



**RAJKOT MUNICIPAL CORPORATION**

**RAJKOT**

**Re Tender (2<sup>nd</sup> Attempt)**

**Name of Work :**

05 Years Comprehensive Operation and Maintenance of REAL TIME BULK WATER AUDIT SYSTEM.

**TENDER NOTICE NO.: RMC/WW/2019-20/**

<b>Milestone Dates</b>	
Downloading of e-Tender documents	10/ 02 /2020 to 02/ 03/2020 up to 1800 hours
Last date of Online Submission of Technical Bid & Price Bid	02 / 03 /2020 up to 1800 Hours
Date of submission of physical document <b>EMD, Tender fee, and other documents.</b>	05 / 03 /2020 up to 1800 Hours
Online Opening of the Technical Bid and verification of physical documents - <b>EMD, Tender fee and bank Account Number/GST/PAN.</b>	06 / 03 /2020 (if possible)
Opening of On-line price bid	11/03/2020 (if possible)
Bid Validity	180 Days
For further particulars, visit us on <a href="http://www.rmc.nprocure.com">www.rmc.nprocure.com</a>	

**Note : Bidders are requested to submit their queries on e-mail: [hmkhakar@rmc.gov.in](mailto:hmkhakar@rmc.gov.in), [cbmori@rmc.gov.in](mailto:cbmori@rmc.gov.in),**

**VOLUME – I**

**CONTRACT CONDITIONS & TECHNICAL SPECIFICATIONS**

**Add. City Engineer,  
Rajkot Municipal Corporation,  
Water Works, Central Zone, Room No.06  
Dhaberbhai Road,  
Rajkot – 360 001**

# RAJKOT MUNICIPAL CORPORATION

E-TENDER NO.RMC/W W/19-20



## BID DOCUMENTS FOR

**Comprehensive operation and Maintenance of real time bulk water audit system for Rajkot Municipal corporation for five years.**

**Total Volumes: \_\_\_\_\_ + \_\_\_\_\_ Nos.**

**Name of Bidder**

**M/s. \_\_\_\_\_**

—

**Receipt No.of e-Tender processing fee paid :**

**No: \_\_\_\_\_**

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

**e-Tender Fee :Rs. 3,000/-**

# FORMS OF PROPOSALS AND APPENDICES

## INTRODUCTION:

The present supply of water to Rajkot city is around 280 MLD. Rajkot is drawing water from various sources and treated water is being supplied to the city through numbers of head work .present time Rajkot municipal corporation has installed and running successfully bulk water audit system phase 1,2 and 3. Each phase of real time bulk water audit system should be interface with existing system and existing server and newly constructed Integrated Command control center (ICCC) situated at 150 ft ring road ,Nana mava circle ,Rajkot -5.

The scope of work involves five years comprehensive operation and Maintenance of Phase 1 and 2 bulk water audit system based on flow meters, Ultrasonic level sensor and Residual chlorine measurement system.

Above work include connecting data of full bore type electromagnetic flow meter ,ultrasonic level sensor and chlorine sensor installed at every head works., filter plant mentioned in this tender with central server system by VHF radio link at control room and also these data should be link up with existing RMC web site as per our requirement and these data should be transmitted via SMS & to android and IOS smart phones by using GSM/GPRS technology.

The approved make of the flow meters,Residual chlorine sensor and Ultrasonic water level sensor, Data logger and accessories will be as under.

Sr No	Product	Vendor(s)
1	Flow meters, Ultrasonic level sensors, chlorine measurement system	Siemens, ABB, krohne Marshal, E+H, General Electrical
2	Instrumentation cables	Any ISO 9001-2008 co.
3	Data-logger/RTU& Indicator	E+H, Nivam, Nishko, Massibus, Mechatonics, Electronet
4	Enclosure, Battery & Mains battery charger	Any ISO 9001 -2008 co
5	Computers, printers etc	IBM, Dell, HP, SAMSUNG, Lenovo
6	7 inch screen LCD, display unit	Arohi, Mechatronics, Samsung

**RAJKOT MUNICIPAL CORPORATION**  
**INVITATION FOR BIDS Re Tender (2<sup>nd</sup> Attempt)**

E-TENDER NO.RMC/W W/2019-20

The Rajkot Municipal corporation invites e- tenders from bidders having experience in government or semi government organization for comprehensive operation and maintenance of real time bulk water audit system for Rajkot Municipal corporation for five years having web and VHF data transmission features.

1. Bidders may obtain further information and acquire the bidding documents by visiting [www.rmc.nprocure.com](http://www.rmc.nprocure.com) as per the milestone dates given below:

Sr.no	Name of work	a) Estimated cost in rs. b) EMD c) E-tender fee d) Comprehensive operation and Maintenance period
1.	Comprehensive operation and maintenance of real time bulk water audit system for Rajkot Municipal corporation for five years.	a) 92,42,100.00 b) 2,77,500.00 c) 3,000.00 d) 60 months

**Milestone dates for e-tendering is as under**

1. Downloading of e-Tender documents	Dt. 10-02-2020 to 02-03-2020 upto 18 : 00 hrs.
3. Online submission of e – Tender (tech. bid )	02-03-2020
4. Physical submission of EMD, e-Tender fee and other documents.	05/03/2020 up to 18:00 hrs.
5. Verification of submitted documents (EMD, e - Tender fee, etc.)	06-03-2020
6. Opening of online tender (tech.bid)	06-03-2020 (if possible)
7. Opening of Price Bid	11-03-2020 (if possible)
9. Bid Validity	180 days.
For further details, pre-qualification criteria etc. visit <a href="http://www.nprocure.com">www.nprocure.com</a>	

