

## GANDHIDHAM MUNICIPAL CORPORATION



### Bid Documents For

**Providing, Lowering, Laying, Jointing, Testing and Commissioning of Drainage pipeline for Meghpar (Borichi & Kumbhardi) Area with Pump House and Rising Main Line under Gandhidham Municipal Corporation (3<sup>rd</sup> Attempt).**

### Volume - III

### Price Bid

Milestone dates for e-tendering is as under	
1. Downloading of e-Tender documents	As per NIT.
2. Online submission of e – Tender	As per NIT.
3. Pre-Bid Meeting	As per NIT.
4. Physical submission of EMD, Tender fee and other necessary documents required for pre-qualification as per Financial and Experience criteria.	As per NIT.
5. Opening of online Primary Bid (Technical Bid)	As per NIT.
6. Opening of Commercial Bid (Price Bid) of technically qualified bidders only.	As per NIT.
7. Bid Validity	120 Days
For further particulars please visit us on <a href="http://www.gmc.nprocure.com">www.gmc.nprocure.com</a>	

### CITY ENGINEER

Gandhidham Municipality, Rotary Marg,  
Opposite Rotary Bhavan, Ward 12A,  
Gandhidham, Gujarat 370201

**PART-III**  
**BILL OF QUANTITIES**  
**(Attached in Separate Folder)**

**BID FORM (WITH PRICE)**

(Bidders are required to fill up all blank spaces  
in this Bid Form)

**CONTRACT No:**

Dear Sir,

**Sub: Providing, Lowering, Laying, Jointing, Testing and Commissioning of Drainage pipeline for Meghpar (Borichi & Kumbhardi) Area with Pump House and Rising Main Line under Gandhidham Municipal Corporation (3rd Attempt).**

1. Having visited the site and examined the Bid Documents, Drawings, Conditions of Contract, Specifications, Schedules, Annexures, Preamble to Price Schedules, Price Schedules etc. including Addenda/Amendments to the above, for the execution of the above Contract, we the undersigned offer to carry out as given in Conditions of Contract and in conformity with the Drawings, Conditions of Contract, Specifications, Preamble to Price Schedules, Price Schedules, Annexures, Bidding Documents, including Addenda Nos. \_\_\_\_\_ (insert numbers) for (quoted online) %age below / above than the rates given in Price Schedule.
2. I / We agree that
  - (a) if we fail to provide required facilities to the Employer's representative or any other person/agency by the employer to perform on his behalf for carrying out the inspection and testing of materials and workmanship  
or
  - (b) if we incorporate into the Works, materials before they are tested and approved by the Engineer's representative  
or
  - (c) if we fail to deliver raw water of required quantity according to the conditions/stipulations of the Contract,the Engineer-in-charge will be at liberty to take any action including termination of Contract and impose at his absolute discretion any penalties, and/or reject the work.

3. We undertake, if our Bid is accepted, to complete and deliver the Works in accordance with the Contract within **15 MONTHS** of construction period from the date of Work Order issued to us by you.
4. We agree to abide by this Bid for a period of 120 Days from the date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before the expiry of that period.
5. In the event of our Bid being accepted, we agree to enter into a formal Contract Agreement with you within 10 days incorporating the conditions of Contract thereto annexed but until such agreement is prepared this Bid together with your written acceptance thereof shall constitute a binding Contract between us.
6. We agree, if our Bid is accepted, to furnish Performance Bond/Security in the forms and of value specified in the Conditions of Contract of a sum equivalent to 5% of the Contract price for due performance of the Contract.
7. We have independently considered the amounts of liquidated damages shown in Appendix to Bid and agree that they represent a fair estimate of the damages likely to be suffered by you in the event of the Work not being completed by us in time.
8. We understand that you are not bound to accept the lowest or any Bid you may receive.

Dated \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_ 202\_\_\_\_\_.

(Signature)

Company Seal

(Name of the person)

(Name of firm)

(In the capacity of)

Duly authorised to sign Bid for and on behalf of

(Fill in block capitals)

Witness

Signature :

Name :

Address :

I/We have enclosed a DEMAND DRAFT / BANK GUARANTEE as an "**Earnest Money Deposit**", for the sum of **Rs. 86,21,798/-** the full value of which is to be absolutely forfeited to the Employer should I/We fail to commence the works specified. Otherwise the said sum shall be retained, by the Employer as on account of such 'Security Deposit' as provided for in the aforesaid documents.

I/We agree not to employ Sub-contractors other than those that may be approved in accordance with conditions in the aforesaid documents.

I/We understand that you are not bound to accept the lowest or any tender which you may receive.

I/We shall refer all disputes arising out of or relating to the agreement to the arbitration in accordance with conditions of contract.

I/We am/are bound to execute the job if the work order is issued within **120 Days** from the date of opening of the tender.

I/We agree to pay the Government Income-Tax, CGST, SGST and other taxes prevailing from time to time on such items on which the same are levied and the rates quoted by me/us are inclusive of the same.

