kinds of soil	Cum	612.00									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
6	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 :											
	All kinds of soil											
a)	Pipes, cables etc. not exceeding 80mm dia	Mts	100.00									
b)	Pipes, cables etc exceeding 80mm dia but not exceeding 300mm dia	Mts	10.00									
7	Extra rate for quantities of works, executed											
	In or under water and / or liquid mud, including pumping out water as required (in all kind of Soil) ,Rate is 20%*157.50=31.5	Mts depth	1.00									
8	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	Cum	3264.43									
9	Extra for every additional lift of 1.5 m or part thereof in excavation /banking excavated or stacked materials.											
	All kinds of soil	Cum	12128.62									
10	Supplying and filling in plinth with Jamuna sand under floors including watering, ramming, consolidating and dressing complete	Cum	42.63									
	<b>CONCRETE WORK</b>											
11	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :											
a)	1 : 2 : 4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size)	Cum	10.00									
b)	1 : 3 : 6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size)	Cum	190.80									
12	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor, etc., up to floor five level, excluding the cost of centering, shuttering and finishing :											
	1 : 2 : 4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size)	Cum	10.00									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
13	Providing and fixing up to floor five level precast cement concrete string or lacing courses, coping, bed plates, anchor blocks, plain window sills, shelves, louvers, steps, staircases, etc. including hosting and setting in position with cement mortar 1:3 (1 cement : 3 coares sand), cost of required centering, shuttering fnishing smooth with 6mm thick cement plaster 1:3 ( 1 cement: 3 fine sand) on exposed surface complete.											
	1 : 1.5 : 3 (1 cement : 1.5 coares sand (zone III) : 3 graded stone aggregate 20mm nominal size)	Cum	10.00									
14	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 coares sand including the cost of centring, shuttering and finishing smooth with 6mm thick cement plaster 1:3 (1 cement :3 fine sand) on exposed surface complete.											
	1 : 1.5 : 3 (1 cement : 1.5 coares sand (zone III) : 3 graded stone aggregate 20mm nominal size)	Cum	10.00									
15	Providing and laying damp-proof coarse 40mm thick with cement concrete 1 : 2 : 4 ( 1 Cement : 2 Coarse Sand : 4 Graded stone aggregate 12.5mm nominal size )	Sqm	10.00									
16	Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification.	Per 50 kg Cement	10.00									
17	Applying a coat of residual petroleum bitumen of grade of VG-10 of approved quality using 1.7 kg per square metre on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	Sqm	10.00									
18	Extra for laying concrete in or under water and / or liquid mud including the cost of pumping or bailing out water and removing slush etc. completely.	Cum per m depth	10.00									
	<b>REINFORCED CEMENT CONCRETE</b>											
19	Reinforced cement concrete work in Vertical and horizontal fins individually or forming box louvers, facias and eaves boards upto floor five level excluding the cost of centring, shuttering, finishing and reinforcement with 1 :1.5:3 (1 Cement : 1.5 coarse sand : 3 grtaded stone aggregate 20mm nominal size)		10.00									



Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax ) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
	<b>FORM WORK</b>											
20	Centring and shuttering including strutting, propping etc., and removal of form for :											
a)	Foundation, footings, bases of column etc., for mass concrete.	Sqm	234.35									
b)	Walls ( any thickness ) including attach pilasters, buttersses, plinth and string courses etc.	Sqm	3108.20									
c)	Suspended floors, roofs, landings, balconies and access platform	Sqm	1909.24									
d)	Lintels, beams, plinth beams, girders, bressumers and cantilevers	Sqm	1361.77									
e)	Columns, pillars, piers, abutments, posts and struts	Sqm	755.29									
f)	Stairs ( excluding landings ) except spiral staircases.	Sqm	67.19									
	Extra for shuttering in Circular work ( 20 % of respective centring and shuttering items)											
	Columns, pillars, piers, abutments, posts and struts	Sqm	263.89									
g)	Small lintels not exceeding 1.5m clear span, moulding as in cornices, windows sills, string courses, bands, copplings, bed plates, anchor blocks and the like	sq.m	7.20									
h)	Whether shade, chajjas, corbels etc., including edges	Sqm	15.00									
21	Extra for additional height in centering, shuttering where ever required with adequate bracing, propping etc., including cost of de-shuttering and decentering at all levels, over a height of 3.5 m, for every additional height of 1 metre or part thereof (Plan area to be measured).											
	Suspended floors, roofs, landing, beams and balconies (Plan area to be measured)	Sqm	5145.00									
22	Providing and fixing tie bolt, spring coil and plastic cone in wall shuttering complete as per the direction of Engineer-in-charge											
	20 mm dia, 600 mm long	Sets	1530.00									
23	Providing, hoisting and fixing up to floor five level precast reinforced cement concrete in small lintels not exceeding 1.5 m clear span up to floor five level, including the cost of required centering, shuttering but excluding the cost of reinforcement, with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).	Cum	5.00									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax ) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
24	Steel Reinforcement for RCC work including straightening, cutting, bending, placing in position and binding all complete											
a)	Cold twisted bars/ Hot rolled deformed bars	Kgs	437503.60									
b)	Hard drawn steel wire fabric	Kgs	80.00									
25	Add for plaster drip course/ groove in plastered surface or moulding to R.C.C. projections.	Mts	50.00									
26	Extra for laying reinforced cement concrete in or under water and / or liquid mud including cost of pumping or	Cum	10.00									
27	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge											
	All works upto plinth level	Cum	1412.63									
	All works above plinth level upto floor V level	Cum	1334.87									
28	Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable /recoverable separately.											
	Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum)	Cum	2492.69									
29	Add for using extra cement in the items of design mix over and above the specified cement content therein.	quintal	10.00									
30	Providing and Placing in position suitable PVC water stops conforming to IS:12200 for construction/ expansion joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc. complete :											
a)	Serrated with central bulb (225 mm wide, 8 - 11 mm thick)	Mts	1591.00									
b)	Kickers (320 mm wide, 5 mm thick)	Mts	276.30									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
31	Providing and filling in position, blown bitumen in expansion joints	per cm depth per cm width per 100m	10.00									
32	Providing and filling in position bitumen mix filler of proportion 80 kg of hot bitumen, 1kg of cement and 0.25 cubicmetre of coarse sand for expansion joints	per cm depth per cm width per 100m	25.00									
33	Providing and fixing in position 12mm thick bitumen impregnated fibre board conforming to IS : 1838 including cost of primer, sealing compound in expansion joints	per cm depth per 100m	50.00									
34	Providing and fixing sheet covering over expansion joints with iron screws as per design to match the colour / shade of wall treatment											
	Non Asbestos fibre cement board 6mm thick as per IS: 14862											
	200mm wide	mts	15.00									
	Aluminium fluted strips 3.15 mm thick.											
	200 mm wide	mts	15.00									
	<b>BRICKWORK</b>											
35	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:											
	Cement mortar 1:6 (1 Cement : 6 coarse sand)	Cum	10.00									
36	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in:											
	Cement mortar 1:6 (1 Cement : 6 coarse sand)	Cum	250.25									
37	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundations and plinth in											
	Cement mortar 1:4 (1 Cement : 4 Coarse sand)	Sqm	10.00									
38	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level.											
	Cement mortar 1:4 (1 Cement : 4 Coarse sand)	Sqm	120.00									
39	Extra for providing and placing in position 2 Nos. 6mm dia M.S. bars at every third course of half brick masonry (with F.P.S. bricks)	Sqm	3.00									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
	<b>STONE WORK</b>											
40	Random rubble masonry with hard stone in foundation and plinth including leveling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 grade stone aggregate 20mm nominal size) at plinth level with :											
	Cement mortar 1 : 6 (1 cement : 6 coarse sand)	Cum	10.00									
41	Extra for random rubble masonry with hard stone in :											
	Square or Rectangular pillars	Cum	10.00									
42	Pointing on stone work with cement mortar 1 : 3 (1 cement : 3 fine sand)											
	Raised and cut pointing	Sqm	10.00									
	<b>DOORS &amp; FITTINGS</b>											
43	Providing and fixing ISI marked flush door shutters conforming to IS: 2202 (Part I), non decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters.											
	35mm thick including ISI marked stainless steel butt hinges with necessary screws.	Sqm	27.72									
44	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of flush door shutters (over all area of door shutter to be measured).	Sqm	27.72									
45	Extra for providing vision panel not exceeding 0.1 sqm in all types of flush doors ( Cost of Glass excluded). (Overall Area of door shutter to be measured) (9.24.1)											
	Rectangular or square	Sqm	27.72									
46	Providing and fixing ISI marked oxidised M.S. sliding door bolts with nuts and screws etc. complete :											
	250 x 16 mm	Each	5.00									
47	Providing and fixing ISI marked oxidised M.S. tower bolt black finish, (Barrel type) with necessary screws etc. complete :											
	250 x 10 mm (9.63.1)	Each	10.00									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
48	Providing and fixing ISI marked oxidised M.S door latches conforming to IS: 5930 with screws etc., complete:											
	250 x 20 x 6 mm	Each	10.00									
49	Providing and fixing ISI marked oxidised M.S handles conforming to IS: 4992 with necessary screws etc. complete:											
	125 mm	Each	10.00									
50	Providing and fixing oxidised M.S. casement stays (straight peg type) with necessary screws etc complete :											
	300 mm weighing not less than 200 gms	Each	100.00									
51	Providing and fixing factory made P.V.C door frame of size 50 x 47 mm with a wall thickness of 5mm, made out of extruded 5mm rigid PVC foam sheet mitred at corners and joined with 2 Nos. of 150mm long brackets of 15 x 15mm M.S. square tube, the vertical door profiles to be reinforced with 19 x 19mm M.S square tube of 19 gauge, EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using M.S. screws of 65/100mm size complete as per manufacturers specification and direction of Engineer-in-Charge. (9.119)	Metre	5.67									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
52	Providing and fixing factory made panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19 mm x 19 mm for styles and 15x15 mm for top & bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture .M.S. frame covered with 5 mm thick heat moulded PVC 'C' channel of size 30 mm thickness, 70 mm width out of which 50 mm shall be flat and 20 mm shall be tapered in 45 degree angle on both side forming styles and 5 mm thick, 95 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered in 45 degree on the inner side to form top and bottom rail and 115 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered on both sides to form lock rail. Top, bottom and lock rails shall be provided both side of the panel. 10 mm (5 mm x 2 ) thick, 20 mm wide cross PVC sheet be provided as gap insert for top rail & bottom rail, paneling of 5 mm thick both side PVC sheet to be fitted in the M.S. frame welded/ sealed to the styles & rails with 7 mm (5 mm+2 mm) thick x 15 mm wide PVC sheet beading on inner side, and joined together with solvent cement adhesive. An additional 5 mm thick PVC strip of 20 mm width is to be stuck on the interior side of the 'C' Channel using PVC solvent adhesive etc. complete as per direction of Engineer-in-charge, manufacturer's specification & drawing. joined together with solvent cement adhesive. An additional 5 mm thick PVC strip of 20 mm width is to be stuck on the interior side of the 'C' Channel using PVC solvent adhesive etc. complete as per direction of Engineer-in-Charge, Manufacturer's specification & drawing (For W.C. and bathroom shutters)											
	30 mm thick plain PVC door shutters	Sqm	1.89									
53	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :											
	For fixed portion											