2. A complete set of bidding documents may be downloaded by interested bidders from [www.rmc.nprocure.com](http://www.rmc.nprocure.com)
3. Two-bid procedure will be adopted. Bidders are to submit online details simultaneously; one containing the technical proposal and one containing the price proposal. Initially only the technical proposals will be opened. Technical proposals which are submitted by non-qualified bidders or which are not substantially responsive will be rejected.
4. The physical submission must be accompanied by a bid security of Rs 2,77,500/- as well as amount of Rs. 3000/- in terms of e-Tender Fee (non-refundable) only in form of Demand draft in favor of Municipal Commissioner, Rajkot Municipal Corporation, Rajkot, from only nationalized bank in India. The bid security and e-tender fee as well as all other required documents must be included with the physical submission on address below:

**Add. city Engineer(w.w.),  
room no :6  
Dr.Ambedkar Bhavan, Dhebar Road  
RAJKOT MUNICIPAL CORPORATION  
RAJKOT-360001 (GUJARAT)**

5. Bidders shall have to post their queries if any on e-mail address [hmkhakar@rmc.gov.in](mailto:hmkhakar@rmc.gov.in) or [cbmori@rmc.gov.in](mailto:cbmori@rmc.gov.in)
6. The estimated cost of the work is Rs. 92,42,100/- whereas time limit is 5 Years Annual Maintenance Contract.
7. **The pre-qualification requirement is as under:**  
**Evaluation Criteria:**
  - i) **Financial Criteria:**
    - An average annual turnover of last seven financial years should not be less than 50% of tender amount.
    - Working capital should not be less than 25 % of estimated cost. A Bank certificate to be submitted only of Nationalize Bank.
  - ii) **Experience Criteria:**
    - The bidder should have an experience of satisfactory completion of work of similar nature & magnitude in last seven years as main contractor in govt. or semi govt..
    - One work of similar nature of 50 % of estimated cost. Or
    - Two works of similar nature of 40 % of estimated cost.
    - Experience of work of similar nature undergoing by the bidder shall be considered.
    - The bidder should have facilities of repair as per requirement anywhere in Gujarat.
    - The bidder should have required nos. of expertise and subordinate staff.
    - Any experience of domestic OR tap water meter will not be considered.
  - iii) **Availability of tools,plant & Manpower :**
    - The agency should have adequate number of tools, plant along with required experienced staff for carrying out this

work ( Details of staff & tools with agency must be submitted in tech bid physically duly certified )

- Joint work is not permitted for this work.

iv ) **Certified copy of Registration certificates/documents as followed must Be physically ( or scanned certified copy to be electronic form ) submit with authorized sign & stamp on each page of tech.bid documents.**

1. The chartered accountant's audited financial reports of last seven years supporting financial strength of the bidder.
2. Solvency certificate of minimum 12 lacs of current financial year from any nationalize bank.
3. Experience certificates regarding this work issued by competent authority ( 3A form or completion certificate )
4. Power of attorney authorizing the person for signing the tender and attending pre bid meetings and give any clarification asked by department.
5. The agency should not be blacklisted, debarred or terminated in any state , central government and autonomous body for which agency will have to submit fresh notarized affidavit
6. Enhance factor at 10% per year for last seven years will be applicable to arrive annual turnover and finalize the magnitude of work done in last seven years.
7. All required documents submitted for verification should be duly certified by Gazatted officer or self attested
8. GST registration no., PAN no, PF & ESIC must be submitted..

Note : SIMILAR JOB means bidder has carried out the job of comprehensive operation and maintenance of real time bulk water audit system with data communication and application software with GSM/VHF/UHF/GPRS based ,web based information system.

8. The online technical proposals will be opened on the same day (if possible) i.e. dt. 06-03-2020 in the presence of bidders' representatives who choose to attend.
9. The online price proposals will be opened in the presence of the bidder's representatives who choose to attend at the time and date and at *the* address to be advised by the Employer after approval of the evaluation of the technical proposals.
10. Bidder who fails to submit the required documents physically, their offer will be treated as non-responsive.
11. Commissioner, Rajkot Municipal Corporation, Rajkot, reserves the right to accept / reject any or all e-Tender(s) without assigning any reasons thereof.

**Add. City Engineer  
Water Works  
Rajkot Municipal Corporation**

## Forms of Technical Proposal

**Name of Contract:** COMPREHENSIVE OPERATION AND MAINTENANCE OF REAL TIME BULK WATER AUDIT SYSTEM FOR RAJKOT MUNICIPAL CORPORATION FOR FIVE YEARS.

*To :* Add.city Engineer,  
Water Works,  
Rajkot Municipal Corporation,  
Dr. Ambedkar Bhavan,  
Dhebarbhai Road,  
Rajkot - 360 001

Gentlemen:

We have examined the Conditions of Contract, Schedules, Addenda Nos \_\_\_\_\_ and the matters set out in the Appendix hereto. We have understood and checked these documents and have not found any errors in them. We accordingly offer to design, execute commission and to maintain for the three years the said Works and remedy any defects, fit for purpose inconformity with these documents and the enclosed Proposal.