Yours faithfully,

Signature of Contractor

Date: \_\_\_\_\_

Address:

# PREAMBLE TO PRICE SCHEDUL

### **Note on Schedule:**

The bid is percentage rate bid for : **Providing, Lowering, Laying, Jointing, Testing and Commissioning of Drainage pipeline for Meghpar (Borichi & Kumbhardi) Area with Pump House and Rising Main Line under Gandhidham Municipal Corporation (3rd Attempt).**

1. The whole work is to be done under the supervision of GMC.
2. Before starting the work, the details survey has to be done by the contractor and shall have to prepare and submit Survey and Level drawings in soft copy (Auto Cad) and Hard copy, and has to mark permanent levels at all necessary locations for Reference, for which, no extra payment will be made by GANDHIDHAM Municipal Corporation. After permission / approval from the engineering in charge, the work will have to be executed accordingly on site.
3. The rates and prices shall be submitted in the formats given in the enclosed Price Schedules. Rates and prices received in any other formats will be rejected and the Bids will be disqualified.
4. It will be entirely at the discretion of the Employer to accept or reject the bidder's proposal, without giving any reasons whatsoever.



5. In Price Schedule, bidder shall quote his percentage Equal/Above/Below for items listed in the schedule. Prices quoted in Schedule only will be considered for price evaluation & shall form a part of the Contract Agreement.
6. Only Price Schedule will be considered for financial evaluation of the bid with the successful bidder.
7. The bidder shall be deemed to have allowed in his price for provision, maintenance and final removal of all temporary works of whatsoever nature required for construction including temporary bunds, diverting water, pumping, dewatering, etc. for the proper execution of works. The rates shall also be deemed to include any work and setting that may be required to be carried out for laying out of all the works involved.
8. Where there is a discrepancy between the unit rates and the amount entered, in the price schedule the latter shall govern.
9. The Price Schedules are to be read in conjunction with the Conditions of Contract, the Specifications and other sections of these bid documents and these documents are to be taken as mutually explanatory of one another.
10. Prices quoted by the bidder shall be firm for the entire period of Contract without any escalation.
11. The bidder shall interpret the data furnished and carry out any additional survey work, or investigation work required at his own cost.
12. The prices quoted shall also include the cost of materials utilized for testing.
13. The bidder should acquaint himself with the site conditions including the access to Worksite. The successful bidder shall have to make suitable access to worksites at his own cost. These accesses will be used by the other contractors working for GMC.
14. From each Running Account Bill, labour cess will be deducted as per norms.
15. The quoted rates should be inclusive of all taxes and duties.
16. The prices shall have to be quoted firm & fix including all the taxes & dutes without any statutory variation. GMC will not consider any statutory variation as well as the price rise in the market and if

any, those shall be on account of contractor.

17. The work contract tax will be borne by the agency.
18. Use of ready mix concrete may be permitted if it fulfils tender specifications within 25 kilometers of GMC area.
19. No extra item or extra width will be paid due to excavating method or type of machinery.
20. For any type of license regarding labour, etc. has to be achieved by agency.
21. Appendix - P mentioned in tender is a sample format. The bidder shall furnish the details of concern tender and financial terms shall be certified by Chartered Accountant.
22. In Every running bill 0.25% amount shall be retained as extra security deposit if Drawings of work done are not submitted by agency.

23. In reference to the above Circular and Order cited at above, the Contractor firm who have quoted their rates for this work will be called in person for verification of original documents. The date and time for verification of original documents will be intimated to the Contractors.
24. The routes and levels shown in the maps are indicative and not final. There are possibilities of change in routes and levels at the time of execution of work and due to which the diameter of pipeline and depth of drainage line may increase or decrease. Under the circumstances, the contractor shall have to carry out the work accordingly at the approved rates without any extra cost. GANDHIDHAM Municipal Corporation will not entertain any dispute in this regard.
25. The contractor shall have to carry out the Sub-soil strata investigation at his own cost.
26. Flow Test shall be done in two stage:

**Stage 1**

Pipe line shall be laid by resting the pipe line on supports at joints. The flow test and The drains, manholes and all joints of pipes shall be made thoroughly sound and water tight and any joint which may be observed to be leaky shall be immediately corrected. Thus after satisfactory flow test sand bedding shall be fill pipe line after laying pipe line. The refilling of trench shall be carried out then after.

**Stage 2**

After total laying & refilling of trenches, flow test shall be carried out again for particular section of length as suggested by engineer in charge.

27. If the progress of work is found slow then Extra security Deposit may be recovered from any running bill as decided by Engineer in charge up to maximum 5% amount of concerned R.A. Bill amount.
28. Wherever the sanction from Forest and State High Way (R & B)

department is required that has to be procured and also any other sanction of any other Institute/Authority is required then contracting agency shall have to arrange itself i.e. whole liaison shall be on account of working agency. However, if required, GMC will recommend it for the same wherever necessary. The expenditure incurred for this type sanctions will be reimbursed by GMC on submission of necessary documentary evidence like; Receipt, as proof.

