



## **VADODARA MUNICIPAL CORPORATION**

### **TENDER FOR**

Annual Rate Contract for Laying of CI/DI Pipe line, Construction of Valve Chamber, Tube Well and Hand pump in North zone for the year 2025-26.

### **VOLUME - I TECHNICAL BID**

**EXECUTIVE ENGINEER  
WATER WORKS PROJECT  
VADODARA MUNICIPAL CORPORATION**

**JUNE - 2026**

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**INVITATION FOR BID**  
**(IFB)**

## NATIONAL COMPETITIVE BIDDING

1. The Vadodara Municipal Corporation invites bids for the construction of works detailed in the table.  
The bidders may submit bids for any or all of the following works.

Package No	Name of work	Approximate value of works (Rs.)	Bid security (EMD) (Rs.)	Cost of document	Period of completion	Class of Registration / Category of contractor if required
1	Annual Rate Contract for Laying of CI/DI Pipe line, Construction of Valve Chamber, Tube Well and Hand pump in North zone for the year 2025-26	Rs 5,00,00,000 /-	Rs.10,00,000/-	Rs.20,000/-	12 Months	The Contractors must having registered appropriate class either with VMC, Central/State/PWD /M.E.S./Semi Government or other such institutions for the works.

Note: The bidder who fills the tender on N-procure must have valid appropriate class registration. He must apply for the registration in VMC after issue of work order within 30 Days.

### **(B) SCHEDULE OF TENDERING**

SR.	SCHEDULE	TIME	DATE	PLACE
1.	Downloading of Tender Documents from		15/06/2026	<a href="http://www.tender.nprocure.com">www.tender.nprocure.com</a>
2.	Pre-Bid meeting	-	-	<del>Office of Executive Engineer (Water Supply Project), Room NO 210- Vadodara Municipal Corporation Khanderao Market Building, Rajmahal Road, Vadodara-390001.</del>
3.	Last Date of loading of online completed tender	Up to 4:00 pm.	06/07/2026	ONLINE ONLY
4.	Last Date of Submission of Hardcopy of completed Tender Document	Up to 4:00 pm.	09/07/2026	By registered post / speed post only & <b>hand delivery will not be accepted</b> & should be addressed to the: <b>Office of Executive Engineer (Water Supply Project), Room NO 210</b>
5.	Opening of Technical Bid	Up to 5:00 pm.	09/07/2026	In the office of Executive Engineer, WATER WORKS PROJECT Dept. Vadodara Municipal Corporation, Khanderao Market Building, Rajmahal Road, Vadodara-390 001.

#### **Contacting Office:**

The Executive Engineer,  
WATER WORKS PROJECT,  
Room No. 210, second floor  
Vadodara Municipal Corporation,  
Khanderao Market Building,  
Rajmahal Road, Vadodara-390 001.

2. Prospective / Interested bidder may download the Bid Documents from website <https://tender.nprocure.com> till the Time and Date as mentioned on online NIT at website <https://tender.nprocure.com>.

3. However, Bidder who is submitting the Bid Online will have to pay the Bid Document Fee / Tender Fee through Demand Draft only of any RBI approved Bank payable at Vadodara and in favour of 'Municipal commissioner, Vadodara'. Once the Bid is received, Bid Document / Tender Fee will not be refundable.

The Demand Draft for Bid Document / Tender fee and Bank Guarantee against Bid Security / EMD shall be submitted in electronic format through online (by scanning) while uploading the bid, this submission shall mean that bid document / tender fee and Bid Security / EMD has been received. Accordingly, the offer of only those shall be opened whose Bid Document / Tender Fee and Bid Security / EMD have been received electronically. However, for the purpose of realization of Demand Draft / Bank Guarantee bidder, shall send the same in original through R.P.A.D/Speed Post so as to reach to Municipal commissioner, Vadodara' as per tender notice.

Penetrative action for not submitting Demand Draft / Bank Guarantee in original to Executive Engineer / Tender Inviting Authority by bidder shall be initiated and He will be put in abeyance from filling tenders for next 6 months in VMC.

4. Bids received online, will be opened on the time, date and place as specified in the online NIT at website <https://tender.nprocure.com> in the presence of the bidders or their authorized representatives, who wish to remain present.

If the office happens to be closed on the last day of submission in hardcopies of the bids as specified, the hardcopies of the bids will be accepted on the next working day at the same time and venue.

5.A Deleted

6. Bid Security (EMD) is equal to 2% of Estimated Amount put to bid / tender. Bid security for the work costing up to Rs. 1 crore shall be deposited in form of DD (demand draft) and for works costing above Rs. 1 crore bank guarantee shall be accepted. (DD/Bank Guarantee shall be from banks as listed in D.M.O. date 11/03/2024 or as per their latest amendment. (as per list attached here with as per GoG gr)

7. Other Information is as under:

a) Agencies can prepare and edit their offers a number of times before the end of the tender submission date and time. After the tender submission date and time, the bidder cannot modify / edit / withdraw their submitted offer in any case. No written or online request in this regard shall be granted.

b) Offers in physical form will not be accepted in any case.

c) Demand Draft purchased by the other than bidder and also issued after the last date of submission of Bids, will not be considered or accepted.

d) The cost incurred by the contractor for this offer for clarification or attending discussion, conferences or site visits will not be reimbursed by the Employer or Engineer-in-Charge.

e) Conditional tender shall not be accepted.

f) Any changes, addition, alternation made in the prescribed form attached with tender are liable to be rejected.

g) Any change in format or conditional Bank Guarantee will not be accepted and the bidder will be considered non-responsive.

h) All the bidders are instructed to fill in information strictly in accordance with the format given in the checklist / qualification document / tender document.

i) It is mandatory for the bidders to supply each and every information as asked strictly in electronic format at appropriate places only.

j) Blank / insufficient information shall be treated as nil information and shall result in disqualification.

k) Even if the bidder has been qualified in a similar or larger size of project in the past, it shall not be deemed to be a ground / reason for not giving required information for this work / bid.

l) Information supplied for earlier projects shall not be considered while evaluation of this bid. The Government will not ask for any other information, unless it is found absolutely necessary by the competent authority.

m) If found necessary, the contractor will be intimated for negotiation,

n) Deleted

Following documents shall be submitted in electronic format only through online by scanning and the (i) Bid Document Fee / Tender Fee (ii) Bid Security / EMD should be sent in original to the Tender opening authority through RPAD/Speed Post, so as to reach the Executive Engineer as per tender notice.

Bid Document Fee / Tender Fee

i) Bid Security

ii) Registration certificate of **minimum in 'E-1' Class OR appropriate class** with VMC, Central, State, PWD, MES, Govt. Semi Govt. or such other institutions. After issue of work order; Contractor have to apply for registration in VMC within 30 days.

iii) GST Number

iv) Work Experience, if necessary...

v) Other Documents, as required...

**SECTION - 1**  
**INSTRUCTIONS TO BIDDERS (ITB)**

## **ASection 1: Instructions to Bidders**

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## **A.General**

### **1.Scope of Bid**

**1.1**The Employer (Named in Appendix to ITB) invites bids for the Construction of works (as defined in these documents and referred to as ‘the works’) detailed in the table given in IFB. The bidders may submit bids for any or all of the works detailed in the table given in IFB.

**1.2**The successful bidder will be expected to complete the works by the intended completion date specified in the Contract data.

**1.3**Throughout these bidding documents, the terms ‘bid’ and ‘tender’ and their derivatives (bidder/ tenderer, bid / tender, bidding/ tendering, etc.) are synonymous.

### **2.Source of Funds**

**2.1** The expenditure on this project will be met from the budget of VMC /Govt. of Gujarat / Govt. of India for centrally sponsored projects.

### **3. Eligible Bidders**

**3.1** This Invitation for Bids is open to all eligible bidders.

**3.2** All bidders shall provide in Section 2, Forms of Bid and Qualification Information, a statement that the Bidder is neither associated, nor has been associated, directly or indirectly, with the consultant or any other entity that has prepared the design, specifications, and other documents for the Project or being proposed as Project Manager for the Contract. A firm that has been engaged by the Employer to provide consulting services for the preparation or supervision of the works, and any of its affiliates, shall not be eligible to bid.

### **4. Qualification of the Bidder**

**4.1** All bidders shall provide in Section 2, Forms of Bid and Qualification Information, a preliminary description of the proposed work method and schedule, including drawings and charts, as necessary. The proposed methodology should include a program of construction backed with equipment planning and deployment duly supported with broad calculations and quality assurance procedures proposed to be adopted justifying their capability of execution and completion of work as per technical specifications, within stipulated period of completion.

**4.2** Deleted

**4.3** Deleted

**4.4** Deleted

### **4.5 QUALIFICATION CRITERIA:**

(Applicable for the works which require Post Qualification)

**4.5.1** Qualification will be based on meeting all the following minimum pass/fail criteria regarding the bidder’s general and particular experience, personnel and equipment capabilities, and financial position, as demonstrated by the bidder’s responses in the forms attached. The bidder should be registered in VMC & required class for State and Central Government, semi government and other Corporations / Boards or such other institutions–Sub-contractor’s experience and resources shall not be taken into account in determining the bidder’s compliance with the qualifying criteria.

### **Eligible Applicants:**

The tenders for this contract will be considered only from those bidders (proprietorship firms, partnerships firms, companies, corporations) who meet requisite qualification criteria prescribed as under. Joint ventures, for this work as well as experience in JV shall not be permitted.

## TECHNICAL CAPABILITIES

### PARTICULAR EXPERIENCE

Experience of having successfully completed similar works during last 7 years ending last day of month previous to the one in which applications are invited should be either of the following:-

a. Three similar completed works costing not less than the amount equal to 40% of the estimated cost.

Or

b. Two similar completed works costing not less than the amount equal to 50% of the estimated cost.

Or

c. One similar completed work costing not less than the amount equal to 80% of the estimated cost.

**Definition of Similar nature: On going work or partly completed work shall not be Consider. The similar work means only laying {labour work} of DI/CI pipeline in Reputed Government organization / Semi Government Organization.**

The base year shall be taken as Current financial year

Following enhancement factors will be used for the costs of works executed and the financial figure to a common base value for works completed in India.

Last One (24-25)	1.00
Last Two (23-24)	1.10
Last Three (22-23)	1.21
Last Fourth (21-22)	1.33
Last Fifth (20-21)	1.46
Last Six (19-20)	1.61
Last Seven (18-19)	1.77
Last Seven (17-18)	1.94

Applicant should indicate actual figures of costs and amount for the works executed by them without accounting for the above-mentioned factors.

In case the financial figures and value of completed works are in foreign currency the above enhanced multiplying factors will not be applied. Instead, the current market exchange rate (State Bank of India BC Selling rate as on the last date of submission of the bid) will be applied for the purpose of conversion of the amount in foreign currency into India rupees.

#### 4.5.3 General Experience.

The Applicant shall meet with the following minimum criteria:

Average Annual financial turnover during the last 3 years, ending 31st March of the previous financial year, should be at least 30% of the estimated cost.

Substantially completed works means those works which are at least 90 % completed as on the date of submission (i.e. gross value of work done up to the 9 last date of submission is 90 % or more of the original contract price) and continuing satisfactorily.

For these, a certificate from the employers shall be submitted along with the application incorporating clearly the name of the work, contract value, billing amount, date of commencement of works, satisfactory performance of the contractor and any other relevant information.

#### 4.5.4 Personnel Capabilities.

Availability for his work of personnel with adequate experience as required; as per Appendix.

#### 4.5.5 Equipment Capabilities

Based on the studies carried out by the Engineer, the minimum suggested major equipment to attain the completion of works in accordance with the prescribed construction schedule are shown in the Appendix.

The bidders should, however, undertake their own studies and furnish with their bid, a detailed construction planning and methodology supported with layout and necessary drawings and calculations to allow the employer to review their proposals. The numbers, types and capacities of each plant/equipment shall be shown in the proposals along with the cycle time for each operation for the given production capacity to match the requirements.

#### 4.5.6 Financial Position

The Applicant should give undertaking that he has access to, or has available, liquid assets (aggregate of working capital, cash in hand and uncommitted bank guarantees) Or **Bank solvency certificate of Nationalized Bank shall be 25% of the Tender Amount** Or credit facilities up to 25 percent of the value of the contract / contracts applied.

4.5.7 The audited balance sheets for the last five years should be submitted, which must demonstrate the soundness of the applicant's financial position, showing long – term profitability including an estimated financial projection for the next three years If necessary, the employer will make inquiries with the applicant's bankers.

#### 4.5.8 Litigation History

The Applicant should provide accurate information on any litigation or arbitration resulting from contracts completed or under execution by him over the last five years.

The tender document of any bidder who has been blacklisted by any government / semi-government body will be out rightly rejected.

#### 4.5.9 Disqualification

Even though the applicants meet the above criteria, they are subject to be disqualified if they have:

Made misleading or false representation in the forms, statements submitted, and / or Record of poor performance such as abandoning the work, rescinding of contract for which the reasons are attributable to the non – performance of the contractor; consistent history of litigation awarded against the applicant or financial failure due to bankruptcy.

#### 4.6 Delete

#### 4.7 Bid Capacity

Applicants who meet the minimum qualification criteria will be qualified only if their available bid capacity at the expected time of bidding is more than 25% of total estimated cost of the works. The available bid capacity will be calculated as under:

Assessed Available Bid Capacity = ( A\*N\*2-B), where

A = Maximum value of work executed in any one year during the last five years (updated to the price level of the year indicated in appendix) taking into account the completed as well as works in Progress.

B = Value at current price level of the existing commitments and ongoing works to be completed during

the next ( period of completion of work for which bids are invited ); and

N = Number of years prescribed for completion of the works for which the bids are invited.

Bid capacity will be more applicable for works costing more than Rs.1 crore.

4.8 Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have:

- Made misleading or false representation in the forms, statements and Attachments the submitted in proof the qualification requirements; and / or
- Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delay in completion, litigation history, or financial failures etc.; and/ or
- Participated in the previous bidding for the same work and had quoted unreasonably high bid prices and could not furnish rational justification to the employer.

## **5. One bid per bidder**

5.Deleted

## **6. Cost of Bidding**

6.1 The bidder shall bear all costs associated with the preparation and submission of his Bid, and the Employer will in no case be responsible and liable for those costs.

## **7. Site Visit**

7.1 The Bidder, at the Bidder's own responsibility and risk is encouraged to visit and examine the Site of work and its surrounding and obtain all information that may be necessary for preparing the Bid and entering into a contract for construction of the Works.

The costs of visiting the site shall be at the Bidder's own expense.

## B.BIDDING DOCUMENTS

### 8. Content of Bidding Documents

8.1 The set of bidding documents comprises the documents listed below and addenda issued in accordance with Clause 10:

Section	Particulars	Volume No.
-	Invitation for Bids	I
1	Instructions to Bidders	
2	Qualification Information, and other forms	
3	Conditions of Contract	
4	Contract Data	
5	Technical Specifications	II
6	Form of Bid	III
7	Bill of Quantities	
8	Securities and other forms	
9	Drawings	IV
10	Documents to be furnished by bidder	V

8.2 Volumes I, II, III and IV are available online and documents to be furnished by the bidder in compliance to section 2 will be prepared by him and furnished as Volume- V in two parts (refer clause 12).

8.3 The bidder is expected to examine carefully all instructions, conditions of contract, contract data, forms, terms, technical specifications, bill of quantities, forms, Annexes and drawings in the Bid Document. Failure to comply with the requirements of Bid Documents shall be at the bidder's own risk. Pursuant to clause 26 hereof, bids which are not substantially responsive to the requirements of the Bid Documents shall be rejected.

### 9.0 Clarification Bidding Documents

9.1 A prospective bidder requiring any clarification of the bidding documents may notify the Employer in writing or through E-mail at the Employer's address indicated in the invitation to bid. The Employer will respond to any request for clarification which he received earlier than 15 days prior to the deadline for submission of bids. Employer's response will be published on website including a description of the enquiry but without identifying its source.

~~9.2~~ Deleted

~~9.2.1~~ Deleted

~~9.2.2~~ Deleted-

~~9.2.3~~ Deleted

~~9.2.4~~ Deleted-

9.2.5 Deleted

9.2.6 Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

10.0 Amendment of Bidding Documents

10.1 Before the deadline for submission of bids, the Employer may modify the bidding documents by issuing addenda.

10.2 Any addendum thus issued shall be part of the bidding documents. The Employer will assume no responsibility for the same.

10.3 To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer may, at his discretion, extend as necessary the deadline for submission of bids, in accordance with Sub-Clause 20.2 below.

## C.PREPARATION OF BIDS

### 11.0 Language of the Bid

11.1 All documents relating to the bid shall be in the English language.

### 12.0 Documents Comprising the Bid

12.1.1 The bid be submitted by the bidder as Volume V of the bid document (refer Clause 8.1) shall be in two separate parts:

Part I shall be named “Technical Bid” and shall comprise

- i) Bid Security in the form specified in Section 8
- ii) Qualification Information and supporting documents as specified in Section 2
- iii) Certificates, undertakings, affidavits as specified in Section 2
- iv) Any other information pursuant to Clause 4.5 of these instructions
- v) Undertaking that the bid shall remain valid for the period specified in Clause 15.1

Part I shall be named “Technical Bid” and shall comprise

- i.) Form of Bid as specified in Section 6
- ii.) Priced Bill of Quantities for items specified in Section 7

12.1.2 The Bidder shall submit the details / information pertaining to each part i.e. technical as well as financial and must be submitted online only.

12.1.3 Following documents will be deemed to be part of the bid.

Section	Particulars	Volume No.
<b>Invitation for Bids (IFB)</b>		
1	Instruction to Bidders	Volume I
3	Conditions of Contract	
4	Contract Data	
5	Specifications	Volume II
9	Drawings	Volume IV

### 13.0 Bid Prices

13.1 The Contract shall be for the whole works as described in Sub-Clause 1.1, based on the priced Bill of Quantities submitted by the Bidder.

13.2 The bidder shall fill in rates and prices and line item total (both in figures and words) for all items of the Works described in the Bill of Quantities along with total bid price 13.3 (Both in figures and words). Items for which no rate or price is entered by the bidder will not be paid for by the Bill of Quantities.

13.3 All duties, taxes, and other levies except GST payable by the contractor under the contract, or for any other cause shall be included in the rates, prices and total Bid Price submitted by the Bidder. (GST will be paid extra)

13.4 All bank guarantee / insurance policies etc., shall be deposited on amount of project cost including GST (VMC

changes shall be applicable)

13.5 The rates and prices quoted by the bidder are subject to adjustment during the performance of the Contract in accordance with the provisions of Clause 47 of the Condition of Contract (Irrespective of the time limit and Bid Amount)

#### 14.0 Currencies of Bid and Payment

14.1 The unit rates and the prices quoted by the bidder shall be entirely in Indian Rupees. All payments shall be made in Indian Rupees.

#### 15.0 Bid Validity

15.1 Bids shall remain valid for a period of not less than 120 days after the deadline date for bid submission specified in Clause 20 page no. 18.

15.2 In exceptional circumstances, prior to expiry of the original time limit, the Employer may request that the bidders may extend the period of validity for a specified period. A bidder may refuse the request without forfeiting his bid security. A bidder agreeing to the request will not be required or permitted to modify his bid, but will be required to extend the validity of his security for a period of the extension, and in compliance with Clause 16 in all respects.

#### 16.0 Bid Security

16.1 Bid Security (EMD) is equal to 2% of Estimated Amount put to bid / tender and should be rounded off to the next thousand rupees. Bid security for the work costing up to Rs. 1 crore shall be deposited in form of DD (demand draft) and for works costing above Rs. 1 crore DD/ Bank guarantee shall be accepted.

The bid must be accompanied by the bid security as specified and shown in Table SCHEDULE OF TENDERING Sr. No. 2(B) above. The Bid Security shall be in one of the following forms:

Demand Draft payable to Municipal Commissioner, Vadodara issued by any nationalized bank/RBI approved bank / Scheduled bank as per the list attached in tender only. OR

An unequivocal and unconditional Bank Guarantee in the prescribed format given in this document issued by any Nationalized Bank/RBI approved bank / Scheduled bank as per the list attached in tender only for a validity period of 45 days (ie.  $120+45 = 165$  days) beyond the validity of the bid. (EMD) Exemption Certificate will not be accepted)

16.2 Bank guarantees (and other instruments having fixed validity) issued as surety for the bid shall be valid for 45 days beyond the validity of the bid i.e. total validity of  $120+45 = 165$  Days

16.3 Any bid not accompanied by an acceptable Bid Security and not secured as indicated in Sub-Clauses 16.1 and 16.2 above shall be rejected by the Employer as non-responsive.

16.4 The Bid Security of unsuccessful bidders except 2<sup>nd</sup> lowest, will be returned within 28 days of the end of the bid validity period specified in Sub-Clause 15.1

Bid Security of 2<sup>nd</sup> lowest bidder shall be released after work order is given to 1<sup>st</sup> lowest.

16.5 The Bid Security of the successful bidder will be discharged when the bidder has signed the Agreement and furnished the required Performance Security.

16.6 The bid Security may be forfeited

a) If the Bidder withdraws the bid after Bid opening during the period of Bid validity.

b) If the Bidder does not accept the correction of the Bid Price, if any or

c) In the case of a successful Bidders, if the Bidder fails the specified time limit to

i) Sign the Agreement; or



ii)Furnish the requirement Performance Security.

d)If found necessary, the bidder will be intimated for negotiation, He will be intimated maximum three times within the validity period for negotiation, If contractor does not respond in time, his Bid Security (EMD) will be forfeited and his tender will be rejected. Punitive action will be taken on such contractors. (As per GoG R&B Dept's Gr. No. S/22/2017/6369/D, Dt.08/06/2018)

#### 17.0Alternative Proposals by Bidders.

17.1 Bidders shall submit offers that fully comply with the requirements of the bidding documents, including the conditions of contract (including mobilization advance or time for completion), basic technical design as indicated in the drawing and specifications. Conditional offers or alternative offers will not be considered further in the process of tender evaluation.

#### 18. Format and Signing of Bid

18.1 The Bidder shall prepare documents comprising the bid as described in Clause 12 of these Instructions to bidder as the "Technical Bid "and "Financial Bid" in separate parts to be uploaded.

## **D. SUBMISSION OF BIDS**

19. Deleted

20. Deadline for Submission of the Bids

20.1 Complete Bids must be received online by the Employer at the tender website specified above not later than the date indicated in appendix.

20.2 The Employer may extend the deadline for submission of bids by issuing an amendment in accordance with Clause 10, in which case all right and obligation of the Employer and the bidders previously subject to the original deadline will then be subject to the new deadline.

21. Deleted

22. Modification and Withdrawal of Bids

22.1 Bidders may modify or withdraw their bids online before the deadline prescribed in Clause 20 or pursuant to Clause 23.

22.2 Deleted

22.3 No bid shall be modified or withdrawn after the deadline for submission of Bid.

22.4 Withdrawal or modification of a bid between the deadline for submission of bids and the expiration of the original period of bid validity specified in Clause 15.1 above or as extended pursuant to Clause 15.2 may result in the forfeiture of the Bid security pursuant to Clause 16.

## **E BID OPENING AND EVALUTION**

### **23.Bid Opening**

23.1The Employer will open all the Bids received including modifications made pursuant to Clause 22, in the presence of the Bidders or their representatives who choose to attend at time, date and the place specified in Appendix in the manner specified in Clauses 20 and 23.3, In the event of the specified date of Bid opening being declared a holiday for the Employer, the Bids will be opened at the appointed time and location on the next working day.

### **23.2Deleted.**

23.3The “Technical Bid” shall be opened. The amount, form and validity of the bid security furnished with each bid will be announced. If the bid security furnished does not conform to the amount and validity period as specified in the invitation for bid (ref. Column 4 and paragraph 3), and has not been furnished in the form specified in Clause 16, the technical bid will not be opened.

23.4i) Subject to confirmation of the bid security by the issuing Bank, the bids accompanied with valid bid security will be taken up for evaluation with respect to the Qualification information and other information furnished in part I of the bid pursuant to Clause 12.1.

iii)If required, the bidder will be asked in writing to clarify his Qualification Documents with respect to any required clarification.

iv)The bidders will respond in not more than 7 days of issue of the clarification letter.

v)Immediately (usually within 3 or 4 days), on receipt of these clarification the Evaluation Committee will finalize the list of responsive bidders whose financial bids are eligible for consideration.

### **23.5Deleted**

23.6At the time of opening of “Financial Bid”, the names of the bidders were found responsive in accordance with Clause 23.4(iv) will be announced. The bids of only these bidders will be opened. The responsive Bidders’ names, the Bid prices, the total amount of each bid, any discount and such other details as the Employer may consider appropriate, will be announced by the Employer at the opening.

23.7the time of opening of “Financial Bid”, the names of the bidders were found responsive in accordance with Clause 23.4(iv) will be announced. The bids of only these bidders will be opened. The responsive Bidders’ names, the Bid prices, the total amount of each bid, any discount, and such other details as the Employer may consider appropriate, will be announced by the Employer at the opening.

23.8In case bids are invited for more than one package, the order for opening of the “Financial Bid” shall be in order of Estimated amount of Bids from highest to lowest.

23.9The Employer shall prepare minutes of the Bid opening, including the information disclosed to those present in accordance with Sub-Clause 23.6.

### **24.Process to be Confidential**

24.1Information relating to the examination, clarification, evaluation, and comparison of Bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process until the award to the successful Bidder has been announced. Any effort by Bidder to influence the Employer’s processing of Bids or award decisions may result in the rejection of his Bid.

### **25.Clarification of Financial Bids**

25.1To assist in the examination, evaluation, and comparison of Bids, the Employer may, at his discretion, ask any Bidder for clarification of his Bid, including breakdowns of unit rates. The request for clarification and the response shall be in writing or by e- mail, but no change in the price or substances of

the Bid shall be sought, offered, or permitted except as required to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Bids.

25.2 Subject to sub-clause 25.1, no Bidder shall contact the Employer on any matter relating to his Bid opening to the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Employer, it should do so in writing.

25.3 Any effort by the Bidder to influence the Employer in the Employer's bid evaluation, bid comparison or contract award decision may result in the rejection of the Bidders' bid.

## 26. Examinations of Bids and Determination of Responsiveness

26.1 During the detail evaluation of "Technical Bid", the Employer will determine whether each Bid (a) meets the eligibility criteria defined in Clause 3 and 4; (b) has been properly signed; (c) is accompanied by the required securities and; (d) is substantially responsive to the requirements of the Bidding document. During the detailed evaluation of the "Financial Bid", the responsiveness of the bids will be further determined with respect to the remaining bid conditions, i.e., priced bill of quantities, technical specifications, and drawings.

26.2 A substantially responsive "Financial Bid" is one which confirms all the terms, conditions and specifications of bidding documents, without material deviation or reservation. A material deviation or reservation is one (a) which affects in any substantial way the scope, quality, or performance of the Works; (b) which limits in any substantial way, inconsistent with the Bidding documents, the Employer's rights or the Bidder's obligations under the Contract; or (c) whose rectification would affect unfairly the competitive position of other Bidders presenting substantially responsive Bids.

26.3 If a "Financial Bid" is not substantially responsive, it will be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.

27. Deleted

28. Deleted

## 29. Evaluation and Comparison of Financial Bids

29.1 The Employer will evaluate and compare only the Bids determined to be substantially responsive in accordance with Sub-Clause 26.2.

29.2 Deleted

29.3 The Employer reserves the right to accept or reject any variation or deviation. Variation and deviations and other factors, which are in excess of the requirements of the Bidding documents or otherwise result in unsolicited benefits for the Employer, shall not be taken into account in Bid evaluation.

29.4 The estimated effect of the price adjustment conditions under Clause 47 of the Conditions of Contract, during the period of implementation of the Contract, will not be taken into account in Bid evaluation.

29.5 If the Bid of the successful Bidder is seriously unbalanced in relation to the Engineer's estimate of the cost of work to be performed under the contract the Employer may require the Bidder to produce detailed consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, the Employer may require that the amount of the performance security set forth in Clause 34 be increased at the expense of the successful /bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract.

29.6 A bid which contains several items in the bill of Quantities which are unrealistically priced low and which cannot be substantiated satisfactorily by the bidder may be rejected as non-responsive.

30. Deleted

## **F.AWARD OF CONTRACT**

### **31.Award Criteria**

31.1 Subject to Clause 32, the Employer will award the contract to the Bidder whose Bid has been determined.

i) to be substantially responsive to the Bidding documents and who has offered the lowest evaluated Bid Price; and

ii) to be within the available bid capacity adjusted to account for his bid price which is the lowest evaluation in any of the packages opened earlier than the one consideration.

In no case, the contract shall be awarded to any bidder whose available bid capacity is less than the evaluated bid price, even if the said bid is the lowest evaluated bid. The contract will in such cases be awarded to the next lowest bidder at his evaluation bid price.

### **32.Employer's Right to Accept any Bid and to Reject any or all Bids**

32.1 Notwithstanding Clause 31, the Employer reserves the right to accept or reject any Bid, and to cancel the Bidding process and reject all Bids, at any time prior to the award of contract, without thereby incurring any liability to the affected bidder or Bidder or any obligation to inform the affected Bidder or Bidders of the grounds for the Employer's action.

### **33.Notification of Award and Signing of Agreement**

33.1 The Bidder whose Bid has been accepted will be notified of the award by the Employer prior to expiration of the Bid validity period by cable, telex or facsimile confirmed by registered letter. This letter (hereinafter and in the condition of contract called the "Letter of Acceptance") will state the sum that the Employer will pay the Contractor in consideration of the execution, completion, and maintenance of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price").

33.2 The notification of award will constitute the formation of the contract, subject only to the furnishing of a performance security in accordance with the provisions of Clause

33.3 The Agreement will incorporate all agreements between the Employer and the successful Bidder. It will be signed by the Employer and to the successful Bidder, within 28 days following the notification of award along with the Letter of Acceptance. Within 21 days of receipt, the successful Bidder will sign the Agreement and deliver it to the Employer.

33.4 Upon the furnishing by the successful Bidder of the Performance Security, the Employer will promptly notify the other Bidders that their Bids have been unsuccessful.

### **34.Performance Security**

34.1 A) Within 15 (Fifteen) days of receipt of Letter of Acceptance, the successful Bidder shall furnish to the Employer an Irrevocable and unconditional guarantee from a Bank in the form set forth in Section 8 (the "Performance Security/ Security Deposit") for

a. an amount equal to 5% (five percent) of its Contract Price (capital cost + GST) in the form of Demand Draft / Bank Guarantee of the R.B.I. approved Nationalized Bank/Scheduled Bank as per attached List in (DOCUMENTS TO BE FURNISHED BY BIDDER, VOLUME - V) on award of work. OR

b. 2% of its Contract value (Capital cost + GST) in the form of security deposit submitted in the form of DD/BG or the Contractor's EMD can be converted in the form of security deposit on award of work + remaining 3% of its contract value (Capital cost + GST) shall be deducted from the running bills of the work to be retained against remaining security deposit.

Failure to submit performance security within 15 days shall impose penalty at 6% per Annum for any additional delayed days (as per VMC circular) in case of bids mentioned below, the successful Bidder, along

with the Performance Security, shall also furnish to the Authority an irrevocable and unconditional guarantee from a Bank in the same form given at Section 8 towards an Additional Performance Security (The "Additional Performance Security") for an amount calculated as under:

a. If the Contract Price offered by the Selected Bidder is lower than 10% but upto 20% of the Estimated Project Cost, then the Additional Performance Security shall be calculated @ 20% of the difference in the (i) Estimated Project Cost (as mentioned in Bid Document) - Minus 10% of the Estimated Project Cost and (ii) Contract Price offered by the selected Bidder.

b. If the Contract Price offered by the Selected Bidder is lower than 20% of the Estimated Project Cost, then the Additional Performance Security shall be calculated @ 30% of the difference in the (i) Estimated Project Cost (as mentioned in Bid Document) - Minus 10% of the Estimated Project Cost and (ii) Contract Price offered by the selected Bidder.

c. This Additional Performance Security shall be treated as part of the Performance Security.

B) The Performance Security shall be valid beyond 60 (Sixty) days from the stipulated date of completion of the project and the Additional Performance Security shall be valid beyond 28 (twenty-eight) days of Project Completion Date.

Performance Security shall become refundable/releasable within 15 days after certified project completion date subject to Fulfillment of contractual obligation and settlement of all dues and claims.

34.2 If the performance security is provided by the successful Bidder in the form of a Bank Guarantee, it shall be issued either (a) at the Bidder's option, by a Nationalized/Scheduled Indian bank or (b) by a foreign bank located in India and acceptable to the Employer. As per GoG Finance Department's Circular No. FD/MSM/e-file/4/2023/0057/D.M.O. Date 11/03/2024 or as per their latest amendment. (as per list attached here with as per GOG GR)

34.3 Failure of the successful Bidder to comply with the requirement of Sub-Clause 34.1 shall constitute sufficient grounds for cancellation of the award and forfeiture of the Bid Security

### 35. Advance Payment and Security

35.1 The Employer will provide an Advance payment on the Contract Price as stipulated in the Conditions of Contract, subject to maximum amount, as stated in the Contract Data.

### 36. Deleted

### 37. Corrupt or Fraudulent Practices

37.1 The Employer will reject a proposal if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in completing for the contract in question and will declare the firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract with National Highways Authority of India/ State PWD and any other agencies, if it at any time determines that the firm has engaged in corrupt or fraudulent practices in completing for the contractor, or in execution.

37.2 Furthermore, Bidders shall be aware of the provision stated in Sub- Clause 59.2 of the Conditions of Contract.

**APPENDIX TO ITB**  
**Clause Reference**  
**With respect to Section -I**

1.	The Name of the Employer is Executive Engineer, WATER WORKS PROJECT, VMC	[ Cl.1.1]																
2.	The last seven years. 2024 - 2025 2023 – 2024 2022 – 2023 2021 – 2022 2020 – 2021 2019 - 2020 2018 - 2019																	
3.	This Average Annual Financial Turnover Amount is 30% if estimated cost.	[Cl.4.5.3 (a)]																
4.	Value of Work is <b>Rs. 5,00,00,000/-</b>																	
5.	The cost of electric work is Rs. <b>NA</b>																	
6.	The cost of water supply / sanitary works is Rs. <b>NA</b>																	
7.	Liquid assets and / or availability of credit facilities is Rs. ....(25% of value of contract)	[Cl.4.5.6 ]																
8.	Price level of the financial year 2024-2025 (base year)	[Cl. 4.5.2]																
9.	The pre-bid meeting will take at Conference hall, Vadodara Municipal Corporation, Khanderao Market Building, Rajmahal Road, Vadodara – 390 001 on dated 10.01.2025 at 11:00 Hrs.	[Cl. 9.2.1]																
10.	The technical Bid will be opened at the office of the .....on dt..... At .....AM/PM																	
11.	Address of the Employer: The Executive Engineer WATER WORKS PROJECT, Room No. 210, Second floor, Vadodara Municipal Corporation, Khanderao Market Building, Rajmahal Road, Vadodara – 390 001																	
12.	Deleted																	
13.	The bid should be submitted latest by _____ As stated on online NIT	[Cl. 20.1 & 20.2]																
14.	The bid will be opened at ..... As stated on online NIT	[Cl. 23.1 ]																
15.	The Bank Draft in favor of Municipal Commissioner, Vadodara																	
16.	Deleted																	
17.	Escalation factors (for the cost of works executed and financial figure to a common base value) for works completed	[Cl.4.5.2]																
	<table><tr><td>Last One (25-26)</td><td>1.00</td></tr><tr><td>Last Two (24-25)</td><td>1.10</td></tr><tr><td>Last Three (23-24)</td><td>1.21</td></tr><tr><td>Last Fourth (22-23)</td><td>1.33</td></tr><tr><td>Last Fifth (21-22)</td><td>1.46</td></tr><tr><td>Last Six (20-21)</td><td>1.61</td></tr><tr><td>Last Seven (19-20)</td><td>1.77</td></tr><tr><td>Last Seven (18-19)</td><td>1.94</td></tr></table>	Last One (25-26)	1.00	Last Two (24-25)	1.10	Last Three (23-24)	1.21	Last Fourth (22-23)	1.33	Last Fifth (21-22)	1.46	Last Six (20-21)	1.61	Last Seven (19-20)	1.77	Last Seven (18-19)	1.94	
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Last Seven (19-20)	1.77																	
Last Seven (18-19)	1.94																	

**#LIST OF KEY PLANT & EQUIPMENT TO BE DEPLOYED ON CONTRACT WORK****[Reference CL. 4.5.5]**

The contractors shall also give a list of machineries in his possession and which they propose to use on the work.

Sr. No.	Plant or Machinery	Location	Age of Machinery (maximum 15 years)	Make	Capacity	Approximate Value	Remark
1	2(a)	2(b)	3	4	5	6	7

**List of Key Personnel to be deployed on Contract Work****(Reference Cl. 4.5.4)**

The Bidder must have suitably qualified personnel, to fill the following position. The Bidder will supply information on a prime candidate and an alternate for each position, both of whom should meet the experience requirements specified below for work involved:

Position (Nos.)	Total Experience in year	Experience in Similar Works (yrs)
Project Manager (1)	10	7
Construction Engineer (1)	5	2
Surveyor (1)	5	3
QA/QC Engineer (1)	5	3
Safety Engineer (1)	3	2
Supervisor (1)	3	2

MINIMUM REQUIREMENT OF EQUIPMENTS: 1) Auto Level : 1 No.(With Complete Set)

Note: As per site requirements during execution of work simultaneously agency shall have to depute Site Engineers/staff as mention in the table for full time. In the Absence Rs. 1000/- per Day will be deducted from Bill for one Site Engineer/staff.



**SECTION - 2**  
**QUALIFICATION INFORMATION**

## QUALIFICATION INFORMATION

The information to be filled in by the Bidder in the following pages will be used for the purpose of post qualification as provided for in Clause 4 of the Instruction to Bidders. This information will not be incorporated in the Contract.

### 1. For Individual Bidders

#### 1.1 Constitution or legal status of Bidder

(Attach Copy)

Place of registration \_\_\_\_\_

Principal place of business \_\_\_\_\_

Power of attorney of Signatory of Bid

(Attach)

1.2 Total value of Civil engineering construction 2024-2025  
work performed in the last Seven years 2023-2024  
(in Rs. Lakhs) 2022-2023  
2021-2022  
2020-2021  
2019-2020  
2018-2019  
2017-2018

1.3 Work performed as prime contractor, work performed in the past as a nominated sub-contractor will also be considered the sub – contract involved execution of all main items of work described in the bid documents, provided further that all other qualification criteria are satisfied ( in the same name) on works of a similar nature over the last five years\*\* and in current year before the submission of the bid.

Project Name	Name of the Employer	Description of work	Contract No.	Value of contract (Rs. Crore)	Date of issue of work order	Stipulated period of completion	Actual Date of completion*	Remark explaining reasons for delay & work completed

\* Attach certificate(s) from the Engineer(s) in-charge

\*\* Immediately preceding the financial year in which bids are received.