We further undertake, if invited to do so by you, and at our own cost, to attend a clarification meeting at a place of your choice, for the purpose of reviewing our Technical Proposal and duly noting all amendments and additions thereto, and noting omissions there from that you may require, and to submit a supplementary price proposal if the amendments, additions and omissions that you require would alter our price proposal as submitted with our bid.

We are, Gentlemen

Yours faithfully

Signature \_\_\_\_\_ in the capacity of  
\_\_\_\_\_ duly authorized to  
sign bids for and on behalf of

Address

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**DATASHEET**

## CONTENTS

		<u>Particulars</u>	<u>Page</u> <u>No.</u>
1.0	Schedule - I	: Deviation from Technical Specifications <b>(deleted)</b>	
2.0	Schedule – II	: Deviations from Conditions of Contract <b>(deleted)</b>	
3.0	Schedule – III	: Work Schedule	
4.0	Schedule – IV	: Methodology	
5.0	Schedule – V	: Sub-Contractors	
6.0	Schedule – VI	: List of Recommended Spare Parts	
7.0	Schedule – VII	: List of Maintenance Tools and Tackles	
8.0	Schedule – VIII	: Estimated Contract Payments <b>(deleted)</b>	
9.0	Schedule – IX	: List of Construction Equipment & Plant <b>(deleted)</b>	
10.0	Schedule – X	: Not Applicable <b>(deleted)</b>	
11.0	Schedule – XI	: Not Applicable <b>(deleted)</b>	
12.0	Schedule – XII	: Project Execution Plan	
13.0	Schedule – XIII	: Mechanical <b>(deleted)</b>	
14.0	Schedule – XIV	: Electrical <b>(deleted)</b>	
15.0	Schedule – XV	: Power Requirement <b>(deleted)</b>	
16.0	Schedule – XVI	: Contractor's Functional Guarantees <b>(deleted)</b>	

**SCHEDULE - III**

**WORK SCHEDULE**

The Bidder shall submit the following along with the bid in sufficient details to enable evaluation of their grasp of the work and ability to execute it within the Time of Completion.

**1.0 Work Schedule**

1.1 This shall consist of a detailed bar chart showing in sufficient details completion of various sections of Work and the date and order in which the Bidder proposed to carry out different parts of the Works. The bar chart shall indicate the principal quantities of work forecast for execution monthly and payments expected to be made in connection therewith. In preparation of the program appropriate allowance should be made for loss of time due to inclement weather. This construction schedule shall form the basis for preparation of detailed CPM schedule to be furnished after the award of the Contract.

The Bidder shall keep above in view while preparing his Work Schedule.

**2.0 Employment Schedule**

This shall consist of a chart showing deployment of monthly manpower (including skilled and unskilled labor of various categories) commensurate with the Construction Schedule.

**3.0 Equipment Use Schedule**

This shall consist of a chart showing monthly deployment of equipment (under various categories) commensurate with the Construction Schedule.

-----  
SIGNATURE  
-----  
NAME  
-----  
DESIGNATION  
-----  
COMPANY  
-----  
DATE

COMPANY SEAL

**SCHEDULE -IV**

**METHODOLOGY**

(The bidder shall submit a Method Statement indicating the Method of Execution for the following).

- 1) Methodology of Comprehensive Operation & Maintenance of water meter.

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SIGNATURE

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NAME

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DESIGNATION

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COMPANY

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DATE

COMPANY SEAL

**SCHEDULE -V**  
**SECTION 7**  
**SUB CONTRACTORS**

The bidder shall enter in this Schedule, a list of the sections and appropriate value of the work for which he proposes to use subcontractors, together with the names and addresses of the proposed subcontractors. The bidder shall also enter a statement of similar works previously executed by the proposed subcontractors, including description, location and value of work, year completed, and name and address of the Employer/Engineer. Notwithstanding such information the bidder, if awarded the Contract, shall remain entirely and solely responsible for the satisfactory completion of the Works.

Element of Work	Approximate Value	Name & Address of Subcontractor	Statement of Similar works Previously Executed by the Sub Contractor	Location & Value of similar Works executed	Name of the Employer	Year completed

-----  
SIGNATURE  
-----  
NAME  
-----

DESIGNATION

-----

COMPANY

-----

DATE

COMPANY SEAL

**SCHEDULE - VI**

**LIST OF RECOMMENDED SPARE PARTS**

The Bidder shall give below a list of spare parts recommended for five years trouble - free performance of the Equipment offered by him.

SI. No.	Equipment No.	Manufacturer & Part No.	Delivery Period (weeks) from date of LOI	Description	Material	Qty. Set per unit eqpt.	Qty. Recommended	Remarks
1	2	3	4	5	6	7	8	9

-----  
SIGNATURE

-----  
NAME

DESIGNATION

COMPANY

-----  
DATE

COMPANY SEAL

- \* All unused spare parts shall become Employer's property at the end of Operation and Maintenance period.
- \*\* Prices of all above items are deemed to be considered in lump sum prices and no separate payment shall be made.
- \*\*\* Any additional spare parts required for O & M but not covered in the above list shall be supplied by the Contractor free of cost to the Employer.