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
a)	Anodized aluminium (anodized transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15 )	Kgs	30									
	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)											
	Anodized aluminium ( anodized transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15 )	Kgs	30									
54	Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS : 12823, Grade I Type II, in panelling fixed in aluminium doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc., complete as per architectural drawings and directions of engineer-in-charge.											
	Pre-laminated particle board with decorative lamination on both sides	Sqm	10.00									
55	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):											
	With float glass panes of 5.50 mm thickness	Sqm	5.00									
56	Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315, having brand logo embossed on the body / plate with double spring mechanism and door weight upto 125 kg, for doors, including cost of cutting floors, embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge.											
	With brass cover plate minimum 1.25 mm thickness	Each	2.00									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
	<b>FLOORING</b>											
57	Cement Concrete flooring 1:2:4 (1 Cement : 2 Coarse sand : 4 graded stone aggregate) finished with a floating coat of neat Cement including cement slurry, but excluding the cost nosing of steps etc. complete											
	40 mm thick with 20 mm nominal size stone aggregate	Sqm	2616.12									
58	52 mm thick cement concrete flooring with concrete hardener topping under layer of 40 mm thick cement concrete 1 : 2 : 4 (1 Cement : 2 Coarse sand : 4 Graded stone aggregate 20 mm nominal size) and top layer of 12 mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix: 2 graded stone aggregate 6mm nominal size) by volume with which hardening compound is mixed @ 2 litre per 50 Kg of cement or as per manufacturers specifications. this includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.	Sqm	293.13									
59	Cement plaster skirting up to 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	31.74									
60	Extra for making chequers of approved pattern on cement concrete floors, steps, landing, pavements etc	Sqm	276.93									
61	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete with Base of cement mortar 1:4 (1 cement : 4 coarse sand) :											
	25 mm thick	Sqm	23.00									
62	Kota Stone slabs 20 mm thick in rises of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1 : 3 ( 1 cement : 3 coarse sand ) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	Sqm	8.00									



Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
63	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS:15622 (thickness to be specified by the manufacture ) of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge in skirting, risers of steps and dados over 12 mm thick bed of Cement Mortar 1:3 (1 cement : 3 Coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	Sqm	163.50									
64	Precast terrazzo tiles 22 mm thick with graded marble chips of size upto 12 mm, laid in floors, and landings, jointed with neat cement slurry mixed with pigment to match the shade of the tiles, including rubbing and polishing complete, on 20 mm thick bed of cement mortar 1:4 (1 cement:4 coarse sand) :											
	Light shade pigment using white cement	Sqm	6.21									
	<b>ROOFING</b>											
65	Painting top roofs with bitumen of approved quality at 17 kg per 10 sqm impregnated with a coat of coarse sand at 60 cudm per 10 sqm including cleaning the slab surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil complete :											
	With residual type petroleum bitumen of grade VG - 10	Sqm	3388.62									
66	10 cm thick (average) mud phaska of damped brick earth on roofs laid to slope consolidated and plastered with 25 mm thick mud mortar mixed with bhusa @ 35 kg per cum of earth and gobri leaping with mix 1:1 (1 clay : 1 cow dung) and covered with flat tile bricks, grouted with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2% of integral water proofing compound by weight of cement and finished neat :											
	With common burnt clay F.P.S.(non modular) brick tile of class designation 10	Sqm	3388.62									
67	Extra for every additional 1 cm thickness of mud phaska	Sqm	10.00									
68	Providing Gola 75 x 75 mm in cement concrete 1 : 2 : 4 (1 Cement : 2 Coarse sand : 4 stone aggregate 10 mm and down gauge) including finishing with Cement mortar 1 : 3 (1 Cement : 3 fine sand) as per standard design :											
	In 75 x 75 mm deep chase	Mts	107.58									
69	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement, rounding the edges and making and finishing the outlet complete.	Each	10.00									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
	<b>RAIN WATER SPOUT AND PIPES.</b>											
70	Providing and fixing 100 mm dia metre and 60 cm long rain water spout in cement mortar 1 : 4 (1 cement : 4 fine sand)											
	Stoneware spout	Each	10.00									
71	Providing and fixing on wall face unplasticised - Rigid PVC rain water pipe conforming to IS: 13592 Type A including jointing with seal ring conforming to IS: 5382 leaving 10mm gap for thermal expansion.											
	Single socketed pipes.											
	110mm diameter	Mrs	35.00									
72	Providing and fixing on wall faced unplasticised PVC moulded fitting / accessories for unplasticised - Rigid											
a)	Single push fit coupler											
	110 mm Single push fit coupler	Each	15.00									
b)	Single Tee with door											
	110 x 110 x 110 mm Single Tee with door	Each	15.00									
c)	Bend 87.5 degree											
	110mm bend	Each	15.00									
d)	Shoe (Plain)											
	110mm shoe	Each	15.00									
73	Providing and fixing unplasticised PVC pipe clips of approved design to unplasticised - PVC rain water pipe by means of 50 x 50 x 50 mm hard wood plugs, screwed with MS screws of required length including cutting brick work and fixing in cement mortar 1:4 (1 cement: 4 coarse sand) and making good the wall etc. complete.											
	110mm	Each	35.00									
74	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15 cm diameter and weighing not less than 440 grams.	Each	10.00									
	<b>FINISHING</b>											
75	12 mm cement plaster of mix : 1:6 (1 Cement : 6 Fine sand)	Sqm	6442.74									
76	15mm cement plaster on the rough side of single or half brick wall of mix : 1:6 (1 Cement : 6 Fine sand)	Sqm	2227.99									
77	12mm Cement plaster finished with a floating coat of neat cement of mix: 1:4 (1 Cement : 4 Fine sand)	Sqm	100.00									
78	6mm Cement plaster of mix : 1:3 (1Cement : 3 Fine sand )	Sqm	530.24									
79	Neat cement punning	Sqm	100.00									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax ) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
80	White washing with lime to give an even shade :											
	New work (3 or more coats)	Sqm	530.24									
81	Distemping with dry distemper of approved brand and manufacture (two or more coats) of required shade on new work, over and including water thinnable priming coat to give an even shade.	Sqm	528.24									
82	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade:-											
	Two or more coats on new work	Sqm	200.00									
83	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface :											
	Water thinnable cement primer	Sqm	859.48									
84	Finishing walls with water proofing cement paint of required shade.											
	New work (Two or more coats applied @ 3.84 kg/10 sqm).	Sqm	859.48									
85	Washed stone grit plaster on exterior walls height upto 10 metre above ground level, in two layers, under layer 12 mm cement plaster 1:4 (1 cement : 4 coarse sand ), furrowing the under layer with scratching tool, applying cement slurry on the under layer @ 2 Kg of cement per square metre, top layer 15 mm cement plaster 1:1/2:2 (1 cement: 1/2 coarse sand : 2 stone chipping 10 mm nominal size), in panels with groove all around as per approved pattern, including scrubbing and washing the top layer with brushes and water to expose the stone chippings ,complete as per specification and direction of Engineer-in- charge (payment for providing grooves shall be made separately).	Sqm	1033.13									
86	Forming groove of uniform size in the top layer of the washed stone grit plaster as per approved pattern using wooden battens, nailed to the under layer including removal of wooden battens, repair to the edges of panels and finishing the groove complete as per specifications and direction of the Engineer-in-charge.											
a)	15 mm wide and 15 mm deep groove	Mts	100.00									
b)	20 mm wide and 15 mm deep groove	Mts	100.00									
87	Making plinth protection 50 mm thick of cement concrete 1 : 3 : 6 (1 Cement : 3 Coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75 mm bed of dry brick ballast 40 mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth.	Sqm	260.00									
88	Providing, precast cement concrete jali 1:2:4 ( 1 cement: 2 coarse aggregate : 4 stone aggregate 6mm nominal size) reinforced with 1.6mm dia mild steel wire including centering and shuttering, roughening and cleaning, fixing and finishing in cement mortar 1:3 (1 cement : 3 fine sand) etc. complete including plastering of the jams , sills and soffits.											
	50 mm thick	Sqm	5.38									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
	<b>STEEL WORK</b>											
89	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	Kgs	5704.84									
90	Providing and fixing 1 mm thick M.S. sheet door with frame of 40 x 40 x 6 mm angle iron and 3 mm M.S. gusset plates at the junction and corners all necessary fittings complete, including applying a priming coat of approved steel primer :											
	Using M.S. angles 40 x 40 x 6 mm for diagonal braces	Sqm	5.00									
91	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.											
	80 x 1.25 mm M.S. laths with 1.25 mm thick top cover	Sqm	32.00									
92	Providing and fixing ball bearing for rolling shutters	Each	2.00									
93	Extra for providing mechanical device chain and crank operation for operating rolling shutters :											
	Exceeding 10.00 sqm and upto 16.80 sqm in the area	Sqm	35.00									
94	Providing and fixing factory made ISI marked steel glazed doors, windows and ventilators, side /top /centre hung, with beading and all members such as F7D, F4B, K11 B and K12 B etc. complete of standard rolled steel sections, joints mitred and flash butt welded and sash bars tenoned and riveted, including providing and fixing of hinges, pivots, including priming coat of approved steel primer, but excluding the cost of other fittings, complete all as per approved design, sectional weight of only steel members shall be measured for payment).											
	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	Kg	49.72									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
95	Providing and fixing T-iron frames for doors, windows and ventilators of mild steel Tee-sections, joints mitred and welded, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer.											
	Fixing with carbon steel galvanised dash fastener of required dia and size (to be paid for separately)	Kgs	677.45									
96	Providing and fixing circular / Hexagonal cast iron or M.S. sheet box for ceiling fan clamp of internal dia 140mm, 73mm height, top lid of 1.5mm thick M.S. sheet with its top surface hacked for proper bonding top lid shall be screwed into the cast iron / M.S. sheet box by means of 3.3mm dia. round headed screws, one lock at the corners. Clamps shall be made of 12mm dia M.S. bar bent to shape as per the standard drawing.	Each	4.00									
97	Steel work welded in built up sections / framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required											
a)	In stringers, treads, landings etc of staircases including use of chequered plate wherever required; all complete	Kgs	3599.01									
b)	In gratings, frames, guard bar, ladders, railings, brackets, gates and similar works	Kgs	3024.42									
98	Providing and fixing stainless steel ( Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge, ( for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	Kg	133.26									
99	Providing & fixing glass panes with putty and glazing clips in steel doors, windows, clerestory windows all complete.	Sqm	10.00									
	With 4.0 mm thick glass panes.											