#### 1.3.2 ONGOING WORKS

Contractor's liability to complete ongoing works. Contractor shall submit list of ongoing work in a given Performa (Annexure-6)

Sr. No.	Name of Work	Work Order Amount	Date of work order	Date of completion	Percentage of work completed		Reason of Delay
					Physical	Financial	

1.4 Information on Bid Capacity (works for which bids have been submitted and works which are yet to be completed) as on the date of this bid.

(A) Existing commitments and on-going works :

Descri ption of works	Place & State	Contract No.	Name & Address of Employer	Value Contract (Rs. Cr)	Stipulate d Period of Completi on	Value of works* remaining to be completed (Rs. Cr)	Anticipated date of completion
1	2	3	4	5	6	7	8

\*Attach certificate (s) from the Engineer(s) in-charge

\*\*Immediately preceding the financial year in which bids are received.

1.5 Availability of key items of Contractor Equipment for carrying out the works (Ref. Clause 4.5.5). The Bidder should list all the information requested below.

Item of Equipment	Requirement		Availability Proposals			Remarks (from whom to be purchase d)
	No.	Capacity	Owned / Leased to be procured	Nos. / Capacity	Age / Conditions	

1.6 Qualification and experience of key personnel required for administration and execution of the contract. Attach biographical data. Refer also to Sub Clause 9.1 of the Conditions of Contract.

Position	Name	Qualification	Year of Experience (General)	Year of experience in the proposed position
Project Manager				

1.7 Proposed sub-contract and firms involved

Sections of the works	Value of Sub - Contractor	Sub – Contractor (Name & Address)	Experience in similar work


Attach copies of certificates on possession of valid license for executing water supply / sanitary work / building electrification works.

1.8 Financial reports for the last five years : balance sheets, profit and loss statements, auditors' reports (in case of companies / corporations), etc. List them below and attach copies.

1.9 Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit, etc. List them below and attach copied documents.

1.10 Name, address, and telephone, telex, and fax numbers of the Bidders bankers who may provide references if contacted by the Employer.

1.11 Information on Litigation history in which the Bidder is involved.

Other Party (ies)	Employer	Cause of Dispute	Amount Involved	Remarks showing Present Status	

1.12 Statement of compliance under the requirements of Sub Clause 3.2 of the instruction to Bidders.  
(Name of Consultant engaged for project preparations is \*.....)

\_\_\_\_\_

1.13 Proposed work method and schedule. The Bidder should attach descriptions, drawings and charts as necessary to comply with the requirements of the Bidding documents. {Refer ITB Clause 4.1}

1.14 Programme

## 2.Deleted

### 3.Additional Requirements

3.1 Bidders should provide any additional information required to fulfill the requirements of Clause 4 of the Instructions to the Bidders, if applicable.

(i) Affidavit

(ii) Undertaking

\* Fill the name of consultant

**SAMPLE FORMAT FOR EVIDENCE OF ACCESS TO OR  
AVAILABILITY OF CREDIT FACILITIES  
(CLAUSE 4.5.6 OF ITB)  
BANK CERTIFICATE**

This is to certify that M/s. \_\_\_\_\_ is a reputed company with a good financial standing.

If the contract for the work, namely \_\_\_\_\_ is awarded to the above firm, we shall be able to provide overdraft / credit facilities to the extent of Rs. \_\_\_\_\_ to meet their working capital requirements for executing the above during the contract period.

\_\_\_\_\_  
(Signature)  
Name of Bank  
Senior Bank Manager  
Address of the Bank

## AFFIDAVIT

- 1.I, the undersigned, do hereby certify that all the statements made in the required attachments are true and correct.
- 2.The undersigned also hereby certifies that neither our firm M/s. \_\_\_\_\_ have not abandoned any work of Government of Gujarat / Government of India / any Board or Corporation under Government of Gujarat / Government of India nor any contract awarded to us for such works have been rescinded, during last five years prior to the date of this bid.
- 3.The undersigned hereby authorize(s) and request (s) any bank, person, firm or corporation to furnish pertinent information deemed necessary and requested by the Department to verify this statement or regarding any (our) competence and general reputation.
- 4.The Undersigned understands and agrees that further qualifying information may be requested, and agrees to furnish any such information at the request of the Department / Project implementing agency.

\_\_\_\_\_  
(Signed by an Authorized Officer of the Firm)

\_\_\_\_\_  
Title of Officer

\_\_\_\_\_  
Name of Firm

\_\_\_\_\_  
Date

## UNDERTAKING

I, the undersigned do hereby undertake that our firm M/s. ....would invest a minimum cash up to 25% of the value of the work during implementation of the contract.

\_\_\_\_\_  
(Signed by an Authorized officer of the firm)

\_\_\_\_\_  
Title of officer

\_\_\_\_\_  
Name of firm

\_\_\_\_\_  
DATE

**SECTION - 3**  
**CONDITIONS OF CONTRACT**



## Conditions of Contract

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## CONDITIONS OF CONTRACT

### A.GENERAL

#### 1. Definitions

1.1 Terms which are defined in the Contract Data are not also defined in the Conditions of Contract but keep their defined meaning.

**Bill of Quantities** means the priced and completed Bill of Quantities forming part of the Bid.

**Compensation Events** are those defined in Clause 44 hereunder

**The Completion Date** is the date of completion of the Works as certified by the Engineer in accordance with the Sub Clause 55.1

The Contract is the contract between the Employer and Contractor to execute, complete and maintain the Works **till the completion of Defects Liability Period**. It consists of the documents listed in Clause 2.3 below.

The **Contract data** defines the documents and other information which comprise the Contract.

The **Contractor** is a person or corporate body whose Bid to carry out the Work has been accepted by the Employer.

The **Contractor's Bid** is the completed Bidding document submitted by the Contractor to the Employer and includes Technical and Financial Bids.

The **Contract Price** is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract.

**Days** are calendar days :: months are calendar months.

The **Defects Liability Period** is the period named in the Contract Data and calculated from the Completion Date.

The **Employer** is the party who will employ the Contractor to carry out the Works.

The **Engineer** is the person named in the Contract Data (or any other competent person appointed and notified to the contractor to act in replacement of the Engineer) who is responsible for supervising the Contractor, administering the Contract, certifying payments due to the Contractor, issuing and valuing the Compensations Events.

**Equipment** is Contractor's machinery and vehicles brought temporarily to the site to construct the Works.

The **Initial Contract Price** is the Contract Price listed in the Employer's Letter of Acceptance.

The **Intended Completion Date** is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is specified in the Contract Data. The Intended Completion Date may be revised only by the Engineer by issuing an extension of time.

**Materials** are all supplies, including consumables, used by the contractor for incorporation in the works.

**Plant** is any integral part of the work which is to have mechanical, electrical, electronic or chemical or biological functions.

The **Site** is the area defined as such in the Contract Data.

**Site Investigation Reports** are those which were included in the Bidding documents and are factual

interpretive reports about the surface and subsurface conditions at the site.

**Specifications** means the Specifications of the works included in the Contract and any modification or addition made or approved by the Engineer.

The **Start Date** is given in the Contract Data. It is the date when the Contractor shall commence execution of the works. It does not necessarily coincide with any of the Site Possession Dates.

A **Subcontractor** is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract which includes work on the Site.

**Temporary Works** are works designed, constructed, installed and removed by the Contractor which are needed for construction or installation of the Works.

A **Variation** is an instruction given by the Engineer, which varies the Works.

The **Works** are what the Contract requires the Contractor to construct, install, and turn over to the Employer, as defined in the Contract Data.

## 2. Interpretation

2.1 Interpreting these Conditions of Contract, singular also means plural, male also means female or neuter and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Engineer will provide instructions clarifying queries about Conditions of Contract.

2.2 If sectional completion is specified in the Contract Data, references in the Conditions of Contract to the Works, the Completion date, and Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion date for the whole works)

2.3 The documents forming the Contract shall be interpreted in the following order of priority

- (1) Agreement
- (2) Letter of Acceptance, notice to proceed with works
- (3) Contractor's Bid
- (4) Contract Data
- (5) Conditions of Contract including Conditions of Contract
- (6) Specifications
- (7) Drawings
- (8) Bills of quantities and
- (9) Any other document listed in the Contract Data as forming part of the Contract.

## 3. Language and Law

3.1 The language of the Contract and the law governing the Contract are stated in the Contract Data.

## 4. Engineers Decisions

4.1 Except where otherwise specifically stated, the Engineer will decide contractual matters between the Employer and the Contractor in the role representing the Employer.

## 5. Delegation

5.1 The Engineer may delegate any of his duties and responsibilities to other people after notifying the Contractor and may cancel any delegation after notifying the Contractor.

## 6. Communications

6.1 Communications between parties which are referred to in the conditions are effective only when in writing. A notice shall be effective only when it is delivered (in terms of Indian Contract Act).

## **7. Sub – Contracting**

7.1 The Contractor may subcontract any portion of work, upto a limit specified in contract data, with the approval of the engineer but may not assign the Contract without the approval of Employer in writing. Subcontracting shall not alter the Contractor's obligations. **Sub-contracting of supply or specific items of work is not allowed.**

7.2 The sub-contractor must be registered in appropriate class and category for the part of work to be subcontracted.

## **8. Other Contractors**

8.1 The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities and the Employer between the dates given in the Schedule of other Contractor. The Contractors shall as refer to in the Contract Data, also provide facilities and services for them as described in the Schedule. The employer may modify the schedule of other contractors and shall notify the contractor of any such modifications.

## **9. Personnel**

9.1 The Contractor shall employ the key personnel named in the Schedule of Key Personnel as referred to in the Contract Data to carry out the function stated in the Schedule or other personnel approved by the Engineer. The Engineer will approve any proposed replacement of key personnel only if their qualifications, abilities, and relevant experience are substantially equal to or better than those of the personnel listed in the Schedule.

9.2 If the Engineer asks the Contractor to remove a person who is a member of the Contractor Staff or his work force stating the reasons the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the work in the Contract.

## **10. Employer's and Contractor Risks**

10.1 The Employer carries the risk which these Contract states are Employer's risks, and the Contractor carries the risks which these Contracts states are Contractor's risk.

### **11. Employer's Risks**

11.1 The Employer is responsible for the excepted risks which are (a) in so far as they directly affect the execution of the Works, the risks of war, hostilities, invasion, act of foreign enemies, rebellion, revolution, insurrection or military or usurped power, civil war, riot commotion or disorder ( unless restricted to Contractor's employees), and contamination from any nuclear fuel or nuclear waste or radioactive toxic explosive.

### **12. Contractor's Risks**

**12.1** All risks or loss or damages to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract other than the excepted risks are the responsibility of the Contractor.

## **13. Insurance**

13.1 The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start date to the end of the Defects Liability Period, in the amounts and deductibles stated in the Contract data for the following events which are due to the Contractor's risks:

(a) Loss of or damage to the works, Plant and materials,

(b) Loss of or damage to Equipment

(c) Loss of or damages of property (except the Works, Plant, Materials and Equipment) in connection with the Contract; and

(d) Personal injury or death.

13.2 Policies and certificates for insurance shall be delivered by the Contractor to the Engineer for the Engineer's approval before the Start Date. All such insurance shall provide for compensation to be

payable in the types and proportions of currencies required to rectify the loss or damage incurred.

133 Within a month of receipt of the notification of award (Letter of Intent Acceptance) from the Employer, the successful bidder shall furnish Insurance / CAR policy to the Employer. If the Contractor fails to submit the policy by the stipulated date, Penalty shall be imposed on the contractor as per VMC rules.

If Contractor does not provide any of the Insurance/ CAR policies and certificates required, RA bill from the Contractor will not be processed.

134 Alterations to the terms of an insurance shall not be made without the approval of the Engineer.

135 Both parties shall comply with any conditions of the insurance policies.

**136 Insurance taxes and duties Insurance:**

137 The Contractor shall insure against such liability and shall continue such insurance during the whole of the time that any persons are employed by the contractor on the Facility Provided that, in respect of any persons employed by any Subcontractor, the Contractor's obligations to insure as aforesaid under this Sub-Clause shall be satisfied if the Subcontractor shall have insured against the liability in respect of such persons in such manner that the Owner is indemnified under the policy, but the Contractor shall require such Subcontractor to produce to the Owner, when required, such policy of insurance and receipt for the payment of the current premium.

**138 HON. SUPREME/ HIGH COURT GUIDELINES**

Hon. Court guidelines must be strictly followed by Contractor for drainage work for better safety of workmen. All the work must be carried out by using all safety equipments and measures and cleaning of manholes must be by mechanical equipments by the contractor.

a. The contractor will be responsible to pay a compensation of minimum Rs.30 lakhs in addition to the compensation paid by Government in the case of death of workman, while working with this work. Also insurance should be required for all workers.

**14. Site Investigation Report**

14.1 The Contractor in preparing the Bid shall rely on any site Investigation reports referred to in the Contract Data, supplemented by any information available to the Bidder. The soil investigation report shall be used for reference only.

**15. Queries about the Contract Data**

15.1 The engineer will clarify queries on the Contract Data

**16. Contractor to Construct the Works**

16.1 The Contractor shall construct and install the works in accordance with the specification and Drawings.

**17. The Works to be completed by the Intended Completion Date**

17.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the programme submitted by the Contractor, as updated with the approval of the Engineer, and complete them by the Intended Completion Date.

**18. Approval by the Engineer**

18.1 The Contractor shall submit Specifications and Drawings showing the proposed Temporary works to the Engineer, who is to approve them if they comply with the Specifications and drawings.

18.2 The Contractor shall be responsible for design of temporary works.

18.3 The Engineer's approval shall not alter the contractor responsibility for design of the Temporary works.

18.4 The Contractor shall obtain approval of third parties to the design of the Temporary works where required.

18.5 All Drawings prepared by the Contractors for the execution of the temporary or permanent work are subject to prior approval by the Engineer before their use.

**19. Safety**

19.1 The Contractor shall be responsible for the safety of all activities on the Site.

**20. Discoveries**

20.1 Anything of historical or other interest or of significant value unexpectedly discovered on the site is the property of the Employer. The contractor is to notify the Engineer of such discoveries and carry out the Engineer's Instructions for dealing with them.

**21. Deleted**

**22. Access to the Site**

22.1 The Contractor shall allow the Engineer and any person authorized by the Engineer access to the Site, to any place where work in connection with the Contract is being carried out or is intended to be carried out and to any place where materials or plants are being manufactured / fabricated / assembled for the works.

**23. Instructions**

23.1 The Contractor shall carry out all instructions of the Engineer pertaining to works which comply with the applicable laws where the site is located.

23.2 The Contractor shall permit the Employer to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by the Employer, if so required by the Employer.

**24. Disputes**

24.1 If the contractor is of the view that a decision taken by the Engineer was either outside the authority given to the Engineer by the contract or that the decision was wrong taken, the decision shall be referred to Municipal Commissioner (Higher Authority) within 14 days of the notification of the Engineers decision. If the issue is not resolved, any party can refer the matter for conciliation within 15 days from the decision given by the Municipal Commissioner.

**24.2**

a. For the work upto Rs.100 crores, if any of the parties is not satisfied with the decision of the decision of the Municipal commissioner, both the parties have to refer to the Additional Chief Engineer / Head of Department / City Engineer concern for the conciliation process.

b. For the work upto Rs.100 crores, if any of the parties is not satisfied with the decision of the decision of the Executive Engineer, both the parties have to refer to the Municipal Commissioner, Vadodara for the conciliation process.

If the dispute is not resolved through the conciliation process, he may refer the dispute to Gujarat Public works contract Dispute Arbitration Tribunal. If the contractor fails to refer a claim / dispute to the Highter Authority within 14 days of the notification of the Engineers decision, the Contractor shall not be entitled to any additional payment / claim if he doesn't follow the above sequence in

stipulated time and he should not stop the work.

#### **24.3 Settlement of Dispute Arbitration:**

Any dispute arising out of this out of this contract shall be referred to an independent arbitration for dispute resolution.

Work contracts the same shall be resolved by independent arbitrator either retired honorable High court Justice/by retired honorable district judge. If both the parties agreed to refer the dispute resolution by technical expert then retired chief engineer/superintending engineer of government of Gujarat/Government undertaking board. The place of arbitration is either Vadodara/Ahmadabad as per arbitrator current residence/office. Such dispute shall be settled by arbitration in accordance with the provisions of the arbitration and conciliation act, 1996 and / or ay statutory amendments there to.

#### **25. Procedure for Disputers**

25.1 The arbitration shall be conducted in accordance with the arbitration procedure stated in the Special Conditions of Contract.

26. If the contractor breaches any condition of the agreement and executes inferior quality of work, VMC may reduce the payment for the said work or stop all payments towards work done and forfeit deposits and shall get remaining work done from other agency at risk and cost of the contractor. Moreover in case of prolonged undue delay more than maximum delay penalty period, contractor shall be put in abeyance or debarred or blacklisted and he shall be liable to liquidated losses which may require to complete the remaining work at the risk and cost of the contractor by assigning the work to any other agency.

## **B. TIME CONTROL**

### **27. Programme**

- 27.1 Within the time stated in the Contract Data the Contractor shall submit to the Engineer for approval a Programme showing the general methods, arrangements orders, and timing for all the activities in the works alongwith monthly cash flow forecast.
- 27.2 An update of the Programme shall be a programme showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work including any changes to the sequence of the activities.
- 27.3 The Contractor shall submit to the Engineer, for approval an updated programme at intervals no longer than the period stated in the Contract data. If the Contractor does not submit an updated programme within this period, the Engineer may withhold the amount stated in the Contract Data from the next payment after the date on which the overdue programme has been submitted.
- 27.4 The Engineer's approval of the programme shall not alter the Contractor's obligations. The Contractor may revise the programme and submit it to the Engineer again at any time. A revised programme is to show the effect of Variations events.

### **28. Extension of the Intended Completion Date**

- 28.1 The Engineer shall extend the Intended Completion Date if a compensation Event occurs or a Variation is issued which makes it impossible for completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work and which would cause the Contractor to incur additional cost.
- 28.2 The Engineer shall decide whether and by how much to extend the Intended Completion Date within 35 days of the Contractor asking the Engineer for a decision upon the effect of a compensation event or Variation and submitting full supporting information. If the Contractor has failed to give early warning or delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.
- 28.3 The Engineer shall within 14 days of receiving full justification from the contractor for extension of Intended Completion Date refer to the Employer his decision. The Employer shall in not more than 21 days communicate to the engineer the acceptance or otherwise of the Engineer's decision. If the employer fails to give his acceptance, the Engineer shall not grant the extension and the contractor may refer the matter under Clause 24.1.

29. Deleted

### **30. Delays ordered by the Engineer**

- 30.1 The Engineer may instruct the Contractor to delay the start or progress of any activity within the works.

### **31. Management Meetings**

- 31.1 Either the Engineer or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.
- 31.2 The Engineer shall record the business of management meetings and is to provide copies of his record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken is to be decided by the Engineer either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

### **32. Early Warning**

- 32.1 The Contractor is to warn the Engineer at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract price or delay the execution of works. The Engineer may require the contractor to provide an estimate of the expected effect of the future event or circumstance on the contract price and completion date. The estimate is to be provided by the Contractor as soon as reasonably possible.
- 32.2 The Contractor shall cooperate with the Engineer in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Engineer.



## QUALITY CONTROL

### 33. Identifying Defects / Defect Liability period

**33.1** Defect liability period: The contractor shall be responsible to make good and remedy at his own expense any defect which may develop or may be noticed before the period mentioned hereunder from the certified date of completion. The Engineer in charge shall give the contractor a notice in writing about the defects and the contractor shall make good the same within 15 days of receipt of the notice. In the case of failure on the part of the contractor, the Engineer- in-charge may rectify or remove or re-execute the work at the risk & cost of the contractor. The Engineer-in-charge shall be entitled to appropriate the whole or any part of the amount of security deposit towards the expenses, if any, Incurred by him in rectification, removal or re-execution.

The Defects Liability period shall be as under....

- a) For all works costing up to Rs. 50,000 (amount put to tender), the period shall be 3 Months from the certified date of completion.
- b) For all works costing more than Rs. 50,000 and up to Rs. 1 crore (amount put tender), the period shall be 12 (Twelve) months from the certified date of completion or one monsoon, whichever is later.
- c) For major projects costing more than Rs. 1 crore, the period shall be 36 Months from the certified date of completion which should include three monsoons.
- d) For original building works the defect liability period will be 4 years or elapse of 4 monsoon period following date of possession of building taken over by user agency following the certified date of completion, whichever is later. For the purpose of deciding the monsoon period, 30th September shall be treated as the last date.

**33.2** (i) The Contractor shall be responsible for all the Defects in the Works or any part thereof, as the case may be, during the execution of the Works and during the defects liability period.

(ii) The Defect Liability Period for the Works shall be 3 years from the Physical Completion Date.

(iii) The Performance Bank Guarantee submitted shall be refunded if no defects are noticed during the Defect Liability Period or the Defects pointed out are removed.

(iv) Contractor shall be responsible for security (watch and ward) of the project assets/ facilities for the period between Completion Date and commissioning.

### 34. Tests

34.1 If the engineer instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples.

34.2 Engineer must ensure nos. of tests and types of tests to be performed as per specification. In case if it is not done or up to the mark, by bidder 1% deduction from work done in a particular RA bill should be done.

34.3 Agency has to establish testing laboratory on site for the various test to be carried out in the work, for this purpose agency shall construct a pukka laboratory building with all facility on site at location specified by the Engineer in charge.

### **35 Correction of defects**

35.1 The Engineer shall give notice to the Contractor of any defects before the end of the defects Liability Period, which begins at Completion and is defined in the contract data. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

35.2 Every time notice of a Defect is given, the Contractor shall correct the notified defect within the length of time specified by the Engineer's notice.

### **36. Uncorrected Defects**

36.1 If the contractor has not corrected a defect within the time specified in the Engineer's notice, the Engineer will assess the cost of having the Defect corrected, and the Contractor will pay this amount.

## **D. COST CONTROL**

### **37. Bill Quantities**

- 37.1 The bill of Quantities shall contain items for the construction, installation, testing and commissioning work to be done by the Contractor.
- 37.2 The bill of Quantities is used to calculate the Contract price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item.

### **38. Change in the Quantities**

38.1 The Engineer shall have power to make any alterations in or addition to the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work and the contractor shall be bound to carry out the work in accordance with any instruction in this connection which may be given to him in writing signed by the Engineer and such alteration shall not invalidate the contract and any additional work which the contractor may be directed to do in the manner above specified as part of the work shall be carried out by the contractor on the same conditions in all respects on which he agreed to do the main work and at the same rate as are specified in the tender for the main work.

Except that when the quantity of any item exceeds the quantity as in the tender by more than 130%, the contractor will be paid for the quantity in excess of 130%, at the rate entered in the SOR of the year during which the excess in quantity is first executed.

### **39. Variations**

39.1 All Variations shall be included in updated programmes produced by the Contractor.

### **40. Payments for Variations**

40.1 If the additional or altered work includes any class of work for which no rate is specified in this contract, then such class of work shall be carried out as under.

- (i) At the rate derived from the item within the contract which is comparable to the one involving additional or altered class of work; where there are more than one comparable item, the item of the contract which is nearest in comparison with regard to class or classes of the work involved shall be selected and the decision of the Superintending Engineer as to the nearest comparable item shall be final and binding on the contractor.
- (ii) If the rate cannot be derived in accordance with (i) above, such class of works shall be carried out at the rate entered in the Schedule of Rates of the division 50 for the year in which the tender was received, increased or decreased by the percentage by which the tender amount is more or less as compared to the amount arrived at the rates in the "Schedule of Rates" of the Division in the year in which the tender was received. If the Schedule of rates of the Division does not contain all the items, the percentage increase or decrease of the tender shall be calculated considering such items which were included in the "Scheduled Rates" of the division for the year and for materials consumed on such item the rate to be charged would be the basic rate taken into account for fixing the rate in S.O.R. referred to above.
- (iii) If it is not possible to arrive at the rate from (i) and (ii) above, such class of work shall be carried out at the rate decided by the competent authorities on the basis of detailed rate analysis after hearing the

contractor before a Committee of two Superintending Engineers stationed at the same place or the nearest place.

If the additional or altered work, for which no rate is entered in the "Schedule of Rates" of the Division is ordered to be carried out before the rate is agreed upon, then the contractor shall within seven days of the date of receipt by him of the order to carry out the work, inform the Engineer-in-charge of the rate, which it is his intention to charge for such class of work and if the Engineer in charge does not agree to this rates, he shall by notice in writing be at liberty to cancel his order to carry out such class of work and arrange to carry it out in such manner as he may consider it advisable, provided always that if the contractor shall commence work or incur any expenditure in regard thereof before the rates shall have been determined as lastly herein before mentioned, then in such cases he shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of the determination of the rate as aforesaid according to such rate or rates as shall be fixed by the Engineer-in-charge. In the event of the dispute, the decision of the Superintending Engineer of the Circle shall be final.

Where, however, the work is to be executed according to the designs, drawings and specifications recommended by the contractor and accepted by the competent authority, the alternation above referred to shall be within the scope of such designs, drawings and specifications appended to the tenders.

The time limit for the completion of the work shall be extended in the proportion that the increase in the cost occasioned by alterations bears to the cost of the original work and the certificate of the Engineer-in-charge as to such proportion shall be final and conclusive.

#### **41. Cash Flow Forecasts**

41.1 When the programme is updated, the contractor is to provide the engineer with an updated cash flow forecast.

#### **42. Payment Certificates**

42.1 The Contractor shall submit to the Engineer monthly statements of the estimated value of the work completed less the cumulative amount certified previously.

42.2 The Engineer shall check the Contractor's monthly statement within 14 days and certify the amount to be paid to the Contractor after taking in to account any credit or debit for the month in question in respect of materials for the works in the relevant amounts and under conditions set forth in sub-clause 32.3 of the Contract Data (secured Advance).

42.3 The value of work executed shall be determined by the Engineer.

42.4 The value of work executed shall comprise the value of the quantities of the items in the Bill of Quantities completed.

42.5 The value of work executed shall include the valuation of variations and compensation events.

42.6 The Engineer may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

#### **43. Payment**

43.1 Payments shall be adjusted for deductions for advance payments, retention, other recoveries in terms of the contract and taxes at source, as applicable under the law. The Employer shall pay the Contractor the amounts certified by the Engineer within 28 days of the date of each certificate.

43.2 Payment of GST (prevailing rates) on the amount payable under the contract to the Contractor will be made by the Employer. Hence, it is the responsibility of the contractor to pay the GST to the concerned Authority.

43.3 Items of the works for which no rate or price has been entered in will not be paid by the Employer and shall be deemed covered by other rates and prices in the Contract.

**Payment Condition as per payment schedule. For Civil Work-**

Sr No.	Details	% Milestone Payment
1	<del>On supply of pipes, valves, etc., after third party inspection certificate &amp; same material supplied at site</del>	75 %
2	<del>On erection of all pipes, valves with all necessary accessories, etc. complete</del>	20 %
3	<del>On testing, commissioning, satisfactory hydro test.</del>	5 %
5	Total	100%

**For Electrical Mechanical & Instrumentation Part**

Sr No.	Details	% Milestone Payment
1	<del>On supply of Electrical Mechanical &amp; Instrumentation after third party inspection certificate &amp; same material supplied at site</del>	75 %
2	<del>On Installation of with all necessary accessories, etc. complete</del>	15 %
3	<del>On testing, commissioning, satisfactory hydro test.</del>	10 %
5	Total	100%
** Payment subject to submitting release Note form PMC & TPI for manufacturing as well as working site.		

**44. Deleted**

**45. Tax**

45.1 The rates quoted by the Contractor must be inclusive of all taxes prevailing on due date of bid submission except GST. However, any subsequent changes in the tax structure for GST by Government after due date of bid submission will be compensated (+/-) on availability or submission of actual documentation. Contractor will have to intimate Engineer regarding changes occurred in the tax structure after bid submission. If the contractor fails to provide such information and if any financial obligation may arise due to change in tax structure, same will be recovered from the contractor.

45.2 GST will be paid separately as per prevailing on the bills. Hence, it is the responsibility of the contractor to pay the GST to the concerned Authority.

**46. Currencies**

46.1 All payment shall be made in Indian Rupees.

**47. Price Adjustment—**

47.1 ~~Contract price shall be adjusted for increase or decrease in rates and price of cement, steel, HR coil, bitumin and pig iron in accordance with the following principles and procedures and as per formula given in the contract data:-~~

~~(a) The price adjustment shall apply for the work done from the start date given in the contract data up to end of the initial intended completion date or extensions granted by the Engineer and shall not apply to the work carried out beyond the stipulated time for reasons attributable to the contractor.~~

~~(b) The price adjustment shall be determined during each month from the formula given in the contract data.~~

~~(c) Following expressions and meanings during to the work done during each month R = Total value of work done during the month. It would include the amount of secured advance granted, if any, during the month less the amount of secured advance recovered, if any during the month. It will exclude value for works executed under variations for which price adjustment will be worked separately based on the terms mutually agreed.~~

~~47.2 To the extent that full compensation for any rise or fall in costs to the contractor is not covered by the provisions of this or other clause in the contract, the unit rates and prices included in the contract shall be deemed to include amounts to cover the contingency of such other rise or fall in costs.~~

#### **48. Retention**

48.1 The Employer shall retain from each payment due to Contractor the proportion stated in the Contract Data until Completion of the whole of the Works.

48.2 On Completion of the whole of the Works half the total amount retained is repaid to the Contractor and half when the Defects Liability Period has passed and the Engineer has certified that all Defects notified by the Engineer to the Contractor before the end of this period have been corrected.

48.3 On completion of the whole works, the contractor may substitute retention money with an "on demand" Bank guarantee.

In case, Contractor requests for refund of the Retention Money deducted by the Employer under the provision of this clause, Employer shall consider the said request of the Contractor provided that the refund hereunder shall be made in tranches of not less than 1% (One Percent) of the Contract Price and Contractor furnishes an irrevocable and unconditional Bank guarantee for an equal amount substantially in the format of Bank Guarantee for Performance Guarantee enclosed with SBD and valid up to 60 day beyond the scheduled / extended Defects Liability Period. On completion of the whole works, the contractor has however an option to submit a fresh irrevocable and unconditional Bank Guarantee for an amount equal to 5% of the total value of work executed substantially in the format of Bank Guarantee for Performance Guarantee enclosed with SBD and valid up to 60 days beyond the Defect Liability Period and yet refund the Retention Money Bank Guarantee submitted for refund of Retention Money.

#### **49. Liquidated Damages**

49.1 The Contractor shall pay liquidated damages to the Employer at the rate per day stated in the Contract Data for each day that the Completion Date is later than the Intended Completion Date (for the whole works or the milestone as stated in the contract data). The total amount of liquidated damages shall not exceed the amount defined in the Contract Data. The Employer may deduct liquidated damages from payment due to the Contractor. Payment of liquidated damages does not affect the Contractor's liabilities. Liquidated damaged shall be 0.05% of contract value (incl GST) per day subject to max 10 % of contract value (incl GST)

49.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Engineer shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall not be entitled for any interest on the over payment calculated from the date of payment to the date of repayment.

49.3 If the contractor fails to comply with the time for completion as stipulated in the tender, then the contractor shall pay to the employer the relevant sum stated in the Contract Data as Liquidated damages for such default and not as penalty for everyday or part of day which shall elapse between relevant time for completion and the date stated in the taking over certificate of the whole of the works on the relevant section, subject to the limit stated in the contract data.

The employer may, without prejudice to any other method of recovery deduct the amount of such damages from any monies due or to become due to the contractor. The payment or deduction of such damages shall not relieve the contractor from his obligation to complete the works on from any other of his obligations and liabilities under the contract.

49.4 If, before the Time for Completion of the whole of the Works or, if applicable any Section, a Taking Over Certificate has been issued for any part of the Works or of a Section, the liquidated damages for delay in completion of the remainder of the Works or of that Section shall, for any period of delay after the date stated in such Taking-Over-Certificate, and in the absence of alternative provisions in the Contract, be reduced in the proportion which the value of the part so certified bears to the value of the whole of the Works or Section, as applicable. The provisions of this Sub-clause shall only apply to the rate of liquidated damages and shall not affect the limit thereof.

49.5 Contractor fails to perform the work to the required standards and specifications punishment will be done.

## **50. ~~Bonus~~**

~~50.1 If the contractor achieves completion of the whole of the works prior to the intended Completion Date prescribed in Contract Data the Employer shall pay to the contractor a sum stated in Contract Data as bonus for every completed month but subjected to maximum amount as stated in Contract Data; which shall elapse between the date of completion of all items of works as stipulated in the contract, including variations ordered by the Engineer and the time prescribed in Clause 17.~~

~~50.2 Bonus shall be paid only to works amounting to above INR 5 crore with time limit of the works is equal or more than 6 months. The bonus would be paid as under~~

<del>% of Time Saved</del>	<del>% of Initial Contract Price entitled for Bonus</del>
<del>50%</del>	<del>5%</del>
<del>40%</del>	<del>4%</del>
<del>30%</del>	<del>3%</del>
<del>20%</del>	<del>2%</del>
<del>10%</del>	<del>1%</del>
<del>Less than 10%</del>	<del>0%</del>

## **51. Advance Payment**

51.1 The Employer shall make advance payment (not to be paid less than two installments except in special circumstances for which the reason to be Recorded in writing) to the Contractor of the

amounts stated in the Contract Date by the date stated in the Contract Date, against provision by the Contactor of an Unconditional Bank Guarantee in a form and by a bank acceptable to the Employer in amounts and currencies equal to be at lwest 110% of the advance payment. The guarantee shall remain effective until the advance payment has been repaid, but the amount of the guarantee shall be progressively reduced by the amounts repaid by the Contractor. The Mobilization advance would be deemed as interest bearing advance at an interest rate of 10 % to be compounded, quarterly.

51.2 The Contractor is to use the advance payment only to pay for Equipment, plant and Mobilization expenses required specifically for execution of the Works. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the engineer.

51.3 The advance payment shall be repaid by deduction proportionate amount from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, variations, price adjustments, or Liquidated damages.

#### **51.4 Deleted**

### **52. Securities**

52.1 The performance Security (including additional security for unbalanced bids) shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount and form and by a bank or surety acceptable to the Employer, and denominated in Indian Rupees. The performance Security shall be valid until a date 60 days from the certified date of completion of the project and the additional security.

for unbalanced bids shall be valid until a date 28 days from the date of issue of the certificate of completion of the work.

Performance and Additional Performance Security shall become refundable/releasable within 15 days after project certified completion date subject to fulfillment of contractual obligation and settlement of all dues and claims.

#### **53. Deleted**

### **54. Cost of Repairs.**

54.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start date and the end of Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damages arises from the Contractor's acts or omissions.



## **E. FINISHING THE CONTRACT**

### **55. Completion**

55.1 The Contractor shall request the Engineer to issue a Certificate of Completion of the works and the Engineer will do so upon deciding that the work is completed.

### **56. Taking Over**

56.1 The Employer shall take over the Site and the Works within seven days of the Engineer issuing a certificate of Completion.

### **57. Final Account**

- 57.1 The Contractor shall supply to the Engineer a detailed final account of the total amount that the Contractor considers payable as full and final settlement of all claims under the Contract for items before the end of the Defects Liability Period. The Engineer shall issue a Defect Liability Certificate and certify any final payment that is due to the Contractor within 56 days of receiving the Contractor's account if it is correct and complete. If it is not, the Engineer shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Engineer shall decide on the amount payable to the Contractor and issue a payment certificate, within 56 days of receiving the Contractor's revised account.
- 57.2 If reversal in characteristic of tender (L1 becoming L2) on account of excesses and savings in final account is observed, the Engineer/Employer shall be at liberty to restrict the final payment of BOQ items to the lowest amount evaluated of the bids considering the final quantities and the rates quoted including the rebates if any. Payment of variation items shall however be made at the rates approved by the Employer, within 90 days from the physical completion of work Taxes will be deducted as per government rules from RA bills.

### **58. Operating and Maintenance Manuals**

- 58.1 If "as built" drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the Contract data.
- 58.2 If the Contractor does not supply the Drawings and/or manuals by the dates stated in the Contract data, or they do not receive the Engineer's approval, the Engineer shall withhold the amount stated in the Contract Data from payments due to the Contractor.

### **59. Termination**

- 59.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.
- 59.2 Fundamental breaches of Contract include, but shall not be limited to the Following:
- 1.The contractor stops work for 28 days when no stoppage of work is shown on the current programme and the stoppage has not been authorized by the Engineer.
  - 2.The Engineer instructs the Contractor to delay the progress of the Works and the instructions is not withdrawn within 28 days;

- 3.The Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstructions or amalgamation
- 4.A payment certified by the Engineer is not paid by the Employer to the Contractor within 56 days of the date of the Engineer's certificate
- 5.The Engineer gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Engineer;
- 6.The Contractor does not maintain a security which is required;
- 7.The Contractor has delayed the completion of works by the number of days for which the maximum amount of liquidated damages can be paid as defined in the Contract data; and
- 8.If the Contractor, in the judgment of the Employer has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

For the purpose of this paragraph: "corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution. "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the borrower, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition.

59.3 When either party to the Contract gives notice of a breach of contract to the Engineer for a cause other than those listed under Sub Clause 59.2 above, the Engineer shall decide whether the breach is fundamental or not.

59.4 Notwithstanding the above, the employer may terminate the Contract for convenience.

## **60. Payment upon Termination**

- 60.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a Certificate for the value of the work done less advance payments received up to the date of the issue of the certificate, less other recoveries due in terms of the contract, less taxes due to deducted at source as per applicable law and less the percentage to apply to the work not completed as indicated in the Contract data. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor the difference shall be a debt payable to the Employer.
- 60.2 If the Contract is terminated at the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Engineer shall issue a certificate for the value of the work done, the cost of balance material brought by the contractor and available at site, the reasonable cost of removal of equipment, repatriation of the Contractor's personnel employed solely on the works, and the Contractor's cost of protecting and securing the Works and less advance payment received up to the date of the certificate, less other recoveries due in terms of the contract and less taxes due to deducted at source as per applicable law.

## **61. Property**

- 61.1 All materials on the Site, Plant Equipments, Temporary Works and Works are deemed to be property of the Employer, if the Contract is terminated because of a Contractor's default.

## **62. Release From Performance**

62.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Employer or the Contractor the Engineer shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which commitment was made.

## **F. SPECIAL CONDITIONS OF CONTRACT**

### **63. LABOUR**

The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment of housing, feeding and transport.

The Contractor shall, if required by the Engineer, deliver to the Engineer a return in detail, in such form and at such intervals as the Engineer may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the site and such other information as the Engineer may require.

### **64. COMPLIANCE WITH LABOUR REGULATIONS**

During continuance of the contract, the Contractor and his subcontractor shall abide at all times by all existing labour enactments and rules made thereunder, regulations, notification and bye laws of the State or central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notifications that may be issued under any labour law in future either by the State or the Central Government or the local authority. Salient features of some of the major labour laws that are applicable to the construction industry are given below. The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made thereunder, regulations or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for observance of the provisions stipulated in the notifications/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, the Engineer/employer shall have the right to deduct any money due to the Contractor including his amount of performance security. The Employer/Engineer shall also have the right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer.