**SCHEDULE-VII**

**LIST OF MAINTENANCE TOOLS AND TACKLES**

The Bidder shall give below the list of special maintenance tools and tackles offer by him and included in the prices quoted by him.

SL. NO.	PARTICULARS	NUMBERS

-----  
SIGNATURE

-----  
NAME

-----  
DESIGNATION

-----  
COMPANY

-----  
DATE

COMPANY SEAL

- In case any additional tools & tackles is required by the Contractor for O & M but not included in the above will be supplied by the Contractor free of cost to the Employer.
- The Contractor shall hand over all the maintenance tools & tackles in good condition to the Employer at the time of handing over the works on expiry of O & M Contract.

## **SCHEDULE XII**

### **PROJECT EXECUTION PLAN (PEP)**

The Bidder is required to furnish Project Execution Plan (PEP) in the following format. A brief but clear PEP is required for describing planning and programming of the works.

- a) Project Strategy: Outline statement of the organization and methods to be employed by the applicant to undertake the work.
- b) Organization Chart: Preliminary Organization Chart indicating relationship between the site management and the head branch office, the on site direct works operations, the sub-contractors, suppliers and the supervising Consulting Engineer.
- c) Responsibility of Key Personnel: Identify key personnel with management responsibilities by activity or section of work.
- d) Quality Management System: Provide a description of the Quality Assurance / Quality Control System: organization and procedures in use and identify the accreditation authority.
- e) Project Safety Plan: Provide a statement outlining the Health and Safety Plan operated by the company.
- f) Contractor shall indicate any permanently established groups within the organization which would provide specific functions in the execution of the contract.
- g) Program/Bar Chart showing major activities.

**Signature**  
**Name**  
**Designation**  
**Company**  
**Date**

## FORM OF CONTRACT AGREEMENT

### AGREEMENT

THIS AGREEMENT made the \_\_\_ day of \_\_\_\_\_ 20\_\_\_\_  
 between \_\_\_\_\_  
 of \_\_\_\_\_  
 \_\_\_\_\_(hereinafter called "the Employer") of the one part  
 and \_\_\_\_\_ of \_\_\_\_\_ (hereinafter  
 called "the Contractor" of the other part.

WHEREAS the Employer is desirous that certain Works should be executed by  
 the Contractor, viz., \_\_\_\_\_  
 and has accepted a Bid by the Contractor for the execution and completion of  
 such Works and the remedying of any defects therein at a cost of  
 Rs. \_\_\_\_\_ And  
 \_\_\_\_\_.

NOW THIS AGREEMENT WITNESSETH as follows:

In this Agreement, words and expressions shall have the same meanings  
 as are respectively assigned to them in the Conditions of Contract  
 hereinafter referred to.

The following documents shall be deemed to form and be read and  
 construed as part of this Agreement, viz: a) The Contract Agreement;

- b) The Letter of Acceptance;
- c) The Employer's Requirements;
- d) The Bid;
- e) The Instructions To The Bidder
- f) The General Conditions of Contract
- g) The Specifications;
- h) The Bid Drawings;
- i) The Schedules; and
- j) The Contractor's Proposal

In consideration of the payments to be made by the Employer to the  
 Contractor as hereinafter mentioned, the Contractor hereby covenants  
 with the Employer to execute and complete the Works and remedy any

defects therein in conformity in all respects with the provisions of the Contract.

The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Work and the remedying of defects therein the 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.

IN WITNESS whereof the parties hereto 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:

\_\_\_\_\_ or \_\_\_\_\_

Signed, sealed, and delivered by the said \_\_\_\_\_ in the presence of:

\_\_\_\_\_

Binding Signature of Employer

\_\_\_\_\_

**Binding Signature of Contractor**

\_\_\_\_\_

**TENDER DECLARATION FORM**

To

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Project: \_\_\_\_\_

\_\_\_\_\_

Reference: \_\_\_\_\_

\_\_\_\_\_

Dear Sir,

a) I/We the undersigned have carefully gone through and clearly understood the e-Tender documents comprising Notice Inviting e-Tenders, Articles of Agreement, Scope of work, Definition of terms, Instructions to e-Tenderer, Conditions of Contract, Special Conditions of Contract, Appendixes, Specifications, Schedule of Quantities and Tendered Drawings furnished by RAJKOT MUNICIPAL CORPORATION, RAJKOT. I/We have satisfied myself/ourselves as to the location of site, examined drawings.

I/We do hereby offer to execute and complete the whole of the work within the time specified all in accordance with the specifications, designs, drawings and instructions in writing referred to in the said documents and with such materials as are provided for, at the respective rates which I/we have quoted in the Schedule - A (PRICE BID) or at such other rates as may be fixed under the provisions of these conditions.

In the event of this e-tender being accepted I/we agree to enter into an agreement as and when required and execute the contract, according to your Form of Agreement or in default where of I/we bind myself/ourselves to forfeit the 'Earnest Money Deposit'.

a) I/We understand that if I/We shall not enter in agreement within ten days or decided by RMC from the date of receipt of letter of acceptance, you will forfeit the Earnest Money paid by me/us and take necessary action as deemed fit.

I/We have enclosed a DRAFT as an "Earnest Money Deposit", for the sum of Rs. 2,77,500 /- the full value of which is to be absolutely forfeited to the Employer should I/We fail to commence the works specified. Otherwise the Employer shall retain the said sum, as on account of such 'Security Deposit' as provided for in the aforesaid documents.