29. Blasting may not be permitted in the areas having dense population or any other unsuitability.
30. No extra item or extra width will be paid due to excavating method or type of machinery.
31. The bidders are advised to visit the project area and get acquainted with the local condition as the said area is residential area with numbers of underground utility services like water supply pipe line, sullage water pipe line, gas pipeline, telephone/electric cable, KHALKuVAS etc, which requires to be maintained during the progress of work. The safety of the work is prime important factor and all the bidder should be very much vigilant for the same. Thus, there may be some locations where clear ROW or ROU may not be available due to certain reasons like TP Road open Issues, Permissions etc. If work of that much location is affected due to such reasons time limit may be extended considering that non-working period but in no case Price Escalation will be given for that extended period.  
Thus, it is to be clear that to work within utility services is a part of this work. If utilities are affected, it shall be the responsibility of contractor to make same as it was as before. The expenditure and arrangement shall be bear by contractor.
32. In case of Extra Item, No **"On"** %age i.e. +ve % age Rate will be given but if there is Down %age i.e, -ve % age Rate that will be applied to that rate of that Extra Item.
33. Before procurement of Material the Quality Assurance Plan (QAP) shall be approved by GMC. QAP for approval shall be submitted in 3 Original copy duly signed and stamped by Manufacturer, TPI/PMC and Tenderer, The draft QAP has been attached herewith.

34. The contractor shall be responsible for Railway Crossing, Highway crossing etc and the detailed design shall have to be provided by the contractor and carry out the same, for which, payment will be made as per norms.
35. The contractor shall have to obtain the approval from the concerned authorities for level crossing, Highway, Gas etc. However, GANDHIDHAM Municipal Corporation will extend its cooperation in obtaining the approval. The charges as per norms shall be paid by the agency and same will be reimbursed by GANDHIDHAM Municipal Corporation.
36. **Scope of Testing period:** During the testing period, agency will have to look after the maintenance and rectification of fault, if any. No extra payment will be made by GMC for this purpose.
37. e-Tender price:  
The tender price ( Pipe/specials Supply as shown in above scope of work and as per the detailed specifications + Labor work for laying jointing, testing & commissioning) shall include all materials, labor, tools and tackles, plant and machinery etc. necessary for the proper manufacture of pipes and specials and for tests at the contractor's works, for insurance and for delivery to GMC's store or site of works indicated in the project area according to dispatch schedule and for laying and testing on site etc.

The rates quoted by the contractor online in the given price bid ( Pipe /specials Supply + Labor work for laying jointing, testing & commissioning) shall cover everything necessary for the due and complete execution of the work according to the drawings and other conditions and stipulations of the contract including specifications or the evident intent and meaning of all or either of them or according to customary usage and for periodical and final inspection and test and proof of the work in every respect and for measuring, numbering or weighing the same, including setting out and laying or fixing in positions and the provision of all materials, power, tools, rammers, labour, tackle, platforms with proper lapped

joints for scaffolding, ranging rods, straight edges, centering and boxing, wedges, moulds, templates, posts, straight rails, boning-staves, strutting, barriers, fencing, lighting, pumping apparatus, temporary arrangement for passage of traffic, access to premises and continuance of drainage, water supply and lighting (if interrupted by contractor's work), temporary sheds, painting, varnishing, polishing, establishments for efficient supervision and watching arrangements for the efficient supervisions of life and property and all requisite plant and machinery of every kind except only such matter and things as it may be distinctly stated herein which are to be supplied to the contractor free. A rate for any one description of work is to be held to include such items of other classes of works as are obviously necessary for its due completion and for these no separate/specific charges will be admitted. The contractor shall keep every portion of the work clear of accumulation from time to time and shall leave every portion of the work clean, clear and perfect, at the conclusion of whole work at their own cost.

38. GANDHIDHAM Municipal Corporation will engage PMC/TPI Agency for pipe material inspection and testing at Factory and to maintain the overall work supervision and quality control of the project. The PMC/TPI agency shall be from approved list of GUDM or as decided by the competent authority of GMC. All necessary changes of PMC/TPI Agency is to be borne by the contractor. The PMC/TPI charges is 1.15% or (As per latest resolution by standing committee of GMC) of the actual amount of work, which will be deducted from the bill of the agency and will paid to the PMC/TPI agency by contractor.
39. In case of damage to obstructing pipe line or other utilities is done by the agency then the rectification to the same and making it good shall have to be carried out by the agency at his own cost.
40. The contractor shall at his own cost fill up water in pipe line and given necessary flow test section
41. AutoCAD drawings shall have to be provided in soft copy as well as hard copy, for which, decision of engineer-in-charge will be final and binding to the agency.

**CITY ENGINEER**  
**GANDHIDHAM Municipal Corporation**

**Signature of Contractor**

### Check List for submission of Documents

Tender Fee submitted as per Tender	Yes / No
Tender Earnest Money Deposit submitted as per Tender	Yes / No
Registration documents submitted as per tender requirement	Yes / No
Information regarding Capability etc. as per clause No. <b>IT-12</b> (General Performance data) shall have to be submitted	Yes / No
All Appendixes shall have to be submitted physically duly filled	Yes / No
Declaration on Stamp paper of Rs.300/- regarding nowhere black listed / terminated / debarred	Yes / No
<b>Financial Details:</b>	
Turnover details submitted as per requirement	Yes / No
Working Capital as per requirement of tender is submitted	Yes / No
Valid Bank Solvency submitted	Yes / No
Validity of Bank Solvency	Date:
<b>Experience Details:</b>	
Details of Technical Staff and details of machineries submitted	Yes / No
Address proof submitted	Yes / No
Identity proof submitted	Yes / No
Fresh Declaration on Non-Judicial Stamp Paper regarding not black listed or Terminated or Debarred, is submitted	Yes / No
Professional Tax Receipt of current year	Yes / No

**Note : Over and above, the agency shall also have to submit all other necessary documents as may be required for pre-qualification, failing which, the agency will be treated as Non-responsive and will be DISQUALIFIED and also the online price bid of such agency will not be opened.**

**Signature of contractor with seal**

**SCHEDULE – A (N.A.)**

**Schedule showing a material to be supplied from GANDHIDHAM Municipal Corporation stores at free of cost for use in work contracted and to be executed**

**Name of Work:** Providing, Lowering, Laying, Jointing, Testing and Commissioning of Drainage pipeline for Meghpar (Borichi & Kumbhardi) Area with Pump House and Rising Main Line under Gandhidham Municipal Corporation (3rd Attempt).