The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Employer at any point to time. **SALIENT FEATURES OF SOME MAJOR LABOUR AND OTHER LAWS APPLICABLE TO ESTABLISHMENTS ENGAGED IN BUILDING AND OTHER CONSTRUCTIONS WORK**

**A) Workmen Compensation Act 1923 :-** The Act provides for compensation in case of injury by accident arising out of and during the course of employment.

**B) Payment of Gratuity Act. 1972 :-** Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years service or more on death, the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees.

**C) Employees P.F. and Miscellaneous Provision Act 1952:-** The Act Provides for monthly contributions by the employer plus workers @ 10% or 8.33% The benefits payable under the Act are :

1. Pension or family pension on retirement or death, as the case may be.

2. Deposit linked insurance on the death in harness of the worker.

3. Payment of P.F. accumulation on retirement/death etc.

**D) Maternity Benefit Act 1951 :-** The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.

**E) Contract Labour (Regulation & Abolition) Act 1970 :** The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by Law. The principal Employer is required to take Certificate of Registration and the Contractor is required to take license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer, if they employ 20 or more contract labour.

**F) Minimum Wages Act 1948 :-** The Employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act, if the employment is a scheduled employment. Construction of Building, Roads, Runways are scheduled employment.

**G) Payments of wages Act 1936:-** It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.

**H) Equal remunerations Act 1979 :-** The Act provides for payment of equal wages for work of equal nature to Male and Female workers and for not making discrimination against female employees in the matter of transfer, training and promotions etc.

**I) Payments of Bonus Act 1965 :-** The Act is applicable to all establishments employing 20 or more employees. The Act provides for payments of annual bonus subject to a minimum of 8.33% of wages and maximum of 20 % of wages to employees drawing Rs. 3500/- per month or less. The bonus to be paid to employees getting Rs. 2500/- per month or above Rs. 3500/- per month shall be worked out by taking wages as Rs. 2500/- per month only. The Act does not apply to certain establishments. The newly set-up establishments are exempted for five years in certain circumstances. Some of the State Governments have reduced the employment size from 20 to 10 for the purpose of applicability of this Act.

**J) Industrial Disputes Act 1947 :-** The Act lays down the machinery and procedure for resolutions of Industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.

**K) Industrial employment (standing Orders) Act 1946 :-** It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the State and Central Government to 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and get the same certified by the designated Authority.

**L) Trade Unions Act 1926:-** The Act lays the procedure for registration of trade unions of workmen and employers. The Trade Unions registered under the Act have given certain immunities from civil and criminal liabilities.

**M) Child Labour (Prohibition & Regulation Act 1986 :-** The Act prohibits employment of children below 14 years of age in certain occupations and process and provides for regulation of employment of children in all other occupations and processes. Employment of Child labour is prohibited in Building

and Construction Industry.

**N) Inter – State Migrant workmen’s (Regulation of Employment & Conditions of service) Act 1979:-**

The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The inter-state migrant workmen, is an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, traveling expenses from home upto the establishment and back, etc.

**O) The Building and Other Construction workers (Regulation of employment and Conditions of Service) Act 1996 and the Cess Act of 1996:-**

All the establishments who carry on any building or other constructions work and employ 10 or more workers are covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be modified by the government. The Employer of the establishment is required to provide safety measures at the Building or construction work and other welfare measures, such as canteens, First Aid facilities, Ambulance, Housing accommodations for workers near the workplace etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officers appointed by the Government.

**P) Factories Act 1948 :-** The Act lays down the procedure for approval of plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing 10 persons or more with aid of power or 20 or more persons without the aid of power engaged in the manufacturing process.

**Q) Royalty charges-**The contractor shall pay the royalty to the competent authority as per rule. The royalty charges paid shall be borne by the contractor and shall not be reimbursed by the Employer.

**R) Following Pollution control Acts and amendments made thereof from time to time shall be applicable.**

1. Water (Preservation and control of Pollution) Act, 1974
2. Air (Prevention and Control of Pollution Act 1981
3. Environmental (Protection) Act 1986

The contractor must commit to adopting Environmental management plan for best energy use, waste management, the reduction of pollution as in EMS (Environmental Management system)ISO-14001-2015

**65. ARBITRATION(GCC CLAUSE 24)**

The procedure for arbitration will be as follows: -

- 65.1 If the Contractor is of the view that a decision taken by the Engineer was either outside the authority given to the Engineer by the Contract or that the decision was wrongly taken, the decision shall be referred to **Municipal Commissioner** (Higher Authority) within 14 days of the notification of the Engineer's decision. If the issue is not resolved, any party can refer the matter for conciliation within 15 days from the decision given by the **Municipal Commissioner**.

65.2 All disputes and differences of any kind whatever arising out of or in connection with the Contract or the carrying out of the works (whether during the progress of the works or after their completion and whether before or after the termination, abandonment or breach of the Contract) shall be first referred to and settled by the Executive Engineer who shall state his decision in writing. Such decision may be in the form of a Final Certificate or otherwise. If the contractor does not satisfy with the decision of the Executive Engineer, an appeal shall be raised to the City Engineer/ Head of the Department or Additional City Engineer as stated in the preceding Clause. But if either the Employer or the Contractor be dissatisfied with the decision of the City Engineer / Head of the Department or Additional City Engineer on any matter, question or dispute or any kind (except any of the expected matters) or as to the withholding by the City Engineer / Head of the Department or Additional City Engineer of any Certificate to which the Contractor may claim to be entitled, then and in any such case either party (the Employer or the Contractor) may within twenty-eight days after receiving notice of such decision give a written notice to the other party through the City Engineer / Head of the Department or Additional City Engineer requiring that such matters in dispute is arbitrated upon. Such written notice shall specify the matters which are in dispute or difference of which such written notice has been given and no other shall be and is hereby referred to the Arbitration and final decision of a single Arbitrator being a Municipal Commissioner of VMC. The final decision of Municipal Commissioner shall be binding on both the parties (i.e. the Contractor and Head of the Department / Additional City Engineer. The decision of Municipal Commissioner shall be in form of written order.

## **67. SPECIAL CONDITIONS FOR ELECTRICAL MECHANICAL & INSTRUMENTATION WORK**

1.Tenderer has to supply all the Electrical and Mechanical equipment with accessories as per technical specifications and where ever available with ISI/ISO mark.

2.The Vadodara Municipal Corporation is very keen and conscious for energy saving activities. One of the effort is to have design of pumps actually suiting to site conditions so that efficiency loss do not occur at site due to different site conditions. Therefore, it is very important to pay attention towards selection of duty point right at the design stage.

3.Please note that, besides pump performance, the system performance is expected. Hence, audit shall be done for complete system performance. The bidder is expected to suggest the system changes, if any, for improving system energy performance, right at initial stage and correct/modify it (if any) during the execution stage so that system efficiency can be maintained as guaranteed.

4.If the pump head is not in defined range i.e.+10% and- 10% of duty point, the contractor shall modify any part of Bowl assembly or complete replacement of Bowl assembly as per there quired system head to get maximum efficiency without any extra cost to VMC.

5.The contractor shall make necessary storage arrangement for all items (one by one) supplied require for project, Security of all supplied equipment will be arrange by contractor till completion of whole SETC project, for that require security staff shall also be provided at his own cost and risk till completion of whole SETC project, otherwise any item/equipment stolen, misplace or created

damages, contractor must necessary arrangement for re-supply and/or repair of the same item/equipment at his own cost and risk.

**6.** Contractor will be responsible for any damage created during transportation and loading-unloading for SETC work, if found that require rectification/replacement immediately to be done at contractor's cost and risk.

**7.** Contractor will be responsible for any accident during SETC work, if found all require arrangement immediately to be done at contractor's cost and risk.

**8.** In case of any dispute in execution of work, specification, terms and conditions, the decision of the Municipal Commissioner shall be final and binding to the contractor.

**9.** All items of supply shall be of relevant ISI or ISO whichever is applicable or as specified and the work done shall be with standard practices of Mechanical & Electrical engineering. All necessary equipment required for erection shall be arranged by the contractor, and Electrical work shall be carried out as per Electricity Rules. Workmanship of both Electrical and Mechanical work shall be guaranteed for DLP from the date of commissioning.

**10.** Tenderer shall attach performance curve and detail foundation drawing of the pump sets.

**11.** Performance curve of the Pumps i.e. for Pump flow v/s Head, Flow v/s efficiency, Flow v/s NPSHr, Speed v/s Head, Flow, Efficiency with suitable scale for reviewing the curve easily, all curve and data sheet of pump set.

**12.** The contractor should have to get complete installation approved by electrical inspector before handing over to Corporation. Necessary charges for the same shall be borne by the contractor.

**13.** The test certificate of electrical installation approved by electrical inspector should be furnished by the contractor.

**14.** The other material like cables and other electrical/mechanical goods, chain pulley block, Fire Extinguisher etc. shall be supplied with manufacturer's test certificate wherever available. The supplier shall have to provide all testing facility to the inspecting agency at free of cost. If such testing facility is not available with the supplier in that case the inspecting agency will send it to other laboratory for testing and the charge of the same shall be borne by the supplier.

**15.** The place of erection of Chlorine plant, Sump level, display unit of flow meter etc. will be decided by Engineer-in-charge.

**16.** All electrical installation work shall be carried out as per Electricity rules and regulations. Contractor shall make all necessary arrangements for inspection of the installation from IMP division including necessary drawings and certificates at his cost and risk for approval and arrangement of compound with door covering 11kv DP Structure as per Electricity rules and regulations.

**17.** The charges for inspection & testing for TPI of Mechanical and Electrical & Instrumentation items (Like Pump set, LT panel, HT panel, VFD's, Soft Starter & its penal, APFC penal, Transformer, Flow meter, BFV, Sluice valve, DI, CI pipes & fittings, dual plat check valve, Zero Velocity Valve, EOT Crane, expansion bellows, Clorination Plant, and Copper bar type Rotar for SCF Pumps etc) which will be carried out at manufacturer's site will be borne by Contractor. The



representative of VMC,PMC will be present at manufacturer's site at the time of Third Party Inspection. Contractor has to arrange for Flight tickets for two persons. All the testing charges of equipment/ machineries and the transportation, lodging and boarding and any other relevant expense of the team of VMC & PMC shall be borne by the contractor.

**18.**Contractor must visit before supply the material for the site review to evaluate actual required quantity of material especially for cable, pipeline and fittings (Like flanges, bend, tee, reducer etc.)

**19.**If, under any circumstances, the construction agency does not complete the project within the specified time frame during the construction phase, the Vadodara Municipal Corporation reserves the right to extend the operation and maintenance contract until the project's completion at the sanctioned rate. The contractor is compulsorily bound to continue the contract.

**20.**If, under any circumstances, the project is delayed by VMC, the said time limit will be extended by them. If the delay is caused by the agency, a penalty will be imposed as per the tender conditions.

**SECTION - 4**  
**CONTRACT DATA**

## #CONTRACT DATA

**Item marked "N/A" do not apply to this Contract.**

### Clause Reference With respect To section 3

1.	The Employers is	[CL.1.1]
Name: <b>Executive Engineer</b> , WATER WORKS PROJECT, Vadodara Municipal Corporation		
Address: WATER WORKS PROJECT, Room No. 210, Second floor, Vadodara Municipal Corporation, Khanderao Market Building, Rajmahal Road, Vadodara - 390 001.		
Name of authorized Representative (will be intimated later)		
2.	The Engineer is Executive Engineer (WATER WORKS PROJECT)	
Name of Authorized Representative: .....		
3.	The Defects Liability Period is <b>1 ( One )</b> years from the date of completion.	[CL.1.1&33]
4.	The Start Date shall be <b>7th</b> days for the date of issue of the Notice to proceed with the work.	[CL.1.1]
5.	The Intended Completion Date for the whole of the works is 12 Months after start of work.	[CL.1.1,17&2] [CL.2.2& 49.1]
6.	The Site is located at Ward 17.	[CL.1.1]
7.	The name and identification number of the Contract is:	[CL.1.1]
8.	The works consist of <b>Annual Rate Contract for Laying of CI/DI Pipe line, Construction of Valve Chamber, Tube Well and Hand pump in North zone for the year 2025-26</b> With items as per B.O.Q. The works shall, inter alia, include the following, as Specified or as directed:	[CL.1.1]

## SCOPE OF WORK

### **1.Scope of Services:**

•The scope of services described below is neither exhaustive nor complete; it is indicative only. The contractor must conduct a detailed investigation, of the project facilities, study, assess, and determine all necessary tasks, interventions, inputs, and other requirements to establish the complete scope of services for achieving the Minimum Service Levels specified in the contract documents.

•The scope also includes carrying out soil investigation, structural design for the overhead tank (OH Tank), ground storage reservoir (GSR) with pump house and chlorination room, Transformer Room & HT Panel Room as well as submitting drawings, design calculations, and obtaining approval from the VMC/PMC before releasing them for construction.

### **2.Existing Details of Karelibaug Headworks - Water Supply Infrastructure:**

#### **•Overhead Tank:**

•Existing infrastructure capacity: 1 No. with a capacity of 18 lakh liters.

- Proposed new infrastructure: 1 No. with a capacity as per BOQ.

#### **•Additional Notes:**

- Until the new OHT constructed, the existing sumps will continue to supply water through a temporary boosting station.

- Dismantling of existing structures (ESR, Pump House and HT Room, Office cum Store Room) will be done using a crane. The agency will safely hand over pipes, valves, bends, and other materials to the Department Central Store.

- The agency will also take away debris and scraps, and a minimum amount of Rs. 5,79,407.00 will be credited to the VMC account before starting of dismantling work by DD /Cheque in favour of Municipal Commissioner.

**•Total: 1 No. of ESR, 1 Nos. Of Pump House and HT Room, 1 No. of Office cum Store Room and other Structure. Total: 3 Nos. Of Structures are to be demolished.**

#### **3.Demolition and Construction of Infrastructure:**

- The contractor must complete the demolition and construction of infrastructure (including ESR, Pump house and HT Room, office cum Store Room) within **24months** from the project commencement date, which includes the design period for these facilities.

#### **4.Temporary Boosting Station during Construction & Bypass Pipeline arrangement:**

- During the construction phase, the agency will establish a temporary boosting station either at the existing underground (U/G) sump or as indicated in the tender drawing. The setup will include the necessary electromechanical and instrumentation work within six months.

#### **5.Trial Run and Demolition:**

- The agency will first Bypass the pipeline and install pumping machinery at the boosting station. After installation, a trial run will ensure uninterrupted water supply to the public. Once successful, the agency can proceed with the demolition of existing structures.

#### **6.Operation and Maintenance (O&M):**

- O&M (during execution Period) of the temporary pumping station will be the responsibility of the agency from a week after issue of work order until the trial run of the whole scheme.

#### **7.Construction of Elevated Service Reservoir:**

- Designing and construction an elevated service reservoir, including pipeline work, a CI (Cast Iron) Sluice Valve, Feeding Line, and Distribution Line. The capacity of the Elevated Surface reservoir is 21 Lac Liters, with a staging height of 22 meters, as specified in the tender documents.

#### **8.SETC of Pumping Machineries:**

- The agency will perform the Supply, Erection, Testing, and Commissioning (SETC) of pumping machineries, LT (Low Tension) and HT (High Tension) panels, transformers, and two pole structures, temporary boosting station. And SITC (Supply, Installation, Testing, and Commissioning) of 210 KW pumping machineries, will be carried out as per the Bill of Quantities (BOQ) and EIC (Engineer in Charge) instructions. All necessary requirements,

including misc. consumables like glands, lug termination, earthing materials, cables, and cable tray supports, must comply with the tender specifications.

#### **9.Shifting of Existing Equipment:**

- Scope also includes shifting existing two-pole structures, HT panels, LT panels, transformers, and other pumping machines. This process must adhere to all necessary requirements and follow the Engineer-in-Charge (EIC) instructions as specified in the tender documents. Additionally, miscellaneous consumables such as glands, lugs, termination earthing materials, cables, and cable tray supports should be

- Uninstallation of existing pumping machinery from existing pump house including all pumps, panel, cables, valves, NRV, specials etc. with all lead and lift to specified department store or as considered.

#### **10.Chlorination Plant Shifting:**

- Considering the present condition of the chlorination plant, it may be shifted. This task falls within the contractor's scope without any extra cost.

#### **11.Warranty, Guarantee, and O&M:**

- Warranty, guarantee, and operation and maintenance services are not applicable to existing equipment and applicable only to new installations. The contractor should note that all dismantled equipment will remain in agency custody until successfully reinstalled on-site. If any damage occurs during dismantling, shifting, custody, or reinstallation to instruments, equipment, or accessories, the contractor is responsible for repair or replacement at their own cost. VMC (Vadodara Municipal Corporation) will not provide compensation for such damages.

#### **12.Construction of Transformer Room and HT Panel Room:**

- Construct the transformer room and HT panel room according to the detailed tender specifications.

#### **13.HS Feeder Line Installation:**

- Provide, lower, and lay the HS feeder line, connecting it with the existing sump and connecting with existing line.

#### **14.Distribution Network DI Line:**

- Provide, lower, and lay DI (Ductile Iron) distribution network line ranging from 300 to 600 mm diameter as per BOQ and connecting it with the existing line.

#### **15.Erection of Transformer, LT/HT Panel, and Earthing System:**

- The contractor must erect the transformer, LT/HT panel (along with starters), and the earthing system according to the tender drawing and specifications.

#### **16.Inter-Connection between New and Old Sumps:**

- Establish an inter-connection between the new sump and the old sump using DI (Ductile Iron) pipes, CI (Cast Iron) sluice valves, and a puddle with sluice valve chambers. This should align with the General Arrangement Drawing (GAD) provided in the tender, without any additional cost.

#### **17.Testing, Commissioning, and Trial Run:**

• Upon completion, the contractor shall conduct testing and commissioning of the pumping station using their manpower, spare parts, tools, etc., for a one-month trial run. After a successful trial period of one month, the contractor will operate the scheme for 60 months, maintaining the headwork at their own cost. Additionally, six sets of the Operation and Maintenance Manual and all as-built drawings of the Water Distribution System (WDS) and distribution network (with geotagged locations) must be submitted on a compact disk (CD).

#### 18. Test Report and Electrical Work:

• The contractor is required to provide a test report and submit it to the electrical inspector for all electrical work completed. Any other necessary work not explicitly listed but essential for the completeness of the scope outlined in this tender must also be carried out. This includes arrangements for electrical, mechanical, and instrumentation works in conjunction with civil works.

#### 19. Preparation of RCC and G.A. Drawings:

• The scope also involves preparing RCC (Reinforced Concrete Cement) and General Arrangement (G.A.) drawings, obtaining approval from VMC (Vadodara Municipal Corporation), clearing the proposed site, and conducting necessary excavation. Surplus earth should be carted to the recommended disposal point.

#### 20. Plot Development:

• Construct a compound wall that is 1.8 meters high with a pile foundation, as per the site condition and drawing specifications. Additionally, include an MS (Mild Steel) gate.

• Construct a new internal RCC road of 3.0 to 4.50 meters wide, following site requirements and the directions of the Engineer-in-Charge (EIC).

• Construct a toilet block with a clear floor area of 3.00 square meters, as shown in the tender drawing.

• Supply and fix rubber molded paver blocks of M-45 grade with a thickness of 80 mm, along with curbing stones, following site requirements and the instructions of the Engineer-in-Charge (EIC).

• Providing, supplying, fixing, and laying the storm water drain (SWD) system for disposal of excess water.

• The contractor must develop tree plantations, gardens, and other green spaces within the headwork area without any extra cost.

• Fill the plot with good quality soil up to FFL as per Tender Drawing agency make his own arrangement for the soil without any extra cost.

21. The legal documentation & amount payable to concern Department Govt/Private Sector (way leave facilities charges will reimburse by Dept.) shall be paid by contractor. Taking all the permissions/ approval, liaison for the approval from Government/ Semi Government or any other sanctioning authorities for all the issues related to the tender work shall be done by the contractor.

9.	(A) Other Items Any Other Items as required to fulfill all contractual obligations as per the Bid documents.	[CL.1.1]
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10	The following documents also form part of the Contract.	
	Name of Authorized Representative: .....	
11.	The law which applies to the Contract is the law of Union of India	[CL.3.1]
12.	The language of the Contract documents is English	[CL.3.1]
13.	Limit of subcontracting 25% of the Initial Contract Price	[CL.7.1]
14.	DELETED	
15.	The Schedule of Key Personnel As per Annex – II to Section	[CL.8]
16.	The minimum insurance cover for physical property, injury and death is Rs. 5 lakhs per occurrence with the number of occurrences limited to four. After each occurrence, the contractor will pay an additional premium necessary to make insurance valid for four occurrences always:	[CL.13]
	16.1 Hon. Court guidelines must be strictly followed by Contractor for drainage work for better safety of workmen. All the work must be carried out by using all safety equipments and measures and cleaning of manholes must be by mechanical equipments by the contractor.	
	16.2 The contractor will be responsible to pay a compensation of minimum Rs.30 lakhs in addition to the compensation paid by Government in the case of death of workman, while working with this work. Also insurance should be required for all workers.	
17	Site Investigation report	[CL.14]
18	DELETED	
19	The period for submission of programme for approval of the engineer shall be 21 days from the issue of Letter of Acceptance.	[CL. 27.1]
20	The period between program updates will be 30 days.	[CL.27.3]
21	DELETED	
22	DELETED	
23	The currency of the Contract is Indian Rupees	[CL.46]
24	PRICE Adjustment FOR CEMENT, STEEL, PIG IRON, HR COIL & BITUMEN	

**The amount payable to the contractor for the work done shall be adjusted for increase-decrease in the rate of Cement, Steel, Pig Iron, HR Coil & Bitumen as under**

24	<b>The formula (e) for adjustment of prices are as under:</b> <ul style="list-style-type: none"> <li>If any of the commodities like Cement, Steel are not found applicable in a work, the weight component of that commodities {i.e. 'Cement' (Pc), 'Steel' (Ps) as indicated in SBD for the purpose of Price Adjustment} shall be clubbed with the weight component of 'Other Material' (Pm), such that the gross %</li> </ul>	[CL.47]
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	<p>weight of the components shall remain as 100%.</p> <p>R = value of work as defined in Clause 47.1 of Conditions of Contract</p> <p><b>Adjustment for cement component.</b></p> <p>(ii) Prices adjustment for increase or decrease in the cost of cement procured by the contractor</p> $V_c = 0.85 \times (P_c/100) \times R \times (C_i - C_0)/C_0$ <p><math>V_c</math> = Increase or decrease in the cost of work during the month under consideration due to changes in rates for cement.</p> <p><math>C_0</math> = The all India wholesale price index for Ordinary Portland Cement on 28 days preceding the scheduled date of opening of technical bid as published by the <b>Office of the Economic Adviser, Department for Promotion of Industry and Internal Trade, Ministry of Commerce &amp; Industry.</b></p> <p><math>C_i</math> = The all India average wholesale price index for Ordinary Portland Cement for the month under consideration as published by <b>Office of the Economic Adviser, Department for Promotion of Industry and Internal Trade, Ministry of Commerce &amp; Industry.</b></p> <p><math>P_c</math> = Percentage of cement component of the work</p>	
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#### **Adjustment for steel component & Pipeline-**

~~(iii) Price adjustment for increase or decrease in the cost of steel procured by the contractor shall be paid in accordance with the following formula~~

~~$$V_s = 0.85 \times (P_s/100) \times R \times (S_i - S_0)/S_0$$~~

~~$V_s$  = Increase or decrease in the cost of work during the month under consideration due to changes in the rates for steel~~

~~$S_0$  = The all India wholesale price index for steel **(Mild Steel - Long Products Rebars)** on 28 days preceding the date of opening of Bids as published by the **Office of the Economic Adviser, Department for Promotion of Industry and Internal Trade, Ministry of Commerce & Industry.**~~

~~$S_i$  = The all India average wholesale price index for steel **(Mild Steel - Long Products Rebars)** for the month under consideration as published by **Office of the Economic Adviser, Department for Promotion of Industry and Internal Trade, Ministry of Commerce & Industry.**~~

~~$P_s$  = Percentage of steel component of the work~~

~~Note : For the application of this clause, the index of **Mild Steel- Long products Rebars** has been chosen to represent the steel group.~~

~~The following percentage will govern the price adjustment for the entire contract-~~

**For ESR, GSR, Transformer Room, HT Panel room:**

1. Labour —  $P_1$  ————— 26%



2.Cement —  $P_c$  — 14 %  
 3.Steel —  $P_s$  — 20 %  
 4.Bitumen —  $P_b$  — 0%  
 5.POL —  $P_f$  — 30%  
 6.Plant & Machinery Spares  $P$  — 0 %  
 7.Other Materials  $P_m$  — 10%

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Total — 100 %

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The following percentage will govern the price adjustment for the entire contract

**For PIPE LINE:**

1.Labour —  $P_l$  — 0%  
 2.Cement —  $P_c$  — 0 %  
 3.Steel —  $P_s$  — 0%  
 4.Bitumen —  $P_b$  — 0%  
 5.POL —  $P_f$  — 0%  
 6.Plant & Machinery Spares  $P$  — 35 %  
 7.Other Materials(HR COIL & PIG IRON)  $P_m$  — 65%

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Total 100 %

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25. The proportion of payments retained (retention money) shall be 6% {CL. 48} from each bill subject to a maximum of 5% of final contract price.
26. Amount of Liquidated damages for Whole of work {CL.49} delay in completion of work (1/2000)th of the Initial contract price rounded off to the nearest Thousand, per day.
27. Maximum limit of liquidated damages 10 percent of the Initial {CL. 49} For delay in completion work Contract Price rounded off to the nearest thousand
28. Amount of Bonus for early completion Amount of bonus for early completion of work shall be given as per CL.50 of Section-3
29. Maximum limit of bonus for early 5 percent of the Contract {CL. 50} Completion of work Price
30. The amount of the advance payment are: {CL. 51 & 52}

**#Nature of Advances (FOR WORK > 5 CRORE)**

**Amount (Rs.) Conditions to Be fulfilled**

i Mobilization 5% of the contract Price

On submission of unconditional Bank Guarantee. The contractor may furnish two bank guarantees of 2.5 % of each valid for the full period of repayment. (Bank Guarantee shall be with GST)

ii Deleted

iii Deleted

Mobilization advance applicable to works costing more than 5 crores.

**31. Repayment of advance payment for mobilization**

**{ CL. 51.3}**

The payment to be made to the Contractor against mobilization advance will be considered as Advance and, in the format, given by VMC. The advance shall be recovered from the Contractors

2nd, 3rd and 4th running Bills. The bank Guarantee shall be discharged after recovery of 100% of advance paid to the Contractor. BG format enclosed as per Section-8.

**32. DELETED**

33. The securities shall be for the following minimum amounts equivalent {CL. 52}

As a percentage of the Contract Price: Performance Security for 5 percent of contract price plus Rs. .... (to be decided after evaluation of the bid) as additional security in terms of ITB Clause 29.5.

The standard form of Performance security acceptable to the Employer shall be an unconditional Bank Guarantee of the type as presented in Section 8 of the Bidding Documents.

34. The Schedule of Operating and maintenance Manuals.....N/A. {CLs. 58}

35. The date by which “as- built” drawings (in scale as directed) in 5 sets in soft copy in pen drive as per VMC format (Autocad) with geotagging (latitude & longitude) and 5 sets in hard copy {CL. 58} are required within 28 days of the issue of certificate of completion of the whole or section of the work, as the case may be.

36. The amount to be withheld for failing to supply “as built” drawings {CL. 58} by the Date required is Rs one Lakhs.

37. The following events shall also be fundamentals breach of contract: {CL.59.2} “The Contractor has contravened Sub- clause 7.1 and Clause 9 of GCC”

38. The percentage to apply the value of the work not completed representing {Cl 60} the Employer’s additional cost for completing the Works shall be 20 per cent.

**GENERAL INSTRUCTIONS FOR WORK**

**Clause - 1: Security Deposit and Performance Guarantee:**

Refer clause 15 of ITB

Refer clause 34 of ITB

**Clause 2: Liquidated Damages for Delay**

Refer clause 49 of Conditions of contract

**Clause 3: Default by Contractor**

If the Contractor shall neglect or fail to proceed with work with due diligence or if he violates any of the provision of the contract, the Engineer-in-Charge shall give the Contractor a notice identifying deficiencies in performance and demanding corrective action. Such notice shall clearly state that it is given under the provision of this clause. After services of such notice, the Contractor shall not remove any plant, equipment and materials from the site. The VMC shall have lien on all such plant, equipment and material from date of such notice till said deficiencies have been corrected as mentioned in the said notice.

If the Contractor fails to take satisfactory corrective action within ten days after receipt of such notice, the Engineer - in - charge on behalf of VMC shall terminate the contract in whole. In case, the entire contract is terminated, the amount of security deposit and performance bond if any together with value of the work done but not paid for, shall stand forfeited to the VMC. The plants, equipment and materials held under this clause shall then be at the disposal of the VMC to recover the amount equivalent to the liquidated damages and registration of the contractor

shall be kept in abeyance for three years from the date as fixed in all such cases.

The Engineer-in-Charge, if necessary, shall direct that a part or whole of such plant equipment and materials be removed from the site within a stipulated period. If the contractor fails to do so the Engineer-in-Charge shall cause them or any part of them to be sold holding the net proceeds of such sale to the credit of the contractor. After settlement of accounts, the lien by the VMC of the Contractor's remaining plants, equipment and balances of materials shall be released. Termination of contract in whole shall be an adequate authority for the Engineer-in-Charge to demand discharge of the obligations from the guarantors of the security for the performance.

**Clause 4: Action when the progress of any particular portion of the work is unsatisfactory**

If the progress of any particular portion of the work is unsatisfactory the Engineer-in-Charge shall, notwithstanding that the general progress of the work is satisfactory, in accordance with the conditions mentioned in Clause 2, be entitled to take action under Clause 3 after giving the Contractor 10 days' notice in writing, and the Contractor will have no claim for compensation for any loss sustained by him owing to such action.

**Clause 5: Contractor remains liable to pay compensation if action not taken under Clauses 2, 3 & 4**

In any case in which any of the powers conferred upon the Engineer-in-Charge by Clause 2, 3 & 4 hereof shall have become exercisable and the same shall not have been exercised, the non-exercise thereof shall not constitute a waiver of any of the conditions hereof and such power shall notwithstanding be exercisable in any future case of default by the Contractor under any clause or clauses before he is declared liable to pay compensation amounting to the whole of his security deposit and the liability of the Contractor for past and future compensation shall remain unaffected. In the event of the Engineer-in-Charge taking action under Clause 2, 3 and 4, he may, if he so desired, take possession of all or any tools, plants, materials and stores, in or upon work or the site thereof or belonging to the Contractor or procured by him and intended to be used for the execution of the work or any part thereof, paying or allowing for the same in account at the contract rates or in the case of contract rates not being applicable at current market rates to be certified by the Engineer In Charge whose certificates thereof shall be final.

In the alternative the Engineer-in-Charge, may after giving a notice in writing to the Contractor or his clerk, or the works Foreman or other authorized agent require him to remove such tools, plant, materials or stores from premises within a time to be specified in such a notice and in the event of the Contractor failing to comply with any such requisition the Engineer-in-Charge may remove them at the Contractor's expenses or sell them by auction to private sale at the risk and cost of the Contractor in all respects and the certificate of the Engineer-in-Charge as to the expense of any such removal and the amount and the proceeds and expense of any such sale shall be final and conclusive against the Contractor.

**Clause 6: Extension of time limit / non-working days For the Work**

Refer Section 3 part -B Clause 28 of ITB

**Clause 7: Final Certificate (Read in Conjunction With Section 3 Part D Clause 42 of ITB)**

On completion of the work, the Contractor shall have to submit completion certificate from PMC as well as TPI. Then after he shall be furnished with a certificate by the Engineer In-Charge (hereinafter called the Engineer-In-Charge, VMC) of such completion but no such certificate shall be given nor shall the work be considered to be completed until the Contractor shall have removed from the premises on which the work shall have been executed all scaffolding, surplus materials and rubbish, and shall have cleaned off the dirt from all wood work, Steel works, walls, floor or other parts of any building, in or upon which the work has been executed or of which he may have had possession for the purpose of executing the work, nor until the works shall have been measured by the Engineer-In-Charge, VMC or where the measurements have been taken by his subordinates until they have received the approval of the Engineer-In-Charge, VMC, the said measurements being binding and conclusive against the Contractor. If the Contractor shall fail to comply with the requirements of this clause as to removal of scaffolding, surplus materials and rubbish and cleaning off dirt on or before the date fixed for the completion of the work, remove such scaffolding, surplus materials and rubbish and dispose off the same as he thinks fit and clean off such dirt as aforesaid and the Contractor shall forthwith pay the amount of all expenses so incurred but shall have no claim in respect of any such scaffolding or surplus material as aforesaid except for any sum actually realized by the sale thereof.

**Clause 8: Payments on intermediate bill to be regarded as advance**

No payment shall be made for any work of estimated cost less than Rupees One Crore except for initial period till after the whole of the said work shall have been completed and a certificate of completion given. But in the case of works estimated to cost more than rupees One Crore, the Contractor shall, on submitting a monthly bill therefore be entitled to receive payment proportionate to the part of the work then approved and passed by the Engineer-In-Charge, VMC, whose certificate of such approval and passing of the sum so payable shall be final and conclusive against the Contractor. All such intermediate payments shall be regarded as payments by way of advance against the final payments only and not as payments for work actually done and completed and shall not preclude the Engineer-In-Charge, VMC from requiring bad, unsound, imperfect or unskilled work to be removed or taken away and reconstructed, or re-erected, nor shall any such payment be considered, as an admission of the due performance of the contract or any part thereof in any respect, or the accruing of any claim nor shall it conclude, determine, or effect in any way the powers of the Engineer-In-Charge, VMC as to the final settlement and adjustment of the accounts or otherwise or in any other way vary or affect the contract. The final bill shall be submitted by the Contractor within three months of the date fixed for the completion of the work, otherwise the Engineer-In-Charge, VMC's certificate of the measurements and of the total amount payable for the work shall be final and binding on all parties.

**Clause 9: Deleted.****Clause 10: Bills to be submitted monthly** (Read in Conjunction With Section 3 Part D Clause 42 of ITB)

A bill shall be submitted by the Contractor each month on or before the date fixed by the Engineer-In-Charge, VMC for all works executed in the previous month and the Engineer-In-Charge, VMC shall take or cause to be taken the requisite measurement for the purpose of having the same verified and the claim, so far as it is admissible, shall be adjusted, if possible, within ten days from the presentation of the bill. If the Contractor does not submit the bill within the time fixed as aforesaid, the Engineer-In-Charge, VMC may depute a subordinate to measure up the said work in the presence of the Contractor or his duly authorized agent whose countersignature to the measurement list shall be sufficient warrant and the Engineer-In-Charge, VMC may prepare a bill from such a list which shall be binding on the Contractor in all respects.

**Clause 11: Bills to be on printed forms**

The Contractor shall submit all bill on the printed forms to be had on application from the office of the Engineer-In-Charge, VMC. The charges to be made in the bills shall always be entered at the rates specified in the tender or in the case of any extra work ordered in pursuance of those conditions and not mentioned or provided for in the tender, at the rates hereinafter provided for such work.

**Clause 12: Drawings, designs, instructions of the Engineer-In-Charge, VMC and specifications, order of precedence in case of discrepancies.**

The Contractor shall execute the whole and every part of the work in the most substantial and workman like manner and both as regards materials and in other respects in strict accordance with specifications. The Contractor shall also conform exactly, fully and faithfully to the design, drawings and instructions in writing relating to the work signed by the Engineer-In-Charge, VMC and lodged in his office and to which the Contractor shall be entitled to have an access for the purpose of inspection at such office or on the site of the work during office hours.

Where the instructions referred to above are not contained in separate letters addressed to the contractor the same shall be recorded in the work-order book, which shall be maintained and kept on the site of the work. The contractor shall be required to sign such entries in the work-order book in token of having noted the instructions. However, if the contractor fails to sign the work-order book for any reason whatsoever, the entry of the instructions in the work-order book shall be deemed to be the due notice to him of the said instructions. The work-order book shall be open for inspections to the contractor on the site of the work during office hours. The various documents foregoing the contract are essential parts of the contract and a requirement occurring in one is a binding as through in all. They are intended to be mutually explanatory and complementary and to describe and provide for a complete work. In the event of any discrepancy in the several documents forming the contract or in any one document, the following order of precedents should apply.

Dimension and quantities: (1) Drawings (2) Item of BOQ (price bid) (3) Specification and drawings, figured dimensions, unless obviously incorrect, will be followed in preference to scaled dimensions.

Description: (1) Item of BOQ (price bid) (2) Drawings (3) Specifications. In the case of defective description or

ambiguity, the Engineer-In-Charge, VMC shall be entitled to make corrections and interpretations as necessary to fulfill the plans and specifications.

**Clause 13: Excess over tender Quantities, Extra items and Variations**

Refer Section 3 Part D Clause 38 of ITB

**Clause 14: No claim to any payment or compensation for alteration in or restriction of work**

If at any time after the execution of the contract documents, the Engineer-In-Charge, VMC shall for any reason whatsoever, require the whole or any part of the work, as specified in the tender, to be stopped for any period or shall not require the whole or part of the work to be carried out at all or to be carried out by the Contractor, he shall give notice in writing of the fact to the Contractor who shall thereupon suspend or stop the work totally or partially, as the case may be. In any such case, except as provided hereunder the Contractor shall have no claim to any payment or compensation whatsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not so derive in consequence of the full amount of the work not having been carried out, or on account of any loss that he may be put to on account of materials purchased or agreed to be purchased or for unemployment of labour recruited by him. He shall not have also any claim for compensation by reason of any alterations having been made in the original specifications, drawings, designs and instructions, which may involve any curtailment of the work, as originally contemplated. Where, however, the Contractor will be entitled for compensation for loss, if any on the date of notice, the purchased materials or for the contract executed for the materials to be purchased for such work. Such compensation will be paid for only actual loss for materials, if such materials so purchased or agreed to purchase is of required quantity/quality and was purchased/contracted to be purchased for the same work. But no compensation shall be granted to the Contractor on material for which advance has been given to the Contractor by VMC. The amount of loss for such claim will be decided by Engineer- In-Charge, VMC, whose decision shall be final. If the Contractor suffers any loss on account of his having to pay labour charges during the period during which the stoppage of work has been ordered under this clause, the Contractor shall, on application, be entitled to such compensation on account of labour charges as the Engineer- In-Charge, VMC, whose decision shall be final, may consider reasonable. Provided the Contractor shall not be entitled to any compensation on account of labour charges, if in the opinion of the Engineer-In-Charge, VMC, the labour could have been employed by the Contractor elsewhere for the whole or part of the period during which the stoppage of work has been ordered as aforesaid.

**Clause 15: Time limit for unforeseen claims**

Under no circumstances whatever shall the Contractor be entitled to any compensation from VMC on any account unless the Contractor shall have submitted a claim in writing to the Engineer-In-Charge within one month of the cause of such a claim occurring.