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

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

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

I/We am/are bound to execute the job if the work order is issued within 150 days from the date of opening of the e-tender.

I/We agree to pay the Government Income-Tax, GST, Sales Tax (Central and State) Sales tax on Construction, Octroi duties and other taxes prevailing from time to time on such items on which the same are leviable and the rates quoted by me/us are inclusive of the same.

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

Yours faithfully,

\_\_\_\_\_

- a) Signature of Contractor
- b) Address:

### **CHECKLIST**

1. Tenders to be submitted in '**ORIGINAL**'.
2. Tenderers to note last date and time of submission of e-Tender. Tender should make submission of required documents physically within the stipulated date and time. Late physical will not be accepted.
3. Tender Security Bond for Earnest Money Deposit shall be submitted as per Article IT - 07 (Earnest Money Deposit).
4. Variation to specifications, if any, is clearly mentioned giving reference of Page No. Etc.
5. All information as demanded shall be supplied fully - Insufficient details will make the tender liable to be rejected.
6. Information regarding Capability etc. as per clause No. IT - 12 (General Performance Data) shall have to be submitted.
7. The tender shall be filled completely in every respect.
8. This office Circular bearing No.RMC/C/329 dated 22-12-2012 and Order No.RMC/C/132 dated 10-06-2013 are uploaded separately as a part of tender document. The Contractors quoting their rates shall have to read, implement, and submit the same duly signed along with the documents to be submitted during physical submission.

# INSTRUCTIONS TO TENDERER



## **INSTRUCTIONS TO TENDERER**

### **IT - 1. GENERAL**

The contract documents may be secured in accordance with the Notice Inviting Tender for the work called. The work shall include supply of materials necessary for construction of the work.

### **IT - 2. INVITATION TO TENDER**

The RMC hereinafter referred so as the RMC will receive tenders for the work of as per the specifications and schedule of prices in the etender document. The e-tenders shall be opened in the office of the RMC in the presence of tenderers or their representatives who are present. RMC reserves the right to reject the lowest or any other or all tenders or part of it which in the opinion of the RMC does not appear to be in its best interest, and the tenderer shall have no cause of action or claim against the RMC or its officers, employees, successors or assignees for rejection of his tender.

### **IT - 3. LANGUAGE OF e-TENDER**

E-Tenders shall be submitted in English, and all information in the etender shall also be in English, Information in any other language shall be accompanied by its translation in English. Failure to comply with this may make the e-tender liable to rejection.

### **IT - 4. QUALIFICATIONS OF TENDERERS**

#### **i) Financial Criteria:**

- An average annual turnover of last seven financial years should not be less than 50% of tender amount.
- Working capital should not be less than 25 % of estimated cost. A Bank certificate to be submitted only of Nationalise Bank.

#### **ii) Experience Criteria:**

- The bidder should have an experience of satisfactory completion of work of similar nature & magnitude in last seven years as main contractor in govt. or semi govt..
- One work of similar nature of 60 % of estimated cost. Or
- Two works of similar nature of 40 % of estimated cost. Or
- Three works of similar nature of 30 % of estimated cost.
- Experience of work of similar nature undergoing by the bidder shall be considered.
- The bidder should have facilities of repair as per requirement any where in Gujarat.
- The bidder should have required nos. of expertise and subordinate staff.
- Any experience of domestic OR tap water meter will not be considered.

iii ) **Availability of tools,plant & Manpower :**

- The agency should have adequate number of tools, plant along with required experienced staff for carrying out this work ( Details of staff & tools with agency must be submitted in tech bid physically duly certified )
- Joint work is not permitted for this work.

iv ) **Certified copy of Registration certificates/documents as followed must Be physically ( or scanned certified copy to be electronic form ) submit with authorized sign & stamp on each page of tech.bid documents.**

9. The chartered accountant's audited financial reports of last seven years supporting financial strength of the bidder.
10. Solvency certificate of minimum 12 lacs of current financial year from any nationalize bank.
11. Experience certificates regarding this work issued by competent authority ( 3A form or completion certificate )
12. Power of attorney authorizing the person for signing the tender and attending pre bid meetings and give any clarification asked by department.
13. The agency should not be blacklisted,debarred or terminated in any state ,central government and autonomus body for which agency will have to submit fresh notorized affidavit
14. Enhance factor at 10% per year for last seven years will be applicable to arrive annual turnover and finalise the magnitude of work done in last seven years.
15. All required documents submitted for verification should be duly certified by Gazatted officer or self attested
16. GST registration no.must be submitted..

Note : SIMILAR JOB means bidder has carried out the job of comprehensive operation and maintenance of real time bulk water audit system with data communication and application software with GSM/VHF/UHF/GPRS based ,web based information system.