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
100	Providing and fixing concertina coil fencing with punched tape concertina coil 600 mm dia 10 metre openable length ( total length 90 m) having 50 nos rounds per 6 metre length, upto 3 m height of wall with existing angle iron 'Y' shaped placed 2.4 m or 3.00 m apart and with 9 horizontal R.B.T. reinforced barbed wire, stud tied with G.I. staples and G.I. clips to retain horizontal including necessary bolts or G.I. barbed wire tied to angle iron all complete as per direction of Engineer-in-charge with reinforced barbed tape(R.B.T.) / Spring core (2.5mm thick) wire of high tensile strength of 165 kg/ sq.mm with tape (0.52 mm thick) and weight 43.478gm/ metre (cost of M.S. angle, C.C. blocks shall be paid separately)	m	415.00									
	<b>ROAD WORK</b>											
101	Preparation and consolidation of subgrade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth lead upto 50 m.	Sqm	750.00									
102	Brick edging in full brick width and half brick depth including excavation, refilling and disposal of surplus earth upto 50 m.											
	With Common burnt clay F.P.S. Non modular bricks of class designation 7.5	Mts	100.00									
103	Supplying and stacking at site.											
	90mm to 45mm size stone aggregate.	Cum	70.00									
104	Laying spreading and compacting stone aggregate of specified sizes to WBM specifications including spreading in uniform thickness, hand picking, rolling with 3 wheeled road / vibratory roller 8-10 tonne in stages to proper grade and camber, applying and brooming requisite type of screening / binding material to fill up interstices of coarse aggregate, watering and compacting to the required density.	Cum	45.00									
105	Supplying and stacking of at site moorum.	Cum	70.00									
	Supplying and stacking at site of stone screening 13.2 mm normal size (Type-A) .	Cum	10.00									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax ) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
106	Cement concrete 1: 2: 4 (1 cement : 2 coarse sand : 4 graded stone aggregate 40 mm nominal size) in pavements, laid to required slope and camber in panels as required including consolidation finishing and tamping complete	Cum	10.00									
107	Providing and laying design mix cement concrete of M-30 grade, in roads/ taxi tracks/ runways, using cement content as per design mix, using coarse sand and graded stone aggregate of 40 mm nominal size in appropriate proportions as per approved & specified design criteria, providing dowel bars with sleeve/ tie bars wherever required, laying at site, spreading and compacting mechanically by using needle and surface vibrators, levelling to required slope/ camber, finishing with required texture, including steel form work with sturdy M.S. channel sections, curing, making provision for contraction/expansion, construction & longitudinal joints ( 10 mm wide x 50 mm deep) by groove cutting machine, providing and filling joints with approved joint filler and sealants, complete all as per direction of Engineer-in-charge (Item of joint fillers, sealants, dowel bars with sleeve/ tie bars to be paid separately). Note:- Cement content considered in M-30 is @ 340 kg/cum. Excess/less cement used as per design mix is payable/ recoverable separately											
	Cement concrete prepared with batch mixing machine	Cum	83.00									
	<b>SANITARY INSTALLATION</b>											
108	Providing and fixing water closet squatting pan (Indian type W.C. pan ) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required :											
	White Vitreous china Orissa Pattern W.C. pan of size 580 x 440mm with integral type foot rests.	Each	1.00									
109	Providing and fixing White Vitreous China flat back or wall corner type lipped front urinal basin of 430 x 260 x 350 mm and 340 x 410 x 265 mm sizes respectively with automatic flushing cistern with, Standard flush pipe and C.P.Brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors, wherever required.											
	Range of three urinal basins with 10 lts.White PVC automatic flushing cistern.	Each	1.00									
110	Providing and fixing wash basin with C.I. brackets, 15mm C.P brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:											
	White Vitreous China Wash basin size 550x400 mm with a pair of 15 mm C.P. brass pillar taps	Each	1.00									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
111	Providing and fixing 100mm sand cast iron grating for gully Trap.	Each	2.00									
112	Providing and fixing 600 x 450 mm bevelled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with CP brass screws and washers complete	Each	1.00									
113	Providing and fixing toilet paper holder C.P. brass	Each	1.00									
114	Providing and fixing soil, waste and vent pipes : 100 mm dia											
	Sand cast iron S & S pipe as per IS: 1729.	Mts	15.00									
115	Providing and filling the joints with spun yarn cement slurry and cement mortar 1:2 (1cement : 2 fine sand) in S.C.I/ C.I pipes											
	100 mm dia pipe	Each	8.00									
116	Providing and fixing MS holder - bat clamps of approved design to sand cast iron / cast iron (spun) pipe embedded in and including cement concrete blocks 10 x 10 x 10 cm of 1 : 2 : 4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including cost of cutting holes and making good the walls etc.											
	100 mm dia pipe	Each	10.00									
117	Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.											
	100 mm											
	Sand cast iron S & S as per IS: 1729.	Each	10.00									
118	Providing and fixing plain bend of required degree.											
	100 mm dia											
	Sand cast iron S & S as per IS: 1729.	Each	2.00									
119	Providing and fixing terminal guard											
	100 mm											
	Sand cast iron S & S as per IS: 1729.	Each	2.00									
120	Providing lead caulked joints to sand cast iron /centrifugally cast (spun) iron pipes and fittings of diameter :											
	100 mm	Each	8.00									
121	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors :											
	100 mm inlet and 100 mm outlet											
	Sand cast iron S & S as per IS: 1729.	Each	2.00									
122	Painting sand cast iron/ centrifugally cast (spun) iron soil, waste vent pipes and fittings with two coats of synthetic enamel paint of any colour such as chocolate grey, or buff etc. over a coat of primer (of approved quality) for new work :											
	100 mm diameter pipe	Mts	15.00									



Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax ) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
123	Providing and fixing PTMT liquid soap container 109mm wide, 125mm high and 112mm distance from wall of standard shape with bracket of the same materials with soap fittings of approved quality and colour, weighing not less than 105gms.	Each	1.00									
	<b>WATER SUPPLY</b>											
124	Providing and fixing GI pipes complete with GI fittings and clamps including cutting and making good the walls etc.											
	Concealed pipe including painting with anti corrosive bitumastic paint, cutting chases and making good the wall											
a)	15 mm dia nominal bore	Mts	10.00									
b)	20 mm dia nominal bore	Mts	10.00									
125	Providing and fixing GI pipes complete with GI fittings including trenching and re filling etc. External work.											
a)	15 mm dia nominal bore	Mts	15.00									
b)	20 mm dia nominal bore	Mts	15.00									
126	Fixing water meter and stop cock in GI pipe line including cutting and threading the pipe and making long screws etc. complete (Cost of water meter and stop cock to be paid seperately)	Each	1.00									
	<b>BRASS FITTINGS.</b>											
127	Providing and fixing brass bib cock of approved quality											
	15mm nominal bore	Each	2.00									
128	Providing and fixing brass stop cock of approved quality											
a)	15mm nominal bore	Each	2.00									
129	Providing and fixing ball valve (brass) of approved quality complete.											
	High or low pressure with plastic floats											
a)	15mm nominal bore	Each	1.00									
130	Providing and fixing brass ferrule with CI mouth cover including boring and tapping the main											
a)	15mm nominal bore	Each	1.00									
b)	20mm nominal bore	Each	1.00									
131	Constructing masonry Chamber 60x45x50 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for water meter complete with C.I. double flap surface box 400x200x200 mm (inside) with locking arrangement and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 ( 1 cement : 5 fine sand:10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12mm thick, finished with a floating coat of neat cement complete as per standard design :											
	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	Each	1.00									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
132	Providing and filling sand of grading zone V or coarser grade around the G.I pipes in external work											
	20mm diameter pipe	Mts	15.00									
133	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.	lts.	500.00									
	<b>DRAINAGE</b>											
134	Providing and laying non pressure NP2 class (light duty) RCC pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete :											
a)	150 mm dia. RCC pipe	Mts	15.00									
135	Constructing brick masonry manhole in cement mortar 1 : 4 (1 cement : 4 coarse sand) RCC 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:-											
a)	Inside size 90 x 80 cm and 45 cm deep including CI cover with frame (light duty) 455 x 610 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 Sewer bricks conforming to IS:4885	Each	2.00									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
136	Constructing brick masonry circular type manhole 0.91 m internal dia at bottom and 0.56 m dia at top in cement mortar 1 : 4 (1 cement : 4 coarse sand), inside cement plaster 12 mm thick with cement mortar 1 : 3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 Cement :3 coarse sand: 6 graded stone aggregate 40mm nominal size), and making necessary channel 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 all complete as per standard design.											
	0.91 m deep with SFRC cover and frame (heavy duty, HD - 20 grade designation) 560 mm internal diameter conforming to IS : 12592, total weight of cover and frame to be not less than 182 kg, fixed in cement concrete 1 : 2 : 4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) including centering shuttering all complete. (Excavation, foot rests and 12mm thick cement plaster at the external surface shall be paid for separately.)											
	With Sewer bricks conforming to IS:4885	Each	2.00									
137	Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS : 10910 on 12 mm dia steel bar confirming to IS : 1786 having minimum cross section as 23 mm x 25 mm and overall minimum length 263 mm and width as 165 mm with minimum length 263mm and width as 165mm with minimum 112mm space between protruded legs having 2mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement :3 coarse sand :6 graded stone aggregate 20mm nominal size) complete as per design	Each	20.00									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
138	Constructing brick masonry road gully chamber 50 x 45 x 60 cm with bricks of class designation 75 in cement mortar 1 : 4 (1 cement : 4 fine sand) including 500 x 450 mm precast R.C.C. horizontal grating with frame complete as per standard design											
	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	2.00									
139	Constructing brick masonry chamber for underground CI inspection chamber and bends with 75 class designation bricks in cement mortar 1 : 4 (1 cement : 4 coarse sand) CI cover with frame (light duty) 455 x 610 mm internal dimensions, total weight of cover with frame to be not less than 38kg (weight of cover 23 kg and weight of frame 15kg) RCC top slab with 1:2:4 mix (1cement :2 coarse sand : 4 graded stone aggregate 20mm nominal size) foundation concrete 1:5:10 (1 cement :5 fine sand :10 graded stone aggregate 40mm nominal size.) inside plastering 12mm 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.											
	Inside dimensions 455 x 610 mm and 45 cm deep for single pipe line											
	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	1.00									
140	Providing and finishing, as specified, with Food Grade Protective Coating/ Epoxy paint (non-toxic and solvent free) with two or more coats to achieve minimum recommended DFT (usually min. 300 microns) for minimum 10 years effective life at specified locations such as UGRs, Sumps, etc. including appropriate priming coat, preparation of surface, etc. complete	sqm	3900.00									
141	Providing and laying in position M-25 grade cement concrete in screed with neat finish at top surface, as specified, including surface preparation, bonding coat, etc. Styrene-butadiene (SBR) copolymer latex multi-purpose admixture may be mixed with cement, or other admixtures used for designing the mix, in preparing screed concrete in manufacturer's recommended proportions	cum	10.00									
	<b>Bill of Quantities - Model Town, Fruit Market and CD Park UGR's</b>											
1.	Reservoirs, Sump, Pump house & Valve chambers											
1.1	Providing and laying water proofing treatment on roofs of slabs by applying cement slurry mixed with water proofing cement compound	sq m	8363									
1.2	12mm cement plaster of mix 1:1:4, internal	sq m	22772									
1.3	20mm cement plaster of mix 1:1:4 External	sq m	3379									
1.4	External & Internal Wall Painting with acrylic emulsion paint, having VOC( volatile organic compound) content less than 50grams/litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour. Two coats	sq m	16871									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
1.5	Providing reinforcement for all around 100 mm skin wall for the strengthening of the reservoir (Model Town UGR only)	kg	1422									
2	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15cm deep and disposal of rubbish, lead upto 50m and lift upto 1.5m- all kinds of soil	sq m	18427									
3	Providing and fixing handrails of approved size by welding etc, to steel ladder railing, balcony railing, staircase railing of similar works, including applying priming coat of approved steel primer- MS tube	(lump sum)kg	500									
4	Providing and fixing mild steel round holding round bolts with nuts and washer plate complete include fencing	lump sum(kg)	250									
5	Cleaning of underground sump, Over head R.C.C tank (Independent Staging) including disposal of slit and rubbish	sq m	208									
	<b>MECHANICAL WORKS</b>											
<b>1</b>	<b>Horizontal Split Casing Pumps :</b>											
	Supply installation testing & commissioning of approved make Horizontal Split Case pump set of given capacity and head with suitable VFD compatible TEFC squirrel cage solid shaft induction motor working on 3- Phase 50 Hz $\pm$ 5%, 415 V $\pm$ 10%, complete set as per relevant IS and as per technical specification. The works include all type of preparatory works, dismantling & shifting of existing pump sets to suitable storage/staking place (as directed by Engineer In-charge), and also all accessories as require as per existing site condition for complete installation of pump set.											
1.1	900m3/hr.35m, (4W+2S)	Nos	6									
1.2	210m3/hr.29m, (3W+2S)	Nos	5									
1.3	720m3/hr.37m, (4W+2S)	Nos	6									
1.4	425m3/hr.30m, (4W+2S)	Nos	6									
<b>2</b>	<b>DI Pipes - Suction, Delivery &amp; Header pipe line works for Pump House</b>											
	Supply installation testing & commissioning of D.I. K-9 grade pipes double flanged with internal cement mortar lining and external Zinc Coating etc. complete as per - IS: 8329-2000 Latest Version. The pipe works includes Lowering, laying and jointing in position including cost of all labour, jointing material, nut & bolts and giving satisfactory hydraulic testing etc. complete as per instructions of Engineer in charge. The works include all type of preparatory works, dismantling & shifting of existing pipe line etc. to suitable storage/staking place (as directed by Engineer In-charge) for complete installation as per existing site condition.											
2.1	200mm dia	m	25									
2.2	300mm dia	m	55									
2.3	350mm dia	m	20									
2.4	400mm dia	m	105									
2.5	500mm dia	m	60									
2.6	600mm dia	m	25									
2.7	700mm dia	m	30									
2.8	800mm dia	m	55									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
<b>3</b>	<b>DI Fittings &amp; Specials - Suction, Delivery &amp; Header pipe line works for Pump House</b>											
	Supply installation testing & commissioning of D.I. K-9 grade pipes fittings & specials double flanged as per - IS: 9523-2000 Latest Version. The pipe works includes lowering, laying and jointing in position including cost of all labour, jointing material, including nut bolts and giving satisfactory hydraulic testing, etc. complete as per instructions of Engineer in charge. The works include all type of preparatory works, dismantling & shifting of existing pipe fittings etc to suitable storage/staking place (as directed by Engineer In-charge) for complete installation as per existing site condition.											
3.1	Upto 600mm dia.	Quintal	122									
3.2	Above 600mm dia.	Quintal	103									
<b>4</b>	<b>Sluice valve - Motorised</b>											
	Supply installation testing & commissioning of ISI mark DI/SG iron D/F motorised Sluice valves (PN 1.0) of approved makes & confirming to IS 14846 and as per technical specification. The works includes lowering, laying and jointing in position including cost of all labour, jointing material, nut & bolts and giving satisfactory hydraulic testing, etc. complete as per instructions of Engineer in charge. The works include all type of preparatory works, dismantling & shifting of existing valves etc to suitable storage/staking place (as directed by Engineer In-charge) for complete installation as per existing site condition.											
4.1	200mm dia	Nos	5									
4.2	300mm dia	Nos	11									
4.3	350mm dia	Nos	1									
4.4	400mm dia	Nos	18									
4.5	500mm dia	Nos	12									
4.6	600mm dia	Nos	1									
4.7	800mm dia	Nos	2									
<b>5</b>	<b>Sluice valve - Manual</b>											
	Supply installation testing & commissioning of ISI mark DI/SG iron D/F manual Sluice valves (PN 1.0) of approved makes & confirming to IS 14846 and as per technical specification. The works includes lowering, laying and jointing in position including cost of all labour, jointing material, nut & bolts and giving satisfactory hydraulic testing etc. complete as per instructions of Engineer in charge. The works include all type of preparatory works, dismantling & shifting of existing valves etc to suitable storage/staking place (as directed by Engineer In-charge) for complete installation as per existing site condition.											
5.1	600mm dia	Nos	2									
5.2	700mm dia	Nos	2									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
<b>6</b>	<b>SS Expansion Bellows</b>											
	Supply installation testing & commissioning of SS Expansion Bellows (PN 1.0) of approved make & confirming to latest IS code and as per technical specification. The works includes lowering, laying and jointing in position including cost of all labour, jointing material, nut & bolts and giving satisfactory hydraulic testing etc. complete as per instructions of Engineer in charge. The works include all type of preparatory works, dismantling & shifting of existing expansion joint etc to suitable storage/staking place (as directed by Engineer In-charge) for complete installation as per existing site condition.											
6.1	200mm dia	Nos	5									
6.2	300mm dia	Nos	11									
6.3	350mm dia	Nos	2									
6.4	400mm dia	Nos	18									
6.5	500mm dia	Nos	12									
6.6	600mm dia	Nos	5									
6.7	700mm dia	Nos	3									
6.8	800mm dia	Nos	4									
<b>7</b>	<b>Non Return Valve</b>											
	Supply installation testing & commissioning of double flanged Swing check type valves PN-1.0 of approved make confirming to IS-5312 part-1 and as per technical specification. The works includes lowering, laying and jointing in position including cost of all labour, jointing material, nut & bolts and giving satisfactory hydraulic testing etc. complete as per instructions of Engineer in charge. The works include all type of preparatory works, dismantling & shifting of existing valves etc to suitable storage/staking place (as directed by Engineer In-charge) for complete installation as per existing site condition.											
7.1	200mm dia	Nos	5									
7.2	300mm dia	Nos	6									
7.3	350mm dia	Nos	1									
7.4	400mm dia	Nos	12									
7.5	600mm dia	Nos	1									
7.6	800mm dia	Nos	2									
<b>8</b>	<b>Kinetic Air Release Valve</b>											
	Supply installation testing & commissioning of approved make Double flanged Kinetic Air Release valve confirming to IS -14846 and technical specifications with isolating sluice valve and all accessories for installation on pump delivery header line for following sizes. The works includes lowering, laying and jointing in position including cost of all labour, jointing material, nut & bolts and giving satisfactory hydraulic testing etc. complete as per instructions of Engineer in charge. The works include all type of preparatory works, dismantling & shifting of existing valves etc to suitable storage/staking place (as directed by Engineer In-charge) for complete installation as per existing site condition.											
8.1	100 mm dia PN-1	Nos	4									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
<b>9</b>	<b>EOT Crane</b>											
	Supply installation testing & commissioning of approved make EOT Crane with geared travelling trolley complete with manually operated chain pulley block, long travel rail track ( 40 mm sq.bar ),moving or cross girder,brake, safety devices etc as per technical specifications and complete in all respect as per the direction of the Engineer. The works includes all labour, jointing material, nut & bolts and giving satisfactory testing etc. complete as per instructions of Engineer in charge. The works include all type of preparatory works, dismantling & shifting of existing Crane etc to suitable storage/staking place (as directed by Engineer In-charge) for complete installation as per existing site condition.											
9.1	3 T Capacity (one no. each for Model Town and Mukherjee Nagar pumping station).	Nos	2									
9.2	5 T Capacity HOT Crane at CD Park to be replace by EOT Crane	Nos	1									
<b>10</b>	<b>De-watering &amp; Sump Pumps</b>											
	Supply installation testing & commissioning of approved make submersible pump set having suitable motor working on three phase 50 Hz , 415 v + 10 % , with DOL starter, cable, GI medium duty delivery pipes, specials, suction strainer etc. complete set as per relevant IS and as per technical specification. The works include all type of preparatory works, dismantling & shifting of existing pump sets to suitable storage/staking place (as directed by Engineer In-charge) and also all accessories as require as per existing condition for complete installation of pump set.											
10.1	5m <sup>3</sup> /hr, 15m head	Nos	8									
10.2	50m <sup>3</sup> /hr, 15m head	Nos	8									
<b>11</b>	<b>Vacuum Pumps</b>											
	Supply installation testing & commissioning of approved make horizontally mounted Vacuum pump set having suitable motor working on three phase 50 Hz , 415 v + 10 % , with DOL starter, cable, GI medium duty delivery pipes, specials, suction strainer etc. complete set as per relevant IS and as per technical specification. The works include all type of preparatory works, dismantling & shifting of existing pump sets to suitable storage/staking place (as directed by Engineer In-charge) and also all accessories as require as per existing condition for complete installation of pump set.											
11.1	Capacity & Head as required	Nos	8									
<b>12</b>	<b>Sluice Gate - Manual</b>											
	Supply installation testing & commissioning of approved make CI Sluice gate manually operated wall thimble mounted type confirming to IS:13349 and as per technical specification. The works includes lowering, laying and jointing in position including cost of all labour, jointing material, nut & bolts and giving satisfactory hydraulic testing etc. complete as per instructions of Engineer in charge. The works include all type of preparatory works, dismantling & shifting of existing gates etc to suitable storage/staking place (as directed by Engineer In-charge) for complete installation.											
12.1	1000mm x 1000mm	Nos	2									



Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
<b>13</b>	<b>Ventilation System</b>											
	Supply installation testing & commissioning of Heavy duty capacitor start 900/1400 RPM single phase ISI marked Exhaust fan, IS:2312 marked in existing opening including making connections testing etc. as required. The works includes putting in position including cost of all labour, jointing material, nut & bolts and giving satisfactory testing etc. complete as per instructions of Engineer in charge. The works include all type of preparatory works, dismantling & shifting of existing fan to suitable storage/staking place (as directed by Engineer In-charge) for complete installation.											
13.1	300 mm sweep(900/1400 RPM)	Nos	26									
<b>14</b>	<b>Fire Fighting System</b>											
	Supply installation testing & commissioning of ISI marked 4 kg capacity Dry Powder fire extinguisher with high pressure discharge hose, squeeze gripe nozzle 120 gms carbon dioxide cartridge, gun metal cap with initial charge of dry power. Both extinguisher and dry powder to be ISI marked.											
14.1	4 kg capacity	Nos	19									
	<b>ELECTRICAL WORKS</b>											
<b>A</b>	<b>MODEL TOWN CWPH</b>											
<b>1.0</b>	<b>HT Switchgears</b>											
	Supply, installation, testing & Commissioning of Main HT Panel comprising of 2 nos. 630A VCB I/C, 1 no. 630A VCB B/C & 2 nos. 630A VCB O/G with all necessary indications, metering and protection as per SLD	Set	1									
<b>2.0</b>	<b>11/0.433kV Oil Type Distribution Transformer</b>											
	Supply, Installation, Testing and commissioning of copper wound ISI marked Transformer 11/0.433 KV, Three Phase, 50 Hz, DYN 11, ONAN type, Standard accessories like, conservator, Silicagel breather, radiator, fins, HT & LT cable end boxes or Bus Duct flange, Lifting lugs, Bi-directional Plain/ Flanged Rollers, Earthing terminal, Air release plug, Off load tap changer (+5% to -10% in steps of 2.5%), winding / Top oil temperature rise of 45°C/40°C, ISI marked drain valves, Dial type temperature gauge, first fill oil, Epoxy based paint etc having max. total losses as per energy efficiency level - 2 at basic Insulation level conforming to IS 2026 (Part- I to Part - II), latest ammended and IS 1180 Part-I : 2014 BEE star level - I as per Govt. of India, Ministry of power notification Dated 16th Dec., 2016, Transformers described as above and as per the following continuous rating											
2.1	1000 KVA	Nos.	2									
<b>3.0</b>	<b>415V LV Bus Duct</b>											
	S.I.T.C. of bus duct arrangement in convenient sections complete with enclouser of CRCA sheet steel of minimum 2 mm thickness, aluminium bus bar and earth bus for use on 3 phase, 4 wire, 415 volts, A.C. supply with degree of protection IP-42 for the following current carrying capacity, including jointing of sections, copper flexible joints. expansion joints, bends, and earthing with 2 runs of alum. strips etc. as required.											
3.1	1600 amps	sets	2									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
<b>4.0</b>	<b>415V LT PMCC</b>											
	For 20 ML capacity pumping station Supply, installation, testing & Commissioning of Main LT Panel comprising of 2 nos. I/C, 1 no. B/C, motor feeders & auxiliary load feeders with all necessary indications, metering and protection as per attached SLD.	Set	1									
<b>5.0</b>	<b>415V Variable Frequency Drive and Accessories</b>											
	Supply, Installation, Testing and commissioning of Variable Frequency Drives with panel supplied by manufacturer conforming to applicable standards with logic inputs & outputs, relay outputs and analogue outputs, plug in I/O connections, display of electrical parameters, state of load & operating time, RS 485 serial link for connections to Modbus.											
5.1	For 125 kW motor	Nos.	6									
<b>6.0</b>	<b>Cable and Cable accessories</b>											
<b>6.1</b>	<b>HT Power Cable</b>											
	Supply, Installation, Testing and commissioning of XLPE insulated IS:7098/II/85 of approved make H.T.cable for working voltage 11 K.V.Un-Earthed with Stranded Compacted Circular Aluminium Conductor, Conductor Screened with Extruded Semi-conducting compound, XLPE Insulated, Insulation Screened with extruded semi-conducting compound in combination with Copper Tape, cores laid up, inner sheath of Thermoplastic tape, galvanised flat steel strip armoured and overall Extruded PVC Type ST- 2 Outer Sheathed cable direct in ground including excavation of 30cmx100cm size trench, 25cm layer of river sand, second Class bricks covering, refilling earth, compaction of earth, making necessary connection testing etc as required of size.											
6.1.1	3Cx185sqmm, AL, 11kV	Mtr.	100									
<b>6.2</b>	<b>LT Power Cable</b>											
	Providing & Laying XLPE insulated / P.V.C. sheathed cable of 1.1 KV grade with aluminium conductor Armoured of IS:7098-II/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.											
6.2.1	3Cx300sqmm, AL, 415V, 1.1 kV	Mtr.	300									
6.2.2	4Cx16sqmm, AL, 415V, 1.1 kV	Mtr.	600									
<b>6.3</b>	<b>Control Cable</b>											
	Providing and laying XLPE/PVC insulated & PVC sheathed armoured control cables of 1.1 KV grade with copper conductor as per IS 1255 including excavation of 30 CmX75 Cm size trench 25 Cm thick under layer of sand and second class bricks covering, backfilling & compaction											
6.3.1	3Cx2.5 sqmm,	Mtr.	1300									
6.3.2	7C x 2.5 sq.mm	Mtr.	800									
6.3.3	14 C x 2.5 sq.mm	Mtr.	800									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
<b>6.4</b>	<b>Cable termination kit</b>											
	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 kV grade as required.											
6.4.1	3Cx300sqmm, AL, 415V, 1.1 kV	Each	14									
6.4.2	4Cx16sqmm, AL, 415V, 1.1 kV	Each	30									
6.4.3	Supplying and making cable end jointing with cast resin compound, including lugs and other jointing materials, for following size of 3 core, XLPE aluminium conductor cable of 11 kV grade as required.											
6.4.4	3CX240sqmm, AL, 11kV (Indoor)	Each	2									
6.4.5	3CX240sqmm, AL, 11kV (Out Door)	Each	6									
<b>6.5</b>	<b>Cable trays</b>											
	Supplying and installing following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc. as required.											
6.5.1	600mm x 50mm x 2.0mm	Mtr.	180									
6.5.2	450mm x 50mm x 2.0mm	Mtr.	100									
6.5.3	300mm x 62.5mm x 2.0mm	Mtr.	100									
	Supplying and installing following size of perforated painted with powder coating M.S. cable trays bends with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc. as required.											
6.5.4	600mm x 50mm x 2.0mm	Mtr.	80									
6.5.5	450mm x 50mm x 2.0mm	Mtr.	80									
6.5.6	300mm x 62.5mm x 2.0mm	Mtr.	80									
6.5.7	150mm x 50mm x 1.6mm	Mtr.	80									
<b>7.0</b>	<b>110V DC System with 70 AH Ni-Cd battery</b>											
	Supply installation, testing & commissioning of FCBC (Float cum boost charger) suitable for 415V +/-10%, 50 Hz, 1-ø / 3-ø Input & 24/ 48 /110 V DC Output Natural Cooled, free standing in Sheet Steel enclosure, SCR controlled, regulation +/-1%, Efficiency > 75% on FLAC/ DC Instruments, Selector Switch, Built in DC Distribution Board (6 No MCB), indication, control as required of 25 A+25 A rating alongwith Supply installation, testing & commissioning of battery bank of 150 AH of 110 V DV	Set	2									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax ) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
<b>8.0</b>	<b>Earthing and Lightning Protection System</b>											
8.1	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 meter long etc. with charcoal/ coke and salt as required.	Set	12									
8.2	Supply & Laying following size earth wire/strip in horizontal or vertical run in ground/surface/recess including riveting, soldering, saddles, making connection etc. as required.											
8.2.1	50mm x 6mm G.I. Strip	Mtr.	300									
8.2.2	32mm x 6mm G.I. Strip	Mtr.	120									
8.2.3	25mm x 6mm G.I. Strip	Mtr.	120									
8.2.4	6 SWG G.I. Wire	Mtr.	200									
<b>9.0</b>	<b>Lightning Protection</b>											
9.1	Providing and fixing of lightning conductor finial, made of 25 mm dia 300 mm long, G.I. tube, having single prong at top, with 85 mm dia 6 mm thick G.I. base plate including holes etc. complete as required.	Each	1									
9.2	Supply & laying of 20x3 mm GI Strip as ring conductor & downconductor	Mtr.	50									
<b>10.0</b>	<b>Indoor and Outdoor Illumination System</b>											
10.1	100 W LED Light for High Bay Luminaries for Pump House' with acrylic/ prismatic front cover	Nos.	15									
10.2	100 W LED Light for MCC Room	Nos.	18									
10.3	Supply and erection of Octagonal pole of following length and dimension as per table-3 with base plate on the cement concrete foundation of M-15 /M-20 grade (1:1.5:3) with the help of anchor bolts of grade 6.8 (IS 1367 P III ). The pole shall be made of S-355JO grade steel sheet , folded lengthwise to obtained Octagonal shape, having single longitudinal seam weld and hot dipped galvanised internally & externally in accordance with IS 2629. The pole shall have a weatherproof flush door and locking arrangements. The complete work shall be supervised and certified by the manufacturers for satisfactory supply, erection, testing and commissioning.											
10.3.1	7 Mtr.	Nos.	20									
10.4	25 Watt LED for Street Light	Nos.	20									
10.5	80 Watt Flood Lights	Nos.	10									
10.6	LED 36 Watt Fixtures for office & SCADA Room	Nos.	25									
11.0	Ceiling Fans											
	P & F double ball bearing capacitor start ceiling fan of approved make complete with regulator and other accessories as required. (for estimation purpose only)											
11.1	1400 mm sweep	Nos	3									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
<b>B</b>	<b>C D PARK CWPB</b>											
1.0	HT Switchgears											
	Supply, installation, testing & Commissioning of Main HT Panel comprising of 2 nos. 630A VCB I/C, 1 no. 630A VCB B/C & 2 nos. 630A VCB O/G with all necessary indications, metering and protection as per SLD	Set	1									
2.0	11/0.433kV Oil Type Distribution Transformer											
	Supply, Installation, Testing and commissioning of copper wound ISI marked Transformer 11/0.433 KV, Three Phase, 50 Hz, DYN 11, ONAN type, Standard accessories like, conservator, Silicagel breather, radiator, fins, HT & LT cable end boxes or Bus Duct flange, Lifting lugs, Bi-directional Plain/ Flanged Rollers, Earthing terminal, Air release plug, Off load tap changer (+5% to -10% in steps of 2.5%), winding / Top oil temperature rise of 45°C/40°C, ISI marked drain valves, Dial type temperature gauge, first fill oil, Epoxy based paint etc having max. total losses as per energy efficiency level - 2 at basic Insulation level conforming to IS 2026 (Part- I to Part - II), latest ammended and IS 1180 Part-I : 2014 BEE star level - I as per Govt. of India, Ministry of power notification Dated 16th Dec., 2016. Transformers described as above and as per the following continuous rating											
2.1	1000 KVA	Nos.	2									
3.0	415V LV Bus Duct											
	S.I.T.C. of bus duct arrangement in convenient sections complete with enclouser of CRCA sheet steel of minimum 2 mm thickness, aluminium bus bar and earth bus for use on 3 phase, 4 wire, 415 volts, A.C. supply with degree of protection IP-42 for the following current carrying capacity, including jointing of sections, copper flexible joints, expansion joints, bends, and earthing with 2 runs of alum. strips etc. as required.											
3.1	1600 amps	sets	2									
4.0	415V LT PMCC											
	For 20 ML capacity pumping station Supply, installation, testing & Commissioning of Main LT Panel comprising of 2 nos. I/C, 1 no. B/C, motor feeders & auxiliary load feeders with all necessary indications, metering and protection. as per attached SLD.	Set	1									
5.0	415V Variable Frequency Drive and Accessories											
	SITC of Variable Frequency Drives with panel supplied by manufacturer conforming to applicable standards with logic inputs & outputs, relay outputs and analogue outputs, plug in I/O connections, display of electrical parameters, state of load & operating time, RS 485 serial link for connections to Modbus.	Nos.										
5.1	For 132 kW motor		6									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
6.0	Cable and Cable accessories											
6.1	HT Power Cable											
	Providing & Laying XLPE insulated IS:7098/II/85 of approved make H.T.cable for working voltage 11 K.V.Un-Earthened with Stranded Compacted Circular Aluminium Conductor, Conductor Screened with Extruded Semi-conducting compound, XLPE Insulated, Insulation Screened with extruded semi-conducting compound in combination with Copper Tape, cores laid up, inner sheath of Thermoplastic tape, galvanised flat steel strip armoured and overall Extruded PVC Type ST-2 Outer Sheathed cable direct in ground including excavation of 30cmx100cm size trench, 25cm layer of river sand, second Class bricks covering, refilling earth, compaction of earth, making necessary connection testing etc.as required of size.											
6.1.1	3CX185sqmm, AL, 11kV	Mtr.	100									
6.2	LT Power Cable											
	Providing & Laying XLPE insulated / P.V.C. sheathed cable of 1.1 KV grade with aluminium conductor Armoured of IS:7098-II/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.											
6.2.1	3Cx300sqmm, AL, 415V, 1.1 kV	Mtr.	300									
6.2.2	4Cx16sqmm, AL, 415V, 1.1 kV	Mtr.	550									
6.3	Control Cable											
	Providing and laying XLPE/PVC insulated & PVC sheathed armoured control cables of 1.1 KV grade with copper conductor as per IS 1255 including excavation of 30 CmX75 Cm size trench 25 Cm thick under layer of sand and second class bricks covering, backfilling & compaction											
6.3.1	3Cx2.5 sqmm,	Mtr.	1250									
6.3.2	7C x 2.5 sq.mm	Mtr.	800									
6.3.3	14 C x 2.5 sq.mm	Mtr.	750									
6.4	Cable termination kit											
	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 kV grade as required.											
6.4.1	3Cx300sqmm, AL, 415V, 1.1 kV	Each	14									
6.4.2	4Cx16sqmm, AL, 415V, 1.1 kV	Each	30									
	Supplying and making cable end jointing with cast resin compound, including lugs and other jointing materials, for following size of 3 core, XLPE aluminium conductor cable of 11 kV grade as required.											
6.4.3	3CX240sqmm, AL, 11kV (Indoor)	Each	2									
6.4.4	3CX240sqmm, AL, 11kV (Out Door)	Each	6									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
6.5	Cable trays											
	Supplying and installing following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc. as required.											
6.5.1	600mm x 50mm x 2.0mm	Mtr.	140									
6.5.2	450mm x 50mm x 2.0mm	Mtr.	80									
6.5.3	300mm x 62.5mm x 2.0mm	Mtr.	80									
	Supplying and installing following size of perforated painted with powder coating M.S. cable trays bends with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc. as required.											
6.5.4	600mm x 50mm x 2.0mm	Mtr.	60									
6.5.5	450mm x 50mm x 2.0mm	Mtr.	60									
6.5.6	300mm x 62.5mm x 2.0mm	Mtr.	60									
6.5.7	150mm x 50mm x 1.6mm	Mtr.	60									
7.0	110V DC System with 70 AH Ni-Cd battery	Set	2									
	SITC of FCBC ( Float cum boost charger)suitable for 415V +/-10%, 50 Hz , 1-ø / 3 -ø Input & 24/ 48 /110 V DC OutputNatural Cooled, free standing in Sheet Steel enclosure,SCR controlled , regulation +/-1% , Efficiency > 75% on FLAC/ DC Instruments, Selector Switch ,Built in DC Distribution Board (6 No MCB), indication , control as required of 25 A+25 A rating alongwith SITC of battery bank of 150 AH of 110 V DV											
8.0	Earthing and Lightning Protection System											
8.1	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 meter long etc. with charcoal/ coke and salt as required.	Set	12									
8.2	S & Laying following size earth wire/strip in horizontal or vertical run in ground/surface/recess including riveting, soldering, saddles, making connection etc. as required.											
8.2.1	50mm x 6mm G.I. Strip	Mtr.	300									
8.2.2	32mm x6mm G.I. Strip	Mtr.	120									
8.2.3	25mm x 6mm G.I. Strip	Mtr.	120									
8.2.4	6 SWG G.I. Wire	Mtr.	200									
9.0	Lightning Protection											
9.1	Providing and fixing of lightning conductor finial, made of 25 mm dia 300 mm long, G.I. tube, having single prong at top, with 85 mm dia 6 mm thick G.I. base plate including holes etc. complete as required.	Each	1									
9.2	Supply & laying of 20x3 mm GI Strip as ring conductor & downconductor	Mtr.	40									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
10.0	Indoor and Outdoor Illumination System											
10.1	100 W LED Light for High Bay Luminaires for Pump House' with acrylic/ prismatic front cover	Nos.	12									
10.2	100 W LED Light for MCC Room	Nos.	15									
10.3	Supply and erection of Octagonal pole of following length and dimension as per table-3 with base plate on the cement concrete foundation of M-15 /M-20 grade (1:1.5:3) with the help of anchor bolts of grade 6.8 (IS 1367 P III ). The pole shall be made of S-355JO grade steel sheet , folded lengthwise to obtained Octagonal shape, having single longitudinal seam weld and hot dipped galvanised internally & externally in accordance with IS 2629. The pole shall have a weatherproof flush door and locking arrangements. The complete work shall be supervised and certified by the manufacturers for satisfactory supply, erection, testing and commissioning.											
10.3.1	7 Mtr.	Nos.	18									
10.4	25 Watt LED for Street Light	Nos.	18									
10.5	80 Watt Flood Lights	Nos.	8									
10.6	LED 36 Watt Fixtures for office & SCADA Room	Nos.	20									
11.0	Ceiling Fans											
	P & F double ball bearing capacitor start ceiling fan of approved make complete with regulator and other accessories as required. (for estimation purpose only)											
11.1	1400 mm sweep	Nos	3									
<b>C</b>	<b>FRUIT MARKET CWPH</b>											
1.0	415V LT PMCC											
	For 4.5 ML capacity pumping station Supply, installation, testing & Commissioning of Main LT Panel comprising of 2 nos. I/C , 1 no. B/C., motor feeders & . auxiliary load feeders with all necessary indications, metering and protection. as per attached SLD.	Set	1									
2.0	415V Variable Frequency Drive and Accessories											
	SITC of Variable Frequency Drives with panel supplied by manufacturer conforming to applicable standards with logic inputs & outputs, relay outputs and analogue outputs, plug in I/O connections, display of electrical parameters, state of load & operating time, RS 485 serial link for connections to Modbus.											
2.1	For 30 kW motor	Nos.	5									
3.0	Cable and Cable accessories											
3.1	LT Power Cable											
	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.											
3.1.1	3Cx50sqmm, AL, 415V, 1.1 kV	Mtr.	150									
3.1.2	4Cx16sqmm, AL, 415V, 1.1 kV	Mtr.	400									



Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
3.2	Control Cable											
	Providing and laying XLPE/PVC insulated & PVC sheathed armoured control cables of 1.1 KV grade with copper conductor as per IS 1255 including excavation of 30 CmX75 Cm size trench 25 Cm thick under layer of sand and second class bricks covering, backfilling & compaction											
3.2.1	3Cx2.5 sqmm,	Mtr.	1300									
3.2.2	7C x 2.5 sq.mm	Mtr.	700									
3.2.3	14 C x 2.5 sq.mm	Mtr.	700									
3.3	Cable termination kit											
	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 kV grade as required.											
3.3.1	3Cx50sqmm, AL, 415V, 1.1 kV	Each	8									
3.3.2	4Cx16sqmm, AL, 415V, 1.1 kV	Each	17									
4.0	Earthing and Lightning Protection System											
4.1	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 meter long etc. with charcoal/ coke and salt as required.	Set	10									
4.2	S & Laying following size earth wire/strip in horizontal or vertical run in ground/surface/recess including riveting, soldering, saddles, making connection etc. as required.											
4.2.1	50mm x 6mm G.I. Strip	Mtr.	300									
4.2.2	32mm x6mm G.I. Strip	Mtr.	120									
4.2.3	25mm x 6mm G.I. Strip	Mtr.	120									
4.2.4	6 SWG G.I. Wire	Mtr.	200									
5.0	Lightning Protection											
5.1	Providing and fixing of lightning conductor finial, made of 25 mm dia 300 mm long, G.I. tube, having single prong at top, with 85 mm dia 6 mm thick G.I. base plate including holes etc. complete as required.	Each	1									
5.2	Supply & laying of 20x3 mm GI Strip as ring conductor & downconductor	Mtr.	40									
6.0	Ceiling Fans											
	P & F double ball bearing capacitor start ceiling fan of approved make complete with regulator and other accessories as required. (for estimation purpose only)											
6.1	1400 mm sweep	Nos	3									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
<b>D</b>	<b>MUKHERJEE NAGAR CWPB</b>											
1.0	HT Switchgears											
	Supply, installation, testing & Commissioning of Main HT Panel comprising of 2 nos. 630A VCB I/C, 1 no. 630A VCB B/C & 2 nos. 630A VCB O/G with all necessary indications, metering and protection as per SLD	Set	1									
2.0	11/0.433kV Oil Type Distribution Transformer											
	Supply, Installation, Testing and commissioning of copper wound ISI marked Transformer 11/0.433 KV, Three Phase, 50 Hz, DYN 11, ONAN type, Standard accessories like, conservator, Silicagel breather, radiator, fins, HT & LT cable end boxes or Bus Duct flange, Lifting lugs, Bi-directional Plain/ Flanged Rollers, Earthing terminal, Air release plug, Off load tap changer (+5% to -10% in steps of 2.5%), winding / Top oil temperature rise of 45°C/40°C, ISI marked drain valves, Dial type temperature gauge, first fill oil, Epoxy based paint etc having max. total losses as per energy efficiency level - 2 at basic Insulation level conforming to IS 2026 (Part- I to Part - II), latest ammended and IS 1180 Part-I : 2014 BEE star level - I as per Govt. of India, Ministry of power notification Dated 16th Dec., 2016. Transformers described as above and as per the following continuous rating											
2.1	500 KVA	Nos.	2									
3.0	415V LT PMCC											
	Supply, installation, testing & Commissioning of Main LT Panel comprising of 2 nos. I/C and 1 Bus Coupler and feeders as designated in the SLD with all necessary indications, metering and protection as per the specifications. The panel shall be made of 2.0 mm thick CRCA steel sheet with the doors and gland plate being of a 3.0 mm thick CRCA steel. The panel shall have proper rubber gasketing and louvers for heat discipation. The panel shall be IP 54. Hinges to be provided for lifting the panel. The panel shall have base plate so that it can be floor mounted as well. Scope includes GI supports for installation of switchboard, danger board, etc.	Set	1									
4.0	415V Variable Frequency Drive and Accessories											
	SITC of Variable Frequency Drives with panel supplied by manufacturer conforming to applicable standards with logic inputs & outputs, relay outputs and analogue outputs, plug in I/O connections, display of electrical parameters, state of load & operating time, RS 485 serial link for connections to Modbus.											
4.1	For 55 kW motor	Nos.	6									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
5.0	Cable and Cable accessories											
5.1	HT Power Cable											
	Providing & Laying XLPE insulated IS:7098/II/85 of approved make H.T.cable for working voltage 11 K.V.Un-Earthened with Stranded Compacted Circular Aluminium Conductor, Conductor Screened with Extruded Semi-conducting compound, XLPE Insulated, Insulation Screened with extruded semi-conducting compound in combination with Copper Tape, cores laid up, inner sheath of Thermoplastic tape, galvanised flat steel strip armoured and overall Extruded PVC Type ST-2 Outer Sheathed cable direct in ground including excavation of 30cmx100cm size trench, 25cm layer of river sand, second Class bricks covering, refilling earth, compaction of earth, making necessary connection testing etc.as required of size.											
5.1.1	3CX185sqmm, AL, 11kV	Mtr.	100									
5.2	LT Power Cable											
	Providing & Laying XLPE insulated / P.V.C. sheathed cable of 1.1 KV grade with aluminium conductor Armoured of IS:7098-II/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.											
5.2.1	3Cx95sqmm, AL, 415V, 1.1 kV	Mtr.	300									
5.2.2	3.5Cx300sqmm, AL, 415V, 1.1 kV	Mtr.	600									
5.2.3	4Cx16sqmm, AL, 415V, 1.1 kV	Mtr.	600									
5.3	Control Cable											
	Providing and laying XLPE/PVC insulated & PVC sheathed armoured control cables of 1.1 KV grade with copper conductor as per IS 1255 including excavation of 30 CmX75 Cm size trench 25 Cm thick under layer of sand and second class bricks covering, backfilling & compaction											
5.3.1	3Cx2.5 sqmm,	Mtr.	1300									
5.3.2	7C x 2.5 sq.mm	Mtr.	800									
5.3.3	14 C x 2.5 sq.mm	Mtr.	800									
5.4	Cable termination kit											
	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 kV grade as required.											
5.4.1	3Cx95sqmm, AL, 415V, 1.1 kV	Each	14									
5.4.2	3.5Cx300sqmm, AL, 415V, 1.1 kV	Each	14									
5.4.3	4Cx16sqmm, AL, 415V, 1.1 kV	Each	30									
5.4.4	Supplying and making cable end jointing with cast resin compound, including lugs and other jointing materials, for following size of 3 core, XLPE aluminium conductor cable of 11 kV grade as required.											
5.4.5	3CX240sqmm, AL, 11kV (Indoor)	Each	2									
5.4.6	3CX240sqmm, AL, 11kV (Out Door)	Each	6									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
5.5	Cable trays											
	Supplying and installing following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc. as required.											
5.5.1	600mm x 50mm x 2.0mm	Mtr.	180									
5.5.2	450mm x 50mm x 2.0mm	Mtr.	100									
5.5.3	300mm x 62.5mm x 2.0mm	Mtr.	100									
	Supplying and installing following size of perforated painted with powder coating M.S. cable trays bends with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc. as required.											
5.5.4	600mm x 50mm x 2.0mm	Mtr.	80									
5.5.5	450mm x 50mm x 2.0mm	Mtr.	80									
5.5.6	300mm x 62.5mm x 2.0mm	Mtr.	80									
5.5.7	150mm x 50mm x 1.6mm	Mtr.	80									
6.0	110V DC System with 70 AH Ni-Cd battery	Set	2									
	SITC of FCBC ( Float cum boost charger)suitable for 415V +/-10%, 50 Hz , 1-ø / 3 -ø Input & 24/ 48 /110 V DC OutputNatural Cooled, free standing in Sheet Steel enclosure,SCR controlled , regulation +/-1% , Efficiency > 75% on FLAC/ DC Instruments, Selector Switch ,Built in DC Distribution Board (6 No MCB), indication , control as required of 25 A+25 A rating alongwith SITC of battery bank of 150 AH of 110 V DV											
7.0	Earthing and Lightning Protection System											
7.1	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 meter long etc. with charcoal/ coke and salt as required.	Set	12									
7.2	S & Laying following size earth wire/strip in horizontal or vertical run in ground/surface/recess including riveting, soldering, saddles, making connection etc. as required.											
7.2.1	50mm x 6mm G.I. Strip	Mtr.	300									
7.2.2	32mm x6mm G.I. Strip	Mtr.	120									
7.2.3	25mm x 6mm G.I. Strip	Mtr.	120									
7.2.4	6 SWG G.I. Wire	Mtr.	200									
8.0	Lightning Protection											
8.1	Providing and fixing of lightning conductor finial, made of 25 mm dia 300 mm long, G.I. tube, having single prong at top, with 85 mm dia 6 mm thick G.I. base plate including holes etc. complete as required.	Each	1									
8.2	Supply & laying of 20x3 mm GI Strip as ring conductor & downconductor	Mtr.	50									