**Clause 16: Action and compensation in case of bad work (Read in Conjunction with Section 3 Part C Clause 35 and 36 of ITB)**

If, at any time before the security deposit is refunded to the Contractor, it shall appear to the Engineer-In-Charge, VMC or his subordinate in charge of the work, that any work has been executed with unsound, imperfect or unskillful workmanship or with materials of inferior quality or that any materials or articles provided by him for the execution of the work are unsound, or of a quality inferior to that contracted for, or are otherwise not in accordance with the contract, it shall be lawful for the Engineer-In-Charge, VMC to intimate this fact in writing to the Contractor and then notwithstanding the fact that the work, materials or articles complained of may have been inadvertently passed, certified and paid for, the Contractor shall be bound forthwith to rectify or remove and reconstruct the work so specified in whole or in part, as the case may require, or if so required, shall remove the materials or articles so specified and provide other proper suitable materials or articles at this own charge and cost and in the event of his failing to do so within a period to be specified by the Engineer-In-Charge, VMC in the written intimation aforesaid, the contractor shall be liable to pay compensation at the rate of one percent on the amount of the estimate for every day nor exceeding ten days, during which the failure so continues and in the case of any such failure as aforesaid the Engineer-In-Charge, VMC may rectify or remove and re- execute the work or remove and replace the materials or articles complained of as the case may be at the risk and expense in all respect of the Contractor should the Engineer-In-Charge, VMC consider that any such inferior work or materials as described above may be accepted or made use of it shall be within his discretion to accept the same at such reduced rates as he may fix, therefore. However, the contractor shall be responsible for the normal maintenance of the work till the final bill of the work is prepared by the Departmental Officer.

**Clause 17: Deleted**

**Clause 18: Works to be open to inspection, Contractor or responsible agent to be present**

All works under or in course of execution or executed in pursuance of the contract shall at all times, be open to the inspection and supervision of the Engineer-In-Charge, VMC and his subordinates and the Contractor shall at all times during the usual working hours, and at all his subordinate to visit the works shall have been given to the Contractor, either himself be present to receive orders and instructions, or have a responsible agent duly accredited in writing present for the purpose. Orders given to the Contractor's duly authorized agent shall be considered to have the same force and effect as if they had been given to the Contractor himself/herself.

The contractor shall also supply without charge the requisite number of persons with the means and materials necessary for the purpose of setting out works, and counting, weighing and assisting in the measurement or examination at any time of the work or materials, failing this the same may be provided by the Executive Engineer at the expense of the contractor and the expense may be deducted from any money due to the contractor under the contract or from his Security Deposit. The contractor shall provide all necessary fencing and lights required to protect the public from accident and shall also be bound to bear the expense of defence of every suit, action or other legal proceedings, at law, that may be brought by any person for injury sustained owing to neglect of the above precautions, and to pay any damages and costs which may be awarded in any such suit, action or proceedings to any such persons or which may be with the consent of the contractor be paid in compromising any claim by any such person.

**Clause 18A: Employment of a qualified site Engineer by the Contractor.**

The contractor shall employ full-time technically qualified staff during the execution of this work as specified in this tender. The Engineers so employed for the Government work must have sufficient experience to handle the work independently. Such an Engineer shall have to stay at the site of work and he shall not be entrusted with other duty except this work. In case the contractor or partner of the contractor firm is a Civil Graduate Engineer, Employment of the separate Engineer will not be necessary provided that the Engineer partner himself attends the execution of work on the site.

At lwest **1 No. of Construction Engineer (Diploma In Civil Engg.)** shall be deputed for full time. In the Absence of staff Rs. 1000/- per Day will be deducted from Bill.

**Clause 19: Notice to be given before work is covered up**

The Contractor shall give not less than five days' notice in writing to the Engineer-In- Charge, VMC or his subordinate in charge of the work before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof taken before the same is so covered up or placed beyond the reach of measurement and shall not cover up or place beyond the reach of measurement without the consent in writing of the Engineer-In-Charge, VMC of his subordinate-in- charge of the work and if any work shall be covered up or placed beyond the reach of measurement without such notice having been given or consent obtained the same shall be uncovered at the Contractor's expense and in default thereof no payment or allowance shall be made for such work or for the materials with which the same was executed.

**Clause 20: Contractor liable for damage and for imperfections for months after Payment of RA or completion certificate**

If the Contractor or his workmen, or servant shall break, deface, injure or destroy any part of a building in which they may be working or any building, road, fence, enclosure or grass land or cultivated ground continuous to the premises on which the work or any part thereof is being executed or if any damage shall be done to the work from any cause whatever while it is in progress or if any imperfections become apparent in it within one year from the grant of a certificate of completion, final or otherwise, by the Engineer-In-Charge, VMC, the Contractor shall make good the same at his own expenses or in default, the Engineer-In-Charge, VMC may cause the same to be made good by other workmen, and deduct the expenses (of which the certificate of the Engineer- In-Charge, VMC shall be final) from any sums that may then be due or may thereafter become due to the Contractor or from his security deposit or the proceeds of sale thereof or as sufficient portion thereof.

**Clause 20A: Force majeure**

Any delays in or failure of the performance of either part hereto shall not constitute default hereunder or give rise to any claims for damages, if any to the extent such delays or failure of performance is caused by occurrences such as

acts of God or the public enemy appropriation or confiscation of facilities by Government authorities act of war, rebellion or subterfuge or fire, flood, explosion, riots or illegal strikers. The contractor shall keep records of the circumstances referred to above and bring these to the notice of Purchaser/Client in writing immediately on such occurrences.

**Clause 21: Contractor to supply plant ladders scaffoldings, etc. and is liable for damage arising from non- provision of lights, fencing etc.**

The Contractor shall supply at his own cost all materials, (except such special material, if any, as may, in accordance with the contract be supplied from the VMC Store) plant, tools, appliances, implements, ladders, cordage, tackle, scaffolding, shoring, strutting and any temporary works which may be required for the proper execution of the work, whether in the original, altered or sustained form and whether included in the specifications, or other documents forming part of the contract or referred to in these conditions or not and which may be necessary for the purpose of satisfying or complying with requirements of the Engineer-In- Charge, VMC as to any matter or to which under these conditions he is entitled to be satisfied, or which he is entitled to required together with carriage therefore to and from the work. The Contractor shall also supply without charges the requisite number of persons with the means and materials necessary for the purpose of setting out works and counting, weighting and assisting in the measurement or examination at any time and from time to time of the work or the materials. Failing this, the same may be provided by the Engineer- In-Charge, VMC at the expense of the Contractor and the expenses may be deducted from any money due to the Contractor under the contract or from this security deposit or the proceeds of sale thereof or of a sufficient portion thereof. The Contractor shall provide all necessary fencing and light required to protect the public from accident and shall also be bound to bear the expenses of defence of every suit, action or other legal proceedings, at law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damage and costs which may be awarded in any such suit, action or proceeding to any such person, or which may, with the consent of the Contractor be paid in compromising any claim by any such persons. Further,

**The contractor to indemnify the VMC:**

The VMC shall not be liable for or in respect of any damages or compensation payable by law in respect or in consequence of any accident of injury to any workman or other person in the employment of the contractor or his any sub-contractor or any other outside person/persons and contractor shall indemnify the VMC against such damages and compensation and against all claims, demands, proceedings, costs, charges, expenses whatsoever in respect thereof or in relation thereto.

**Payments of Claims and Damages:**

VMC have to pay any money in respect of such claims or demands as aforesaid the amount so paid and the costs incurred by the VMC shall be charged to and paid by the contractor and the contractor shall not be at liberty to dispute or question the right of the VMC to make such payments notwithstanding the same may have been made without his consent or authority or in law or otherwise to the contrary.

**Clause 21-A:**

The contractor shall provide suitable scaffolds, and working platforms, gangways and stairways and shall comply with the following regulations in connection therewith:

- (a) Suitable scaffolds shall be provided for workmen for all work that cannot be safely done from ladder or by other means.
- (b) A scaffold shall not be constructed, taken down or substantially altered except:
  - i) Under the supervision of competent workers possessing adequate experience in this kind of work.
  - ii) As far as possible by competent workers possessing adequate experience in this kind of work.
- (c) All scaffolds and appliances connected therewith and all ladders shall: -
  - i) Be of adequate strength having regard to the loads and strains to which they will be subjected, and
  - ii) Be maintained in proper condition.

- (d) Scaffolds shall be so constructed that no part thereof can be displaced in consequence of normal use.
- (e) Scaffolds shall not be overloaded and so far as practicable the load shall be evenly distributed.
- (f) Before installing the lifting gear on scaffolds special precautions shall be taken to ensure the strength and stability of the scaffolds.
- (g) A competent person shall periodically inspect scaffolds.
- (h) Before allowing a scaffold to be used by his workmen, the Contractor shall, whether the scaffold has been erected by his workmen or not, take steps to ensure that it complies fully with regulations herein specified.
- (i) Working platforms, gangways and stairways shall: -
  - i) Be so constructed that no part thereof can sag unduly or unequally.
  - ii) Be so constructed and maintained having regard to the prevailing conditions as to reduce as far as practicable risks of persons tripping or slipping and
  - iii) Be kept free from any unnecessary obstruction
- (j) In this case of working platforms, gangways, working places, and stairway at a height exceeding 3.25 meters (To be specified).
  - i) Every working platform and every gangway shall be closely boarded unless other adequate measures are taken to ensure safety. Every working platform and gangway shall have adequate width and
  - ii) Every working platform, gangway, working place and stairway shall be suitably fenced.
- (k) Every opening in the floor of a building or in a working platform shall, except for the time and to the extent required to allow the access of person or the transport or shifting of materials be provided with suitable means to prevent the fall of persons or materials.
- (l) When persons are employed on a roof where there is a danger of falling from a height exceeding 3.25 meters (to be prescribed) suitable precaution shall be taken to prevent the fall of persons on material.
- (m) Suitable precautions shall be taken to prevent persons being struck by articles which might fall from scaffolds or other working places.
- (n) Safe means of access shall be provided to all working platforms and other working places.

**Clause 21B:**

Contractor shall comply with the following regulation as regards the Hoisting Appliances to be used by him:

A. Hoisting machines and tackle including their attachment anchorage and support shall:

- i) Be of good mechanical construction, sound material and adequate strength and free from patent defect, and
- ii) Be kept in good repair and in good working order.

B. Every rope used in hoisting or lowering materials or as a means of suspension shall be of suitable quality and adequate strength and free from patent defect.

C. Hoisting machines and tackle shall be examined and adequately tested after erection on the site and before use and be re-examined in position at intervals to be prescribed by Engineer- In-Charge, VMC.

D. Every chain, ring, hook, shackle, swivel and pulley block used in hoisting of lowering, materials or as a



means of suspension shall be periodically examined.

E. Every crane driver or hoisting appliance-operator shall be properly qualified.

F. No persons who are below the age of 14 years shall be in control of any hoisting machine, including any scaffold nor shall give signals to the operator.

G. In the case of every hoisting machine and of every chain, ring, hook, shackle, swivel and pulley block used in hoisting or lowering or as a means of suspension, the safe working load shall be ascertained by adequate means.

H. Every hoisting machine and all gear referred to in the proceeding regulation shall be plainly marked with the safe working load.

I. In the case of a hoisting machine having a variable safe working load, each safe working load and the conditions under which it is applicable, shall be clearly indicated.

J. No part of any hoisting machine or of any gear referred to in regulation 'g' above shall be loaded beyond the safe working load except for the purpose of testing.

K. Motors, gearing, transmissions, electric wiring and other dangerous parts of hoisting appliance shall be provided with sufficient safeguards.

L. Hoisting appliances shall be provided with such means as will reduce to a minimum the risk of the accidental descent of the load.

M. Adequate precaution shall be taken to reduce to a minimum the risk of any part of a suspended load becoming accidentally displaced.

#### **Clause 22: Measures for prevention of fire**

The Contractor shall not set fire to any standing jungle, trees, bush wood or grass without a written permit from the Engineer-in-Charge. When such permit is given, and also in all cases when destroying, cut or dug up trees, bush wood, grass, etc., by fire the contractor shall take necessary measures to prevent such fire spreading to or otherwise damaging surrounding property. The Contractor shall make this own arrangement for drinking water for the labour employed by him/her.

#### **Clause 23: Liability of contractor for any damage done in or outside work area**

Compensation for all damages done intentionally or unintentionally by Contractor's labours, whether in or beyond the limits of VMC property, including any damage caused by the spreading of fire mentioned in clause 22, shall be estimated by the Engineer-In-Charge, VMC, subject to the decision of the Engineer-in-Charge, on appeal, shall be final and the Contractor shall be bound to pay the amount of the assessed compensation on demand failing which the same will be recovered from the Contractor as damages in the manner prescribed in Clause 1 or deducted by the Engineer-In-Charge, VMC from any sums that may be due to or become due from VMC to the Contractor under this contract or otherwise.

The Contractor shall bear the expense of defending any action or other legal proceedings that may be brought by any person for injury sustained by him owing to neglect of precautions to prevent the spread of fire and he shall also pay any damage and cost that may be awarded by the court in consequence.

#### **Clause 24: deleted**

#### **Clause 25: Work on Sunday/Holiday**

No work shall be done on a Sunday/Holiday without the sanction in writing of the Engineer-In- Charge, VMC

#### **Clause 26: Work not to be sublet. The contract may rescind and security deposit forfeited for subletting it. (Read in Conjunction with Point 13 of Contract Data)**

The contract shall not be assigned or sublet without the written approval of the Engineer-In- Charge, VMC. And if the Contractor shall assign or sublet his contract, or attempt to do so or become insolvent or commence any proceedings to get himself adjudicated as an insolvent or make any compromise with his creditors or attempt to do so, the Engineer-In-Charge, VMC may, by notices in writing rescind the contract. Also if any bribe, gratuity, gift, loan, perquisite, reward or advantage, pecuniary or otherwise, shall either directly or indirectly be given, promised or offered by the Contractor, or any of the servants or agents to any public officer or person in the employ of VMC in any way relating to his office or employment, or if any such officer or person shall become in any way directly interested in the-contract , the Engineer-In-Charge, VMC may thereupon, by notice in writing, rescind the contract.

In the event of a contract being rescinded, the security deposit of the Contractor shall thereupon stand forfeited and be absolutely at the disposal of VMC and the same consequences shall ensure as if the contract had been rescinded under Clause 3 hereof and in addition the Contractor shall not be entitled to recover or be paid for any work therefore actually performed under the contract. VMC will ask to contractor to provide the Invoices of Purchase materials for checking.

**Clause 27: Sum payable by way of compensation to be considered as reasonable compensation without reference to actual loss.**

All sums payable by a Contractor by way of compensation under any of these conditions shall be considered as a reasonable compensation to be applied to the use of VMC without reference to the actual loss or damage sustained and whether any damage has or not been sustained.

**Clause 28: Changes in the constitution of firm to be notified**

In the case of a tender by partners, any change, in the constitution of a firm shall be forthwith notified by the Contractor to the Engineer-In-Charge, VMC for his information.

**Clause 29: Works to be under direction of Engineer-in-Charge**

All works to be under the contract shall be executed under the direction and subject to the approval in all respects of the Engineer-in-Charge of the VMC who shall be entitled to direct at what point or points and in what manner are to be commenced and from time to time carried on.

**Clause 30: Settlement of Dispute Arbitration:  
(Refer Clause 24.3 part A of Section 3 of ITB)**

**Clause 31: Decision of Engineer-In-Charge, VMC to be final (Read in Conjunction with Section 3 Part A Clause 4 of ITB)**

Except where otherwise specified in the contract and subject to the powers delegated to him/her by VMC, the code, rules then in force the decision of the Engineer-In-Charge, VMC shall be final, conclusive and binding but subject to arbitration, if the contractor is not satisfied with the meaning of the specifications, designs, drawings, and instructions herein before mentioned and as to the quality or workmanship, or materials used on the work or as to any other question, claim, right, matter or thing whatsoever, in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders of these conditions or otherwise concerning the works or the execution of failure to execute the same, whether arising during the completion or abandonment thereof.

**Clause 32: Access to the Site**

The contractor shall arrange to construct, maintain and afterwards remove and reinstate any temporary access required for and in connection with execution of the works. Reinstatement shall include restoring the area of the access route to at least the degree of safety, stability, drainage and appearance that existed before the Contractor entered the site.

**Clause 33: Lump sum in estimates (If Applicable)**

When the estimate on which a tender is made include Lump sum in respect of parts of the work, the

Contractor shall be entitled to payment in respect of the items of work involved or the part of the work in question at the same rates as are payable under this contract for such items or if the part of the work in question is not in the opinion of the Engineer-In-Charge, VMC capable of measurement, the Engineer-In- Charge, VMC may, at his discretion, pay the Lump sum amount entered in the estimate and the certificate in writing of the Engineer-In-Charge, VMC shall be final and conclusive against the Contractor with regard to any sum or sums payable to him under the provisions of this clause.

**Clause 34: Deleted**

**Clause 35: Deleted**

**Clause 36: Deleted**

**Clause 37: Royalties**

The contractor shall pay the royalty to the competent authority/local body as per rules and shall produce “No Due Certificate” from the Royalty Inspector having jurisdiction over the work site area, to the Engineer-In- Charge, VMC before claiming refund of Security Deposit. The royalty charges paid shall not be refunded to the Contractor.

**Clause 38: Compensation under the Workmen’s Compensation Act (Read in Conjunction with Section 3 Part F Clause 64 of ITB)**

The Contractor shall be responsible for and shall pay any compensation to his workmen payable under the Workmen’s Compensation Act, 1923 (VIII of 1923), (hereinafter called the said Act) for injuries caused to the workmen. If such compensation is paid by VMC as principal under sub-section (1) of section 12 of the said Act on behalf of the Contractor, it shall be recoverable by VMC from the contractor under sub-section (2) of the said section. Such compensation shall be recovered in the manner laid down in Clause 1 above.

In every case in which by virtue of the provisions sub-section (1) of Section 12, of the Employee’s Compensation Act, 1923, Employer is obliged to pay compensation to a workman employed by the Contractor, in execution of the Works, Employer will recover from the Contractor the amount of the compensation so paid; and, without prejudice to the rights of the Employer under sub-section (2) of Section 12, of the said Act, Employer shall be at liberty to recover such amount or any part thereof by deducting it from the Security Deposit or from any sum due to the Contractor whether under this Contract or otherwise. Employer shall not be bound to contest any claim made against it under sub-section (1) Section 12, of the said Act, except on the written request of the Contractor and upon his giving to Employer full security for all costs for which Employer might become liable In Consequence of contesting such claim.

**Clause 39: Liability of the Contractor in case of accidents**

The contractor shall be responsible for and shall pay the expenses of providing medical aid to public or to any workmen who may suffer a bodily injury as a result of an accident. If such expenses are incurred by Government, the same shall be recoverable from the Contractor forthwith and be deducted, without prejudice to any other remedy of Government, from any amount due or that may become due to the Contractor. For any accident due to this work, Agency is fully responsible in all respect.

**Clause 39A: Medical Aid to Workmen**

The contractor shall be responsible for and shall pay the expenses of providing medical aid to any workmen who may suffer a bodily injury as a result of an accident. If VMC incurs such expenses, the same shall be recoverable from the Contractor forthwith and be deducted, without prejudice to any other remedy of VMC, from any amount due or that may become due to the Contractor.

**Clause 39B: Safety and First Aid**

The Contractor shall provide all necessary personal safety equipment and first aid apparatus available for the use of the persons employed on the site and shall maintain them in the same condition suitable for immediate use at any time and shall comply with the following regulations in connection therewith:

- 1.The workers shall be required to use the equipment so provided by the Contractor and the Contractor shall take adequate steps to ensure proper use of the equipment by those concerned.
- 2.When work is carried on in proximity to any place where there is a risk of drowning, all necessary equipment shall be provided and kept ready for use and all necessary steps shall be taken for the prompt rescue of any person in danger.
- 3.Adequate provision shall be made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.

**Clause 40: Claim for quantities of work entered in the tender or estimate**

Quantities shown in the tender are approximate and no claim shall be entertained for quantities of work executed being either more or less than those entered in the tender or estimate.

**Clause 41: Deleted**

**Clause 42: Claim for compensation for delay in starting the work**

No compensation shall be allowed for any delay caused in the starting of the work on account of acquisition of land or in the case of clearance works on account of any delay in according to sanction to estimates.

**Clause 43: Claim for compensation for delay in the execution of work**

No compensation shall be allowed for any delay in execution of the work on account of water standing in borrows pits or compartments. The rates are inclusive of hard or cracked soil, excavation in mud, sub-soil water or water standing in borrows pits and no claim for an extra rate shall be entertained unless otherwise expressly specified.

**Clause 44: Entering upon or commencing any portion of work**

The Contractor shall not enter upon or commence any portion of work except with written authority and instructions of the Engineer-In-Charge, VMC or of his subordinate in charge of the work failing such authority the Contractor shall have no claim to ask for measurements of or payment for work.

**Clause 45: DELETED**

**Clause 46: Method of payment (Read in Conjunction with Section 3 Part D Clause 43 of ITB)**

Payment of Contractors shall be made by cheque / through ECS drawn on Bank within the division convenient to VMC. The contractor shall intimate in writing about details of account as & when needed to VMC.

**Clause 46-A:**

Any sum of money due and payable to the Contractor (including the security deposit returnable to the Contractor) under this Contract shall be appropriated by the VMC and shall be set off against any claim of the contractor with the VMC for the payment of a sum of money arising out of or under any other contract made by the Contractor with the VMC. When no such amount of the purpose of the recovery from the Contractor against any claim of the VMC is available, such a recovery shall be made from the Contractor as arrears of land revenue.

**Clause 47: Acceptance of conditions compulsory before tendering for work**

Any Contractor who does not accept these conditions shall not be allowed to tender for works.

**Clause 48: Employment of Scarcity Labour**

If Government declares a state of scarcity or famine to exist in any village situated within 16 kilometres of the work, the piece worker/contractor shall employ upon such parts of the work as are suitable for unskilled labour, any persons certified to him by the Engineer-in-Charge, or by any person to whom the Engineer-in-Charge may have delegated this duty in writing to be in need or relief and shall be bound to pay such persons wages not below the minimum which VMC may have fixed in this behalf. Any disputes, which may arise in connection with the implementation of this clause, shall be decided by the Engineer-In-Charge VMC whose decision shall be final and binding on the

piece worker/Contractor.

**Clause 49: Prices quoted by the Contractor**

Refer clause 12 of IFB

**Clause 50: Rates inclusive of all Taxes**

Refer clause 45 of part D of section 3 of IFB

**Clause 51: Deleted**

**Clause 52: Fair Wages**

Refer Section 3 Part F Clause 64 of ITB

**Clause 53: Shed for Materials**

The Contractor will have to construct shed for storing materials with locking arrangements. The materials will be taken for use in the presence of the departmental persons. No material will be allowed to be removed from the site of work.

**Clause 54: List of Machinery**

The Contractor shall also give a list of machinery (Annexure-08) in his possession and which he proposes to use on the work.

**Clause 55: DELETED**

**Clause 56: Deleted**

**Clause 57: Deleted**

**Clause 58: Pure and wholesome water for labourers**

The Contractor shall provide an adequate supply of pure and wholesome water for the use of labourers. This provision shall be at the rate of not less than 10 gallons per head; no provision need be made where there is a suitable nallah, river or well within 250 metres of the camp.

A. The Contractor shall construct trench or semi-permanent latrines for the use of the labourers; such latrines shall be on the scale of not less than 5 per 100 persons in the camp, separate latrines shall be provided for men and women. The labourers may, at their option, be allowed to use either the trench system or the latrine system.

B. The Contractor shall build a sufficient number of huts on a suitable plot of land for the use of the labourers according to the following specification:

C. Huts of bamboo and grass may be constructed.

D. A good site shall be selected. High ground, removed from jungle but well provided with trees, shall be chosen wherever it is available. The neighbourhood of tank, jungle, and grasses avoided. Camps should not be established close to large cutting or cuttings of earthwork.

E. The lines of huts shall have open spaces of at least 4 meters between rows. When a good natural site cannot be procured, particular attention should be given to the drainage.

F. There should be no overcrowding. Floor space at the rates of 30 square feet per head shall be provided. Care should be taken to see that the huts are kept clean and in good order.

G. The Contractor shall construct a sufficient number of bathing places, every unit of 20 persons being provided with a separate bathing place. Such bathing places should be suitably screened, and separate place provided for men and women. Washing places should also be provided for the purpose of washing clothes. Every unit of 30 persons shall have at least one washing place.

H.The Contractor shall make efficient arrangements for draining away the sullage water as well as water from the bathing and washing places and shall dispose off this waste water in such a way as not to cause nuisance.

I.The Contractor shall engage medical officer with a traveling dispensary for a camp containing 500 or more persons if there is no other private dispensary situated within 8 kilometers from the camp.

J.The Contractor shall provide the necessary staff for effecting the satisfactory conservancy and cleanliness of the camp to the satisfaction of the VMC Officers. At least one sweeper per 200 persons should be engaged.

K.The Engineer-In-Charge VMC shall be consulted before opening a labour camp and his instructions on matters, such as, the water supply, sanitary convenience, the camp site, accommodation and food supply shall be followed by the Contractor.

L.The authorities in charge of the colonies should get the labourers inoculated against Cholera, and Plague at the time of recruitment if they are not inoculated or vaccinated within 6 months prior to and date of recruitment.

M.When in any labour camp there is an outbreak of an epidemic disease or is threatened with such an outbreak the authorities in charge of the labour camps should ensure that all the inmates of the labour-colonies are inoculated or vaccinated, as the case may be depending on the disease, within 72 hours after the outbreak.

N.The authorities, in charge of the labour colony should arrange to communicate by telegram regarding the outbreak of the epidemic diseases, on the very day of the outbreak to the Engineer-In-Charge VMC.

O.When the authorities, in charge of the labour colony suspect or have reason to believe that any inmate of the labour colony is suffering from the infections or contagious disease, they shall forthwith arrange for the segregation of such persons in isolated huts to be specifically provided for the purpose and also for their treatment.

P.As regional malaria epidemic outbreaks are likely to occur in such project areas, the authorities in charge of the labour colonies should report promptly the occurrence of unusual incidence of cases of malaria to the Health Office of the VMC and also arrange to institute all necessary anti-malaria measures as may be advised by the Health Officer.

Q.The authorities in charge of the colonies should also arrange to carry out any other measures that may be recommended by the officials of the Health Department necessary to prevent or control the spread of disease.

#### **Clause 59: No distinction between Harijans and other workers**

The contractor shall not show any distinction between Harijan and other class of labourers/workers employed to carry out the VMC work.

#### **Clause 60: Fencing and Lighting**

The contractor shall, unless, otherwise specified, be responsible for the proper fencing, lighting, grading and taking of the necessary safety measures for all works comprised in the same may be rendered necessary by reasons of the work for the accommodation of workmen, for passengers or other traffic and of owners and of and occupiers of adjacent property and the public and shall remain responsible for any accidents that may occur on account of his failure to take proper and timely precautions. All the arrangements made for fencing and lighting shall be maintained by the Contractor throughout the currency of the contract till the physical taking over the work by Department.

#### **Clause 61: Liabilities for accidents to person**

Refer Section 3 Part F Clause 64 of ITB

#### **Clause 62: Reports regarding labour**

The Contractor shall submit the following reports to the Engineer-In-Charge, VMC:

A daily report in the form as may be prescribed of the strength of labour both skilled and unskilled employed by him on the work(s). The Contractor shall increase or decrease the strength, both skilled and unskilled, if directed by the Engineer-In-Charge, VMC. The submission of such report shall not, however, relieve the Contractor of the responsibilities and duties regarding progress or any other obligation under the Contract. A classified weekly return in the prescribed form of the number of persons employed on the works during the preceding week. A weekly medical report in the report in the prescribed form showing the health of the Contractor's camp, the number of persons ill or incapacitated and the nature of their illness. A report of any accident which may have occurred, to be sent within 24 hours of the occurrence. Such other reports as may be prescribed.

**Clause 63: Treasure trowel**

In the event of discovery by the Contractor or his employees, during the progress of work of any gold, silver, oil or other minerals of any description and precious stones, treasures, coils, antiquities, relic fossils or other articles or value of interest whether geological, archaeological or any other such treasure & other things shall be deemed to be absolute property of the Government and the Contractor shall duly preserve the same to the satisfaction of the Engineer- In-Charge, VMC, from time to time, and deliver the same to such persons as the Engineer- In- Charge, VMC may appoint.

The Contractor shall take all reasonable precautions to prevent his workmen or any other person from removing or damaging any such articles or things, immediately after the discovery there of and before removal acquaint Engineer-In-Charge, VMC with such discovery and carry out these orders for the disposal of the same.

**Clause 64: Indemnity**

The Contractor shall indemnify the Government against all actions, suits claims and demands through or made against the department in respect of work of this contract and against any loss or damage to Department in consequence of any action or suit being brought against the Contractor for anything done or omitted to be done in execution of the work of this contract.

**Clause 65: Insurance taxes and duties Insurance:**

Refer Section 3 Part A Clause 13 of ITB

**Clause 66: Cement Register**

A register in the prescribed form showing day-to-day receipt, consumption and balance of cement on site of work will be maintained by the Department, which shall invariably be signed daily by the Contractor or his authorized representative in token of its correctness.

**Clause 67: Deleted**

**Clause 68: License for contract labour**

Before starting the work, the Contractor will have to obtain the license from the District Assistant Labour Commissioner under the Contract Labour (Regulation and Abolition) Act 1970 and contract number of labourers to be employed on the work and will have to supply two true copies of the said license to the Deputy Executive Engineer before the work is started.

**Clause 69: Liability of the Contractor in case of Fraud, Dishonest and Fraudulent concealment.**

Certificate of payment issued by Architect/Owner during the progress of the works or after their completion shall not relieve the Contractor from his liability under all or any of the clause(s) in this contract. In case of fraud, dishonesty or fraudulent concealment relating to the works or material or to any matter dealt in with the certificate and in case of defects and insufficiencies in the works or material which any reasonable examination would not have disclosed the certificate issued by Architect/Owner shall not be considered as a conclusive evidence that any work and material to which it relates or in accordance with the contracted and such a certificate shall be considered to have been obtained by the contractor by fraud or misrepresentation and it shall be liable to the cancelled or withdrawn.

**Clause 70: DELETED**

**Clause 70A: DELETED**

**Clause 71: Forfeiture/Termination**

Refer Section 3 Part E Clause 59 of ITB

**Clause 71 A: Valuation at date of forfeiture**

The owner shall as soon as may be practicable after his entry consequent upon the expulsion of the Contractor fix and determine expert or by or after reference to the parties or after such investigations or inquiries as he may think fit to take or institute and shall certify what amount ( if any) which had at the time of such entry and expulsion become reasonably due to the Contractor in respect of work then actually done by him under the contract including the value of any unused or partially used materials, any constructional plant and any temporary works which are taken over by owner under his exclusive rights.

**Clause 71 B: Payment after Forfeiture**

Refer Section 3 Part E Clause 60 of ITB

**Clause 72: If the Contractor dies**

Without prejudice to any of the rights or remedies under this contract, if the Contractor dies owner shall have option of terminating the contract without any compensation to the Contractor.

**Clause 73: Insolvency and breach of contract**

The VMC may at any time, by notice in writing, summarily terminate the contract without compensation to the contractor in any of the following events:

- a.If the contractor, a firm or any partner thereof, shall be at the time adjusted insolvent or shall have a receiving order for administration of his estate made against him or shall take any proceedings for composition under any Insolvency Act for the time being in force to make any conveyance or assignment of his assets or enter into any arrangement or composition with his creditors or suspend of payment if the firm is dissolved under the partnership Act.
- b.If the contractor being a company is wound up voluntarily by the order of a court or receiver, liquidator or Manager on behalf of the debenture holders is appointed or circumstances shall have arisen which entitled the court or Debenture holders to appoint a receiver liquidator or Manager.
- c.If the contractor commits any breach of the contract not herein specifically provided any right of action or remedy which shall have occurred or shall occur thereafter and provided also the contractors be liable to pay the VMC for any extra expenditure he is thereby put to and the contractor shall under no circumstances be entitled to any gain in repurchase.

**Clause 74: Action when whole of Security Deposit is forfeited.**

In any case in which under any clause of this contract, the contractor shall have rendered himself liable to pay compensation amounting to the whole of his Security Deposit (Whether paid in one sum or deducted by installment) or in the case of abandonment of the work owing to serious illness or death of the contractor or any other cause, the City Engineer/ Additional City Engineer/ Head of Department, on behalf of VMC shall have power to adopt any of the following courses as man, deemed best suited to the interest of VMC.

- d.To rescind the contract (of which recession notice in writing to the contractor under the hand of the executive Engineer shall be conclusive evidence) and in that case, the Security deposit of the contractor shall stand forfeited and be absolutely at the disposal of the VMC.
- e.To employ labour paid by the VMC and to supply materials to carry out the work, or any part of the works, debiting the contractor with the cost of the labour and price of materials as to the correctness of which cost and price the certificate of the City Engineer/Additional City Engineer/Executive Engineer shall be final and conclusive against Contractor and crediting him with the value of the work done, in all respect in the manner



and at the same rate as if it had been carried out by the contractor under the terms of this contract and in that case the certificates of the Executive Engineer as to the value of the work done shall be final and conclusive against the contractor.

f.To order that the work of the contractor be measured up and to take such part thereof as shall be unexecuted out of his hands, and to give it to another contractor to complete, in which case, any expenses which may be incurred in excess of the sum which would have been executed by him (as to the amount of which expenses the certificate in writing of the City Engineer/Additional City Engineer/Executive Engineer shall be final and conclusive) shall be borne and paid by the original contractor and shall be deducted from any money due to him by the VMC under the contractor or otherwise or from his security deposit or the proceeds of sale thereof, of a sufficient part thereof. In the event of any of the above courses being adopted by the City Engineer the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased, or prepared any materials, or entered into any engagements, or made any advances on account of or with a view to execution of the work or the performance of the contract. And in case of the contract shall be rescinded under the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum, for any work therefore actually performed by him under this contract unless and until the Executive Engineer shall have certified in writing the performance of such work and the amount payable to him in respect thereof and he shall only be entitled to be paid the amount so certified.

#### **Clause 75: DELETED**

#### **Clause 76: Alterations in Specifications and Designs not to be invalidate contracts. Rates for works not entered or schedule rate.**

The City Engineer/ Additional City Engineer/ Head of Department/ Executive Engineer shall have power to make any alteration in or addition to the original specifications, drawings and instructions that may appear to him to be necessary or advisable during the progress of the work and the contractor shall be bound to carry out the work in accordance with any instruction in this connection which may be given to him in writing signed by the City Engineer / Additional City Engineer / Executive Engineer and such alteration shall not invalidate contract. Any additional work which the contractor may be directed to do in the manner above specified as part of the work shall be carried out by the contractor on the same conditions in all respect on which he agreed to do the main work, and at the same rates as are specified in the tender for the main work. And if the additional and altered in the tender for the work, and if the additional and altered work includes any class of works for which no rate is specified in this contract, then such class of works shall be carried out at the rates entered in the Scheduled Rates or at the calculated rates whichever are lower. If the additional or altered work for which no rate is entered in the Schedule of Rates in ordered to be carried out before the rates are agreed upon then contractors shall within seven days of the date of receipt by him of the order to carry out the work, inform the Executive Engineer of the rate which he is intending to charge for such class of work, and to arrange to carry out in such manner as he may consider advisable provided always that if the contractor shall commence work or incurred any expenditure in regard there to before the rates shall have been determined as lastly here in before mentioned then in such cases, he shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to such date of the determination of the rate as aforesaid according to such rates as shall be fixed by the Executive Engineer, in the event of a dispute, the decision of the Additional City Engineer will be final. Where however, the work is to be executed according the designs, drawings and specifications recommended by the contractor and accepted by VMC, the alteration above referred shall be within the scope of such design, drawings and specifications appended to the tender. The time limit for completion of works shall be extended in the proportion that the increase in cost occasioned by alterations or additions bears to the cost of the original contract work, and the certificate of the Executive Engineer as such proportion shall be conclusive.

#### **Clause 77: Execution of Works.**

All works to be executed under the direction and subject to the approval in all respect of Engineer-in-charge or Executive Engineer for the time being, who shall be entitled to direct at what point or points and in what manner they are to be commenced and from time to time carried on.

#### **Clause 78: Action where no specifications are available.**

In the case of work for which there is no such specification, work shall be carried out in accordance with the GWSSB

/ P.W.D. or I.S.I. specification / relevant specifications published by state or central Government, and in the event of there being no P.W.D. or I.S.I. specifications the work shall be carried out in all respects in accordance with the instructions and requirements of the Executive Engineer.

**Clause 79: DELETED**

**Clause 80: Removal of Workmen**

The VMC shall be at liability to object & require the Contractor to remove forth with from the works any person employed by the contractor in or about the execution or maintenance of the works who in the opinion of the VMC misconducts himself or is in completed or negligent in the proper performance of his duties or whose employment is otherwise considered by the Executive Engineer to be undesirable & such person shall be replaced by the contractor without delay by a competent substitute approved by VMC.

**Clause 81: Jurisdiction.**

The contractor shall be governed and be constituted according to laws in India. The Contractor will submit to the jurisdiction of the courts situated at Vadodara for the purpose of disputes, actions and proceedings arising out the contract and the courts at Site location only will have the jurisdiction to hear and decide disputes, actions and proceedings.

**Clause 82 Programme of Work**

Refer Section 3 Part B Clause 27 of ITB

**Clause 83: Progress**

The Contractor shall regularly review his programme in the light of the progress actually achieved and shall submit for approval updated PERT/CPM Network and bar charts at intervals to be agreed with the Engineer's Representative. If progress falls behind that needed to ensure timely completion of the various parts of the works, the Contractor shall submit proposals for improving his methods and pace of working to the satisfaction of Engineer's Representative and shall carry out such measures as are needed to ensure that the works are completed on time.

**Clause 84: TIME FOR COMPLETION:**

The Contractor shall commence the works on site when ordered by the Engineer and shall proceed with the same with due expedition and without delay except as may be expressly sanctioned or ordered by the Engineer or be wholly beyond the Contractor's control.

**Clause 85: CERTIFICATES OF COMPLETION:**

If the Engineer issues a Certificate of Completion for a part of the Works pursuant to Clause 7, the Contractor shall as far as practicably finish all outstanding work on that part of the works during the relevant Defects Liability Period. No Certificates of Completion shall relieve the Contractor or any of his obligations in connection with other Contractors whose work is carried out after the issue of such a certificate.

**Clause 86: PATENTS, RIGHTS AND ROYALTIES:**

The Contractor shall save harmless and indemnify the Municipal Commissioner VMC and of VMC and VMC from and against all claims and proceedings for or on account of infringement of any patents, rights, design, trade mark or name or other protected rights in respect of any Constructional plant, machine, work or material use for or in connection with the works or temporary works or any of them and from and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto. Except where otherwise specified, the Contractor shall pay all tonnage and other royalties, rent and other payment or compensation if any for getting stone, sand, gravel, clay or other materials required for the works or temporary works or any of them.