<b>Sr.</b>	<b>Particulars</b>	<b>Qty.</b>	<b>Rate at which material will be charged to the contractor</b>	<b>Total Amount</b>
1	NA			
			<b>Total Say</b>	
Note No.1	The Contractor shall have to make his own arrangement for procuring the cement required for the work from open market. Cement shall be ordinary Portland cement confirming to IS 269. or IS 8112 Grade 43/53 of repute make only. No mini-plant cement shall be allowed.			
Note No.2	The person or firm submitting the tender should see that the rates in the above schedule are filled up by the Engineer-in-charge for the issue of the firm prior to submission of the tender.			
Note No.3	Material not included in "SCHEDULE – A" but required for the work shall be provided by the contractor and cost of such material shall be included in the respective tendered items by the contractor.			

**Asst. Engineer  
GANDHIDHAM Muni.  
Corporation**

**Dy. Executive Engineer  
GANDHIDHAM Muni.  
Corporation**




**Add.City Engineer  
GANDHIDHAM Muni.  
Corporation**



# PRICE SCHEDULE

**Gandhidham Municipal Corporation**

**SCHEDULE -B**

<div><div><b>GANDHIDHAM MUNICIPAL CORPPRATION</b></div><div><b><u>SCHEDULE B</u></b></div><div></div></div>				
<b><u>NAME OF WORK</u></b>				
	NAME OF WORK -Estimate for Drainage Plan for Meghpar (Borichi & Kumbhardi) under Gandhidham Municipal Corporation Area.			
Sr. No.	Description	Sub Estimate No.	Amount	
1	SCHEDULE A1	01	Rs.	0.00
2	SCHEDULE A2	01	Rs.	0.00
3	SCHEDULE A3	01	Rs.	0.00
Total Amount			Rs.	0.00
Add 3% Contingency Charges			Rs.	0.00
Add 18% GST			Rs.	0.00
Total Amount			Rs.	0.00
Say Amount			Rs.	-

**SCHEDULE A1**

<b>SCHEDULE A1</b>					
	<b>DRAINAGE DISTRIBUTION NETWORK</b>				
It. No.	Description	Quantity	Rate	Per	Amount
1	Excavation for pipe line trenches etc. for all with shoring and strutting if required as per required gradient and line including safety provisions using site rails and stacking excavated stuff including up to all required lead cleaning the site etc. (Pipe & Manhole)				
	0.0 to 1.50 m. depth				
1.1	Excavation of Foundation in Soft Murrum	93240.00		Cu. Mt.	
1.2	Excavation of Foundation in and Hard Murrum	139860.00		Cu. Mt.	
1.3	Excavation of Foundation in Soft Rock	233100.00		Cu. Mt.	
	1.5to 3.00 m. depth				
1.4	Excavation of Foundation in Soft Rock	99920.00		Cu. Mt.	
1.5	Excavation of Foundation in and Hard Rock with Breaker / Blasting / Gann	99920.00		Cu. Mt.	
	3.0 to 4.5 m. depth				
1.6	Excavation of Foundation in Hard Rock with Breaker / Blasting / Gann	107170.00		Cu. Mt.	
	4.5 to 6.0 m. depth				
1.7	Excavation of Foundation in Hard Rock with Breaker / Blasting / Gann	64150.00		Cu. Mt.	
	6.0 to 7.5 m. depth				
1.8	Excavation of Foundation in Hard Rock with Breaker / Blasting / Gann	33290.00		Cu. Mt.	
	7.5 to 9.0 m. depth				
1.9	Excavation of Foundation in Hard Rock with Breaker / Blasting / Gann	6120.00		Cu. Mt.	
2	Providing Bedding for RCC Pipe including ramming, watering, levelling, consolidating, grading etc. complete.				
2.1	with selected excavated earth available near site	6651.43		Cu. Mt.	
2.2	with Mururm brought from Outside including all lead	6651.43		Cu. Mt.	