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction, Installation, Testing and Commissioning (INR)	Import Duty (Customs / any other tax) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
9.0	Indoor and Outdoor Illumination System											
9.1	100 W LED Light for High Bay Luminaries for Pump House' with acrylic/ prismatic front cover	Nos.	15									
9.2	100 W LED Light for MCC Room	Nos.	18									
9.3	Supply and erection of Octagonal pole of following length and dimension as per table-3 with base plate on the cement concrete foundation of M-15 /M-20 grade (1:1.5:3) with the help of anchor bolts of grade 6.8 (IS 1367 P III ). The pole shall be made of S-355JO grade steel sheet , folded lengthwise to obtained Octagonal shape, having single longitudinal seam weld and hot dipped galvanised internally & externally in accordance with IS 2629. The pole shall have a weatherproof flush door and locking arrangements. The complete work shall be supervised and certified by the manufacturers for satisfactory supply, erection, testing and commissioning											
9.3.1	7 Mtr.	Nos.	20									
9.4	25 Watt LED for Street Light	Nos.	20									
9.5	80 Watt Flood Lights	Nos.	10									
9.6	LED 36 Watt Fixtures for office & SCADA Room	Nos.	25									
10.0	Ceiling Fans											
	P & F double ball bearing capacitor start ceiling fan of approved make complete with regulator and other accessories as required. (for estimation purpose only)											
10.1	1400 mm sweep	Nos	3									
	<b>INSTRUMENTATION WORKS FOR ALL FOUR CWPS</b>											
1.0	Supply, installation, testing and commissioning of Diaphragm Type Pressure Gauges Dial size 150 mm	No.	23									
2.0	Providing, Installation, Testing and Commissioning of MAGNETIC FLOW METER for Water Application of the following sizing.											
2.1	200	No.	21									
2.2	250	No.	33									
2.3	300	No.	11									
2.4	450	No.	2									
2.5	500	No.	2									
2.6	600	No.	3									
2.7	700	No.	1									
2.8	800	No.	2									
3.0	Providing, Installation, Testing and Commissioning of ULTRASONIC LEVEL TRANSMITTER for Water Application :											
3.1	0 - 8 MTR	No.	4									
4.0	Providing, Installation, Testing and Commissioning of PRESSURE TRANSMITTER for Water Application: Range: 0-10 Bar	No.	93									
5.0	Providing, Installation, Testing and Commissioning of CHLORINE ANALYSER for Water Application: Transmitter : Range: 0.05 to 20 ppm,	Set	4									
	SCADA											
1.0	Supply installation testing & commissioning of PLC/SCADA System for 4 nos of LCC (Local Control Centre) and Common SCADA for 4 nos of LCC as per Technical Specification including all accessories as required for complete installation.	Set	1									
<b>Total Schedule 1 (Carried to Schedule 6, Summary)</b>												