A. Enhancement factor will be applicable as per Tender Protocol.

B. Tenderer shall submit only one e-tender for the work put to e-tender under this contract.

C. The tenderer shall furnish a written statement with details as to the following along with his e-tender.

- i. **The tenderer's experience in the fields relevant to this contract.**
- ii. **The tenderer's financial capacity/resources and standing over at least 7 (SEVEN) years.**
- iii. **The tenderer's present commitments (Jobs on hand).**
- iv. **The tenderer's capability and qualifications of himself and his regular staff etc.**

- v. **Plants and Machinery available with the tenderer for the work tendered.**

**The owner or the Engineer-in-Charge is not obliged to disclose his findings or his assessment.**

- D. In order to enable RMC to decide about the eligibility of the tenderer for the Pre-qualification considering the data furnished by him in the Technical Bid, the matter will be examined by a Technical Committee, appointed by RMC which may apart from examining the records and data as furnished may also inspect the works executed and completed by the tenderer. The tenderer shall make all arrangements for such inspection and shall furnish any information, data or record as may be required and asked for by the Technical Committee failing which the tenderer may not be considered eligible for Pre-qualification.

#### **IT - 5. e-TENDER DOCUMENTS**

Printed documents and set of drawings shall comprehensively be referred to as e-Tender document. The several sections form in the document are the essential parts of the contract and a requirement occurring in one shall be as binding as though occurring in all, they are to be taken as mutually, explanatory and describe and provide for complete works.

#### **IT - 6. EXAMINATION BY TENDERERS**

- A. At his own expense and prior to submitting his e-tender, each tenderer shall (a) examine the Contract Documents, (b) visit the site and determine local conditions which may affect the work including the prevailing wages and other pertinent cost factors, (c) familiarize himself with all central, state govt. and local laws, ordinance, rules regulations and codes affecting the material supply including the cost of permits and licenses required for the work and (d) correlate his observations, investigations, and determinations with the requirements of the eTender Documents, site & subsoil investigation.
- B. The e-tender quantity is fixed as per schedule enclosed herewith. During execution any increase or decrease in quantity- it will be paid as per the Tender Clause.
- C. The following comprises in Contract Documents.

## Volume-I

### Pre-qualification Documents

#### **PART-I**

1. Notice inviting Tenderers
2. Information to the Tenderer
3. Tender Declaration Form
4. Check List
5. Instructions to Tenderer
6. General Conditions of Contract
7. Appendixes & Statements
8. Detailed Technical Specifications

#### **PART-II**

1. Preamble  
Price Schedule

### **IT - 7. EARNEST MONEY DEPOSIT AND TENDER FEE.**

- A.** Each e-tender must be accompanied by a receipt of deposit as e-tender guarantee in the form of Earnest Money as detailed below in the form of crossed Demand Draft of any Nationalized Bank to be encased at Rajkot Branch acceptable to owner drawn in favor of the RMC. Any e-tender not accompanied by a e-tender guarantee in the form of earnest money deposited for the sum stipulated in the etender Document will be summarily rejected. Amount of E.M.D. is **Rs 2,77,500/-** .
- B.** The Earnest Money Deposit will be refunded to the unsuccessful tenderers after the award has been finalized.
- C.** The Earnest Money Deposit (e-Tender Guarantee) will be forfeited in the event, the successful tenderer fails to accept the contract and fails to submit the "Performance Guarantee Bonds" to the Owner as stipulated in these e-tender documents within ten days. (10) Days after receipt of notice of award of contract.
- D.** The Earnest Money Deposit of the successful tenderer shall be converted into Security Deposit amount after acceptance of the e-tender.
- E.** No interest shall be paid by the owner on any e-Tender Guarantee.
- F.** Tender fee will not be refundable.
- G.**

### **IT - 8. INCOME TAX CLEARANCE CERTIFICATE ( Deleted )**

**IT - 9. PREPARATION OF e-TENDER DOCUMENTS**

Tenderers are required to note the following while preparing the eTender Documents:

- A. e-Tender shall be submitted on the e-Tender Form bound here in English. All appendixes and statements shall be properly filled in. Numbers shall be stated both in words and in figures where so indicated, and the signature of all persons signing shall be in long hand.
- B. Each e-tender shall be accompanied by the prescribed e-tender security bond and other required documents and drawings. All witnesses and sureties shall be persons of status and probity and their full names, occupations and addresses shall be stated below their signature.
- C. Variation to the contract Documents requested by the tenderer may be affixed and duly signed and stamped. Such variations may be refused by the authority is not obliged to give reason for his decisions.
- D. Submission of e-tenders shall comply with the notice inviting e-tenders as to place, date and time. e-Tenders and tender security (E.M.D.) shall be enclose with the e-tender documents and shall be put in a sealed envelope.

**IT - 10. SUBMISSION OF e-TENDER DOCUMENTS**

- a) Tenderers are requested to submit the e-Tender Documents on following lines.
- b) Volume containing following documents:

**Volume-I**

- i. e-Tender Security Bond (Earnest Money Deposit and tender fee)
- ii. Tender's financial capability and standing over at least past seven years.
- iii. Tenderer's experience in the field relevant to this contract.
- iv. Tenderer's present commitment.
- v. The technical ability and qualifications of the tenderer, his regular staff and any sub vendor their in.
- vi. A list of the equipment the tenderer possesses and that which he proposed to acquire and use for the purpose related to the work.

**Volume-II - Price Bid**

- a) The e-tender must contain the name address and residence and place of business of the person or persons submitting the tender and must be signed and sealed by the tenderer with his usual signature.
- b) E-Tenders by Partnership Firm must be furnished with the full names and addresses of all partners and be signed by one of the members of the Partnership or by a legally authorized representative holding Power of Attorney followed by signature and designation of the person of person signing.
- c) The President/or by the Secretary or other person or persons legally authorized to bind the Corporation/Company in the matter must sign tenders by Corporations / Companies with the legal name of the Corporation / Companies.