**Clause 87: THE SITE**

1.Tenderer must visit the work site and see for himself/herself the site, pipeline route and ground conditions in all respects including availability of labour (skilled and unskilled), approaches, obstructions, drains, availability of water, electricity, materials and all other matter affecting the work

before submitting the tender.

2. The submission of the tender by Tenderer implies that he has visited the work site, read the entire tender document and has made himself aware of the scope of specification of work to be performed and of the conditions and rates at which materials will be issued to him/her and local conditions and other factors which have a bearing on the execution of work.

3. Owner will not, therefore, after acceptance of the tender, pay any extra charges for any reason whatsoever in case Contractor finds later on to have misjudged the site and other conditions.

**Clause 88: ACCESS TO THE SITE:**

The Contractor shall arrange to construct, maintain and afterwards remove and reinstate any temporary access required for an in connection with the execution of the works. Reinstatement shall include restoring the area of the access route to at least the degree of safety, stability, drainage and appearance that existed before the Contractor entered the site.

**Clause 89: SETTING OUT THE WORKS**

1. The Contractor shall be responsible for the true and proper setting out of the works in relation to original points, lines and levels of reference given by the Engineer in writing or shown on the Drawings and for correctness, subject as above mentioned in the position, levels, dimensions and alignment of all parts of the works and for the provision of all necessary instruments, appliances and labour in connection therewith.

2. The checking of any setting out of any line or level by the Engineer's Representative shall not in any way relieve the Contractor of his responsibility for the correctness thereof.

**Clause 90: TEMPORARY WORKS:**

A reasonable time before he intends to commence construction of any temporary works, the Contractor shall submit full particulars including drawings of the same for the approval of the Engineer's Representative. Submission to an approval by the Engineer's Representative of any such particulars shall not relieve the Contractor of any of his responsibilities under the Contract.

**Clause 91: AMENITIES TO BE PRESERVED:**

The Contractor shall cause the least possible interference with the existing amenities, whether natural or man-made. No tree shall be felled without permission of the Engineer's Representative and clearance of the site shall generally be kept to the minimum necessary for the Works and Temporary Works. Temporary Works shall be sited so as to minimize the number of trees to be felled.

**Clause 92: WORKS TO BE KEPT CLEAR OF WATER**

1. The Contractor shall keep the works well drained until the Engineer certifies that the whole of the works is substantially complete and shall ensure that so far as is practicable, all work is carried out in the dry. Excavated areas shall be kept well drained and free from standing water.

2. The Contractor shall construct, operate and maintain all temporary dams, water courses and other works of all kinds including pumping and well-point dewatering that may be necessary to exclude water from the Works while they are in progress and till they are handed over to the VMC. This refers mainly to surface water they may enter into the excavated construction work. No separate payment will be made for such dewatering works/measures. Unit rates quoted by Contractor will be deemed to have covered expenses for such dewatering works/measures. Such temporary works shall not be removed without the approval of the Engineer's Representative.

3. Notwithstanding any approval by the Engineer's Representative of the Contractor's arrangements for the exclusion of water, the Contractor shall be responsible for the sufficiency thereof and for keeping the Works safe at all times, particularly during any floods and for making good at his own expense any damage to the Works including any that may be attributable to floods. Any loss of production or additional costs of any kind that may result from floods shall be at the Contractor's own risk.

**Clause 93: DISCHARGE OF WATER INTO EXISTING WATER COURSES:**

The Contractor shall make provision for the safe discharge or disposal from the Works and Temporary Works of all water and waste products howsoever arising and the methods of disposal shall be to the satisfaction of the Engineer's Representative and of any Authority or person having an interest in any land or watercourse or in which waste may be so discharged.

**Clause 94: PREVENTIVE MEASURES OF POLLUTION:**

The Contractor shall ensure that at all times during the construction of the Works all-reasonable precautions are taken to the satisfaction of the Engineer's Representative to prevent pollution of the Site and of the environment. In particular, the Contractor shall prevent pollution arising from the disposal or spillage of sewage, diesel fuel, oil, liquid mud, or from the disturbance of natural dust, aggregate dust or cement dust.

**Clause 95: EFFECTS OF WEATHER**

1.The Contractor shall ensure that no damage occurs to the works during construction by arranging adequate protection for excavation or building work against the effects of drought, sunshine, wind or rainfall (including erosion and flooding). No work shall be performed when in the opinion of the Engineer's Representative such work is liable to be injuriously affected by the weather.

2.The Contractor shall have no claim against the VMC on account of loss alleged to have been sustained directly or indirectly by reason of the Engineer's Representative declining to permit such work to start or continue, or ordering any work damaged by the weather to be made good or removed and re-executed.

**Clause 96: SITE TO BE KEPT TIDY:**

The Contractor shall keep the Site and all working areas in a tidy and workmanlike condition and free from rubbish and waste materials. Any temporary works, constructional plant, materials or other things which for the time being are not required for use by the Contractor may with the consent of the Engineer's Representative be removed from the site but otherwise shall be dispersed about the Site in an orderly fashion and shall be properly and securely stored thereon.

**Clause 97: SAFETY MEASURES AND SERVICES**

1.The Contractor shall be responsible for the safety of all workmen and other persons entering or in the Works and shall take all measures necessary to ensure their safety to the approval of the Engineer's Representative. such measures shall include the following:

- a)Provision of proper safety and emergency regulations, fire, gas and electric shock precautions, stretches and first-aid box together with rescue facilities generally for each place of working;
- b)Provision of efficient safety helmets for all personnel including the Engineer's Representative and each of his staff and any authorized visitors to site;
- c)Safe control of water including provision of ample standby generating and pumping plant.
- d)Provision and maintenance of suitable lighting to provide adequate illumination of Works with appropriate spares and standby equipment;
- e)Provision and maintenance of safe, sound mechanical equipment, each item of plant having an up-to-date testing certificates;
- f)Provision and maintenance of safe, sound ropes, slings, pulleys and other lifting tackle, each appliance having an up-to-date testing certificate where appropriate;
- g)Provision of notices 1.25m x 1.5 m size written in bold letters in English, Gujarati and Hindi to be erected on existing footpaths and at points of access likely to be used by the public, which shall warn the public of the existence of the Works. These notices shall be in addition to any statutory requirements demanded of the Contractor.

h) Provision of safety rails (wherever instructed by Engineer-in-Charge)

2. The Contractor shall submit for the approval of the Engineer's Representative detailed proposals under (a), above. When the regulations have been approved and before the work is started, the Contractor shall distribute copies in English or in their languages as appropriate to all his employees and to the Engineer's Representative.

3. The Contractor shall ensure that all his employees are fully conversant with the regulation, emergency and rescue procedures etc. and the Contractor shall enforce the rule that any employee committing a serious breach of such a regulation shall be instantly dismissed and shall not be re-employed.

4. Contractor shall provide and maintain at his own expenses all lights, guards, fencing and necessary watchmen when and where necessary or as required by Owner/Engineer for the protection of the works or for the safety and convenience of those employed on the works and the public. Contractor shall also provide at his cost traffic barricades, men for diverting and controlling traffic, necessary signboards for diversion of traffic. In the event of failure on the part of Contractor, Owner may with or without notice to Contractor put up a fence or improve a fence already put up or provide and/or improve the lighting or adopt such other measures as he may deem necessary, and all the cost of such work and procedures as may be adopted by Owner/Engineer shall be borne by Contractor. Maintenance of adequate warning and general lighting at nights at place of work is essential.

5. Contractor shall take the necessary permission and clearance of all the authorities like department of Roads, Traffic, Water Supply and Drainage; Electricity Board, Telephone Company, etc. wherever necessary and observe the regulations regarding the execution of work in congested areas, heavy traffic areas, etc.

**Clause 98: CLAIMS FOR DAMAGE TO PERSONS OR PROPERTY (Read in Conjunction with Section 3 Part A Clause 13 of ITB)**

1. Any claim received by the VMC or the Engineer's Representative in respect of matters in which the Contractor is required under the Contract to indemnify the VMC will be passed to the Contractor who shall likewise inform the VMC and an Engineer's Representative of any such claim which is submitted directly to him by a claimant. The Contractor shall do everything necessary, including notifying the insurers of claims received, to ensure that all claims are settled properly and expeditiously and shall keep the VMC and the Engineer's Representative informed as to the progress made towards settlement, failing which the VMC shall be entitled to make direct payment to claimants of all outstanding amounts due to them in the VMC's opinion and without prejudice to any other method of recovery to deduct by way of offset the amounts so paid from any sums due or which become due from the VMC to the Contractor.
2. If the Contractor receives a claim, which he considers to be in respect of matters in which he is indemnified by the VMC under the Contract, he shall immediately pass such claims to the VMC.
3. Contractor will be solely responsible for any loss to life or limbs of workmen or the public arising out of inadequate protective and/or safety measures taken by Contractor and irrespective of whether or not Engineer has ordered Contractor to take protective and safety measures.
4. The contractor will be responsible to pay a compensation of minimum ₹30 Lakhs in addition to the compensation paid by State government in the death of workman, while working with the drainage work.

**Clause 99: ASSISTANCE OF THE ENGINEER'S STAFF**

1. The Contractor shall provide all necessary assistance to the Engineer's Representative and his staff in carrying out their duties of checking the setting out, inspecting and measuring the work. The Contractor shall provide chairs, staff men, office attendants and labourers as may be needed from time to time by the Engineer's Representative.
2. The Contractor shall provide for the Engineer's Representative and his staff such protective clothing, safety helmets and rubber boots of suitable sizes as may reasonably be required by them. These articles shall remain the property of the Contractor. No separate payment shall be made on this account.

**Clause 100: PUBLICITY NOTICE BOARD:**

The Contractor shall provide, maintain and remove at the end of the Defects Liability Period a publicity notice board constructed according to the requirements of the VMC without any cost.

**Clause 101: CLEARING SITE ON COMPLETION**

1. On completion of the Works, the Contractor shall clear away and remove from the Site all Constructional Plant, surplus materials, rubbish, Temporary Works of every kind and leave the whole of the Site and the Works clean and in a workmanlike condition to the satisfaction of the Engineer.
2. The Contractor shall comply with the above requirements before the start of the Defects Liability Period and by the end of that period shall clear, regarded terrace, level topsoil and grass all his working areas as instructed by the Engineer's Representative. No separate payment shall be made on this account.

**Clause 102: PRODUCTION OF VOUCHERS, ETC.**

The Contractor shall when required by the Engineer produce all quotations, invoices, vouchers and accounts or receipts in connection with expenditure in respect of provisional sums.

1. The Contractor shall furnish to the Engineer's Representative such receipts or other vouchers as may be necessary to provide the amounts paid and before ordering materials shall submit to the Engineer quotations for the same for his approval.

**Clause 103: DAYWORK:**

In respect of all work executed on a day work basis, the Contractor shall during the continuance of such work deliver each day to the Engineer's Representative an exact list in duplicate of the names, occupations and time of all workmen employed on such work and a statement also in duplicate showing the description and quantity of all materials and plant used thereon or therefore (other than plant which is included in the percentage addition in accordance with the Schedule herein above referred to). One copy of each list and statement will it corrects or when agreed to, be signed by the Engineer's Representative and returned to the Contractor. At the end of each month, the Contractor shall deliver to the Engineer's Representative a priced statement of the labour, materials and plant (except as aforesaid) used and the Contractor shall not be entitled to any payment unless such lists and statements have been fully and punctually rendered. Provided always that is the Engineer shall consider that for any reason the sending of such list of statement by the Contractor in accordance with the foregoing provision was impracticable, he shall nevertheless be entitled to authorize payment for such work either as day's work (on being satisfied as to the time employed and plant and materials used on such work), or at such value therefore as shall in his opinion be fair and reasonable.

**Clause 104: CLAIMS:**

The Contractor shall send to the Engineer's Representative once in every month an account giving particulars (as full and detailed as possible) of all claims for any additional expense to which the Contractor may consider himself/herself entitled and of all extra or additional work ordered by the Engineer which he has executed during the preceding month and no claim for payment for any such work will be considered which has not been included in such particulars. Provided always that the Engineer shall be entitled to authorize payment to be made for any such work notwithstanding the Contractor's failure to comply with this condition if the Contractor has at the earliest practicable opportunity notified the Engineer that he intends to make a claim for such work.

**Clause 105: ENGINEER'S REPRESENTATIVE:**

Where reference in the Specification is made to the Engineer, the powers as described shall be deemed to be delegated to the Engineer's Representative.

**Clause 106: SUBSIDENCE OF ROAD:**

If any subsidence takes place in the filling of road or any part of the work whatsoever during defects liability period from the completion of the contracted work, Contractor shall make good the same at his own cost, or Owner/Engineer may without notice to Contractor make good the same in any and with any material that he may

think proper and at the expense of Contractor. Owner/Engineer may also if he anticipates the occurrence of any subsidence, employ watchmen to look after the same unless it has been set right. The expenses of such watchmen shall be charged to Contractor.

**Clause 107: PAYMENT OF ITEMS ON LUMP SUM BASIS:**

Items to be paid on "Lump sum" basis shall be paid only after these items are accepted by Engineer as 100% complete.

**Clause 108: DISPUTES:**

Any legal dispute with the Contractor(s) will be settled within the area subject to Vadodara jurisdiction.

**Clause 109: MATERIAL TESTING: (Read in Conjunction with Section 3 Part C Clause 34 of ITB)**

Necessary material testing shall be carried out by the contractor at VMC approved laboratory at his own cost as directed by Engineer-in-charge of VMC as well as PMC/TPI.

**Clause 110: DRAWING SUBMISSION:**

**Refer point 35 and 36 of contract data**

**Clause 111: INTERPRETATION OF DOCUMENTS:**

In this Contract, unless the context otherwise requires:

1. References to any legislation or any provision thereof shall include amendment or re-enactment or consolidation of such legislation or any provision thereof so far as such amendment or re-enactment or consolidation applies or is capable of applying to any transaction entered into hereunder;
2. References to laws of India or Indian law or regulation having the force of law shall include the laws, acts, ordinances, rules, regulations, bye laws or notifications which have the force of law in the territory of India and as from time to time may be amended, modified, supplemented, extended or reenacted;
3. References to a "person" and words denoting a natural person shall be construed as a reference to any individual, firm, company, corporation, society, trust, government, state or agency of a state or any association or partnership (whether or not having separate legal personality) of two or more of the above and shall include successors and assigns;
4. The table of contents, headings or sub-headings in this Contract are for convenience of reference only and shall not be used in, and shall not affect, the construction or interpretation of this Contract.
5. The words "include" and "including" are to be construed without limitation and shall be deemed to be followed by "without limitation" or "but not limited to" whether or not they are followed by such phrases;
6. References to "construction" or "building" include, unless the context otherwise requires, survey and investigation, design, developing, engineering, procurement, supply of Plant, Materials, Equipment, labour, delivery, transportation, installation, processing, fabrication, testing, commissioning and maintenance of the project (water/ waste water, networks, treatment and storage as applicable) including removing of Defects, if any, and other activities incidental to the construction and "construct" or "build" shall be construed accordingly;
7. References to "development" include, unless the context otherwise requires, construction, renovation, refurbishing, augmentation, up-gradation and other activities incidental thereto, and "develop" shall be construed accordingly;
8. Any reference to any period of time shall mean a reference to that according to Indian Standard Time;
9. Any reference to day shall mean a reference to a calendar day as per the Gregorian calendar;
10. References to a "business day" shall be construed as a reference to a day (other than Sundays and other holidays for Employer) on which banks in [Vadodara] are generally open for business;

11. Any reference to month shall mean a reference to a calendar month as per the Gregorian calendar;
12. References to any date, period or project milestone shall mean and include such date, period or project milestone as may be extended pursuant to this Contract;
13. Any reference to any period commencing "from" a specified day or date and "till" or "until" a specified day or date shall include both such days or dates; provided that if the last day any period computed under this Contract is not a business day, then the period shall run until the end of the next business day;
14. The words importing singular shall include plural and vice versa;
15. References to any gender shall include the other and the neutral gender;
16. "lakh" means a hundred thousand (100,000) and "crore" means ten million (10,000,000);
17. "indebtedness" shall be construed so as to include any obligation (whether incurred as principal or surety) for the payment or repayment of money, whether present or future, actual or contingent;
18. References to the "winding-up", "dissolution", "insolvency", or "reorganization" of a company or corporation shall be construed so as to include any equivalent or analogous proceedings under the jurisdiction of law in which such company or corporation is incorporated or any jurisdiction in which such company or corporation carries on business including the seeking of liquidation, winding-up, reorganization, dissolution, arrangement, protection or relief of debtors;
19. Save and except as otherwise provided in this Contract, any reference, at any time, to any agreement, deed, instrument, license or document of any description shall be construed as reference to that agreement, deed, instrument, license or other document as amended, varied, supplemented, modified or suspended at the time of such reference; provided that this sub Clause shall not operate so as to increase liabilities or obligations of the Employer hereunder or pursuant hereto in any manner whatsoever;
20. Any agreement, consent, approval, authorization, notice, communication, information or report required under or pursuant to this Contract from or by any Parties or the Engineer-in-Charge shall be valid and effective only if it is in writing under the hand of a duly authorized representative of such Parties or the Engineer in-Charge, as the case may be, in this behalf and not otherwise;
21. The Schedules and Recitals to this Contract form an integral part of this Contract and will be in full force and effect as though they were expressly set out in the body of this contract;
22. References to Recitals, Articles, Clauses, Sub-Clauses or Schedules in this Contract shall, except where the context otherwise requires, mean references to Recitals, Articles, Clauses, Sub-Clauses and Schedules of or to this Contract, and references to a Paragraph shall, subject to any contrary indication, be construed as a reference to a Paragraph of this Contract or of the Schedule in which such reference appears; and
23. The damages payable by either Parties to the other of them, as set forth in this Contract, whether on per diem basis or otherwise, are mutually agreed genuine pre-estimated loss and damage likely to be suffered and incurred by the Parties entitled to receive the same and are not by way of penalty (the "Damages")
24. Time shall be of the essence in the performance of the Parties' respective obligations. If any time period specified herein is extended, such extended time shall also be of the essence.

**Clause 112: Contractor & Contractor's obligations and its representatives**

1.1A Contractor may be an individual, firm, company, corporation, whether incorporated or not, who enters into the Contract with the Employer, and shall include his heirs, his executors, administrators, successors, legal representatives, as the case may be.

1.2 Contractor's representative shall mean a person in supervisory capacity who shall be so declared by the Contractor and who shall be authorized under a duly executed power of attorney to comply with the



instructions and to receive materials issued by the Engineer-in Charge to the Contractor for Works . He shall be capable of taking responsibility for proper execution of Contract.

**Clause 113: Removal of worker or subcontractor by Employer**

The appointment of key personnel and subcontractor for the Contract shall be authenticated by the Employer. The Engineer-in-Charge may require the Contractor to dismiss or remove from the Site any person or persons or sub-Contractor who is found to be incompetent or indulging in misconduct and the Contractor shall forthwith comply with such requirements within 21 days of such notice from the Engineer-in-Charge. Such person(s) shall not be employed again at Site without the written permission of the Engineer-in-Charge and the person(s) so removed shall be replaced as soon as possible by competent substitutes. The decision of Engineer-in-Charge shall be final and binding.

**Clause 114: Unauthorized occupancy at the construction site**

It shall be the responsibility of the Contractor to see that the Site is not occupied by any unauthorized person during construction, and that Site is handed over to the Engineer-in- Charge with vacant possession of complete building or site, as applicable and free from all encumbrances.

Provided that where such construction site is occupied illegally, and notwithstanding that the Works on the Site is executed by the Contractor, the Engineer-in-Charge shall have the option to refuse to accept the said site in that condition. Any delay in acceptance on this account will be treated very seriously, and the Contractor shall be liable to pay compensation for delays. Provided further that for such delay a levy up to maximum of 5% of Contract Price may be imposed by the Engineer-in-Charge whose decision shall be final both with regard to the justification and quantum of levy and shall be binding on the Contractor.

Provided further that the Engineer-in-Charge may require through a written notice removal of any illegal occupation of Site that comes into his/her knowledge at any time during the execution of the Contract.

**Clause 115: Site office**

The Contractor shall on his own arrange for space for site office at his cost. Contractor shall also be responsible to arrange a store for proper storage of material in a weather proof environment as required for a particular kind of material.

**Clause 116: Excavated materials**

The Contractor shall not sell or otherwise dispose off, or remove, except for the purpose of this Contract, sand, stone, clay, ballast, earth, rock or any other substance or materials, which may be obtained from any excavation made for the purpose of the Works, or any building or produce existing at the Site at the time of delivery of possession thereof. All such substances, materials, buildings and produce, shall be the property of the Employer;

Provided that the Contractor may with the permission of the Engineer-in-Charge use the same for the purpose of Works either free of cost or on payment of cost, as provided for under the Special Conditions of the Contract or in the absence of such conditions, as per mutually accepted terms and conditions.

**Clause 117: Care of work**

Subject to the insurance obligations of the Parties, the Contractor shall bear full risk in and take full responsibility for the care of the Works and Materials, goods and equipment for incorporation therein from the Commencement Date until the Completion Certificate is issued, except and to the extent that any loss of or damage to the same shall arise out of any default or neglect of the Employer.

**Clause 118: Employment of foreign nationals**

The Contractor acknowledges, agrees and undertakes that employment of foreign personnel by the Contractor and/or its Sub-Contractors and their Sub-contractors shall be subject to grant of requisite regulatory permits and approvals including employment/residential visas and work permits, if any required, and the obligation to apply for and obtain the same shall and will always be of the Contractor. Notwithstanding anything to the contrary

contained in this Contract, refusal of or inability to obtain any such permits and approvals by the Contractor or any of its Sub- Contractors or their sub-Contractors shall not in any manner excuse the Contractor from the performance and discharge of its obligations and liabilities under this Contract.

**Clause 119: Deleted**

**Clause 120: Reporting, Inspection & Quality**

(Refer Section 3 Part C of ITB)

**Clause 121: Deleted**

**Clause 122: Material & Workmanship**

**Materials to be supplied by Contractor**

**1.1**The Contractor shall, at his own expense, provide all materials, required for the Works other than those, which are stipulated, to be supplied by the Employer.

**1.2**The Contractor shall, at his own expense and without delay; supply to the Engineer-in- Charge samples of materials to be used on the Works and shall get these approved in advance. All such materials to be provided by the Contractor shall be in conformity with the specifications laid down or referred to in the Contract. The Contractor shall, if requested by the Engineer-in-Charge furnish proof, to the satisfaction of the Engineer-in- Charge that the materials so comply. The Engineer-in-Charge shall within 30 (thirty) days of supply of samples, intimate the Contractor in writing whether samples are approved by him or not. If samples are not approved, the Contractor shall forthwith arrange to supply to the Engineer-in-Charge for his approval fresh samples complying with the specifications laid down in the Contract. When materials are required to be tested in accordance with specifications, approval of the Engineer-in-Charge / PMC / TPI agency shall be issued after the test results are received.

**1.3**The Contractor shall, at his risk and cost, make all arrangements and shall provide all facilities as the Engineer-in-Charge / PMC / TPI agency may require for collecting, and preparing the required number of samples for such tests at such time and to such place or places as may be directed by the Engineer-in-Charge / PMC / TPI agency and bear all charges and cost of testing unless specifically provided for otherwise elsewhere in the Contract or specifications. The Engineer-in-Charge or his authorized representative shall at all times have access to the works and to all workshops and places where work is being prepared or from where materials, manufactured articles or machinery are being obtained for the Works and the Contractor shall afford every facility and every assistance in obtaining the right to such access.

**1.4**The Engineer-in-Charge / PMC / TPI agency shall have full powers to require the removal from the premises of all materials which in his opinion are not in accordance with the specifications and in case of default the Engineer-in-Charge / PMC / TPI agency shall be at liberty to employ at the expense of the Contractor, other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials. The Engineer-in-Charge / PMC / TPI agency shall also have require other proper materials to be substituted thereof and in case of default the Engineer-in- Charge / PMC / TPI agency may cause the same to be supplied and all costs which may attend such removal and substitution shall be borne by the Contractor.

**1.5 Leveling instrument/ survey equipment**

The Contractor shall always make available and accurate leveling instrument with updated calibration certificate at the Site. Necessary levels shall be given by the Contractor or his authorized site engineer and the same will be checked by the site staff of the Employer / PMC / TPI agency.

**Clause 123: Suspension of Work**

**1.1**The Contractor shall within 3 days of receipt of the order in writing of the Engineer-in-Charge, (whose decision shall be final and binding on the Contractor) suspend the progress of the work or any part thereof for such time and in such manner as the Engineer- in-Charge may consider necessary so as not

to cause any damage the work already done or endanger the safety in general thereof for any of the following reasons:

- a. On account of any default on the part of the Contractor or;
- b. For proper execution of the Works or part thereof for reasons other than the default of the Contractor
- c. For safety of the Works, public and or public property; or
- d. To avoid hindrance to other works; or
- e. As communicated by Engineer-in-Charge for any other reason.

The Contractor shall, during such suspension, properly protect and secure the Works to the extent necessary and carry out the instructions given in that behalf by the Engineer-In-charge.

**1.2** In the event of the Contractor treating the suspension as an abandonment of the Contract by Employer, the Contractor shall have no claim to payment of any compensation on account of any profit or advantage which he might have derived from the execution of the Works in full but which he could not derive in consequence of the abandonment.

#### **Clause 124: Non-Political Event**

A Non-Political Event shall mean one or more of the following acts or events:

- (i) Act of God, epidemic, extremely adverse weather conditions, lightning, earthquake, landslide, cyclone, flood, volcanic eruption, chemical or radioactive contamination or ionising radiation, fire or explosion (to the extent of contamination or radiation or fire or explosion originating from a source external to the Site);
- (ii) Strikes or boycotts (other than those involving the Contractor, Sub contractors or their respective employees / representatives, or attributable to any act or omission of any of them) interrupting supplies and services to the Site for a continuous period of 24 (twenty four) hours and an aggregate period exceeding 7 (seven) days in an Accounting Year.
- (iii) Any failure or delay of a Sub-contractor/Contractor but only to the extent caused by another Non-Political Event and which does not result in any offsetting compensation being payable to the Employer by or on behalf of such Contractor.
- (iv) Any judgement or order of any court of competent jurisdiction or statutory authority made against the Contractor in any proceedings for reasons other than (i) failure of the Contractor to comply with any Applicable Law or Applicable Permit, or (ii) on account of breach of any Applicable Law or Applicable Permit or of any contract, or (iii) enforcement of this Contract, or exercise of any of its rights under this Contract by the Employer.
- (v) The discovery of geological conditions, toxic contamination or archaeological remains on the Site that could not reasonably have been expected to be discovered through a site inspection; or
- (vi) Any event or circumstances of a nature analogous to any of the foregoing.

#### **Clause 125: Indirect Political Event**

An Indirect Political Event shall mean one or more of the following acts or events:

- (i) an act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy,

blockade, embargo, riot, insurrection, terrorist or military action, civil commotion or politically motivated sabotage;

- (ii) industry-wide or State-wide strikes or industrial action for a continuous period of 24 (twenty four) hours and exceeding an aggregate period of 7 (seven) days in an Accounting Year;
- (iii) any civil commotion, boycott or political agitation which prevents construction of the Works by the Contractor for an aggregate period exceeding 7 (seven) days in an Accounting Year;
- (iv) Any failure or delay of a Contractor to the extent caused by any Indirect Political Event and which does not result in any offsetting compensation being payable to the Employer by or on behalf of such Contractor;
- (v) Any Indirect Political Event that causes a Non-Political Event; or
- (vi) Any event or circumstances of a nature analogous to any of the foregoing.

#### **Clause 126: Political Event**

A Political Event shall mean one or more of the following acts or events by or on account of any Government Instrumentality:

- (i) Change in Law, only if consequences thereof cannot be dealt with under and in accordance with the provisions of
- (ii) Compulsory acquisition in national interest or expropriation of any project assets or rights of the Contractor or of the Sub-Contractors;
- (iii) Unlawful or unauthorized or without jurisdiction revocation of, or refusal to renew or grant without valid cause, any clearance, license, permit, authorization, no objection certificate, consent, approval or exemption required by the Contractor or any of the Sub-contractors to perform their respective obligations under this Contract; provided that such delay, modification, denial, refusal or revocation did not result from the Contractor's or any sub contractor's inability or failure to comply with any condition relating to grant, maintenance or renewal of such clearance, license, authorization, no objection certificate, exemption, consent, approval or permit;
- (iv) Any failure or delay of a Contractor but only to the extent caused by another Political Event and which does not
- (v) result in any offsetting compensation being payable to the Employer by or on behalf of such Contractor; or
- (vi) Any event or circumstance of a nature analogous to any of the foregoing.

#### **Clause 127: Notice of Occurrence**

If either Parties considers that any circumstances of Force Majeure have occurred which may affect performance of his obligations he shall promptly notify the other Parties and the Engineer-in -Charge.

#### **Clause 128: Cancellation of Contract in full or part**

Refer Section 3 Part E Clause 59 of ITB

#### **Clause 129: Measurement & Payments**

Refer Section 3, Part D of ITB

#### **Clause 130: Certificates (Read in Conjunction with Section 3 Part F Clause 55 of ITB)**

## **1.Completion certificate**

**1.1** Within 10 (ten) days of the Physical Completion of the work, the Contractor shall give notice of such completion to the Engineer-in-Charge. The Engineer-in-Charge shall inspect the Works and if there is no defect in the work, shall furnish the Contractor with a Completion Certificate, otherwise a provisional certificate of Physical Completion indicating defects:

- (i) To be rectified by the Contractor and/or
- (ii) For which payment will be made at reduced rates, shall be issued.

Provided that no Completion Certificate shall be issued, nor shall the Works be considered to be completed until the Contractor shall have removed from the Site all Scaffolding, surplus materials, rubbish and all huts and sanitary arrangements required for his/their work people on the Site and cleaned off the dirt from site. If the Contractor shall fail to comply with the requirements of this Clause on or before the date fixed for the Physical Completion of work, the Engineer-in-Charge may at the expense of the Contractor remove such scaffolding, surplus materials and rubbish etc., and dispose of the same as he thinks fit and clean off such dirt as aforesaid, and the Contractor shall have no claim in respect of scaffolding or surplus materials as aforesaid except for any sum actually realized by the sale thereof.

**1.2** The Completion Certificate of Works referred to in Clause 130(1.1) above shall not absolve the Contractor from his liability to make good defects, imperfections and shrinkages or faults, which may appear during the Defects Liability Period as per Clause 131 (1.1), arising in the opinion of the Engineer-in-Charge from materials or workmanship being not in accordance with drawings or specifications or instructions of the Engineer-in-Charge. These shall be amended and made good by the Contractor at his own cost. In case of default on the part of the

Contractor, to so make good the defects or deficiencies, the Engineer-in-Charge may employ labour, plant and machinery and materials or appoint another agency or Contractor, to amend and make good such defects, imperfections, shrinkages and faults, and all expenses consequent thereto and incidental thereto, shall be borne by the Contractor and shall be recoverable from any moneys due to the Contractor under the Contract including the Performance Guarantee and/ or Security deposit amount or from any moneys payable to the Contractor by the Employer, under any other Contract.

## **Clause 131: Defect Liability and Maintenance**

Refer Section 3 Part C Clause 33 of ITB)

## **Clause 132: deleted**

## **Clause 133: Additional Clauses**

### **1.1 Use of Explosives**

Subject to the Applicable Laws and the Applicable Permits, the Contractor shall comply with the following:

- (i) The use of explosives by the Contractor shall be subject to the prior approval/authorization of the concerned Government Instrumentality;
- (ii) The Contractor shall at all times take all such safety measures as may be required for the importation, handling, transportation, storage and use of explosives and shall, at all times when engaged in blasting operations, post sufficient warning flagmen to the full satisfaction of the Engineer-in-Charge.
- (iii) The Contractor shall, by a notice in writing, 15 days prior to the blasting operation, notify all parties including Government Instrumentalities, private parties concerned or affected or likely to be concerned or affected by blasting operations for their prior approval; and

(iv)The Contractor shall pay all license fees and charges which may be required for storage of explosives or in respect of any other matter related thereto. All operations in which or for which explosives are employed shall be at the sole risk and responsibility of the Contractor and the Contractor shall indemnify the Employer in respect thereof.

**Clause 134** In case the Work, or its part, is left incomplete by the Contractor the Client shall be free to get the Work executed through other agency at the cost and risk of the Contractor. Contractor will have no claim on the deposits, cost of the work executed and not paid. Any excess amount required to be paid by Client for completion of work, the same will also be recovered from the Contractor along with the cost of incomplete work's cost.

**Signature of the Contractor with seal**

**Signature of the Executive Engineer  
(WATER WORKS PROJECT)**

**Date:**

**Date:**

## **ADDITIONAL RULES AND DIRECTIONS FOR THE GUIDENCE OF CONTRACTOR**

- 1.All the materials required for the contract should be brought and well preserved well in advance. Samples of the same should be shown and got approved in the very beginning. As soon as materials are brought, they should be examined, if material is not as per specifications it should be removed from site.
- 2.Every tender should be accompanied with a time schedule of progress of work at various stages. In case these stages are not followed up, actions as stated in the contract will have to be taken to bring the progress of work as scheduled.
- 3.The tenderer shall have to work as per the time schedule enclosed in the tender. The progress of work will be required every month against target set in time schedule. If it is found inadequate or falling behind, contractor shall take all the necessary actions as suggested by the "Executive Engineer" to accelerate the speed of work and again back the lost time. In case of contractor not complying suggestions and instructions of Executive Engineer to speed up the work, the VMC will have a right to take action
- 4.Inconvenience to the Public: The contractor shall not deposit materials on any site which will cause seriously inconvenience to the public. The Executive Engineer may require the contractor to remove any material which is considered by him to be a danger or inconvenience to the public or cause them to be removed at the Contractor's cost.
- 5.Rubbish and Clearance of Site: The contractor shall clean away all rubbish, vegetation, roots, sods etc. and dump them in the area indicated by the Executive Engineer and to his satisfaction. No separate rate shall be allowed for the above. After the work is completed and a group of structures handed over, the contractor shall clear the area surrounding the work of all hutments, temporary structure and excess stores and remnants of building materials such as brickbats, sand, kapachi, timber, steel etc. at no extra cost the VMC and land brought to its original conditions.
- 6.Bench Marks: The contractor shall protect surveyor's bench marks line marks and base line marks from damage of movement during the work.
- 7.The contractor shall obtain the permission of the Executive Engineer before installation of fixed construction machineries, connections from pipelines, locations of temporary buildings including labour camps and storage materials, points of tapping electricity supply of connection. Also the contractor shall not energize any approval of the Executive Engineer.
- 8.The work shall be carried out in such a manner as not to interfere with or affect, retard or disturb the progress of other works being executed by other agencies.
- 9.The contractor shall submit to the Executive Engineer periodically as required, information regarding the progress of work being carried out by him.
- 10.The contractor shall not allow any visitors on the works except with the approval of the owner.
- 11.If the headquarters of the tenderer are elsewhere than in Vadodara, he shall have a duly authorized agent at site from the commencement of work until completion of the building work as specified. Such agent shall be authorized to act on behalf of the contractor, to accept services of notices under the contract and agree to extra, omissions and varied items of work and rates for the same. Such agent shall maintain on his staff a qualified engineer and such other personnel as may be required for the efficient execution of the work. Any notice under the contract shall be deemed to have been serviced on the contractor is served upon such agent. The contractor to carry out any rectification under the terms of the contract after the work is completed. The contractor shall have the same or another duly authorized agent using carried out.

12.The successful tenderer shall send a duly authorized competent representative at his expenses to meet the Head of the Department at his office whenever called upon in writing to do so by the Head of the Department and any instructions, directions or explanations given by the Head of the Department to such representatives shall be held to have been given to the successful tenderer.

13.The contractor shall afford facilities to the Executive Engineer for a physical check of such materials in stock in his godowns or at the site of work, as and when desired by doingso the Executive Engineer.

14.deleted

15.deleted

16.deleted

17.The VMC will be entitled to deduct from the bills to be paid to the contractor any sum orsums payable by the contractors and which sum the VMC in required to pay as a principle employer on account of default of the contractor in respect of all liabilities referred to in above clause.

18.Deleted

19.Any intimation made through mobile phones / SMS / emails from Engineer-in-charge shall have to be consolidated valid instruction / notice and the contractor shall be bound to obey strictly.

20.Deleted

21.Co-operation with other Contractors: The Contractor shall co-operate with and provide facility to other contractors, if any, engaged by the Employer for carrying out their part related to the above work. No additional remuneration shall be payable by the Employer for such co-operation.

In the above event, they shall exchange with each other such technical and other information as is required to obtain coordination and efficient working. The Contractor entrusted with any work shall have to certify the adequacy of all relevant drawings submitted to them from the point of view of their compatibility with their work, or point out such modifications as they may deem necessary and shall send their representative from time to time to ensure that all works are done to suit their mutual requirements.

All correspondence and drawings to be exchanged between different Contractors shall be done through the Executive Engineer, and with his approval.

22.Construction facilities

**22.1Water:** The Contractor shall make his own arrangement for getting enough quantity of water having quality suitable to construction activity and hydro testing, includingits necessary distribution on the site. Supply of drinking water at site may be considered if available, on chargeable basis on the request from the Contractor. He shall arrange to install a water meter of approved make and pay for the water consumed by him. Distribution Network shall be arranged by the contractor at his cost.

In case of using own water by means of Tankers etc., no water fees charges shall be deducted from bills. However, the relevant proofs shall have to be produced by the contractor otherwise necessary prevailing rate to water fees charges per cement bag shall be deducted from the concerned bill/bills of the work.

**22.2Power:** The contractor shall make his own arrangement for power required for the construction including its distribution within the site. All wiring from the switchboard and meter will be removed by the contractor on completion of the work. He shall reinstate and make good any work disturbed by the temporary power lines to the satisfaction of the Executive Engineer. Necessary NOC shall be issuedby the VMC. All necessary safety measures shall be taken care by the Contractor.



**22.3** He shall also indicate the requirement of power for construction obtaining Power from Gujarat Electricity Board including its distribution. All wiring etc. will be removed by the contractor on completion of the work. He shall reinstate and make good any work disturbed by the temporary labor camp.

**22.4 Roads:** The contractor shall provide and maintain at his own cost all necessary temporary roads.

**23 Time Schedule of Construction:** Time is the essence of the Contract. The Contractor shall complete the whole of the work to the satisfaction of the Executive Engineer within the approved completion period.

**24 Supply of Materials:** The successful tenderer (Contractor) shall make his own arrangement to obtain all tools, plant and machines required for the work. The employer does not undertake to supply any materials to the contractor, required for the work.

**25 Cement:** The Contractor will have to make his own arrangements for supplying carting / storing cement on site at his own cost. The detailed account of all the cement drawn against the work shall be submitted by him to the Executive Engineer from time to time.