Item No.	Description	Unit	Quantity	Currency of Choice	Basic Price (Supply) (Currency of Choice)	Freight & Insurance (INR)	Construction,Installation, n, Testing and Commissioning (INR)	Import Duty (Customs / any other tax ) (INR)	Total Price		Unit GST Rate (INR)	Total amount of GST (INR)
									Total Price LC (INR)	FC Component (Currency)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(6+7+8) x (4)	(11)=(6+9) x (4)	(12)	(13)
	Signature of Bidder											
	Name & Designation											
	Company											

**Schedule 2 : Other Services**

Item	Description	Total Price in Local Currency (INR)
(1)	(2)	(3)
(i)	Provisional sum for the Employer's share of the Dispute Adjudication Board	10,000,000
(ii)	Provisional sum for the Auditing Body described in Schedule 6 to Section 8	10,000,000
(iii)	Provisional sum and Physical contingency for other services described in Bid document	122,537,500
(iv)	Compliance with Environmental Management Plan (EMP)	.....
<b>Total of Schedule No. 2 Carried to Schedule No. 6, Summary</b>		

*Signature of Bidder**Name & Designation**Company*

<i>Schedule 3: Operation Services</i>						
Item	Description	Unit	Quantity	Unit Rate (INR)	Total Price in LC (INR)	GST (INR)
(1)	(2)	(3)	(4)	(5)	(6) = (4) x (5)	(7)
	<b>Operation Services Fee</b>					
<b>A</b>	From Initial Taking Over Date to Final Taking Over date	Months	44			
<b>B</b>	After Final Taking Over Date					
i	Year 1	ML	28910			
ii	Year 2	ML	29037			
ii	Year 3	ML	29165			
iv	Year 4	ML	29293			
v	Year 5	ML	29421			
vi	Year 6	ML	29549			
vii	Year 7	ML	29677			
viii	Year 8	ML	29804			
ix	Year 9	ML	29932			
x	Year 10	ML	30060			
<b>Total of Schedule 3 Carried to Schedule 6, Summary</b>						

*Signature of Bidder*

*Name & Designation*

*Company*



**Schedule 4: Daywork Rates**

<b>Item</b>	<b>Description</b>	<b>Unit</b>	<b>Nominal Quantity</b>	<b>Unit Price (INR)</b>	<b>Extended Amount (INR)</b>	<b>GST (INR)</b>
(1)	(2)	(3)	(4)	(5)	(6) = (4) x (5)	(7)
<b>1</b>	<b>Labour</b>					
(a)	Unskilled Labour (man)	Man Day	200			
(b)	Unskilled Labour (Woman)	Man Day	100			
(c)	Tradesmen's helper	Man Day	50			
(d)	Carpenter and joiner	Man Day	100			
(e)	Plumber	Man Day	100			
(f)	Bricklayer	Man Day	50			
(g)	Pipe Layer	Man Day	100			
(h)	Electrician	Man Day	50			
(i)	Fitter	Man Day	50			
(j)	Mason	Man Day	50			
(k)	Bar benders and fixers	Man Day	50			
(l)	Watchman	Man Day	100			
(m)	Ganger	Man Day	100			
(n)	Chainmen and other personel to assist Engineer's staff	Man Day	50			
(o)	Gas cutter	Man Day	30			
(p)	Welder	Man Day	30			
(q)	Field Technician	Man Day	100			
(r)	Leakage Engineer	Man Day	50			
	<b>Total for Dayworks (Labour)</b>					
	<b>(Carried forward to Daywork Summary)</b>					
<b>2</b>	<b>Materials</b>					
(a)	Diesel engine oil	Litre	1000			
	<b>Total for Dayworks (Materials)</b>					
	<b>(Carried forward to Daywork Summary)</b>					

Item	Description	Unit	Nominal Quantity	Unit Price (INR)	Extended Amount (INR)	GST (INR)
(1)	(2)	(3)	(4)	(5)	(6) = (4) x (5)	(7)
<b>3</b>	<b>Contractor's Plant &amp; Equipment</b>					
(a)	Portable compressor with one tool and required length of hose- 3 m <sup>3</sup> /min capacity	Hour	200			
(b)	Mobile crane-5 to 10 tonnes capacity	Hour	100			
(c)	Dumper/Tipper -5m <sup>3</sup> capacity	Hour	100			
(d)	Generating set – 6 KW	Hour	100			
(e)	Electric welding set including ancillary equipment and consumables	Hour	100			
(f)	Oxy-acetylene gas cutting/gauging	Hour	50			
(g)	Loading shovel – 1m <sup>3</sup> capacity	Hour	50			
(h)	Dewatering pump with required suction hose, foot valve and strainer, delivery hose etc.					
	(i) 5 HP	Hour	100			
	(ii) 7.5 HP	Hour	100			
	(iii) 15 HP	Hour	50			
	(iv) 30 HP	Hour	10			
(i)	Concrete mixer 0.4 m <sup>3</sup> capacity	Hour	200			
(j)	Leak noise correlator	Hour	200			
(k)	Data logger complete with pressure transducer and cables	Hour	200			
(l)	Pick-up vehicle or similar (for field team)	Hour	300			
	<b>Total for Dayworks (Contractors Plant and Equipment)</b>					
	<b>(Carried forward to Daywork Summary)</b>					

Signature of Bidder

Name &amp; Designation

Company

**Schedule 4: Dayworks Summary**

	Description	Amount (INR)	% Foreign
1	Total For Daywork : Labour		
2	Total for Daywork : Material		
3	Total for Daywork : Contractors Plant and Equipment		
	<b>Total for Daywork (Carried to Schedule 6, Summary)</b>		

*Signature of Bidder*

*Name & Designation*

*Company*

**Schedule 5: Public Outreach during Design-Build**

<b>Item</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Price (INR)</b>	<b>Extended Amount (INR)</b>	<b>GST (INR)</b>
(1)	(2)	(3)	(4)	(5)	(6) = (4) x (5)	(7)
1	Team Leader cum Community Development Expert	Man Month	42			
2	Deputy Team Leader/Social Development Specialist	Man Month	48			
3	Communication Expert	Man Month	39			
4	Community Development and Resettlement Specialists	Man Month	30			
5	Gender Specialist	Man Month	12			
6	Training Specialist	Man Month	9			
7	Resettlement Coordinator	Man Month	18			
8	Monitoring & Evaluation Specialist	Man Month	11			
9	Social Development Expert cum Gender Executives	Man Month	36			
10	Community Relation Executives	Man Month	42			
<b>Total of Schedule 5 Carried to Schedule 6, Summary</b>						

*Signature of Bidder**Name & Designation**Company*

*Schedule 6 : Summary of Schedule of Quantities*

Schedule no	General Summary	Page	Amount	
			Foreign Currency (Currency of Choice)	Local Currency (INR)
<b>1</b>	<b>Design-Build</b> : Civil Works, Distribution Works, Electro-mechanical and Other			
<b>2</b>	<b>Other Services</b>			
<b>3</b>	<b>Operation Service</b>			
<b>4</b>	<b>Total for Dayworks</b>			
<b>5</b>	<b>Public Outreach during Design-Build</b>			
	<b>Total of Schedule no. 1 to 5 i.e. Bid Price to be carried forward to Letter of Bid</b>			

*Signature of Bidder**Name & Designation**Company*