3	Providing and supplying ISI Standard R.C.C. pipes(OPC) in standard lengths of following class and diameter suitable for rubber ring joints including all taxes, insurance, transportation, freight charges, octroi, inspection charges, loading, unloading, conveyance to departmental stores, stacking etc. complete. (IS - 458/ 2021)				
	Note : One collar should be supplied with each full length plain ended RCC pipe, cost included in rates below. One rubber ring should be supplied with each full length socketed pipe, cost included in rates below.				
	RCC NP3				
3.1	200 mm pipe dia.	141334.00		RMT	
3.2	250 mm pipe dia.	6620.00		RMT	
3.3	300 mm pipe dia.	2974.00		RMT	
3.4	350 mm pipe dia.	2658.00		RMT	
	RCC NP4				
3.5	450 mm pipe dia.	5428.00		RMT	
3.6	600 mm pipe dia.	2861.00		RMT	
4	Lowering, laying and jointing R. C. C. pipes of following diameters in proper position, grade and alignment at all level as directed by Engineer-in-charge including conveyance from stores to site of work, labour, giving hydraulic testing as per ISI code.				
	RCC NP3				
4.1	200 mm pipe dia.	141334.00		RMT	
4.2	250 mm pipe dia.	6620.00		RMT	
4.3	300 mm pipe dia.	2974.00		RMT	
4.4	350 mm pipe dia.	2658.00		RMT	
	RCC NP4				
4.5	450 mm pipe dia.	5428.00		RMT	
4.6	600 mm pipe dia.	2861.00		RMT	

5	<p>Providing and supplying in standard length ISI mark rigid unplasticised PVC pipes suitable for potable water with ring fit joint including cost of rings, as per IS specification no. 4985/1988 including all local and central taxes, transportation, freight charges, octroi, inspection charges, loading, unloading, conveyance to the departmental stores and including cost of jointing material etc. complete.</p> <p>Note :</p> <p>1. One coupler / ring shall be provided with each full length pipe cost of which is included in rates below.</p> <p>2. 3% (Three) Discounted rate to be consider for Coupler jointed pipe</p>				
	FOR 110MM DIA 6 KG PIPE	60000.00		RMT	
6	<p>Lowering, laying, fixing and jointing PVC/uPVC/cPVC pipes and specials of following class and diameter including cost of conveyance from stores to site of works including cost of labour, material, cement solvent, giving satisfactory hydraulic testing as per ISI code.</p>				
	FOR 110MM DIA 6 KG PIPE	60000.00		RMT	
7	<p>Providing and constructing Sewer Machinehole as per the type design in brick masonry in C.M. 1 : 5 and inside and outside 20 mm thick plastering in C.M. 1:3 necessary 100 mm coping with reinforcement in R.C.C. M 200, providing and fixing P.V.C steps and fixing Machinehole frame and covers (But excluding supply of Machinehole frame and covers) over Machinehole etc. complete, providing and fixing safety chain wherever necessary as per the stipulations in the type design complete as per latest CPHEEO manual. (excl. excavation)</p>				
	Machinehole type "A" circular type having inside diameter of 1200 mm for depth upto 1.5 m depth (For 150 mm to 500 mm dia sewer)				
7.1	Machinehole type "A" as above but upto 1.0 m depth.	2506.00		Nos	
7.2	Extra depth beyond 1.0 mt. but upto 1.5 mt. depth for "A" type Machinehole above.	1250.00		Rmt	
	Machinehole type "B" circular type having inside diameter of 1500 mm and for depth from 1.5 m to 4.0 mt. (For 150 mm to 600 mm dia sewer)				
7.3	Machinehole type "B" as above but upto 1.5 m depth	1478.00		Nos	
7.4	Extra depth beyond 1.5 mt. but upto 4.0 mt. depth for type "B" Machinehole above.	3700.00		Rmt	

	Machinehole type "C" circular type having inside diameter of 1500 mm and for depth beyond 4.0 m to 6.0 mt. (For 150 mm to 1800 mm dia sewer)				
7.5	Machinehole type "C" as above but upto 4.0 m depth	520.00		Nos	
7.6	Extra depth beyond 4.0 mt. but upto 6.0 mt. depth for for type "C" Machinehole above.	102.00		Rmt	
	Machinehole type "D1" circular type having inside diameter of 1500 mm and for depth beyond 6.0 m to 10.0 mt. (For 150 mm to 500 mm dia sewer)				
7.7	Machinehole type "D1" as above but up to 6.0 M depth.	1237.00		Nos	
7.8	Extra depth beyond 6.0 M and up to 10.0 M depth for type "D1" manhole above.	137.00		Rmt	
8	Providing F.R.C. MH seat cover incl. carting to the work site etc. comp. Directed. F.R.C. Extra Heavy Duty (EHD-35) Machinehole Covers & Frames Cover: 728mm ø & 100 mm thick circular cover, 35.00MT load design, 100 x 2mm MS flat all round, 16mm ø plain round bar for lifting the cover & should be fitted with plastic cups. Frame: 560mm ø clear opening, -888 x 888 x 175mm. On the upper periphery off frame 25x3 mm wide MS flat should be well embed in concrete to protect the edges off rame. FRC E.H.D.-35 Machinehole cover & frame described as above.	5741.00		Nos	
9	Providing and constructing rectangular brick masonry chamber for house connection as per type design in brick masonry in C M 1 3 including M-100 in foundation M-150 in benching inside plastering in C. M. 1 3 and outside plastering in C. M. 1:3 coping in M200 and f1x1ng RCC precast manhole frame and covers and all necessary fittings engineer in charge.	3313.00		Nos	
10	Refilling the pipeline trenches & Manhole incl. ramming, watering, consolidating desposal of surplus stuff as directed within a radius of 3 km.	856563.89		Cmt.	