**25.1 Structural Steel:** The Contractor shall make his own arrangements for procurement of all reinforcing rounds (TMT Grade), structural steel, tracts etc. required for the work shall be inclusive of all wastage during the course of construction.

**25.2 Binding Wire:** The Contractor shall make his own arrangements for procurement of binding wire for reinforced concrete work.

## **26 deleted**

## **27 Labour & Supervisory camp**

**27.1** A site will be indicated to the Contractor for constructing temporary hutments for his laborers and supervisory staff, who will not be allowed to reside at any other site in the Employer's property.

**27.2** The Contractor shall provide at his own cost adequate closet and temporary accommodation for all workers employed on the site. In accordance with the rules and regulations of Local Authorities or Public Bodies. The lavatories and temporary accommodation shall always be maintained in good sanitary, working and disinfected condition.

**27. Construction Store:** Suitable areas near the site of work will be allocated to the contractor for storing his equipment, plant, materials, etc. He will however be solely responsible for watching and guarding his property and materials issued to him by the Employer. The contractor will cover all materials at site with requisite insurance against theft, larceny, dacoits, fire, tempest and flood.

## **28. Equipment**

The Contractor shall make his own arrangements to procure all constructional plant and equipment for his work. He shall also state the type and number of different equipment with their capacities in good working conditions, which he will use on the site to ensure completion of the work in specified time.

All materials, construction plants and equipment, etc. once brought by the Contractor on the site are not to be removed from there without the written authority from the Executive Engineer. Also, the Contractor shall have adequate stock of spare parts of the equipment on the site and work shall not be delayed on this account.

Similarly, all enabling works built by the Contractor for the main construction undertaken by him, are not to be dismantled and removed without the written authority from the Executive Engineer.

## **29. Corporation's Engineer**

The Corporation has appointed PMC to assist them in verification / checking of the process designs, structural designs and drawings submitted by the contractor for approval and for the project supervision. On behalf of the Corporation, the Engineers shall provide supervision during Construction and the inspection of the Equipment to check the quality of the work. The contractor would co-operate with the Consultant during Design, Construction, Erection and Commissioning phases.

VMC have also appointed agency for the third party inspection for this project. The cost of testing Recommended by PMC / TPI during execution shall be borne by the contractor. The TPI charges for the testing of the pipes at the manufacturer's works shall be borne by the contractor.

**30.The contractor may translate any of the Document or information or Condition in Gujarati Language incorporated in this tender in to English language if necessary. But it is compulsory to follow fully the relevant document or information or conditions in Gujarati language.**

31.delete

**Signature of the Contractor with seal**

**Signature of the Executive Engineer  
(WATER WORKS PROJECT)**

**Date :**

## 1.0 SAFETY PROVISION

1. Suitable scaffolds shall be provided for workmen for all that cannot safely be done from the ground, or from solid construction except such short period work as can be done safely from ladders. When a ladder is used, an extra man shall be engaged for holding the ladder and if the ladder is used for carrying materials as well, suitable footholds and handholds shall be provided on the ladder and the ladder shall be given an inclination not steeper than 1/4 to 1 (1/4 horizontal and 1 vertical).
2. Scaffolding or staging more than 3.25 meters above the ground or floor, swung or suspended from an overhead support, or erected with stationary support, shall have a guard rail properly attached, bolted, braced, and otherwise secured at least 1 meter high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such openings as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
3. Working platforms, gangways, and stairways shall be so constructed that they do not sag unduly or unequally, and if height of a platform or gangway or stairway is more than 3.25 meters above ground level or floor level, it shall be closely boarded, have adequate width and be suitably fenced as described in 2 above.
4. Every opening in floor of a building or in a working platform shall be provided with suitable means to prevent fall of persons or materials by providing suitable fencing or railing with a minimum height of 1 meter.
5. Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 3 meters in length. Width between side rails in a rung ladder shall in no case be less than 30 cm for ladder up to and including 3 meters in length. For longer ladders, this width shall be increased by at least 6 mm for each additional 30 cm of length. Uniform step spacing shall not exceed 30 cm.
6. Adequate precautions shall be taken to prevent danger from electrical equipment. No material on any of the sites shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The Contractor shall provide all necessary fencing and lights to protect public from accidents and shall be bound to bear expenses of defence of every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay all damages and costs which may be awarded in any suit, action or proceedings to any such person or which may with the consent of the VMC be paid to compromise any claim by any such person.
7. Excavation and Trenching: All trenches, 1.5 meters or more in depth, shall at all time be supplied with at least one ladder for each 30 meters in length or fraction thereof. Ladder shall be extended from bottom of trench to at least 1 meter above surface of the ground. Sides of a trench, which is 1.5 meters, or more in depth shall be stepped back to give suitable slope, or securely held by timber bracing, so as to avoid the danger of sides collapsing. Excavated material shall not be placed within 1.5 meters of edge of trench or half of depth of trench, whichever is more. Cutting shall be done from top to bottom. Under no circumstance shall undermining or undercutting be done.
8. Demolition: Before any demolition work is connected and also during the process of the work:
  - a) All roads and open areas adjacent to the work site shall either be closed or suitably protected.
  - b) No electric cable or apparatus, which is liable to be a source of danger over a cable or apparatus used by operator, shall remain electrically charged.
  - c) All practical steps shall be taken to prevent danger to persons employed, from risk of fire or explosion, or flooding. No floor, roof, or other part of a building shall be so over-loaded with debris or materials as to render it unsafe.
9. All necessary personal safety equipment as considered adequate by the Engineer shall be available for

- use of persons employed on the site and maintained in a condition suitable for immediate use, and the Contractor shall take adequate steps to ensure proper use of equipment by those concerned.
- a) Workers employed on mixing asphalt materials, cement and lime mortars/concrete shall be provided with protective footwear, hand gloves and goggles.
  - b) Those engaged in handling any material, which is injurious to eyes, shall be provided with protective goggles.
  - c) Those engaged in welding works should be provided with welder's protective eye-shields.
  - d) Stonebreakers shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
  - e) The Contractor shall not employ men below the age of 18 and women on the work of painting with products containing lead in any form. Whenever men above the ages of 18 are employed on the work of lead painting, the following precautions shall be taken:
    - i. No paint containing lead or lead products shall be used except in the form of paste or ready-made paint.
    - ii. Suitable face masks shall be supplied for use by workers when paint is applied in the form of spray or a surface having lead paint dry rubbed and scraped.
    - iii. The Contractor shall supply the workers with Overalls and adequate facilities shall be provided to enable working painters to wash during and on cessation of work.
10. When work is done near any place where there is a risk of drowning, all necessary equipment shall be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.
11. Use of hoisting machines and tackle including their attachments, anchoring gear, and supports shall conform to the following:
- a) These shall be of good mechanical construction, sound material and adequate strength and free from patent defects and shall be kept in good repair and in good working order.
  - b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free from patent defects.
  - c) Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years shall be in charge of any hoisting machine including any scaffold winch or give signals to operator.
  - d) In case of every hoisting machine and of every chain ring hook, shackle, swivel and pulley block used in hoisting or lowering or as means of suspension, safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with safe working load. In case of a hoisting machine having a variable safe working load, each safe working load and the conditions under which it is applicable shall be clearly indicated. No part of any machine or of any gear referred to above in this paragraph shall be loaded beyond safe working load except for the purpose of testing.
  - e) In case of departmental machine, safe working load shall be notified by the Engineer. As regards Contractor's machine, the Contractor shall notify safe working load of each machine to the Engineer whenever he brings it to site of work and get it verified by the Engineer.
12. Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances shall be provided with efficient safeguards, hoisting appliances shall be provided with such means as will reduce to the minimum risk of accidental descent of load adequate precautions shall be taken to reduce to the minimum risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations, which are already energized, insulating mats, wearing apparel such as gloves, sleeves and boots, as may be necessary, shall be provided. Workers shall not wear any rings,

watches and carry keys or other materials, which are good conductors of electricity.

13. All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in a safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities shall be provided at or near places of work.
14. These safety provisions shall be brought to the notice of all concerned by display on a notice board at prominent place at the work spot. Persons responsible for ensuring compliance with the Safety Provisions shall be named therein by the Contractor.
15. To ensure effective enforcement of the rules and regulations relating to safety precautions, arrangements made by the Contractor shall be open to inspection by the Engineer or his representative and the Inspecting Officers.
16. Notwithstanding the above provisions 1 to 15, the Contractor is not exempted from the operation of any other Act or Rule in force.
17. Hon. Court Guidelines :  
Hon. Supreme Court/High Court guideline must be strictly followed by Contractor for Drainage work for better safety of workmen.
18. **The contractor will be responsible to pay a compensation of minimum Rs.10 Lakhs in addition to the compensation paid by Government in the case of death of workman , while Execution of the work. Also insurance should be required for all workers.**

#### **GENERAL SAFETY RULES TO BE FOLLOWED TO PREVENT UNSAFE CONDITION**

1. Smoking and eating is prohibited throughout the workplace except in designated areas.
2. No alcohol is to be taken in or consumed on site. Any person found in possession of or under the influence of controlled substance or alcohol will be immediately removed from site.
3. Adequate internal and external lighting shall be provided by Contractors for all workspaces.
4. All portable electrical equipment shall not exceed 220 volts with effective Safety Trip system excluding portable welding sets. Only electrician is authorized for any electrical connection or disconnection & D.G. Operation.
5. Open fires on Site are prohibited.
6. Any person working on or near operational plant or equipment must first be competent and trained in such work.
7. Do not touch any hazardous chemicals or unknown item at site.
8. Work place shall be kept neat & clean. Wastage/Debris shall be collected at identified areas after the completion of work on daily basis.
9. Access shall be free from any obstruction at site.
10. Only authorized person should sit along with driver on the machinery.
11. During heavy rain, improper lighting, heavy wind blowing at site, nobody should work at night.
12. Labour under 18 years of age should not be employed at site. No children shall be permitted inside the working area. Crutch should be provided in labour colony.

#### **BARRICADES:**

- 1.0 Barricades are required around work areas, including areas beneath concrete slab floors that have opening in floors, roofs and wherever necessary to warn people of falling or tripping hazards.
- 2.0 A warning barricade shall be kept five (5) feet back from the edge of any excavation, hole, platform or roof. A protective barricade may be placed closer. Barricades shall be erected before a hole is cut and extended as the excavation progresses.
- 3.0 Barricades shall be removed when no longer needed.
- 4.0 Numerous excavations and work areas in one general area may be barricaded effectively by erecting a barricade around the general area. However, a barricade should not encompass more area than is needed for safety performing the task. An access opening or gate should be provided where practical.

5.0 Barricade signs shall be fully informative, legible and visibility displayed.

6.0 Where barricades cannot be installed, safety nets should be installed close to the level of terrace at which danger of fall exists, at multi-storied building sites.

7.0 Where secure foot-hold is impracticable, safety belt with secure anchorage arrangement should be provided. A life line with sufficient strength should be provided all around the Building to which the workers exposed to the risk of falling tie the hooks of their safety belts.

#### **WELFARE**

Adequate welfare facilities must be provided for personnel on site in line with contractual requirements and local regulations. Welfare facilities should be planned to reflect the site size, the nature of the work and the amount of people who would be using the facilities. It should also be adequately maintained and cleaned with consideration given to the following:

##### **1. Sanitary Conveniences**

- a. Adequately cleaned, ventilated and lighted;
- b. Adequate provisions made for different sexes.

##### **2. Washing Facilities**

- a. Provided in appropriate locations (i.e. immediate vicinity of Sanitary Conveniences)

##### **3. Drinking Water**

- a. Conspicuously mark with appropriate signs where necessary for Health reasons;
- b. Provision of drinking vessels or other suitable method of drink
- c. Water provided for labours at site should be potable.
- d. Periodic checks are required to ensure proper cleanliness during monsoon. Extra precaution needs to be taken for spraying of insecticide, spreading of magazine powder on slushy areas, spreading of kerosene on water logged areas etc.
- e. Cleaning of drinking water tanks should be carried out at every six month interval.

#### **SAFETY GUIDELINES FOR ELECTRICAL WORK**

- 1. Prior to any work being carried out on any electrical equipment an assessment must be carried out of the risks involved and the safety measures necessary to eliminate or minimize the risk.
- 2. All electrical systems, plant, equipment, apparatus, wires and cables must be presumed live unless proved dead. Consideration must be given to stored energy that may be retained in plant, equipment and apparatus after its disconnection/isolation from the system.
- 3. All electrical work including the repair and maintenance of electrical appliances must be undertaken by qualified electricians/electrical engineers and with the exception of electrical appliances disconnected from the supply, must be under a permit to work.
- 4. Defective electrical equipment returned to the stores must be clearly and conspicuously marked as "defective/faulty do not use" and separated from equipment that is in safe condition and available for use.
- 5. Site electrical supply must be as low as is reasonably practicable but should not exceed 220v except for the supply.
- 6. Distribution boards in offices, workshops, stores and on the construction site must have the means of electrical isolation on the outside of the cabinet, must be protected by fuses or circuit breakers and an RCD, must have lockable doors and must be earthed/grounded.
- 7. All electrical equipment, except for double insulated power tools, must be effectively earthed.
- 8. Electrical equipment must be switched off and disconnected from the power supply before any repair or maintenance is carried out on the equipment.
- 9. Ground Fault Circuit Interrupter (GFCIs) shall be used on all extension cords and portable tools.
- 10. GI wires shall not be used on temporary lighting circuits. Every temporary lamp holder shall have a lamp installed and a lamp guard in place. Non conductive materials shall be used for securing lighting wires

to supports.

11. Power distribution boards shall be made of non-combustible material.
12. Temporary electric supply should be strictly used for the job to which it is given. Any alteration in job scope shall be brought to the notice of concerned electrical person to avoid overheating, overloading, etc.
13. Armoured cable of adequate rating should be used for temporary connections as far as possible.
14. No person shall use any part of electrical equipment for storing or hanging clothes, umbrellas or other articles. Serious accidents occur from this practice.
15. For attending the work on O.H. line or equipment use wooden ladders. Metallic ladders shall not be used.
16. All electrical installations to have Earth Leakage Circuit Breaker (ELCB) or RCCB. 30mA ELCB shall be provided on every distribution panel, main panel and wherever required. ELCBs shall be tested once in 6 months.
17. Welding machine, electrode heater & portable grinder shall be inspected & validated at every six months.

**SECTION - 5**  
**Technical Specification**  
(Item Wise  
Specification)



## **DETAILED SPECIFICATIONS FOR DI DELIVERY PIPE LINE**

### **Item No. 1 : Excavation:**

Excavation in all types of soils, soft and hard soil up to 1.5 m depth and from 1.5 m to 4.5 m depth (keeping the clear cover of soil on the top of the pipe 1.0 m)

Line out along the alignment of the pipe using lime getting it approved from Dy. Executive Engineer (WW), breaking the surface and excavating up to the required depth. The contractor shall provide at his own cost, red light and a watchman during the night hours, and provide fencing using ropes on both the edges of the trench before starting of work. The contractor shall keep a sign board with “Road Closed – Work in Progress” written on it.

Along the alignment of pipe, the excavated material shall be kept 1.0 mtr. away from the trench and protecting the excavated material till the work is complete.

Excavation will be allowed to be carried out up to maximum 100 m length at a time. Further excavation shall be permitted only after laying of the pipe line is complete in the excavated trench.

The work shall be executed in such a way that the water connections, drainage connection, telephone, electric cables, gas line / water line / chamber / manhole etc. met during excavation are not damaged. If required, these cables and poles shall be supported properly, even then these lines and cables are damaged, and the contractor shall be held responsible. In case of damage to the water and drainage lines, electric poles etc. during the excavation the contractor shall repair the same at his own cost immediately. In case such repair work is not attend immediately, it will be executed through other agency or department at the risk and cost of contractor and the entire repair expenditure shall be deducted from his running bill or from the amount payable to him.

Any diversion required in existing service lines / house connections coming in the line of work shall have to be diverted by the contractor at his cost & risk, as per the instructions and directions of Engineer-in-charge.

Excavation shall be carried out in all types of soil, dry, moist or water logged. If required the contractor shall procure his own pump and carry out the de-watering. The places where the soil is soft or made-up (refilled) the contractor shall provide wooden planks and supporting structure to the trench, to avoid any mishap or accident.

The excavated stuff shall be dumped at about 1 m away from the trench (within 90 meter lead), properly in the line and approach shall be provided across the trench at a suitable interval for the public to cross over. The contractor's rate shall including breaking

brickwork, concrete etc. No extra rate shall be payable for this work. The rate shall be per cubic meter.

## **Item No. 2 Lowering, Laying, Jointing & Testing of D.I. / C.I. Pipes & Specials**

### **1. Laying of Pipes**

Laying of pipe shall be done as per IS 12288-1987

- 1.1 Laying Underground – Pipes should be lowered into the trench with tackle suitable for the weight of pipes, for smaller sizes, up to 250 mm nominal bore, the pipe may be lowered by the use of ropes but for heavier pipe, either a well designed set of shear legs or mobile crane should be used. When lifting gear is used, the positioning of the sling to ensure a proper balance, should be checked when the pipes is just clear of the ground, if sheathed pipes are being laid, suitable wide slings or scissor dogs should be used.

All construction debris should be cleared from the inside of the pipe either before or just after a joint is made. This is done by passing a pull through in the pipe or by hand, depending on the size of the pipe, when laying is not in progress, a temporary end closure should be securely fitted to the open end of the pipeline. This may make the pipe buoyant in the event of the trench becoming flooded, in which case the pipes should be held down either by partial refilling of the trench or by temporary strutting. All persons should vacate any section of trench into which the pipe is being lowered.

- 1.2 On gradients of 1:15 or steeper, precautions should be taken to ensure that the spigot of the pipe being laid does not move into or out of the socket of the laid pipe during the jointing operations. As soon as the joint assembly has been completed, the pipe should be held firmly in position while the trench is backfilled over the barrel of the pipe. The backfill should be well compacted.
- 2 Cutting of Pipes – The cutting of pipe if necessary shall be done in neat and workman like manner without damage to the pipe or lining so as to leave a smooth end at right angles to the axis of the pipe, methods of cutting ductile iron pipes are given in 2.1 to 2.3.
  - 2.1 By Hacksaw – Hand or power operated hacksaw should be used with blades having teeth at a pitch of 1mm.
  - 2.2 By Manually Operated Wheel Cutter – The type of cutting wheel used for cast iron pipes is not suitable for ductile iron pipe. special wheels, as used for Cutting steel pipes shall be used and cut ends are trimmed with a file.

- 2.3 By Pipe Cutting Machine – Machines with cutter heads or abrasive wheels shall be used. Cutter head should have a front rake angle of 7 degree as used for steel pipes.

- 3 End Preparation of Cut Pipes for Jointing-  
The burr left after cutting should be trimmed off by light grinding or by filing.
- 4 Wrapping - When ductile iron pipes are to be laid in aggressive soils the pipes should be wrapped externally with protective coatings, such as bitumen or coal tar sheathing, or in certain bends and valves, precautions should be taken to provide sufficient overlap of the wrapping sleeve so that no pipeline is exposed to the aggressive soil.
- 5 Pipeline Anchorage - All pipelines having unanchored flexible joints require anchorage at changes of direction and at dead ends to resist the static thrusts developed by internal pressure. Dynamic thrusts caused by flowing water act in the same direction as flowing

water act in is of sufficient magnitude at high velocities of the surrounding soil.

Anchorage to resist the thrust should be designed taking into account the maximum pressure the main is to carry, in service or on test, and the safe bearing pressure of the surrounding soil.

Where possible, concrete anchor blocks should be of such a shape as to allow sufficient space for the remaking of the joints.

Pipeline should be securely anchored at dead ends, tees, bends, tapers and salver to resist thrust arising from internal pressure anchors and thrust blocks should be deigned in accordance with IS : 5330-1984.

## 6 Joints and Jointing

6.0 Two main types of joints are used with ductile iron pipes and fittings.

a) Socket and spigot flexible joints :

- 1) Push on joints and
- 2) Mechanical joints.

b) Rigid Flanged joint.

6.1 Flexible Joint : - The spigot and socket flexible joint should be designed to permit angular deflection in direction and axial movement to compensate for ground movement and thermal expansion and contraction. They incorporate gasket of elastometric materials and the joints may be of the simple push – on - type or the type where the seal is effected by the compression of a rubber gasket between a seating on the inside of the socket and the external surface of spigot. Joints of the latter type are referred to as mechanical joints. Both push in and mechanical joints are flexible joints . Flexible joints require to be externally anchored at all changes in direction such as at bends, etc. and at blank end to resist the thrust created by internal pressure and to prevent the withdrawal of spigots.

6.2 Flanged joint – Flanged joints are made on pipes having a machined flexible at each end of the pipe. The seal is usually effected by means of a flat rubber gasket compressed between two flanges by means of bolts which also serve to connect the pipe rigidly. Gaskets of other materials, both metallic and non metallic, are used for special applications.

6.3 Jointing Procedure – Procedure for jointing will vary according to the type of joint being used. Basic requirements for all type are:

- a) Cleanliness of all parts,
- b) Correct location of components,
- c) Centralization of spigot within socket, and
- d) Strict compliance with manufacture's jointing instructions.

The inside of sockets and the out side of spigots should be cleaned and wire brushed for a distance 150 to 225 mm. Glands and Gaskets should be wiped clean and inspected for damage. When lifting gear is used to place the pipe in the trench, it should also be used

to assist in centralizing the spigot in the socket.

When the pipeline is likely to be subjected to movement due to subsidence or temperature variations, the use of flexible joints is recommended. A gap should be left between the end of the spigot and the back of the socket to accommodate such movement.

## **7 Transportation, Handling and Inspection**

**7.1 General** - Ductile iron pipes are less Susceptible to cracking or breaking on impact but the precaution set out should be taken to prevent damage to the protective coating and brushing or damage of the jointing surfaces.

**7.2 Transportation** - Pipes should be loaded in such a way that they are secured and that no movement should take place on the vehicle during transit.

The Pipes should be loaded on vehicles in pyramid or straight sided formation. In case of pyramid loading, the pipes in the bottom layer should be restrained by the use of broad wooden wedges secured to the vehicle being loaded. . The pyramid is to be formed by resting pipes between the pairs of pieces in the preceding layer with the sockets in layers reversed. Straight sided loading may be used with supports along the sides of the vehicles. The use of straight side loading is advantageous for utilizing full capacity of the vehicle.

**7.3 Off –Loading** – Cranes should be preferred for off loading. However , for pipes up to 400 mm nominal bore, skid timbers and ropes may be used.

When using mechanical handling equipment, it is necessary to employ sufficient personnel to carry out the operation efficiently with safety. The pipes should be lifted smoothly without any jerking motion and pipe movement should be controlled by the use of guide ropes in order to prevent damage caused by pipes bumping together or against surrounding objects.

Where the crane operator does not have a clear view, he should be guided by the personnel supervising the operation. When cranes are used, the whole sequence of operation should be carried out smoothly and without snatch. Properly designed hooks and adequate stead ropes are essential. The hooks should be of suitable shape, to ensure positive engagement when entered into the ends of the pipes and then should pass over any protective packing fitted around the pipe ends.

The use of slings passed around bundles of pipes is not recommended because bundles become unstable as the sling is drawn tight or released. However, when it is necessary to use the central slinging method for lifting single pipe, a board webbing sling is recommended which minimizes the risk of the pipe slipping. Chain slings may slip and are dangerous.

**7.4 Stacking** - Pipes being taken to a stock ground for storage and held pending further distribution should be arranged into stacks. The first layer of pipes should be laid on a firm foundation level on the ground. Subsequent layers should be placed according to the method of stacking adopted. Care should be taken so that the pipes do not rest on their sockets. The height of any stack should not exceed 2 m.

**7.5 Stringing** - Stringing consists of placing pipes on the ground in line ready for laying. Care should be taken to prevent damage during this operation.

## 8 Hydraulic Testing

8.1 After a new pipe line is laid and jointed, testing shall be done for:

- a) Mechanical soundness and leak tightness of pipes and fittings;
- b) leak tightness of joints; and
- c) Soundness of any construction work in particular that of the anchorages.

8.2 Hydrostatic Testing - The completed pipe line may be tested either in one length or in sections. The length of section depending upon :

- 1) availability of suitable water,
- 2) number of joints to be inspected, and
- 3) difference in elevation between one part of the pipeline and another.

Where the joints are left uncovered until after testing, sufficient material should be back filled over the center of each pipe to prevent movement under the test pressure.

It is prudent to begin testing in comparatively short length of test section. Progressively as experience is gained, lengths of about 1.0 km or more, are tested in one section, subject to consideration of length of trench which can be left open in particular circumstances.

Each section should be properly sealed off, preferably with special stop ends secured by adequate temporary anchors. The thrust on the stop ends should be calculated and the anchors designed to resist it. All permanent anchors should be in position and, if of concrete, should have developed adequate strength before testing begins. The section under test should be filled with water, taking care that all the air is displaced either through vents at the high points or by using a pig or a sphere.

### 8.3

- A test shall not be more than 1000m. initially on straight or curved line.
- All air shall be expelled from the test segment by making air vents at the highest point of test section and or both of testing segment.
- The first part of the testing shall be stabilize the section at a lower pressure of 1-2 kg/sq. cm at the highest point for a duration of at least 4 hours. On satisfactory completion of this joints shall be tested against leakage by increasing the test pressure to 5.50 Kg/Cm<sup>2</sup> and holding it for 15 minutes.
- If the pressure drop is less than 0.2 kg/sq. cm. over this period, the test shall be deemed satisfactory.
- For the purpose of the test, either power-driven or manual reciprocating pumps shall be used with clean water. The contractor has to arrange water for testing.
- The pressure gauges shall be in good condition and of suitable ranges and at least count of at least 0.2 kg/cm<sup>2</sup>.
- The air vent holes shall be properly plugged and sealed with coupling/nut on completion of the test. The suitable water sealing chemical shall be used in case of any leakage.
- At the end of testing section temporary concrete thrust block shall be casted of sufficient size and strength to resist the testing pressure. The cost of such thrust block, jacks, wedge etc are inclusive in the rate.

A pipe segment once tested shall not be used as a support to anchor the end blocks used for testing the next segment.

The length of this period of time depends on many factors such as slight movement of the pipeline under pressure whether air is trapped in the pipeline has concrete lining which absorbs water.

The pipeline is then pressurized up to the full test pressure and the section under test completely closed off. The test should be maintained for a period of not less than 15 minutes to reveal any defects in the pipes, joints or anchorages.

The test pressure should be measured at the lowest point of the section under test or alternatively, an allowance should be made for the static head between the lowest point and the point of measurement, to ensure that the required test pressure is not exceeded at the lowest point.

For the test section required end cap at both the end for testing purpose shall be arranged by the contractor at his own cost. It includes jointing & removing after testing, including all cost of jointing materials & labour etc comp.

- 8.4 If the test is not satisfactory the fault should be found and rectified. Where there is difficulty in locating a fault, the section under test should be sub divided and each part tested separately.

Methods employed for finding leaks include:

- a) Visual inspection of each joint if not covered by the backfill;
  - b) Use of a bar probe to detect signs of water in the vicinity of joints, if backfilled;
  - c) Aural inspection using a stethoscope or listening stick in contact with the pipeline;
  - d) Use of electronic listening device which detects and amplifies the sound or vibration due to escaping of water, actual contact between the probe and the pipe is not essential.
  - e) Injection of a dye into the test water particularly suitable in water logged ground.
  - f) Introduction of nitrous oxide in solution into the test water and using an infra-red gas concentration indicator to detect the presence of any nitrous oxide that has escaped through the leak.
- 8.5 After all sections have been joined together on completion of section lasting a test on the complete pipe line should be carried out. This test should be carried out at a pressure not less than the maximum sustained operating pressure or the maximum static pressure of the pipeline and during the test, inspection made of all work which has not been subject to section tests. During the test, the pressure at the lowest point in the pipeline should not exceed the maximum given Table 1.
- 8.6 It is important to ensure that proper arrangement is made for the disposal of water from the pipeline after completion of hydrostatic testing and that all consents which may be required from authorities have been obtained. In some cases, for example, heavily chlorinated water some treatment may be necessary before final disposal.

## **9 FLUSHING MAINS BEFORE COMMISSIONING**

- 9.1 The main intend of flushing the pipe line is to remove any foreign material before commissioning them for use.

After pressure testing the main, it should be flushed with water of sufficient velocity to remove all dirt and other foreign materials.

- a) Flushing of all lines shall be done after pressure testing
- b) Flushing of all lines shall be done in the presence and as per directions of Engineer-in-charge or his representative.
- c) Flushing of pipe lines will be done by fresh potable water, to clean the pipe of all dirt, debris and foreign materials.
- d) It will be contractor's responsibility to provide all necessary equipment, materials and consumables required for completing the flushing as per directions of the Engineer-in-charge.
- e) Water passing will be continued till the inside of the pipe is fully cleaned.
- a) During flushing discharged water shall be drained to nearby storm water drain or the place directed by the Engineer-in-charge. Necessary arrangement should be done without any extra cost for the same. Care shall be taken during flushing so as not to damage/spoil other agencies work proper temporary drainage for flushing water shall be taken to prevent entry of water, foreign particles, into equipments, electric motors, instruments, electrical installations etc. in the vicinity of line being flushed.

## **10 REMOVAL, RESTORATION AND MAINTENANCE OF PAVED FOOTPATHS, ETC, AFTER LAYING OF PIPE**

**10.1 Allowable Removal of Pavement** – Pavement and road surfaces may be removed as a part of the trench excavation, and the amount removed shall depend upon the width of trench specified for the installation of the pipe and the width and length of the pavement area required to be removed for the installation of gate valves, specials, manholes or other structures. The width of pavement removed along the normal trench for the installation of the pipe shall not exceed the width of the trench specified by more than 150 mm on each side of trench. The width and the lengths of the area of pavement removed from the installation of gate valves, specials, manholes or other structures should not exceed the maximum linear dimensions of such structures by more than 150 mm on each side, wherever, in the opinion of the authority, existing conditions make it necessary or advisable to remove additional pavement, it shall be removed as directed by the Engineer-in-charge.

### **10.2 Restoration of Damaged Surface and Property :**

Where any pavement, shrubbery, fences poles or other property and surface structures have been damaged, removed or disturbed during the course of work such property and surface structures shall be replaced or repaired after completion of work. All pavements, paved footpaths, curbing gutters, shrubbery fences, poles, sod or other property and surface structures removed or disturbed as a part of the work shall be restored to a condition equal to that before the work began, furnishing all labor and materials incidental there to, in restoring the pavement, sound stone blocks, sound bricks, Paver Block or asphalt paving blocks may be re-used. No permanent pavement shall be restored unless and until, in the opinion of the authority, the condition of the back fill is such as to properly support the pavement.

**10.3**Cleaning Up – All surplus materials, and all tools and temporary structures shall be removed from the site as directed by the authority. All dirt, rubbish and excess earth from the excavation shall be halved to a dump and the construction site left clean to the satisfaction of the engineer-in-charge.

The rate shall be per running meter including loading, unloading & transportation of pipe from store to site.

**Item No. 3 : Refilling:**

Refilling the pipe line trenches incl. ramming, watering, consolidation, disposal of surplus stuff as directed within radius of 3 km. After the pipe line is laid, jointed and tested and proved to be water tight the trenches shall be refilled in the manner described below:

The first foot of filling material immediately above and around every pipe shall consist of finest selected earth been protected in the manner described above. After the first foot of material has been placed in position the remainder of the material is to be filled up to 9” below surrounding ground level at a time and sufficient water i.e. min. 150 lit./m<sup>3</sup> of excavation shall be used and flooded the trench in addition to aid consolidation of filling material. After this having been done, the trenches or the excavation shall be left for one day to allow consolidation and on the next day it should be restored to its original condition and opened to use. Contractors have to produce evidence for using water for consolidation.

After trenches having been filled to their original surface all surplus material shall be removed by contractor. Some of the earth may be kept for use to restore and subsequent settlements but it shall be stacked properly and protected at convenient points so as not to cause any interference to traffic or nuisance to the public. Before the final bill is paid, the contractor shall make good promptly at his expense any settlement that have occurred even in the vicinity of excavation. He shall also repair and set right at his own expense any damage caused to property and such works shall be carried out to the full satisfaction in all respects of the owner thereof.

**Restoration of Surfaces**

All berms and other paved surfaces shall be restored in as good condition as before disturbance or the execution of work and any deficiency in the filling material resulting from theft or any other case what so ever shall be made good by the contractor at his own cost.



In case of roads the operation may be done in the two portions to facilitate the traffic.

The rate shall be per Cu. Mtr.

**Item 4(A) Providing & Supplying Ductile Iron Resilient Seated Sluice valve :**

“Specification for Ductile Iron Resilient Seated Sluice valves”  
(DN 100 mm to DN 800 mm)

**1.0 General**

Features required for Sluice valves suitable to water work application for continuous operation up to 70 degree Celsius are as follows or otherwise the standard BS 5163/EN 1074-1&2

Ductile Iron / Spheroidal Graphite (S.G.) Iron Double flanged resilient seated Sluice Valves Full bore in accordance with BS 5163/EN 1074-1&2 of PN-10 /16 rated, with Body and Bonnet of Ductile Iron confirming to GGG-50/40 or IS 1865 Gr. (SG 500/7 or SG 400/15), Wedge of WRAS or DVGW approved EPDM rubber (approved for drinking water), Integral Wedge nut, Shaft of S.S. AISI 420, O rings of NBR. Body & Bonnet coated with Electrostatically applied epoxy powder coating to DIN 30677-2 & GSK guidelines or equivalent to GSK Guideline. Blue colour RAL 5005/5017 with a coating thickness of 250 microns both inside & outside. Sluice valve shall be compatible for buried applications without valve chamber. Face-to-face dimensions as per BS 5163/EN558 and Flange drilling as per IS 1538. 100% tight shut-off. Manual operation by Hand wheel at present but it should be upgradable and suitable for motorized operation by Electrical Actuator suitable for SCADA system.

**2.0 Testing**

All Sluice valves must undergo hydraulic testing to BS 5163/EN 1074-1&2

- Seat test 1.1 x PN rating
- Body test 1.5 x PN rating

## 2.0 Materials

Summary of materials used are as follows:

ITEM	COMPONENT	MATERIAL	GRADE	Standard
1	Body, Bonnet	Ductile Iron	500-7 or 400-15	BS EN5163/IS1865
2	Wedge core	Ductile Iron	500-7 or 400-15	BS EN5163/IS1865
3	Wedge nut	Brass	CZ 132	BS 2872/4
4	Rubber (vulcanised on wedge)	EPDM	EUW 70	WRAS or DVGW Approved
5	Stem	Stainless steel	A276-420	EN 10088-1
6	Stem collar	Dezincif. res. Brass	CZ 132	BS 2872/4
7	Bonnet bolts	Stainless steel	A2	ISO 3506
8	Bonnet gasket	EPDM	EUW 70	WRAS or DVGW Approved
9	O-ring	NBR	-	-
10	Dust seal ring	NBR	-	-
11	Hand wheel	Grey cast iron	250	EN 1561
12	Actuator (Rotork/Auma)	Mfg. Std.	-	-

## 4.0 Markings and labeling

Valves shall have the following marking in raised letters: -

- The nominal size (i.e. DN)
- The nominal pressure designation (i.e. PN)
- The body material identification (i.e. GGG)
- The manufacturer's name/trademark
- Year of manufacturing
- Direction of closing markings (i.e. in cast direction arrow)
- Traceable serial number for each valve, - either as engraved tag plate or bar code labelling of aluminium or equivalent durable material.

## 5.0 Certification

- Manufacturer or supplier is requested to provide a copy of the certificate and testing report from recognized certification body.
- The Manufacturer's quality system ISO 9001:2008 certified by authorized body and copy of certification submitted on request.
- Manufacturer should give minimum 5 Years of Warranty.

The rate of item covers cost of supply of valves with I.S.I. standard inclusive of all taxes, duties insurance, loading, unloading, carting etc. complete.

The rate shall be on number basis.

**Item 4 (B) (1) Supply of DI Tail Pieces**

Providing and supplying of DI Socket & Spigot tail pieces.

Providing & Supplying at site of work D.I. Flange socket & Spigot tail pieces as per IS 9523 class-A series K-12 and with ISI mark along with test certificates suitable for push on joint or mechanical joint, incl. of all taxes loading, unloading, carting, stacking, insurance inspection charges, octroi etc. complete with internal cement mortar lining.

The rate shall be per kilogram weighing as per actual weight. The contractor shall produce weight slip of approved weighing balance for each specials.

**Item 4 (B) (2) Supply of CI Tail Pieces**

Supplying Flange / Spigot – Socket type Tail Pieces of required dia. to suit the site conditions and as required on the site or store. C.I.Tail Pieces shall be as per IS 1538-1993 specifications and with ISI mark, along with test certificate. The rates shall include loading, unloading, carting, stacking, insurance, taxes, octroi, freight, weighing etc. complete.

The rate shall be per kilogram weighing as per actual weight. The contractor shall produce weight slip of approved weighing balance for each specials.

**Item 4 (C) : Fixing of Valve :**

The valve shall be fixed with pipe line as per the instruction of engineer-in-charge.

The valve and the tail pieces will be jointed using rubber packing, nuts, bolts, washers etc. after properly cleaning the tail pieces & the flanges of valve. The valve shall be lowered using the chain pulley block and fixed keeping vertical axis perfectly vertical and placed on cement concrete block at bottom for proper leveling. The contractor shall be responsible for protecting the valve, tail piece etc. The contractor will be responsible for protecting the sluice valve spindle, cap till the pipe line is handed over to the corporation.

The rate shall per Number.

**Item No. 5(a) : Providing & Supplying D.I. Flanged /Socket & Spigot Specials :**

Providing & Supplying at store or site of work D.I. Flange, Socket & Spigot specials like bends, tees, reducers, caps etc. as per I.S. 9523 class A, series K-12 with ISI mark suitable for push on joint or mechanical joint.

The rate inclusive of all taxes, loading, unloading, carting, stacking, insurance, inspection charge, octroi, weighing etc. complete with internal cement mortar lining.

The rate shall be per Kilogram basis as per actual weight. The contractor shall produce weight slip for each specials..

**Item No. 5 (b) : Providing and supplying of C.I. Specials :**

Supplying Flange / Spigot – Socket type specials of required dia, to suit the site conditions and as required on the site or store, specials viz; bends of any degree, tail piece, reducer, collars, cap, tees, puddles etc. C.I. fitting shall be as per IS 1538-1993 specifications and with ISI mark, along with test certificate. The rates shall include loading, unloading, carting, stacking, insurance, taxes, octroi, freight, weighing etc. complete.

The rate shall be per kilogram weighing as per actual weight. The contractor shall produce weight slip of approved weighing balance for each specials.

**Item No. 6 (A) : Lowering & Laying of D.I. Pipe & Specials with Tyton Joint**

D.I. Pipe and specials like Tee, Bend, reducer etc shall be laid in line & level in the trench. If required DI pipe shall be cut using appropriate cutting equipment, after cutting pipe edge shall be grind by grinding machine suitable to tyton joint. Rate is inclusive of cutting, grinding, labour, power, SBR rubber ring, chain pulley block, rope etc necessary for laying DI specials in line & level.