**IT - 11. e-TENDER VALIDITY PERIOD**

The validity period of the e-tender submitted for this work shall be of one hundred Eighty (180) calendar days from the date of opening of the tender and that the tenderer shall not be allowed to withdraw or modify the tender offer on his own during the validity period. The tenderer will not be allowed too withdrawn the tender or make any modifications or additions in the terms and conditions on his own tender. If this is done then the owner shall without prejudice to any other right or remedy, be at liberty to reject the e-tender and forfeit the earnest money deposit in full.

**IT - 12. GENERAL PERFORMANCE DATA**

Tenderers shall present all the information, which sought for in the tender document in form of various schedules. Tenders may not be considered if every 'Blank' and the schedules are not properly filled in before submission of the tender.

**IT - 13. SIGNING OF e-TENDER DOCUMENTS**

If an individual makes the tender it shall be signed with his full name above his current address. If a proprietary firm makes the tender it shall be signed by the proprietor above his name and the name of his firm with his current address.

- a) If the e-tender is made by a firm in partnership, it shall be signed by all the partners of the firm above their full names and current address, or by a partner holding the Power of Attorney for the firm, in which case a certified copy of the Power of Attorney shall accompany the Tender. A certified copy of the

Partnership Deed, current addresses of all the partners of the firm shall also accompany the e-tender.

- b) If a limited company or a Limited Corporation makes the e-tender, a duly authorized person holding the Power of Attorney shall sign it, shall accompany the e-tender. Such Limited Company or Corporation may be required to furnish satisfactory evidence of its existence before the contract is awarded.
- c) If the e-Tender is made by a group of firms, the sponsoring firm shall submit complete information pertaining to each firm in the group and state along with the bid as to which of the firms shall have the responsibility for tendering and for completion of the contract documents and furnish evidence admissible in law in respect of the authority to such firm on behalf of the group of firms for e-tendering and for completion of contract documents. The full information and satisfactory evidence pertaining to the participation of each member of the group of firms in the e-e-tender shall be furnished along with the e-Tender.
- d) All witnesses and sureties shall be persons of status and proxy and their full names, occupations and addresses shall be stated below their signatures. All signatures in the e-tender document shall be dated.

#### **IT - 14. WITHDRAWAL OF TENDERS**

If, during the e-Tender validity period, the Tenderer withdraws his tender, the e-Tender Security (Earnest Money) shall be forfeited.

#### **IT - 15. INTERPRETATIONS OF TENDER DOCUMENTS**

Tenderers shall carefully examine the Tender Document and fully inform themselves as to all the conditions and matters, which may in any way affect the work or the cost thereof. Should tenderer find discrepancies, or omission from the specifications or other documents or should be in doubt as to their meaning, he should at once address query to the Add.cityEngineer (RMC). Any resulting interpretation of the Tender will be issued to all Tenderers as addendum.

#### **IT - 16. ERRORS AND DISCREPANCIES IN TENDERS**

In case of conflict between the figures and words in the rates the rate expressed in words shall prevail and apply in such cases.

#### **IT - 17. MODIFICATION OF DOCUMENTS**

Modification of specifications and extension of the closing date of the tender, if required will be made by an addendum and same will be uploaded as well as copies of each addendum will be sent to all tenderers. These shall be signed and shall form a part of tender. The tenderer shall not add to or amend the text of any of the documents except in so far as may be necessary to comply with any addendum.

## ADDENDA

Addenda form part of the Contract Documents, and full consideration shall be given to all Addenda in the preparation of tender. Tenderers shall verify the number of Addenda issued, if any and acknowledge the receipt of all Addenda in the Tender Failure to so acknowledge may cause the tender to be rejected.

- A. The Owner of the incharge may issue Addenda to advise Tenderers of changed requirements.

Such addenda may modify previously issued Addenda.

- B. No addendum may be issued after the time stated in the notice inviting tenders.

## IT - 18. TAX AND DUTIES ON MATERIALS

All charge on account of Octroi, GST , Custom, Excise Duties, terminal tax, sales tax and other duties etc. on materials obtained for the works from any source shall be borne by the contractors. No (P) or 'C' or 'D' form shall be supplied.

## IT - 19. EVALUATION OF TENDERS

In comparing tenders the RMC shall consider such factors as the time of completion, efficiency and reliability of construction method proposed, compliance with the specifications, relative quality, the operation, maintenance and replacement cost of structure and plant Evaluation criteria specifically mentioned in the specification will also be taken into consideration in the evaluation of tenders.

## IT - 20. TIME REQUIRED FOR COMPLETION

The Time period of the comprehensive operation and maintenance work under this contract/Tender is the 5 years from the date of confirm work order. However Rajkot Municipal Corporation may Terminate the contract without assigning any reason with prior notice of 30 days.

## IT - 21. POLICY FOR TENDER UNDER CONSIDERATION

Tender shall be termed to be under consideration from the opening of the tender until such time any official announcement or award is made.