11	Providing and casting in situ C.C. in grade M-20 (proportions as per mix design or as per table 9 of IS 456 2000 in masses by weight batching) using granite. quartzite trap metal of size 6 mm to 20 mm for RCC work, including scaffolding centering, formwork, needle vibrated consolidation, curing complete up to 6 meter depth or height (excluding cost of reinforcement and neat finishing) with centering and shuttering/deshuttering etc. complete for structure other than water retaining (Below G.L) (without formwork)	495.00		Cmt.	
12	Drilling of 500 mm dia Horizontal borehole for watermain pipeline under the railway tracks incl all starta with required length including fixing of 400 mm dia MS casing pipe of minimum 6 mm thick with welding pushing etc. complete. Providing & fixing various size of pipe for 193.7 mm/219.10 mm/ 244.5 mm dia watermain of GI MS pipe of minimum 0.3 mm thick for railway premises as per instructions & regulations of Railway Authority & under supervision of Railway authority incl providing supplying & fixing of space at specified interval if required in between casing pipe and water main ISI make sluice valve of required size at both side at railway boundary with construction of brick pavement incl CC encasing 1:3:6 in 10 mtr length of pipe at both side incl providing & fixing of MS/Iron manhole frame with cover for valve chamber with locking arrangement etc complete with all material labour fabrication, hydraulic testing, of pipe and valve etc complete for 45 m length which includes horizontal pushing and with all open excavation.				
	MS casing pipe + water Main size 219 mm	90.00		RMT	

13	Drilling of 900 mm dia Horizontal borehole for watermain pipeline under the railway tracks incl all starta with required length including fixing of 400 mm dia MS casing pipe of minimum 6 mm thick with welding pushing etc. complete. Provding & fixing various size of pipe for 193.7 mm/219.10 mm/ 244.5 mm dia watermain of GI MS pipe of minimum 0.3 mm thick for railway premises as per instructuions & regulations of Railway Authority & under supervision of Railway authority incl providing supplying & fixing of space at specified interval if required in between casing pipe and water main ISI make slucie valve of required size at both side at railway boundry with construction of brickege pavement incl CC encasing 1:3:6 in 10 mtr lenght of pipe at both side incl providing & fixing of MS/Iron manhole frame with cover for valve chamber with locking arrangement etc complete with all material labour fabrication, hydraulic testing, of pipe and valve etc complete for 45 m lenght which includes horizontal pushing and with all open excavation.				
	MS casing pipe + water Main size 457 mm	180.00		RMT	
<u>SCHEDULE A2</u>					
	PUMPHOUSE AND RISING MAIN LINE				
It. No.	Description	Quantity	Rate	Per	Amount



1	<p>Supply, installation, testing &amp; commissioning of non clog sewage vertically mounted end suction type Submersible Non Clog pump set of required capacity &amp; head with suitable TEFC squirrel cage foot mounted induction motor (with minimum IE-3 efficiency class), working on three phase 50 Hz <math>\pm</math> 3%, 415 V <math>\pm</math> 10% AC supply, 1500 RPM synchronous speed including suitable provision of extended shaft of 2 meters length to couple with motor along with base frame, coupling with guard, foundation bolts, strainer etc. complete set as per relevant IS &amp; following M.O.C:  Casing: 1.5 to 2% Ni. CI; Impeller &amp; wearing ring: SS / CF8M, Shaft with sleeve: SS &amp; Base frame: CI; Guide Pipe: SS. Providing submersible, Non clog type with required capacity &amp; head as per IS 8034 suitable for water having upto 10000 PPM turbidity with suitable submersible wet type, water cooled, squirrel cage motor to IS 9283, working on three phase, 50 Hz <math>\pm</math> 3%, 415V <math>\pm</math> 10%, AC supply, 2900 RPM synchronous speed with 10 mtr copper conductor flat cable from pump to starter panel with cable end terminations (4) all supports, clamps, pipe fittings alongwith mechanical seal, bearing bush, strainer etc. complete set &amp; following M.O.C: Casing CI, SS CF8M impeller, Bronze: wearing ring &amp; Bearing bush, TC mechanical seal, CS/S.S.bearing, S.S shaft with sleeve, SS strainer &amp; MS motor body.  Discharge : 31.25 m<sup>3</sup>/hr  Head: 11 meter  Motor Rating : 1.5 Kw</p>				
	Submersible non Clog pump	2.00		Nos	

2	<p>Supply, installation, testing &amp; commissioning of non clog sewage vertically mounted end suction type Submersible Non Clog pump set of required capacity &amp; head with suitable TEFC squirrel cage foot mounted induction motor (with minimum IE-3 efficiency class), working on three phase 50 Hz <math>\pm</math> 3%, 415 V <math>\pm</math> 10% AC supply, 1500 RPM synchronous speed including suitable provision of extended shaft of 2 meters length to couple with motor along with base frame, coupling with guard, foundation bolts, strainer etc. complete set as per relevant IS &amp; following M.O.C:</p> <p>Casing: 1.5 to 2% Ni. CI; Impeller &amp; wearing ring: SS / CF8M, Shaft with sleeve: SS &amp; Base frame: CI; Guide Pipe: SS. Providing submersible, Non clog type with required capacity &amp; head as per IS 8034 suitable for water having upto 10000 PPM turbidity with suitable submersible wet type, water cooled, squirrel cage motor to IS 9283, working on three phase, 50 Hz <math>\pm</math> 3%, 415V <math>\pm</math> 10%, AC supply, 2900 RPM synchronous speed with 10 mtr copper conductor flat cable from pump to starter panel with cable end terminations (4) all supports, clamps, pipe fittings alongwith mechanical seal, bearing bush, strainer etc. complete set &amp; following M.O.C: Casing CI, SS CF8M impeller, Bronze: wearing ring &amp; Bearing bush, TC mechanical seal, CS/S.S.bearing, S.S shaft with sleeve, SS strainer &amp; MS motor body.</p> <p>Discharge : 15.75 m<sup>3</sup>/hr  Head: 13 meter  Motor Rating : 0.80 Kw</p>				
	Submersible non Clog pump	2.00		Nos	