The rate shall be per number.

**Item No. 6 (B) : Lowering & Laying of C.I. Pipe & Specials with Lead Joint**

The C.I. Pipes and specials are laid in line and level in the trench. The spigot shall be properly fixed in the socket in line & level using chain pulley block or such approved method. If required the pipes shall be cut using appropriate equipment before laying.

The required jute, lead tools etc. shall be supplied by the contractor. To make the lead joint and to facilitate the cocking the area around the joint shall be excavated to 0.5 m as directed by the corporation's engineer to make available the working space. No payment shall be made for such excavation. The socket and spigot shall be properly cleaned using wire brush. The contractor shall supply the approved quality of jute and inserting it with required tools and filling the joint with lead as per the details given below or as per PWD HBA-2, Table – CC (VII). The joint shall be kept open from all the sides and got checked from the site overseer.

Table

Sr. No.	Details	Lead required (Kg)	Depth of Lead Joint (Cm)	Remark
1	100 mm C.I.Pipe	2.50	5.0	As per P.W.D.
2	150 mm C.I.Pipe	3.62	6.0	HBA – 2
3	250 mm C.I.Pipe	6.12	7.75	Table-CC(VII)
4	300 mm C.I.Pipe	7.70	8.00	
5	375 mm C.I.Pipe	10.45	8.25	
6	450 mm C.I.Pipe	14.30	8.30	
7	525 mm C.I.Pipe	16.25	8.50	
8	600 mm C.I.Pipe	19.00	9.15	
9	700 mm C.I.Pipe	21.00	10.00	
10	750 mm C.I.Pipe	25.00	11.00	

Maintaining the gaps as mentioned above, pouring lead into the joints using lead, wool, etc. at site and after heating the lead making the joint in presence of the corporation's engineer. The joint made in absence of the engineer shall not be considered and the contractor shall remove the joints and the lead at his own expense and re do the joint in presence of the engineer. The Contractor shall see that in no case the lead come out of the joint and in no circumstances he would be allowed to cut the same.

The Contractor has to give Hydraulic Pressure test as per hydraulic testing described in pipe laying work. If leakage is found, it must be repaired by contractor at his own cost. The item shall be paid per number.

#### **Item No. 7 : Cutting of CI / DI pipes**

The contractor shall bring required tools at site of work for cutting the existing pipeline. The pipe shall be cut as per instructions of the engineer-in-charge. The pipe should be cut in such a way that it may not damage the existing pipe and develop extended crack in the pipe. The lining of DI pipe shall not be damaged. The materials, debris and waste obtained shall be deposited in stores of the corporation. For dewatering from excavated pit, the contractor shall provide pumping equipment, machinery, fuel, labour, temporary platform and proper disposal of water to nearby storm water drain or drainage manhole as far as possible as per the instructions and requirement to the satisfaction of engineer-in-charge.

The rates shall be per running cm.

#### **ITEM NO.8 : Transporting of pipe**

Transporting of pipe of all type and size including loading, unloading and stacking as directed.(Wt. more than 200kg.),Article having weight up to 1 MT. Pipe should be transporting from source of supply to 5 Km. and Beyond 5 km. to 50 km. as per requirement.

The rates shall be paid on M.T. basis.

**Item No. 9 : C.C. (1 : 4 : 8)**

Cement concrete in prop. 1:4:8 in foundation or for flooring including well rammed and watered etc. complete of black trap metal 1½” to 2” size. The relevant parts of item no.11 shall be applicable to this item except that the proportion for the cement concrete shall be 1:4:8 mix with black trap metal 1½” to 2” size.

The rate of payment shall be on one cu. m. basis.

**Item No. 10 : Brick Masonry**

Brick masonry in cement mortar (1:6) including watering, etc. complete.

The brick shall be common burnt of uniform colour having crushing strength not less than 35 kg/sq. cm. as per general specification of materials and shall be got approved by the Dy. Executive Engineer. The bricks shall be well wetted for 24 hours before use by sprinkling the water over the bricks chattas.

The mortar for masonry shall be cement mortar of proportion of one part of cement and six parts of sand by volume. The cement, sand and water shall be used as per general specification of materials.

Brick masonry shall be uniformly laid and the whole work executed in a good manner. The mortar joint shall not exceed 1 cms in thickness. No brick bats or half bricks to be used in the work unless absolutely necessary as closer. Every joint should be neatly struck at the close of the days work and before the mortar has set. The brickwork shall be kept wet for at least 7 days. The masonry wall shall be in plumb, line and level.

If any of the portion of the work is found unsatisfactory and not confirming to the specification the portion shall be pulled down by the contractor at his own cost and risk immediately on materials obtained from the pulled down masonry shall not be allowed in work for reuse.

The rate is inclusive of cost of materials, labour centering curing, finishing, etc. complete the rate shall be paid on cu. mtr. basis.

**Item No. 11: Cement Concrete (1 : 1.5 : 3 )**

Cement concrete 1:1.5:3 for R.C.C. work with 12 to 20 mm. size black stone crushed metal incl. boxing, centering, vibrating curing smooth finishing in CM. 1:3 including plaster in 1:3 where necessary to bring to surface in line and level etc. complete without reinforcement.

- a) Column footing up to plinth.
- b) Ground beam
- c) For columns in super structure
- d) For lintels
- e) For R.C.C. Hood
- f) R.C.C. beam/coping
- g) Slab
- h) Foundation for pump etc.

The work in general shall be carried out as per specification no. 160 and 161 of P.W.D.H.W.D. H.B. volume I.

The cement to be used shall be in bags, free from lump and shall be as general specification of materials.

The sand shall be clean, river sand free from all impurities as per the general specification of materials.

The coarse aggregate shall be of machine crushed from approved sevalia quarry of black trap as approved by the Executive Engineer. The aggregate shall be as per specification of general materials.

The concrete shall be mixed in concrete mixer to have uniform and homogeneous mix. In R.C.C work hand mixing shall not be allowed except in break down of the mixer. However, under unavoidable circumstances up to the construction joint hand mixing shall be permitted by adding extra 10% of cement at the cost of the contractor without claiming any extra cost. The hand mixing shall be done only to bring the work to the safe stage as directed by the Engineer-in-charge.

The concrete shall be laid in position immediately before the initial setting time of cement begins. Necessary safe scaffolding to lift the concrete to various floors shall be prepared by the contractor.

The concrete after placing in position shall be well tempered by mechanical vibrators if necessary and wooden screeds, so that the whole mass becomes compact and homogeneous of concrete. While placing the concrete care should be taken that the position of reinforcement is not disturbed. Adequate cover should be provided by placing precast concrete cover blocks and not by metal pieces or brick bats. After the finishing of the concrete surface is done the same shall be protected by wet gunny bags till the surface is sufficient hard to receive final curing. The concrete work after proper setting shall be cured properly by water by providing dykes or bunds 8 cms to 10 cms high and filling them by water. The curing shall be continuously done for 14 days. In case of columns, beams, footings, curing by dykes or bund is not possible the RCC members shall be properly cured by wet gunny bags by continuous watering as directed by the Engineer-in-charge.

At the time of concreting, proper care shall be taken that honey combing is minimum.

After the form work is removed any such honey combing is found it shall be finished with cement mortar (1:2) so that all crevices are properly filled up and no reinforcement is exposed. If however, the honey combing is of very severe nature and is found throughout the surface concreting exposing the reinforcement the concrete work shall be rejected and redone without any extra cost.

In case of volume of concrete more than 5M3 at a time contractor shall cast 15 cms x 15 cms x 15 cms test cubes and slump test shall be taken during the concreting as per I.S.S. These cubes shall be tested at any Government laboratory or Engineering college at the cost of the contractor. The strength of concrete shall be minimum as specified in ISI 456-1964 as specified by the design section. After the centering is removed, all exposed RCC members shall be lightly chiseled to have proper key with mortar for plastering work and shall be finished with cement mortar 1:3 cement plaster of required thickness to bring work in line and level including neeru finish and 3 coats of white wash. The slab when projected shall have to be provided drip moulding and no extra payment shall be made on account of this.

The rate of concrete includes cost of all materials, labour and shall be paid as per size of the member cast and not finished. The rate is exclusive of the reinforcement. The rate is inclusive of the cost of finishing with cement plaster 1:3 the exposed faces such as to of lofts, cantilever and chhaja including neeru finishing 3 coats of white or colour wash etc. comp. The rate includes cost of all work as above for all type of RCC roof of any other work as per detailed drawing prepared by Architect.

In case of casting some of the member which were to be provided as precast, as cast in situ, such work shall be measured and paid against this item without any extra cost.

The measurement of various members of RCC shall be taken as per respective item and specification as per ISS No. 1200-1958. The work shall be done as per ISS 456-1964 Para 1 to 5, 4, 2 and Para 7.0 to 8.0 and will be paid on cu. Mt. basis of the concrete members.

#### **Item No. 12 (A), (B) : Reinforcement**

Providing steel reinforcement for RCC work including cutting as per design drawing etc. complete.

a) Plain steel (mild) b) Tor steel /TMT steel

The reinforcement to be used in beams, lintel, slab, column, etc. should be as per structural design. It should not be rusted or coloured. The reinforcement shall be placed properly & binded with binding wire of minimum 16 gauge. The cost of the binding wire is included in the item. No extra payment shall be made for binding wire which is included in the item.



The reinforcement so placed shall be got approved from Executive Engineer before any concrete is poured.

# TMT steel or any other steel will not be allowed.

The rates shall be paid on Kilogram basis.

**Item No. 13 : Providing 10 mm thick... plaster work, etc complete :**

Cement and clean sand shall be thoroughly mixed dried in the proportion of 1:3 water shall be added gradually to make the mixture homogeneous. No more cement mortar shall be mixed then can be used within half an hour. The joints shall be first raked out 12 mm to 20 mm deep and the surface be watered properly for 12 hours the mixture of sand and cement shall be applied evenly of 10mm thick on the surface of the wall. The surface shall be finished off at once by rubbing with a towel after applying a thin coat of neat cement till a smooth surface is obtained.

The work shall be watered thrice a day for 10 days and then once a day for one month.

Measurement shall be in sq. mt. of actual dimensions opening shall be deducted in full and jambs and soffits shall be allowed. The rate also includes necessary scaffoldings as required and white or coloured wash in three coats shall be carried out as directed.

The rate shall be paid in sq. mt. basis

**Item No. 14 : Providing & fixing of steel Beam.**

Supplying and pre-fabricating structural steel work including fixing in position with 3 coats of approved oil paint incl. one coat of anticorrosive paint.

Such as joists, channels, angles, purling iron plates, etc. mild steel section.

The rate shall be paid on weight basis and will be inclusive of railway freight, carting, loading, unloading etc. complete.

The rate shall be paid per Kg as per actual weight. The contractor has to produce weight slip of approved weighing balance.

**Item No. 15 Cement Concrete 1 : 3 : 6**

Providing & laying c.c. 1:3:6 for foundation, thrust block, anchor block of permanent nature and not for testing purpose etc. including ramming, curing, centering, shuttering if necessary etc. comp.

Specifications: The relevant Para of item No. 10 shall be applicable to this item except that the proportion for the cement concrete shall be 1:3:6 mix.

The rate of payment shall be on Cu. Mt. basis.

**Item No. 16 M.S. Pipes & Specials :**

The M.S. specials shall be manufactured as per IS 3589-1991 & 7322-1985 from 8 mm thick M.S. Plate. Specials shall be coated with 2 coats of epoxy paint from inside &

outside. The specials shall be fixed in position in the existing or new line and jointed with welding joint, lead joint and/or flange joint. The specials shall have either socket or flange end. The cost of the plate flange and required nut bolts, washers, rubber packing etc. is included in this item.

The rate shall be per Kilogram.

**Item No. 17 : Providing, supplying & fixing at site of work, CI road box.**

The contractor shall supply the standard road box @ 13.5 kg per number with 'VMC' marked on the cover of road box only  $\pm 2\%$  tolerance in weight shall be permissible. The road box shall be fixed on cap of sluice valve with necessary C.I. pipe between valve cap & road box as per instruction of engineer-in-charge.

The rate shall be paid per number basis.

**Item No. 18 : Breaking existing asphalt road :**

Before starting the work the contractor shall provide proper traffic diversion arrangement and place the board "Road Closed, "Work in Progress", also provide red lighting arrangement during night time. The place shall be cordon by rope & vertical post the road shall be cut to required width and depth through asphalt, metal, rubble and earthen embankment to form a trench for the crossing of the road by main pipeline as directed by Engineer-In-Charge.

- a) Cutting the road for forming a trench as mentioned above.
- b) Storing excavated material properly so as not to disturb the passing traffic.
- c) Refilling of trench and consolidation of refilled material.

The rate shall be on Sq. mtr. basis.

**Item No.19 : Reinstatement of asphalt road.**

After laying the pipes watering shall be done in the trench, the watering in all layers shall be done. It shall be rolled by 10 tones wt. roller, rolling up to satisfaction. Removing excess soil from the trench making proper sub base, using 45 to 90 mm thick machine cut metal from black trap rock kapacha soling shall be done in 11 cm. compacted layer including rolling watering etc. comp. After completion of Kapacha soling using 22.5 mm to 53 mm thick machine cut metal from black trap rock of Timba, Sevaliya make metal grouting shall be done in 10 cm. compacted layer by using bitumen as per PWD manual.

Also providing and laying 65 mm thick compacted asphalt macadam carpet using coarse aggregate/ fine aggregate/ filler as per required gradation, applying tack coat at the rate of 5 kg./ 10 sq. mt. and using asphalt (80/100 grade) 4% by wt. of mix and mixing by drum mix process spreading by paver finish and flushing quarry dust/Goma sand on B.T. surface at the rate of 0.75 CM./100 sq. mt. including consolidation etc. complete by using Sevaliya Quarry material and providing & laying 25 mm thick compacted asphalt

concrete sealing surface using Coars aggregate/ fine aggregate/ filler as per required gradation and asphalt (60/70 grade) 6% by wt. of mix and mixing by drum mix process including applying tack coat the at the rate of 5 Kg./ 10 cm. and spreading by paver finisher and flushing quarry dust/ Goma sand on B.T. surface at the rate of 0.75 CM./100 sq. mt.. including consolidation etc. complete by using Sevaliya quarry material

Whenever necessary at crossing of main road and approach reinstatement of road shall be done immediately after laying the pipe.

All material, labour, machinery and equipment shall be brought by contractor at his own cost.

The rate shall be on sq. mt. basis.

**Item No. – 20 Removal of Cap**

The cap of existing line shall be removed by appropriate method, care shall be taken that existing line shall not be damaged or cracked. This item includes dewatering, pump set, diesel, labour etc complete.

Rate of payment shall be on Number basis.

**Item No.21 Removing Of Existing Pipeline**

Removing Of Existing Pipeline, Removing of exi. pipeline  
incl. removal of specials, valves jointing material incl. carting  
& stacking of removed material From site of work to the department store as directed  
excl. excavation & refilling

The rate shall be as per Rmt.

**Item No. – 22(A) Transfer of connection from existing old C.I. line to new line :**

Removing ferrul from existing old C.I. pipe line and fixing it on new CI/DI pipe line.

For transfer of connection, necessary excavation shall be done on existing CI pipe line and removing ferul & vertical pipe and a plug shall be fixed on line, plug shall be brought by contractor at his own expense. After that necessary excavation shall be done on new laid line, a hole of a said dia. shall be made by requisite tools and make thread on it. A ferul shall be fixed with jute & whitener etc. on the top of pipe and after transfer the connection both the pipe shall be filled with earth in layer of 9 inch, necessary watering and ramming shall be done properly.

This item will payable only when it is necessary to shift or relay the existing pipeline in unavoidable site situation. The prior approval/ permission from Dy. Ex. Engineer is necessary for the work. This item will not payable for restoration or to repair existing pipeline damaged by contractor during excavation or laying work.

**Item No. – 22 (B) Providing & Fitting of GI pipe**

Providing, supplying B class G.I. pipe & fitting and laying in trench of 1.0 mt. Depth as directed.

For connection transfer and for laying of GI pipe line, excavation shall be made of 0.50 mt in width & 1.0 mt in depth in straight line, laying the “B” class GI pipe and necessary fittings which shall be brought by the contractor at his own cost, cutting and threading it in the necessary length, coating with tar coat, warping of jute and recoating with tar coat and make sand filling around the pipe 6” X 6” making connection as directed.

After making the connection water is flowing or not shall be checked & verified and than

refilling the trench with earth in layer of 9 inch necessary watering and ramming shall be done properly.

This item will payable only when it is necessary to shift or relay the existing pipeline in unavoidable site situation. The prior approval/ permission from Dy. Ex. Engineer is necessary for the work. This item will not payable for restoration or to repair existing pipeline damaged by contractor during excavation or laying work.

The rate shall be as per Rmt.

**Item No. – 23 Providing & Laying Stoneware Pipe :**

Providing and laying 150mm stoneware pipe of approved make including excavation, laying & jointing earthen stoneware pipe with necessary TS, bends etc. complete with neat cement. Curing shall be done as per direction and watering in trenches and joints etc complete. The work in general shall be carried as per instruction of the Engineer-in-charge of the work.

This item will payable only when it is necessary to shift or relay the existing pipeline in unavoidable site situation. The prior approval/ permission from Dy. Ex. Engineer is necessary for the work. This item will not payable for restoration or to repair existing pipeline damaged by contractor during excavation or laying work.

The rate shall be paid on Rmt. basis.

**Item No. – 24 Removal of Existing Tiled / Stone Pavement**

The tile /stone /paver block flooring removed only manually to prevent the Breaking of tile /stone /paver block & stacking the same within 50 mtr. range as per instruction of Engineer-in-charge.

The rate shall be paid on Sq. Mtr. basis.

**Item No. – 25 Demolition of R.C.C. work**

Demolition including stacking of serviceable materials and disposal of unserviceable materials with all lead & lift for R.C.C. work

The rate of payment shall be on Cu. Mt. basis.

**Item No. – 26 Repairing of Stone Pavement**

Laying and fixing of 50mm thick interlocking paver block as per design given by Engineer Incharge with 50mm thick sand bed layer, watering, compacting paving with compacter by mechanical compacter etc. complete as per specification & instruction of Engineer-in-charge.

The rate shall be paid on Sq. Mtr. basis.

**Item No. – 27**

Filling in foundation and plinth with brick Bats. Chhara in layers of 20cm. thickness including watering, remming and consolidating etc. completed.(Up to 10 ton) Brick bat aggregate shall be broken from well burnt or slightly over burnt and dense brick. It shall

be homogeneous in texture roughly cubical in shape, clean and free from dirt of any other foreign material. The brick bats shall be of 40 mm. to 50 mm. size unless otherwise specified in the item. The under burnt or over burnt brick bats shall not be allowed.

The brick' bats shall be measured by volume by suitable boxes or as directed.

The rate of payment shall be on Cu. Mt. basis.

**Item No. – 28**

Providing and fixing Pre-cast Rubber dye interlocking Concrete Block 60mm thick with grade of Concrete M300 pneumatic Compressed by Mechanically Pressed and as per Approved design including 75mm thick sand layer for leveling and filling the joint with sand in proper line and level etc. complete. as per specification & instruction of Engineer-in-charge.

The rate shall be paid on Sq. Mtr. basis.

**Item No. 29 :** Gas cutting (Either Square or V cut) pipes, plates etc of thickness up to 5 mm.

For connection with HS/MS pipe contractor has to cut the existing HS/MS pipe by necessary equipment like Gas cutting set, cutter etc. complete as per instruction of the engineer-in-charge.

Rate shall be in Rmt.

**Item No.30 : Welding of HS/MS pipe**

Welding of HS/MS pipe in all position with required number runs from M.S. pipes internally and/or externally including gauging wherever necessary, fixing appurtenances and other accessories in connection with pipe laying work as per specification. Butt joint plate thickness 4 mm to 7 mm.

For the connection of proposed line with existing HS/MS line contractor has to provide all equipments like D.G. set, cable holder, rod etc. complete and has to weld the joint as required on site as per the instruction of engineer-in-charge.

Rate shall be in Rmt.

**Item No.31 Shifting & Refixing of sluice valve**

As per Requirement of the site Shifting & Refixing of Valve Should be done as per the instruction of engineer-in-charge.

Rate shall be on No Basis .

**Item No.32 Dewatering**

Dewatering by pumping set of required capacity including temporary platform carting pumping at site and fixing same in position including all accessories and fuel labour etc. complete.

The rate shall be paid on HP/hr. basis.

**Item No.- 34 :**

Filling in plinth with sand under floors including watering ramming,consolidation, and dressing complete. (upto 10 ton).

The rate shall be on cmt. basis.

**Item No.35:**

Box cutting the Road surface to proper slope and camber for making a base for road work incl. removing the excavated stuff and depositing on the road side slope us directed upto 50 Mt.lead.

The rate shall be on cumt. basis

**Item No.36:**

Carting of excavated excess soil at proper place with in municipal limit as per instruction given by engineer incharge.

The rate shall be on cumt. basis

**Item No.- 37 :**

Road restoration: Providing and laying of good quality material of GSB in proper line, level and camber (compacted thickness 300 mm) with roller 8-10MT capacity on GSB as per specification and instruction by engineer in charge.

After setting the trench properly, contractor shall reinstate the broken asphalt road and make it as before. The road construction shall be as per the standard section provided by VMC and as directed by Engineer-in- charge. The road construction shall be as per drawing and specifications.

WMM Road Construction

Excavating the surface in line, level and camber for preparation of sub-grade and spreading excavated earth on road edge within 50 meter lead, removing excess earth from site and disposal of the same within VMC limit .Watering rolling the surface.

Providing and laying of good quality material of GSB in proper line, level and camber (compacted thickness 300 mm) with roller 8-10MT capacity on GSB as per specification and instruction by engineer in charge.

**Item No. – 38**

Providing & laying compacted machine crushed black stone aggregate 250mm thick wet mix macadam in two layers in the material with water to OMC in mechanically mix (pug mill) carriage of mix material by tipper to site laying, spreading and compacting in sub base of compacting power vibratory roller to achieve the desired density (mechanically laid) etc.complete.as per technical specification MORTH clause-406

After laying the pipes watering shall be done in the trench, the watering in all layers shall be done. It shall be rolled by 10 tones wt. roller, rolling up to satisfaction. Removing excess soil from the trench making proper sub base, using 45 to 90 mm thick machine cut metal from black trap rock kapacha soling with spreading of good quality of sand as specified shall be done in 11 cm. compacted layer including rolling watering etc. comp. After completion of Kapacha soling using 22.4 mm to 53 mm thick machine cut metal from black trap rock of Timba, Sevaliya make metal grouting shall be done in 10 cm.

compacted layer in two layer each of 5 cm th. by using VG-10 grade bitumen @ of 0.5kg/sq.mt as tack coat on existing surface and 1.5kg/sq.mt on each layer of metal and spreading B.T. grit @1.3CM/100sqmt and including necessary cleaning of existing surface, rolling in each layer etc. complete with good quality of material as per specification and instruction by Engineer In charge.

Also providing and laying 65 mm thick compacted asphalt macadam carpet using coarse aggregate, fine aggregate, filler as per required gradation, applying tack coat at the rate of 5 kg./ 10 sq. mt. and using asphalt (VG-30 grade) 4% by wt. of mix and mixing by drum mix process spreading by paver finish and flushing quarry dust/Goma sand on B.T. surface at the rate of 0.75 CM./100 sq. mt. including consolidation etc. complete by using Sevaliya Quarry material.

Whenever necessary, at crossing of main road and approach reinstatement of road shall be done immediately after laying the pipe.

All material, labour, machinery and equipment shall be brought by contractor at his own cost.

The rate shall be on sq. mt. basis

**Item No. – 39**

Labour Charges for repairing of leakage in HDPE pipeline with but welding of folling dia meter at different places including necessary excavation manually or by mechanise excavation, dewatering removing of mud, cleaning of pipe and leakage portion of pipe from trench with inclusive of mechanical devices JCB if necessary & labours required with providing jointing material with welding mechine etc. comp. (including all material) The rate shall be on nos. basis.

**Item No. – 40**

Labour Charges for repairing of leakage in HDPE pipeline of folling dia meter at different places including necessary excavation manually or by mechanise excavation, dewatering removing of mud, cleaning of pipe and leakage portion of pipe from trench with inclusive of mechanical devices JCB if necessary & labours required with providing material such as MS clamp of required size with nut, bolt etc. comp. (incl. all material but Exclu. cost of pipe).The rate shall be on nos. basis.

**Item No. – 41**

Labour charges for repairing of leakage in HDPE pipeline of falling dia meter at different places including necessary excavation manually or by mechinery, dewatering, removing of mud, cleaning of pipe and leakage portion, cutting the pipeline,jointing & repairing using C.I.D. Joints inclusive of using all required machinery, labor, DG Set, Fuel Operetor, CID Joints, rubbe rings, nut bolts, etc. complete. ( but Excluding cost of pipe) The rate shall be on nos. basis.

**Item No. 6** : MDPE Pipes and fixtures( HSC ON DI PIPE MAINS USING MDPE PIPES)

These specifications are for MDPE Blue PE 80 Pipes for House Service Connections of Dia 20 mm to 50 mm OD.

Raw Material

Raw material used to Manufacture MDPE Blue Pipes shall be Virgin Natural Resin PE 80

containing that anti – oxidants, UV Stabilizers & Pigments necessary for Manufacturing of pipes. The Density of Pipes shall be confirming to ISO 4427-2007 Standard. The PE 80 Resin shall have MRS of 8 Mpa.

#### Effects on Water Quality:

The MDPE PE 80 Blue Pipes shall confirm to clause 3.5 of ISO 4427 for conveyance of Water for Human Consumption. Also the pipes intended for conveyance of Potable water for Human consumption to be tested to comply with BS 6920 specifications in any of the laboratories like DVGW/KIWA/SPGN/WRC-NSF and certificate of compliance to be produced for the following parameters

Order and flavor of water

Appearance of Water

Growth of Micro Organism

Extraction of substances that may be of concern to Public Health (Cyto Toxicity)

Extraction of Metals

#### Pressure Rating:

The Pressure rating of MDPE Blue PE 80 Pipes shall be confirming to Clause 4.1 of ISO 4427 : 1996.

#### Colour of Pipes:

The Colour of MDPE PE 80 Pipes shall be BLUE confirming to Clause 3.2 of ISO 4427 : 1996.

#### Dimensions:

The pipe dimensions shall be as per latest revisions of Clause 4.1 of ISO 4427 : 1996 and pipes shall be supplied in Coils of 100 mtrs. The internal diameter, wall thickness, length and other dimensions of pipes shall be as per relevant tables of ISO 4427:1996. Each pipe shall be of uniform thickness throughout its length.

The wall thickness of the PE 80 Pipes shall be as per the table given below:

Nominal Dia of MDPE Pipe (mm)	PR rating	Wall thickness	
		Minimum	Maximum
20	PN 16	2.3	2.8
25	PN 12.5	2.3	2.8
32	PN 12.5	3.0	3.5

The dimension tolerances shall be as per ISO 4427 clause 4.1.3



### Performance requirements

The Pipe supplied should have passed the acceptance test as per ISO 4427. The manufacturer should provide the test certificates for the following tests.

Melt Flow Rate

Density,

Oxidation and Induction test,

Hydrostatic Test ,

Pigment dispersion Test,

Longitudinal Reversion Test.

These tests should be performed in the in-house laboratory of the pipe manufacturer. The Employer will depute Third Party Inspection Agency to the pipe manufacturing facility of the manufacturer to inspect the pipes as per QAP approved by Engineer In charge. The cost for the inspection and tests shall be borne by bidder/operator.

### Compression Fittings :

Compression fittings used for House service connection comply as per ISO 14236

### Material of Construction

Compression fittings material shall confirm to ISO14236.Clause -5.

A .Body-Polypropylene

b. Nut / Cap –Polypropylene.

c. Clip Ring-POM (Acetylic resin )

d. Packing bush- Polypropylene

e. “O” ring – NBR

f. Threaded metal inserts –SS 304 with BSP Threads

### Pressure testing

The pressure rating of compression fittings as per clause 8 of ISO 14236 which shall be PN16

### Dimensions:

The Dimension of compression fittings shall be as per clause 7.1 of ISO 14236

### Performance requirements

The compression fittings shall be tested as per ISO 14236. Following Test methods shall be performed.

Clause 8.2.1                   -Leak tightness under  
internal pressure. Clause 8.2.2-Resistance to  
Pull out.

Clause 8.2.3                   -Leak tightness under Internal Vacuum.

Clause 8.2.4                   -Long term Pressure Test for Leak tightness  
for assembled joint Clause 8.3.2.1-MRS Value as per ISO 9080

Clause 8.3.3.1               -Resistance to Internal pressure.

## Effects on Quality of Water

The Compression fittings for intended for conveyance of Potable water for Human consumption to be tested to comply with BS 6920 specifications in any of the laboratories like DVGW / KIWA / SPGN / WRc –NSF and certificate of compliance to be produced for the following parameters :

- a. Odour & Flavour of Water.
- b. Appearance of Water.
- c. Growth of Micro Organism
- d.Extraction of substances that may be of concern to Public Health (Cyto Toxicity)
- e. Extraction of Metals.

For clear identification of the water services, the nuts of the fittings should be coloured blue while the body to be black. All fittings with threaded ends should be with BSP threads.

## UPVC Ball Valves (Stop Cocks)

Ball Valves used for HOUSE Service Connections comply to ISO 4422, Part 4.

### Material of Construction:

Ball Valve material shall confirm to as per clause 4 of ISO 4422.

- A Body and Handle - UPVC
- b .Seals - PTFE
- c .O-rings – NBR/EPDM
- d. Material of Construction for compression end will as per specifications for compression fittings.

### Pressure Rating

The Pressure of the Ball Valve shall be as per ISO 4422 shall be PN 16.

### Dimensions:

The Dimensions of the Ball Valve shall be as per Table 3 of ISO 4422.

### Performance Requirements:

The Ball valves shall be tested as per ISO 4422.Folowing test methods will be performed.

- Clause 7.1 - Resistance of Valve Bodies to internal pressure
- Clause 7.2 - Crushing Test
- Clause 7.3 - Endurance Test
- Clause 7.4.2 - Seat and Packing Test
- Clause 7.4.1 - Operating torque Test

The Ball Valves intended for conveyance of Potable water for Human consumption to be tested to comply with BS 6920 specifications in any of the laboratories like DVGW / KIWA / SPGN / WRc – NSF and certificate of compliance to be produced for the following parameters :

- a. Odour & Flavour of Water.
- b. Appearance of Water.
- c. Growth of Micro Organism
- d. Extraction of substances that may be of concern to Public Health (Cyto Toxicity)
- e. Extraction of Metals.

#### Specifications for Clamp Saddle For House Service Connections

##### General Specifications:

Clamp saddles for service connection from water distribution mains shall be of wrap around design, wide skirt and wide straps supports, which shall reinforce the pipe while providing excellent stability to the saddle.

Clamp Saddles for Service connections shall be of fastened strap type with threaded outlet for service connection.

The service connection threading sizes shall be conforming to IS: 554

Clamp saddles shall be suitable for DI pipes of nominal size 3" (NB 80 ) to 12" ( NB 300 ) with nominal service connection size from ½ " ( NB 15 ), ¾ " (NB 20), 1" (NB 25), 1 ¼" (NB 32), 1 ½" ( NB 40 ) and 2" (NB 50).

The straps shall be elastomer coated (insulated) type for firm grip on pipe as well as to protect the coating on the pipe and to insulate the un –identical metals. The saddles shall be single strap type upto pipe size of NB 600 and service outlet of ½", ¾", and 1".

The saddles shall be double strap type for pipe sizes above NB 600 or when the service outlet is 1 ¼", 1 ½" or 2".

Fasteners shall be of thread nut-bolt-washer type. Nut-bolts of size ½" (M12) shall be used for saddles of size up to 4" (NB 100) and Nut-bolts of Size 5/8" (M 16) shall be used for saddles of size 6 " (NB 150) and above.

The sealing between the saddle and mains shall be obtained by using a profiled elastomer seal matching to the curvature of the pipe.

The seal shall be of elastomer type, suitable for all potable water applications.

The Material of construction of the body, straps, fasteners etc. shall be of a non corrosive material such as engineering plastic (PE / PP) or stainless steel or a combination of both.

The design of the saddle body should be such that, the service connection outlet metal insert shall project out towards pipe side and align with the hole drilled on the pipe to ensure positive locking against rocking or creeping on the pipe, as might be caused by vibration, pressure or excessive external loading.

The clamp saddles shall be suitable for maximum working pressures upto 10 bars

### **Material and Design Specifications:**

**Saddle Body:** Non corrosive Engineering Plastic body molded with Stainless steel threaded metal insert for tapping outlet. Also, the stirrup metal plate shall be duly embedded in the plastic body, except at the place of nut-bolt lugs. Threading size and dimensions shall conform to IS:554. The body shall have retaining cavity housing for internal and external retention of the elastomeric seal. Sealing shall be achieved by pressure exerted by the body while fastening the saddle straps & body on the pipe.

**Saddle Strap:** Saddle straps shall be made of stainless steel 304 grade to prevent corrosion over the long service life.

**Strap Insulation:** Elastomeric (rubber) insulation / lining shall be such that none of the Stainless Steel Strap is in direct contact with the pipe. It shall ensure a firm non slip grip mounting on the pipe to prevent the saddle from rocking or creeping on the pipe, as might be caused by vibration, pressure or excessive external loading.

**Saddle Seal:** It shall be virgin rubber SBR Grade 30 / NBR (NSF 61 approved). It shall be of type pressure activated hydro-mechanical design. It shall be contoured gasket to provide a positive initial seal which increases with increase in the line pressure. Gasket shall be gridded mat, with tapered ends, with the outlet section having 'o' ring contacting the saddle body multiple o-rings contacting the pipe, preferably with a Stainless steel reinforcing ring insert molded to prevent expansion under pressure.

**Nut-Bolts –washer:** Stainless Steel Type 304, NC Rolled thread, Tightening torque for ½” (M12) nut –bolt: 14-15 Kg.m and for 5/8” (M16) nut-bolt : 21-23 Kg.m

### **Technical Specifications For Electro fusion Fittings For MDPE Distribution Mains**

All the electro fusion fittings included in this document should be designed for use in water distribution systems and be manufactured/supplied by manufacturers having ISO 9001: 2000 certification for their quality systems. The products should comply with the following specific requirements.

1. The products shall comply with the requirements of BS EN 12201-3: 2003, BS EN 1555-3 or ISO 8085-3.

2. All the fittings shall be of SDR 11 rating.

The product group used for drinking water applications should have undergone type test by WRc- NSF, U.K according to BS 6920 in any of their Certified Laboratories like WRc – NSF/DVGW/KIWA/SPGN and certificate of Compliance to be produced for the following parameters:

- a. Odour & Flavour of Water
- b. Appearance of Water
- c. Growth of Micro Organism

- d. Extraction of substances that may be of concern to Public Health (Cyto Toxicity)
  - e. Extraction of Metals
  - f.
3. All the products shall be manufactured by injection moulding using virgin compounded PE 80 (MDPE) polymer having a melt flow rate between 0.5 – 1.1 grams/10 minutes and shall be compatible for fusing on either PE 80 or PE 100 distribution mains manufactured according to the relevant national or international standards. The polymer used should comply with the requirements of BS 3412 and/or BS EN 12201-1.
  - 4.
  5. The fittings intended for water distribution applications shall be coloured blue for the clear identification of the services.
  6. All the electro fusion products should be individually packed so that they can be used instantaneously at site without additional cleaning process. The protective packing should be transparent to allow easy identification of the fittings without opening the bags..
  7. The electro fusion products should be with only a single heating coil to fully electrofuse the fitting to the adjoining pipe or pipe component as applicable. The heating coils shall be terminated at terminal pins of 4.0 or 4.7 mm diameter, protected with terminal shrouds. Each terminal shroud should be additionally protected with polyethylene shroud caps.
  8. No heating element shall be exposed and all coils are to be integral part of the body of the fitting. The insertion of the heating element in the fitting should be part of the injection moulding process and coils inserted after the injection moulding process or attached to the body of the fitting as a separate embedded pad etc. are strictly not acceptable.
  9. The pipe fixation shall be achieved by external clamping devices and integral fixation devices are not acceptable.
  10. The brand name, size, raw material grade, SDR rating and batch identification are to be embedded as part of the injection moulding process. Each fitting should also be supplied with a barcode sticker for fusion parameters attached to the body for setting the fusion parameters on an automatic fusion control box. The barcode sticker should also include the fusion and cooling time applicable for the fitting for the manual setting of a manual fusion control box.
  11. The fittings should be V-regulated type designed to fuse at a fusion voltage of 40 volts AC.
  12. The heating elements should be designed for fusion at any ambient temperatures between -5 to +40 degree centigrade at a constant fusion time i.e. without any compensation of fusion time for different ambient temperatures.
  13. A limited path style fusion indicator acting for each fusion zone as visual recognition of completed fusion cycle should be incorporated into the body of each fitting near the terminals. The fusion indicators should not allow the escape of the molten polymer through them during or after the fusion process.
  14. All the sockets in the electrofusion fittings should include a method of tapping controlling the pipe penetration (pipe positioner/stopper)

#### Flanged MDPE Pipe / Stub Ends

MDPE Stub ends shall be square ended with extra spigot length for Electro fusion coupler jointing, conforming to IS: 8008 Part I & VII Specifications. Stub ends will be welded on the pipe by Electro fusion jointing only. Flange will be of slip on flange type as described below.

### Slip-On Flanges

Slip-on flanges shall be metallic flanges covered by epoxy coating or plastic powder coating. Slip-on- flanges shall be conforming to standard mating relevant flange of valves, pipes etc. Nominal pressure rating of flanges will be PN10 and thickness as per relevant IS standard..

Jointing of MDPE Pipes shall be made by qualified/certified welders only.

All specials/ fittings such as Valves. Flange adopters, Cast Iron (CI)/Mild Steel (MS) specials, Galvanised Iron (GI) pipes and GI specials, Brass Tap etc., will be supplied by the Contractor. Contractor shall install these specials/fittings as per the standards specifications and as per the instructions of the Engineer in charge.

The MDPE pipes shall be laid in accordance with the latest IS 7634 Part- 1 and 2 and BS EN 12201- 3.

After laying and jointing of the MDPE pipes, after partial refill and before final refill a blue plastic sheet shall be laid at a depth of 0.6m above the crown of the pipe as per the standards and as per the instructions of the Engineer in charge.

GI (light duty)/concrete (Non Pressure) casing pipe shall be provided for MDPE pipe for the particular section line plus required bearing where the alignment of pipe line crossing major roads, natural/side/cross drains, as instructed by engineer in charge.

Layer of concrete of required grade shall be provided over the particular section the pipe line where contractor is not able to achieve the specified depth of excavation due to natural hard strata as instructed by engineer in charge.

Contractor has to submit detailed as built drawing of work done in latest Auto Cad version, showing the details of pipe line, specials/fittings, valves and joints in Six hard copies and one soft copy.