3	Supply, installation, testing & commissioning of non clog sewage vertically mounted end suction type Submersible Non Clog pump set of required capacity & head with suitable TEFC squirrel cage foot mounted induction motor (with minimum IE-3 efficiency class), working on three phase 50 Hz $\pm$ 3%, 415 V $\pm$ 10% AC supply, 1500 RPM synchronous speed including suitable provision of extended shaft of 2 meters length to couple with motor along with base frame, coupling with guard, foundation bolts, strainer etc. complete set as per relevant IS & following M.O.C: Casing: 1.5 to 2% Ni. CI; Impeller & wearing ring: SS / CF8M, Shaft with sleeve: SS & Base frame: CI; Guide Pipe: SS. Providing submersible, Non clog type with required capacity & head as per IS 8034 suitable for water having upto 10000 PPM turbidity with suitable submersible wet type, water cooled, squirrel cage motor to IS 9283, working on three phase, 50 Hz $\pm$ 3%, 415V $\pm$ 10%, AC supply, 2900 RPM synchronous speed with 10 mtr copper conductor flat cable from pump to starter panel with cable end terminations (4) all supports, clamps, pipe fittings alongwith mechanical seal, bearing bush, strainer etc. complete set & following M.O.C: Casing CI, SS CF8M impeller, Bronze: wearing ring & Bearing bush, TC mechanical seal, CS/S.S.bearing, S.S shaft with sleeve, SS strainer & MS motor body. Discharge : 226.63 m <sup>3</sup> /hr Head: 13 meter Motor Rating : 11.5 Kw				
	Submersible non Clog pump	2.00		Nos	
4	Providing and supplying D. I. K-9 grade pipes for following nominal bore diameter with internal cement mortar lining including all taxes, insurance, transportation, freight charges, octroi, inspection charges, loading, unloading, conveyance to departmental stores, stacking etc. complete. (IS 8329-2000). Rate for DI pipe based on wholesale Price Index of Pig Iron as 149.2 for the month of Jan-22. For Sewerage project cement mortar lining shall be with sulphate resistance cement				
4.1	150 mm dia	700.00		RMT	
4.2	450 mm dia	600.00		RMT	
5	Lowering, laying and jointing C. I. S & S Spun pipes suitable for Tyton joints / Mortar lined D. I. Pipes of various classes with CI / MS specials of following diameters in proper position, grade and alignment as directed by Engineer-in-charge including hydraulic testing etc. comp.				
5.1	150 mm dia	700.00		RMT	
5.2	450 mm dia	600.00		RMT	

6	Pump House Designing (Aesthetically) and constructing RCC frame structure of pump room with all necessary Electrification, Earthing with allied all civil work, with positive suction/Negative suction With gantry Structure (Min Height 4.5 m) upto 6.00 m plinth level to top slab beam, bottom (10*10=100 Sqmt.) With Gantry Structure Min Height 4.5 Mtr				
		2.00		0	
7	Pump House Designing (Aesthetically) and constructing RCC frame structure of pump room with all necessary Electrification, Earthing with allied all civil work, with positive suction/Negative suction With gantry Structure (Min Height 4.5 m) upto 6.00 m plinth level to top slab beam, bottom (10*20=200 Sqmt.) With Gantry Structure Min Height 4.5 Mtr				
		1.00		0	
8	C.I. D/F VALVES: SLUICE VALVE: Supply, installation, painting, testing and commissioning of double flanged, short body, C.I. Sluice valve confirming to IS 14846 PN 1.5 with bronze seat rings and SS 316 spindle with all carbon steel hardware's, gaskets with required accessories to be installed on suction & delivery side of each pump and bypass pipe. The valves of size 300 mm and above shall be provided with gear arrangement with all other necessary hot dipped galvanized hardware's, etc. along with spare parts as per data sheet and specifications. Sluice valves shall be electrically operated with limit switches, valve position indicator, forward/reverse integral and local & panel mounted starter, open/close indicating lamps push button, cable up to starter, hand wheel for emergency operation and all other necessary hot dipped galvanized hardware's along with spare parts as per data sheet and specification.				
8.1	150 mm dia	4.00		Nos	
8.2	450 mm dia	2.00		Nos	

9	Full Bore Electromagnetic Flow Meter- Regular Power operated Design, Supply, Installation, Testing, Commissioning of Full Bore Electromagnetic flow meter with factory calibration, Inbuilt Battery Power Operated, flanged connection, Flow sensor, Indicator, transmitter and totaliser with all accessories viz. surge arrestor, associated cables, cabinets, hardwares, etc complete as per following specifications Flow Meter/ Sensor:DC pulsed type, IP 68 Protection, Flanged process connection as per IS 1538 or equivalent standard, SS304/ Metallic Alloy Flow Tube, SS316/ SS 316 L/ Hastelloy Sensor, SS316/ Hastelloy Grounding Ring/ Inbuilt Grounding Electrode, Neoprene/Polyurethane/ Hard Rubber/ Rilsan lining, SS304/ Die Cast Aluminium/ Carbon steel with Anticorrosive Paint Coil Housing with Junction Box, CS flanges. Flow Transmitter/ Converter ( Remote Field Mounted):Microprocessor based, Modular design, 2 line LCD for indication of actual flow rate, forward, reverse, sum totaliser display, $\pm 0.5\%$ accuracy at 0.3 to 4 m/sec velocity, 4 to 20 mA with HART/Modbus output, one scalable pulse, one status output, IP 67 protection, Die cast aluminium/ polycarbonate/ SS316 with Anticorrosive Paint/ PU finish with glass window enclosure, Inbuilt EEPROM and Data Logger, 20 meters cable length for sensor to transmitter communication etc alongwith wall mounted/ stand mounted cabinet.				
9.1	150 mm dia	2.00		Nos	
9.2	450 mm dia	1.00		Nos	
10	Supply, testing & commissioning of flange ends Expansion Bellow as per EJMA standards of overall length of minimum 300 mm, designed for 15 mm axial compression and 5 mm axial extension with tie rods etc. of following MOC & pressure ratings MOC: Bellows: SA 240 Gr. 304; Internal Sleeve: SA 240 Gr. 304; Weldends: IS 2062 Gr. B; Flanges: IS 2062 Gr. B (Drilling as per IS 1538 /IS 6392 ) & Limit Rods & Nuts: CS - IS 1367.				
10.1	150 mm dia	6.00		Nos	
10.2	450 mm dia	3.00		Nos	

11	Manufacture, Supply & Delivery of Ductile Iron Flange socket spigot bends, tees, reducers or any other specials as per BS-EN-545/1995 Class-A series K12 suitable for use with D.I. Pipes manufactured as per IS:8329/1994 delivery of specials is to be made to site of works including all taxes, loading, unloading, carting. stacking, insurance, inspection charges, octroi etc. complete.				
11.3	80 to 300 mm dia	2500.00		Kg	
11.2	350 mm & above	3000.00		Kg	

#### SCHEDULE A3

	ROAD RESTORATION WORK				
It. No.	Description	Quantity	Rate	Per	Amount
1	Construction of 200mm thick Granular Sub Base (Grading I) by providing coarse graded Black Trap material, mixing by mechanical means / rotavator, spreading in uniform layers with motor grader as per required slope and gradient on prepared surface and compacting with vibratory roller at OMC to achieve the desired compaction complete as per MORT & H clause 401	65270.00		Cu. Mt.	
2	Providing, laying, spreading and compacting graded stone aggregates to Wet Mix Macadam in 150 mm thickness as per MORT & H specification including premixing the material with water at OMC in mechanical mix plant, carriage of mixed material by tippers to site, laying in uniform layers with paver or motor grader in sub base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per MORT & H clause 406	10400.00		Cu. Mt.	
3	Providing and laying 50 mm thick compacted bitumenous macadam (BM) with Emulsion tack coat @ 2.50 Kg./ 10 Sqmt using crushed stone aggregate as per MORT & H gradation VG-30 grade bitumen at the rate of 3.40% by weight of total mix (i.e. 34kg/mt by wt. of total mix) for binding including heating and mixing the asphalt and aggregates by continuous batch mix plant and transporting the mix and spreading the same by paver finisher and consolidation with vibratory road roller including using all necessary equipments, tools, plants, including cost of all materials, firewood, oil, lubricants, labour charges etc. complete.	12000.00		M.T.	

4	Providing & laying 30 mm. thick Compacted Bitumen Concrete(BC) with BT aggregate as per M.O.R.T.&H.gradation & asphalt grade VG-30 for mixing at the rate of 54 Kg./M.T. i.e. 5.40% of total weight of total mix including heating the aggregate & asphalt in continuous batch mix plant & spreading the same by sensor paver finisher & consolidation with vibratory roller & flushing sand @ 0.30 Cum/ 100 Smt. including providing all materials wquipments, tools & plants, fire wood, oil, kerosene, labour charges etc complete using constructors own machinery drum mix plant & paver finisher etc complete.	7200.00		M.T.	
5	Providing and laying in position Control concrete M-300 grade concrete for using cement content as per approved design mix, improve workability without impiring strength and durability as per direction of the engineer-in-charge. (Min cement level as per latestIS 456 shall be maintained) (Cement level 360kg) for 150mm thick Trimix C.C. Road with trimix vaccum dewatering system work with power trowling sheet form with M.S. Channles, surface vibrator , finishing with floor hardner necessary all equipments, all labour charges complete. (R.A) item no	10400.00		Cu. Mt.	

**Asst. Engineer**  
**G.M.C.**

**Dy. Ex. Engineer**  
**G.M.C.**

**City Engineer**  
**G.M.C.**

**Signature of Contractor**