Minimum two working teams, one in slum area and other in out of slum area OR as per engineer in charge shall be deputed by the contractor for excavation, Laying & jointing, Testing.

### Technical Specifications For Electrofusion Tapping Saddle For House Service Connection

All the electro fusion fittings included in this document should be designed for use in water distribution systems and be manufactured/supplied by manufacturers having ISO 9001: 2000 certification for their quality systems. They should have supplied to government water boards for their water supply projects. The products should comply with the following specific requirements.

1. The products shall comply with the requirements of BS EN 12201-3: 2003, BS EN 1555-3 or ISO 8085-3.
2. All the fittings shall be of SDR 11 rating.
3. The EF Tapping Saddle used for drinking water applications should have undergone type test by WRc-NSF, U.K according to BS 6920 in any of their Certified Laboratories like WRc – NSF/DVGW/KIWA/SPGN and certificate of Compliance to be produced for the following parameters::

4.
  - a. Odour & Flavour of Water
  - b. Appearance of Water
  - c. Growth of Micro Organism
  - d. Extraction of substances that may be of concern to Public Health (Cytotoxicity)
  - e. Extraction of Metals
5. All the EF Tapping Saddle shall be manufactured by injection moulding using virgin compounded PE 80 (MDPE) polymer having a melt flow rate between 0.5 – 1.1 grams/10 minutes and shall be compatible for fusing on either PE 80 or PE 100 distribution mains manufactured according to the relevant national or international standards. The polymer used should comply with the requirements of BS 3412 and/or BS EN 12201-1.
6. The Electro fusion Tapping Saddle intended for water distribution applications shall be coloured blue for the clear identification of the services.
7. All the electro fusion Tapping Saddle should be individually packed so that they can be used instantaneously at site without additional cleaning process. The protective packing should be transparent to allow easy identification of the fittings without opening the bags..
8. The electro fusion Tapping saddle should be with only a single heating coil to fully electro fuse the fitting to the adjoining pipe or pipe component as applicable. The heating coils shall be terminated at terminal pins of 4.0 or 4.7 millimetre diameter, protected with terminal shrouds. Each terminal shroud should be additionally protected with polyethylene shroud caps.
9. No heating element shall be exposed and all coils are to be integral part of the body of the fitting. The insertion of the heating element in the fitting should be part of the injection moulding process and coils inserted after the injection moulding process or attached to the body of the fitting as a separate embedded pad etc. are strictly not acceptable.
10. The pipe fixation shall be achieved by external clamping devices and integral fixation devices are not acceptable.
11. The brand name, size, raw material grade, SDR rating and batch identification are to be embedded as part of the injection moulding process. Each fitting should also be supplied with a barcode sticker for fusion parameters attached to the body for setting the fusion parameters on an automatic fusion control box. The barcode sticker should also include the fusion and cooling time applicable for the fitting for the manual setting of a manual fusion control box.
12. The fittings should be V-regulated type designed to fuse at a fusion voltage of 40 volts AC.
13. The heating elements should be designed for fusion at any ambient temperatures between -5 to +40 degree centigrade at a constant fusion time i.e. without any compensation of fusion time for different ambient temperatures.
14. A limited path style fusion indicator acting for each fusion zone as visual recognition of completed fusion cycle should be incorporated into the body of each fitting near the terminals. The fusion indicators should not allow the escape of the molten polymer through them during or after the fusion process.
15. All the sockets in the electro fusion fittings should include a method of tapping controlling the pipe penetration (pipe positioner/stopper).
16. The Electro fusion Tapping saddle should be the top loading type which are to be clamped on the mains for fusion using the custom made top loading clamps exerting 1500N (150 kilograms approximately) top load. Saddles with

wrap around clamps made of polyethylene, nylon or any such other material will not be acceptable.

17. The tapping EF Tapping Saddle should be supplied with suitable adaptors for proper positioning of the top loading clamp into the saddle.

18. The torque required to operate the cutter after fusion on the PE mains should not exceed 45 N-m.

19. The common cutter provided by the manufacturer should be designed in such a way that the cut coupon is not allowed to fall into the pipeline and is retained inside the body of the cutter providing a positive sealing of the hole in the cutter head for pressure testing.

20. The EF tapping Saddle, will have female threaded outlet to connect Compression Metal insert Male thread adaptor fitting for further extension of connection.

21. The threaded outlet should be from sizes ½” to 2” BSP to suit the required House service connections.

22. The outlets should be reinforced with female threaded metal inserts of SS 304.

The tapping on the PE mains shall be achieved by a custom built metal cutter supplied by the manufacturer one each for the standard packing box

## **11 REMOVAL, RESTORATION AND MAINTENANCE OF PAVED FOOTPATHS, ETC, AFTER LAYING OF PIPE**

**11.1 Allowable Removal of Pavement** – Pavement and road surfaces may be removed as a part of the trench excavation , and the amount removed shall depend upon the width of trench specified for the installation of the pipe and the width and length of the pavement area required to be removed for the installation of gets valves, specials , manholes or other structures. The width of pavement removed along the normal trench for the installation of the pipe shall not exceed the width of the trench specified by more than 150 mm on each side of trench. The width and the lengths of the area of pavement removed from the installation of gate valves, specials, manholes or other structures should not exceed the maximum linear dimensions of such structures by more than 150 mm on each side, wherever, in the opinion of the authority, existing conditions make it necessary or advisable to remove additional pavement, it shall be removed as directed by the Engineer-in-charge.

### **11.2 Restoration of Damaged Surface and Property :**

Where any pavement, shrubbery, fences poles or other property and surface structures have been damaged, removed or disturbed during the course of work such property and surface structures shall be replaced or repaired after completion of work. All pavements, paved footpaths, curbing gutters, shrubbery fences, poles, sod or other property and surface structures removed or disturbed as a part of the work shall be restored to a condition equal to that before the work began, furnishing all labor and materials incidental there to, in restoring the pavement, sound stone blocks, sound bricks, Paver Block or asphalt paving blocks may be re-used. No permanent pavement shall be restored unless and until, in the opinion of the authority, the condition of the back fill is such as to properly support the pavement.

**11.3 Cleaning Up** – All surplus materials, and all tools and temporary structures shall be removed from the site as directed by the authority. All dirt, rubbish and excess earth from the excavation shall be halved to a dump and the construction site left clean to the satisfaction of the engineer-in-charge.



The rate shall be per running meter including loading, unloading & transportation of pipe from store to site

**SECTION - 6**  
**FORM OF BID**

## FORM OF BID

Description of the Works:

-----

-----

----- BID

To :

Address :

1. We offer to execute the Works described above and remedy any defects therein in conformity with the conditions of Contract, specification, drawings, Bill of Quantities and Addenda for the sum (s) of

-----

-----

(-----)

2. We undertake, if our Bid is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Engineer's notice to commence, and to complete the whole of the Works in the Contact within the time stated in the document.
3. We agree to abide by this Bid for the period of 120 Days from the date fixed for receiving the same, and it shall remain binding upon it and may be accepted at any time before the expiration of that period.
4. Unless and until a formal Agreement is prepared and executed this Bid, together with your written acceptance thereof, shall constitute a binding contract between us.
5. We understand that you are not bound to accept the lowest or any tender you may receive.

Dated this----- day of----- 20

Signature ----- in the capacity of -----

----- duly authorized to sign bids for and on behalf of -----

-----

-----

(in block capitals or typed)

Address

---

---

Witness

---

---

Address

---

---

Occupation

---

---

**SECTION - 7**  
**BILL OF QUANTITIES**

## **BILL OF QUANTITIES**

### **Preamble**

- 1.The bill of Quantities shall be read in conjunction with the Instructions to Bidder, Conditions of Contract, Technical Specifications and Drawings.
- 2.The quantities given in the Bill of Quantities 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 Engineer and valued at the rates and prices tendered in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix within the terms of the Contract.
- 3.The rates and prices tendered in the priced Bill of Quantities shall, except in so far as it is otherwise provided under the Contract, include all constructional plant, layout, supervision, materials, erection, maintenance, insurance, profit, taxes and duties, together with all general risks, liabilities and obligations set out or implied in the Contract.
- 4.The rates and prices shall be quoted entirely in Indian Currency.
- 5.A rate or prices shall be entered against each item in the Bill Quantities, whether quantities are stated or not. The cost of Items against which Contractor has failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities (in case of Item rate contract).
- 6.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.
- 7.General direction 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 rates or prices against each item in the Bill of Quantities.
- 8.The method of completed work of payment shall be in accordance with the specification for Road and Bridge works. For building works specifications for building are to be followed.
- 9.Errors will be corrected by the Employer for any arithmetic errors pursuant to
- 10.Clause 29 of the Instructions to Bidder.
- 11.Rock is defined as all materials which, in the opinion of the Engineer, required blasting, or the use of metal wedges and sledgehammers, or the use of compressed air drilling for its removal, and which cannot be extracted by ripping with a tractor of at lwest 150 kw with a single rear mounted heavy duty ripper.

### BILL OF QUANTITIES

Item No	Description of Item (with brief specification and reference to book of specifications)	Quantity	Unit	Rate In figures	Amount

I/We am/are willing to carry out the work at... ..... % above/below percent(Should be written in figures and words) of the estimated rate mentioned above. Amount of my /our tender works out as under.

Estimated amount put to tender

Estimated amount put to tender

Deduct.....% below

Add.....% Above

Net

Net

In words

In words

**SECTION - 8**  
**SECURITIES AND OTHER FORMS**



## **BID SECURITY (BANK GUARANTEE)**

WHEREAS, ----- (name of Bidder) (hereinafter called the "The Bidder") has submitted his bid Dated ----- (Date) for the construction of ----- (Name of Contractor hereinafter called "the Bid")

KNOW ALL PEOPLE by these presents that We----- (name of Bank) of ----- (name of country) having our registered office at ----- ( here in after called "the bank") are bound unto ----- (name of Employer) (here in after called "The Employer") in the sum of ----- \* for which payment well and truly to be made to the said Employer the Bank itself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this -----day of -----20

THE CONDITIONS of these obligations are:

(1) If after Bid opening the Bidder withdraws his bid during the period of Bid validity specified in the Form of Bid;

**Or**

(2) If the Bidder has been notified of the acceptance of his bid by the Employer during the period of Bid Validity:

- A Fails or refuses to execute the Form of Agreement in accordance with the Instructions to Bidders, if required; or
- B. Fails or refuse to furnish the Performance Security, in accordance with the Instructions to Bidders; or
- C. does not accept the correction of the Bid Price pursuant to Clause 27 (Correction of Errors)

We undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without the employer having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him is due to him owing to the occurrence of one or any of the three conditions, specifying the occurred conditions or conditions.

This Guarantee will remain in force up to and including the date ----- \*\* days after the deadline for submission of Bids as such the deadline is stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension (s) to the Bank is hereby waived. Any demand in respect of this guarantee should reach the Bank not later than the above date

DATE-----

SIGNATURE-----

WITNESS-----

SEAL-----

---

(Signature, name and address)

\* The Bidder should insert the amount of the guarantee in words and figures denominated in Indian Rupees. This figure should be the same as shown in Clause 16.1(Bid Security) of the Instructions to Bidders.

**\*\*45 days** after the **end of the validity period** of the Bid. Date should be inserted by the Employer before the Bidding documents are issued.

## PERFORMANCE SECURITY

TO,

----- (Name of Employer)

----- (Address of Employer)

-----

WHEREAS ----- (name and address of contractor) (hereafter called "the Contractor") has undertaken, in pursuance of Contracts No. -----  
----- dates ----- to execute-----  
----- (name of Contract and brief description of Works) (hereinafter called "The Contract")

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligation in accordance with the Contract.

AND WHEREAS we have agreed to give the Contractors such a bank Guarantee:

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you on behalf of the Contractor, upto a total of-----  
(amount of guarantee)\*----- (in words), such sum being payable in  
types and proportions of currencies in which the Contract prices is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of  
----- (amount of guarantee) as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the contractor before presenting is with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract to of the Works to be performed there under or of any of the Contract documents which may be made between your and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such charge, addition or modifications.

This guarantee shall be valid until 60 days from the date of expiring of the Defect Liabilities period.

Signature and Seal of the guarantor ----- Name of Bank -----

-----

Address -----

Date -----

\*An amount shall be inserted by the Guarantor, representing the percentage the Contract price specified in the Contract denominated in Indian Rupees.

## ADDITIONAL PERFORMANCE SECURITY

[Clause 34.1. (A)]

TO,

----- (Name of Employer)

----- (Address of Employer)

-----

WHEREAS ----- (Name and address of contractor) (hereafter called "The Contractor") has undertaken, in pursuance of Contracts No. ----- dates ----- to execute ----- (Name of Contract and brief description of Works) (hereinafter called "The Contract")

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligation in accordance with the Contract.

AND WHEREAS we have agreed to give the Contractors such a bank Guarantee:

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you on behalf of the Contractor, upto a total of ----- (amount of guarantee) ----- (in words), such sum being payable in types and proportions of currencies in which the Contract prices is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of ----- (amount of guarantee) as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the contractor before presenting is with the demand

We further agree that no change or addition to or other modification of the terms of the Contract to of the Works to be performed there under or of any of the Contract documents which may be made between your and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such charge, addition or modifications.

This guarantee shall be valid until **28 days** from the project completion date.

Signature and Seal of the guarantor ----- Name of Bank -----

---

Address -----

Date -----

## BANK GUARANTEE FOR ADVANCE PAYMENT

TO,

----- (Name of Employer)

----- (Address of Employer)

----- (Name of Contractor)

Gentlemen:

In accordance with the provisions of the Conditions of Contract, sub-clause 51.1 ("Advance Payment") of the above mentioned Contract, -----  
----- (name and address of Contractor) (hereinafter called "the Contractor") shall deposit with ----- (name of Employer) a bank guarantee his proper and faithful performance under the said Clause of the Contract in an amount of -----  
----- (amount of Guarantee)\*-  
----- in words).

We, the ----- (bank of financial institution), as instructed by the Contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to ----- (name of Employer) on his first demand without whatsoever right of obligation on our part and without his first claim to the Contractor, in the amount not exceeding ---  
----- (amount of guarantee)\* words)

We further agree that no change or addition to or other modifications of the terms of the Contractor or Works to be performed there under or of any of the Contract documents which may be made between -----  
----- (name of Employer) and the Contractor, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modifications.

This guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until ----- (name of employer) receives full repayment of the same amount from the contractor.

YOUR'S TRULY

Signature and Seal \_\_\_\_\_ Name of  
Bank/Financial Institution \_\_\_\_\_ Address \_  
Date \_\_\_\_\_

\_\_\_\_\_  
\* An amount shall be inserted by that Bank or Financial Institution representing the amount of the Advance Payment, and denominated in Indian Rupees.

## Letter of Acceptance

(Letter head paper of the Employer)

To, \_\_\_\_\_(date)  
\_\_\_\_\_(Name and address of the Contractor)  
\_\_\_\_\_  
\_\_\_\_\_

Dear Sirs,

This is to notify you that your Bid dated \_\_\_\_\_ for execution of the \_\_\_\_\_ (Name of the contract and identification number, as given in the Instructions to Bidders) for the Contract Price of Rupees \_\_\_\_\_ ( \_\_\_\_\_) (amount in words and figures) as corrected and modified \_\_\_\_\_ in accordance with the Instructions to Bidders\* is hereby accepted by our agency.

You are requested to furnish performance security, in the form detailed in para 34.1 of ITB for an amount equivalent to Rs. within **10 days** of the receipt of this letter of acceptance up to beyond **60 days** from the date of expiry of defects Liability period i.e. upto and the Additional Performance Security for an amount equivalent to Rs. shall be valid beyond 28 (twenty-eight) days of Project Completion Date i.e. upto and sign the contract, failing which action as stated in Para 34.3 of ITB will be taken.

Yours Faithfully

Authorized Signature Name  
and title of Signatory Name of  
Employer

---

\* Delete "Corrected and" or and modified if only one of these actions applies. Delete as corrected and modified in accordance with the Instructions to Bidders, if corrections or modifications have not been affected.

## Issue of Notice to proceed with the work

(Letterhead of the Employer)

----- (date)

To,

\_\_\_\_\_(Name and address of the Contractor)

\_\_\_\_\_

\_\_\_\_\_

Dear Sirs,

Pursuant to your furnishing the requisite security in ITB Clause 34.1 and signing of the Contract for the construction of \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ at a bid Price of Rs.

\_\_\_\_\_.

You are hereby instructed to proceed with the execution of the said works in accordance with the contract documents.

Yours faithfully

(Signature, name and title of signatory authorized To sign  
on behalf of Employer)

## AGREEMENT FORM

This agreement, made on the day of between \_ (name and address of Employer) (Hereinafter called "the Employer) and (name and address of contractor) hereinafter called "the Contractor" of the other part.

Whereas the Employer is desirous that the Contractor execute Name and identification number of contract (hereinafter called "the works") and the employer has accepted the Bid by the Contractor for the execution and completion of such works and the remedying of any defects therein, at a cost of Rs. \_\_\_\_\_

### NOW THIS AGREEMENT WITNESSETH AS FOLLOWS

1. In this Agreement, words and expression shall have the same meanings as are respectively assigned to them in the conditions of contract hereinafter referred to and they shall be deemed to form and be read construed as part of this Agreement.
2. In Consideration of the payment to be made by the Employer to the contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to executive and complete the works and remedy any defects therein in conformity in all aspects with the provisions of the contracts.
3. The employer hereby covenants to pay the Contractor in consideration of the execution and completion of the works and the remedying the defects wherein contract price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the contract.
4. The Following documents shall be deemed to form and be ready and construed as part of this Agreement viz
  - i ) letter of Acceptance
  - ii ) Notice to proceed with the works:
  - iii ) Cont ract or's Bid
  - iv ) Conditions of contract: General and Special
  - v ) Contract Data
  - vi) Additional conditions
  - vii ) Drawings
  - viii ) Bill of Quantities and
  - ix ) Any other documents listed in the Contract  
data as forming part of the Contract.

In witness whereof the parties there to have caused this Agreement to be executed the day and year first before written



The Common seal of \_\_\_\_\_

Was hereunto affixed in the presence of:

Signed, sealed and Delivered by the said \_\_\_\_\_

In the presence of

Binding signature of Employer \_\_\_\_\_

Binding Signature of Contractor \_\_\_\_\_

**UNDERTAKING  
(For Investment)**

I, the undersigned do hereby undertake that our firm M/s  
..... would invest a minimum  
cash up to **25%** of the value of the work during implementation of the contract.

\_\_\_\_\_  
(Signed by an Authorized officer of the firm)

\_\_\_\_\_  
Title of officer

\_\_\_\_\_  
Name of firm

\_\_\_\_\_  
DATE

**UNDERTAKING  
(For Validity)**

I, the undersigned do hereby under take that our firm M/s.....  
..... agree to abide by this bid for a period  
.....days for date fixed for receiving the same and it shall be binding on us and may be  
accepted at any time before the expiration of that period.

\_\_\_\_\_  
(Signed by an Authorized officer of the firm)

\_\_\_\_\_  
Title of officer

\_\_\_\_\_  
Name of firm

\_\_\_\_\_  
DATE

**SECTION - 9**  
**DRAWINGS**

**SECTION - 10**  
**DOCUMENTS TO BE FURNISHED BY BIDDER**

## ANNEXURE- 1



### વડોદરા મહાનગરપાલિકા

પી.એફ. / લેબર લાયસન્સ તથા વડોદરા મહાનગર પાલિકામાં  
રજીસ્ટ્રેશન કરાવવા અંગેનું બાહેધરી પત્ર

ઇજારદારનું નામ :

સરનામું :

રજીસ્ટ્રેશન વર્ગ :

ખાતાનું નામ :

કામનું નામ :

ટેન્ડરની રકમ :

આથી હું ઇજારદાર શ્રી ..... બાહેધરી આપું છું કે વડોદરા મહાનગરપાલિકામાં હું ઇજારદાર તરીકે કામ કરું છું/કરવા માંગુ છું. હાલ મને પી.એફ.એક્ટની જોગવાઈઓ અનુસાર પી.એફ.રજીસ્ટ્રેશનની જરૂર ન હોઈ હાલ મને લાગુ પડતું નથી. વડોદરા મહાનગર પાલિકા સાથેના મારા રજીસ્ટ્રેશનના સમયગાળા દરમિયાન અગર તે રજીસ્ટ્રેશન હેઠળ મેળવેલ ટેન્ડરની કામગીરી પૂર્ણ થવાના સમયગાળા દરમિયાન ઇ.પી.એફ. એક્ટમાં નમુના કરેલા રજીસ્ટ્રેશનની નિર્ણિત સંખ્યા કરતાં ઓછું માનવબળ રાખવાના છે. અને જો તે સંખ્યા વધશે તો ઇ.પી.એફ. કરાવી લેવામાં આવશે અને તેની નકલ વડોદરા મહાનગરપાલિકાને આપવામાં આવશે તેમ છતાં ઇ.પી.એફ.એક્ટ અન્વયેની કોઈપણ જવાબદારી ઉભી થશે તો તેની સંપૂર્ણ જવાબદારી અમારી રહેશે. તેની અમે બાહેધરી આપીએ છીએ.આ સાથે અમો કામ શરૂ કરતાં પહેલા લેબર લાઈસન્સ મેળવી લઈ રજુ કરીશું, ઉપરાંત વડોદરા મહાનગર પાલિકામાં યોગ્ય વર્ગમાં અને ક્લાસમાં રજીસ્ટ્રેશન ન ધરાવતાં હોય તો તે પણ કરાવી લઈશું.

ઇજારદારની સહી તથા સિક્કો

## ANNEXURE-2

Details of work to be submitted at the time of running bill by tenderer.

Tender Item No.	Description	Nos	Length in Mt.	Width in Mt.	Depth in Mt.	Quantity	Tender Rate	Approved Rate

This above works are completed as per tender conditions & tender specifications & checked by us , hence we are request to pay this bill as Running bill/ Final bill.

**Signature of**

**Tenderer: Date :**

The payment of bill shall be released after submission of Annexure-3 by the tenderer.

Inward No.

Date:

### ANNEXURE-3

**DETAILS OF THE WORKS OF SIMILAR TYPE AND MAGNITUDE CARRIED OUT BY THE TENDERER AS DEEMED FIT FOR QUALIFICATION CRITERIA AS PER CHAPTER 5 (II) (COMPLETION CERTIFICATES ARE TO BE ATTACHED)**

<b>Sr. No.</b>	<b>Name of Work</b>	<b>Place</b>	<b>Tendered Cost in Rs.</b>	<b>Time in which</b>	<b>Date</b>	<b>Principal</b>

- a) Sr.No. ...., ...., ..... = Three similar works cost in Rs. =
- b) Sr.No. ...., ..... = Two similar works cost in Rs. =
- c) Sr.No. .... = One similar works cost in Rs. =

**Signature of Tenderer:**

**Date**



**ANNEXURE-4**

**DETAILS OF WORKS ON HAND (ONGOING) WORKS TENDERED FOR AS ON THE DATE OF  
SUBMISSION OF TENDER (COPIES OF WORK ORDERS / PROOFS TO BE ATTACHED)**

Sr. No	Name of Work	Work Order Amount	Date of Work Order	Date of Completion	Percentage of Work		Reasons of Delay	Work Tender for			Remarks
					Physical	Financial		Estimated Cost in Rs.	Date when decision is expected	Stipulated date and period of completion	

**Signature of**

**Tenderer : Date :**

**ANNEXURE-5**

**DETAILS OF INDEPENDENT TECHNICAL STAFF WHO ARE PROPOSED FOR THIS CONTRACT**

<b>Sr. No.</b>	<b>Category</b>	<b>Name</b>	<b>Qualification</b>	<b>Professional experience and details of work carried out</b>	<b>Since how long in service tender</b>	<b>Remarks</b>

**Signature of**

**Tenderer : Date :**

**ANNEXURE-6**

**INFORMATION REGARDING FINANCIAL CAPACITY OF THE TENDERER**

Sr. No.	Details	Amount	Remarks
<del>1.</del>	<del>Solvency</del>		<del>Solvency Certificate from a RBI Approved Bank of an amount of 15% of the estimated cost put to the</del>
1.	Cumulative Annual Turnover for last Three years		Details of major contracts executed during these years shall be furnished Certificate from the Owner in support of successful bidders.
	First Financial Year 2024-25		
	Second Financial Year 2023-24		
	Third Financial Year 2022-23		

**Average Annual Financial Turn Over = Cumulative Annual turnover of last (3) three year**

—————  
3

= Rs.                      lakh

**Signature of**

**tenderer : Date :**

## ANNEXURE-7

### :: BID CAPACITY CALCULATION ::

**Assessed Available Bid Capacity = (A x N x 2.0 - B) Where :**

**A =** Max. value of annual turnover of Civil engineering works executed in any one year during the last three years (updated 2024-25 price level) taking into account.

Year	Rupees	Multiplying Factor
2023-24		x 1.1
2022-23		x 1.2
2021-22		x 1.33

**A =** Rs. \_\_\_\_\_

**N =** No. of years (i.e. 1.0 year) prescribed for completion of the works for which bids are invited (Twelve months).

**N =** Rs. \_\_\_\_\_

**B =** Value of 2024-25 price level of existing commitments and ongoing works to be completed during the next one year (Period of completion of works bids are invited) As Mentioned in Schedule - F.

**B =** Rs. \_\_\_\_\_

**So ; Our Bid Capacity = (A x N x 2.00 - B)**  
**= (..... x ..... x 2.0- .....)**  
**= Rs. \_\_\_\_\_**

We have checked this above information and we have got bidding capacity as mentioned above. We assure you, at any time if above information / calculation found misleading, VMC can take appropriate action.

**Signature of tenderer**

**: Date :**

**ANNEXURE-8**

**DETAILS OF THE EQUIPMENT IN POSSESSION OF THE CONTRACTOR AND THE EQUIPMENT HE PROPOSES TO BRING TO THE SITE.**

<b>Sr. No.</b>	<b>Type and Description of the Equipment &amp; Capacity</b>	<b>Age and Approx. Value</b>	<b>Numbers the Tenderer Possession</b>	<b>Numbers the proposes to bring on to site</b>

**Tenderer hereby confirms that the quantity and type of tools he will employ for construction will not be less than those listed above and agrees to bring more Equipment, if so warranted in the opinion of the Engineer.**

**Signature of  
Tenderer : Date ::**

**ANNEXURE-9**

**CONTRACTORS SCHEDULE FOR EXECUTION OF WORKS**

Sr.No	Activity	Schedule Date	
		Start	Completion
1	Mobilization at Site		
2	Percentage execution work to be completed		
2.1	10%		
2.2	20%		
2.3	30%		
2.4	40%		
2.5	50%		
2.6	60%		
2.7	70%		
2.8	80%		
2.9	90%		
2.10	100%		

Signature of  
Tenderer: Date:

## **ANNEXURE-10**

### **STRUCTURE AND ORGANISATION**

1. Name of Applicant
2. Nationality of Applicant
3. Office Address
4. Telegraphic Address
5. Telephone No.
6. Telex No.
7. Fax No.
8. Year and location of establishment
9. The Applicant is An individual / A proprietary firm / A firm in partnership / A limited company or Corp. (if a firm in partnership)
10. Attach the organization chart showing the structure of the organization including the names of the Directors and position of officers.
11. Number of years of experience As a Prime contractor  
(Contactor shouldering major responsibility) As sub-contactor (Specify main contractor)
12. For how many years has your organization Been in business of similar work under it's Present name? what were your fields when your organization was established?
13. Were you ever disqualified / considered Ineligible for similar works of box jacking during the past five years by the railway?
14. Whether any new fields were added to your organization? If so, give details.
15. Were you ever required to suspend Construction for period of more than six Months continuously after you started? If so, Give the name of project and reasons thereof.
16. Whether you ever left the work awarded to you incomplete?  
(if so, give name of project and reasons for not completing work?)
17. In how many of your projects penalties were imposed for delays? (Please give details)
18. In which field of civil engineering construction do you claim specialization and interest?
19. Give details of your experience in modern concrete technology for manufacture and quality control.
20. Give details of your soil and material testing laboratory, if any.
21. Give details of your plans for sub-contracting if any, in terms of percentage of works.

**Signature of Tenderer :**

**Date :**

**ANNEXURE-11**

**DETAILS OF SKILLED, UNSKILLED AND OTHER CATEGORIES OF PERSONNEL/WORKERS TO BE EMPLOYED FOR THIS CONTRACT**

**(QUARTERLY PROGRSS REPORT TO BE SUBMITTED BY THE CONTRACTOR)**

<b>Sr. No.</b>	<b>Description of Category</b>	<b>No.</b>	<b>Remarks</b>
<b>1</b>	<b>Skilled</b>		
<b>2</b>	<b>Unskilled</b>		
<b>3</b>	<b>Other Personnel/Workers</b>		

**Signature of**

**Tenderer : Date :**



## ***ANNEXURE-12***

### **LIQUIDATED DAMAGES**

1. The Contractor shall pay liquidated damages to the Employer at the rate per day stated in the Contract Data for each day that the Completion Date is later than the Intended Completion Date (for the whole works or the milestone as stated in the contract data). The total amount of liquidated damages shall not exceed the amount defined in the Contract Data. The Employer may deduct liquidated damages from payment due to the Contractor. Payment of liquidated damages does not affect the Contractor's liabilities.
2. If the contractor fails to comply with the time for completion as stipulated in the tender, then the contractor shall pay to the employer the relevant sum stated in the Contract Data as Liquidated damages for such default and not as penalty for everyday or part of day which shall elapse between relevant time for completion and the date stated in the taking over certificate of the whole of the works on the relevant section, subject to the limit stated in the contract data.
3. Maximum limit of liquidated damages for delay in completion of work shall be 10% of initial contract price rounded off to nearest thousand.

**Signature of the Contractor with seal**

**Date :**

## ***ANNEXURE-13***

### **WATER SUPPLY AND ELECTRICITY**

#### **1. WATER SUPPLY**

Contractor shall make his own arrangement for water supply at his own cost and the VMC shall pay nothing extra. This is applied to the water required for testing purpose also. The Contractor can, however, construct a tube-well or a pipeline at his convenience on nearby VMC land if available with prior approval of VMC. Contractor will be responsible for all costs of tube well, pumping, laying of necessary pipelines, installation of meter, storage, maintenance and ultimate removal of the same.

#### **2. ELECTRICITY**

Contractor will have to make all arrangements for obtaining power connection, the installation, operation, maintenance and subsequent removal of temporary supply of electricity. VMC shall issue only authorization letter to Contractor for obtaining power connection, and yet if power is not available in time, the work shall not be postponed and the Contractor shall have to arrange for diesel generator set(s) at his own cost.

**Signature of Tenderer :**

**Date :**

## ANNEXURE-16

### DECLARATION FORM for Tender Work

I/We hereby declare that I/We have visited the site **Annual Rate Contract for Laying of CI/DI Pipe line, Construction of Valve Chamber, Tube Well and Hand pump in North zone for the year 2025-26** and have fully acquainted myself/ourselves with the local situation regarding water level, soil strata, materials, labour and other factors pertaining to the work before submitting this tender.

1. I/We hereby declare that I/We have carefully studied the conditions of contract, specifications and other tender documents of this work and agreed to execute the same accordingly.
- 3) (a) I/We certify that I/WE am /are partner(s) not blacklisted or connected with firm blacklisted in State, Semi Govt, Municipal Corporation, or any government undertaking institute or any autonomous corporate bodies.  
(b) We, The partners of this firm hereby give an undertaking that we are jointly and severally responsible to meet all liabilities over and above the business of this firm and make good any the above financial loss sustained by the Vadodara Municipal corporation, Vadodara as a result of our abandoning the work or works, entrusted to us i.e. this firm I/We hereby undertake and submit in the bid along with supporting documents, are true which are correct and valid throughout the contract period
- 4) I/We hereby agree to abide by and full fill the terms and provisions of conditions of contract annexed here to so far as applicable and in default thereof to forfeit the earnest money mentioned in the said condition.

(1) Receipt No. \_ \_ \_ \_ \_ dated \_ \_ \_ \_ \_ from the \_ \_ \_ \_ \_

(2) Signature of Contractor (Before Submission of tender) \_ \_ \_ \_ \_

(3) Name of the Tenderer: \_ \_ \_ \_ \_ (4)

Address \_ \_ \_ \_ \_

(5) Dated the \_ \_ \_ \_ \_ day of \_ \_ \_ \_ \_ 20 .

(6) (Witness) \_ \_ \_ \_ \_

(7) (Address) \_ \_ \_ \_ \_

(8) (Occupation) \_ \_ \_ \_ \_

Date : Signature with seal of the company

**Signature of the Contractor with Seal**

**Date :**

***ANNEXURE-17***

AFFIDAVIT On (300 Rs Stamp paper)

To,

The Executive Engineer (WATER WORKS PROJECT  
Dept.) Vadodara Municipal Corporation  
Khanderao Market Bldg., Rajmahal  
Road Vadodara.

Sub.: Name of Work : -----

The work as mentioned in the above subject has been awarded to us from VMC. We have completed above work for which payment is due against final bill. The department has recorded final bill which is acceptable to us and we confirm & guarantee that we will not raise any claim for above project regarding balance payment & any kind of additional payment in future.

**Signature of the  
Contractor with Seal Date**  
:

Acceptance of Bank Guarantee as  
Security Deposit and Earnest  
Money Deposit.

**Government of Gujarat**

**Finance Department**

GR. No.: FD/MSM/e-file/4/2023/4020/D.M.O.

Date: 11/03/2024

Read: FD GR. No.: FD/MSM/e-file/4/2023/0057/D.M.O. Dt. 21/04/2023

**Preamble:**

Tendering authorities of the State Government and its Boards/Corporations/PSUs frequently take Bank Guarantee from the bidders towards Security Deposit and Earnest Money Deposit. The State Government had issued the list of eligible banks vide above mentioned resolutions of this department dated 21/04/2023.

After careful consideration, the Government has decided to approve the list of Banks whose Bank Guarantees would be accepted for the purpose mentioned above. It has now been decided to resolve as follows:

**Resolution:**

Government Departments and State Government Boards/Corporations/PSUs would accept Bank Guarantee (towards Security Deposit and Earnest Money Deposit) issued by any of the banks included in the **Annexure I**, attached to this Resolution.

The tendering authority will be required to ascertain the authenticity of the Bank Guarantee and set up necessary internal control procedures.

By order and in the name of the Governor of Gujarat.



Deputy Secretary (Budget)

Finance Department

To,

The Secretary to His Excellency Governor of Gujarat, Raj Bhavan, Gandhinagar

Principal Secretary to Hon. Chief Minister

PS to Hon. Finance Minister

PS to all Hon. Ministers, State Ministers and Deputy Ministers

PS to Chief Secretary

PS to Principal Secretary, Finance Department

PS to Secretary (EA), Finance Department

PS to Secretary (Expenditure), Finance Department

PS to Additional Secretary (B), Finance Department

All Administrative Departments, Sachivalaya, Gandhinagar

System Manager, Finance Department for put up on GSWAN website

Select File DMO-Finance Department

## Annexure I.

Finance Department, GR. No.: FD/MSM/e-file/4/2023/4020/D.M.O.

Date: 11/03/2024

(A) Guarantees issued by the following banks will be accepted as SD/EMD on permanent basis:

### ❖ All Nationalized Banks

(B) Guarantees issued by the following Banks will be accepted as SD/EMD for the period up to March 31, 2025. The validity cut-off date in the GR is with respect to the date of issue of Bank Guarantee irrespective of the date of termination of Bank Guarantee.

Sr No	Name of Banks	Sr No	Name of Banks
1	AXIS Bank	19	Kotak Mahindra Bank
2	AU Small Finance Bank	20	South Indian Bank
3	Bandhan Bank	21	Tamilnadu Mercantile Bank
4	City Union Bank	22	Utkarsh Small Finance Bank
5	CSB Bank	23	Ahmedabad Mercantile CO-op. Bank
6	DBS Bank India Limited	24	Nutan Nagrik Sahkari Bank Ltd.
7	DCB Bank	25	Rajkot Nagarik Sahakari Bank Ltd.
8	Equitas Small Finance Bank	26	Saraswat Co-Operative Bank Ltd
9	FEDERAL Bank	27	SVC Co-Operative Bank Ltd.
10	HDFC Bank	28	The Cosmos Co-op Bank Ltd.
11	HSBC Bank	29	The Gujarat State Co-operative Bank
12	ICICI Bank	30	The Mehsana Urban Co-Op. Bank
13	IDBI Bank	31	The Surat District Co-op Bank
14	IDFC First Bank	32	The Surat People's Co. Op. Bank Ltd
15	IndusInd Bank	33	The Kalupur Commercial Co-op. Bank
16	Jana Small Finance Bank	34	Baroda Gujarat Gramin Bank
17	Karnataka Bank	35	Saurashtra Gramin Bank
18	Karur Vysya Bank		

All the eligible banks are instructed to collect the original documents/papers of guarantee from the concerned tendering authority.

  
(Bhavya Verma)

Deputy Secretary (Budget)

Finance Department

-----XXXXX-----



**Vendor list for Pipe Line work**

Valves	Kirloskar / IVC / IVI / VAG / AVK Valves / Jupiter/ Sigma Flow(Upto 300mm) / Kartar Valves (Upto 300mm)/ Hawa Engineer Ltd.
M S Plate	ESSAR / Tata / Jindal /SAIL / Zenith /Asian/ Samshi/ Welspun
Steel Reinforcement	TISCO / SAIL / Tata / Electro therm / Hytuff / National
Structural Steel	Sail / Tata iron steel Co. Ltd / Jindal / Essar Steel Ltd / Ispat Ltd / Electrotherm.
OPC Cement	Ultratech / ACC / JK Laxmi / Ambuja / Binani / Siddhi / Kamal/ Coramandel / Birla Super
DI pipes	Electro steel, Jindal, Electrotherm, Welspun
DI Fittings	Electrosteel / Eletrotherm / Kejriwal / Kiswok / Jindal / Truform, Chandranchal/ Welspun
RMC	Ultratech/ JK Lakshmi/ Nuvoco/ Raj
CI Pipe	Electro steel / Kejriwal/ Truform
Flowmeter	E+H/Siemens/ABB/Krohne Marshall/Yokogawa/Emerson

## **FORM : 3 (A)**

Outward No.

### **(WORK - WISE DETAILS OF WORK COMPLETED OR IN PROGRESS BY THE CONTRACTOR.)**

1. Name of Contractor
2. Name of work
3. Estimated cost of work put to tender
4. Tender Amount
5. Date of starting the work
6. Date of completion of the work.  
(As per contract agreement).
7. Actual date of completion
8. Amount of work done up to final bill      RS.

Signature of contractor

9. Are the details given by the contractor as above correct. If not what are the correct information
10. Had the contractor executed the work in progress/completed the work satisfactory as per specification. If not give the correct situation of the work.
11. Any other remarks.
12. Major Qty. Executed under this contract
  - (i) Earth Work in Excavation
  - (ii) Concrete work
  - (iii) DI/CI & M.S. pipe line work
  - (iv) Brick Masonry & concrete for P.House, T.S.room compoundwall etc.