While tenders are under consideration, tenderers and their representative or other interested parties are advised to refrain from contacting by any means any corporation's personnel or representatives on matters related to the tenders under study. The



RMC representatives if necessary will obtain clarification on tenders by requesting such information from any or all the tenderers, either in writing or through personal contact, as may be necessary. The tenderer will not be permitted to change the substance of his tender after tenders have been opened. This includes any post tender price revision. Noncompliance with his provision shall make the tender liable for rejection.

#### **IT - 22. PRICES AND PAYMENTS**

The tenderer must understand clearly that the prices quoted are for the total works or the part of the total works quoted for an include all costs due to materials labor, equipment, supervision, other services, royalties, octroi, GST, taxes etc. and to include all extra to cover the cost. No claim for additional payment beyond the prices quoted will be entertained and the tenderer will not be entitled subsequently to make any claim on any ground.

#### **IT - 23. PAYMENT TERMS**

The terms of payment are defined in the General Conditions of Contract. The RMC shall not under any circumstances relax these terms of payment and will not consider any alternative payment terms. Tenderers should therefore in their own interest note this provision to avoid rejection of their tenders.

#### **IT - 24. AWARD**

- A. After all contract contingencies are satisfied and the Notice of Award is issued, the successful Tenderer shall execute the Contract Agreement within the time stated in the Notice inviting Tenders and shall furnish the Bond as required herein. The contract Agreement shall be executed, in form stipulated by the Owner.
- B. If the Tenderer receiving the Notice of Award fails or refuses to execute the Contract Agreement within the stated time limit of fails or refuses to furnish the Bond as required herein. The Owner may annul his award and declares the tender security forfeited and will take action as deemed fit.
- C. A Corporation, Partnership Firm or other consortium acting as the Tenderer and receiving the award shall furnish evidence of its existence and evidence that the officer signing the Contract Agreement and Bonds for the Corporation, Partnership Firm or other consortium acting as the Tenderer is duly authorized to do so.

**IT - 25. SIGNING OF CONTRACT**

The successful tenderer shall be required to execute the contract agreement within 10 day of receipt of intimation to execute the contract, failing which the RMC will be entitled to annul the award and forfeit the Earnest Money Deposit. The person to sign the contract document shall be person as detailed in Article IT. 13 (signing of tender documents).

**IT - 26. DISQUALIFICATION**

A tender shall be disqualified and will not be taken for consideration if,

- a. The tender Security Deposit is not deposited in full and in the manner as specified (as per Article IT. 7 i.e. Earnest Money Deposit and tender fee).
  - b. The tender is in a language other than English or does not contain its English Translation in case of other language adopted for tender preparation.
  - d. The tender documents are not signed by an authorized person (as per Article IT.13 i.e. signing of tender documents).
  - e. The general performance data for qualification is not submitted fully (as per Article IT 12 i.e. General Performance Data).
  - f. Tender does not agree to payment terms defined (as per Article IT. 23 i.e. payment terms).
- A. A tender may further be disqualified if,
- a. Price variation is proposed by the Tenderer on any principle other than those provided in the Tender Documents.
  - b. Completion schedule offered is not consistent with the completion schedule defined and specified in tender document.
  - c. The validity of tender is less than that mentioned in Article IT. 11 i.e. tender validity period.
  - d. Any of the page or pages of tender is / are removed or replaced.
  - e. All corrections or posted slips are not initiated by tenderer.
  - f. Any erasure is made in the tender.
  - g. Any condition which affect the cost.

**IT - 27. PERFORMANCE GUARANTEE (SECURITY DEPOSIT)**

As a contract security the tenderer to whom the award is made shall furnish a performance guarantee (Security Deposit) for the amount of 5.0% of the contract price to guarantee the faithful performance, completion and maintenance of the works of the contract in accordance with all conditions and terms specified herein and to the satisfaction of the Engineer-in-charge and ensuring the discharge of all obligations arising from the execution of contract in one of the forms mentioned below:

- a. A fixed deposit receipt of only Nationalize bank or Government securities duly endorsed in favor of the RMC.
- b. Bank Guarantee of any Nationalized Bank which could be encased at Rajkot Branch. Revalidate period of guarantee shall not be less than five year. The Bank Guarantee shall be unconditional and irrevocable.
  - a) The performance guarantee shall be delivered to the RMC within ten (10) days of the notice of award and at least three (3) days before the contract agreement is signed unless otherwise specified by the Engineer-in-charge.
  - b) On due performance and completion of the contract in all respects, the performance guarantee will be returned to the contractor without any interest after the defect liability period is over.

**IT - 28. STAMP DUTY**

The successful tenderer shall have to enter into an agreement on a non-judicial stamp paper as per prevailing norms as per the form of the agreement approved by the RMC. The cost of stamp paper and adhesive stamp shall be born by the contractor. The stamp duty is according to prevailing norms of Gujarat state.

**IT - 29. BRAND NAMES**

Specific reference in the specifications to any material by manufacturer's name, or catalogue shall be constructed as establishing a standard or quality and performance and not as limiting competition and the tenderer in such cases, may at his option freely use only other product, provided that it ensures an equal of higher quality than the standard mentioned and meets RMC approval.

**IT - 30. NON TRANSFERABLE**

Tender documents are not transferable.

**IT - 31. COST OF TENDERING**

The owner will not defray expense incurred by tenderers in tendering.

**IT - 32. EFFECT OF TENDER**

The tender for the work shall remain for a period of 180 calendar days from the date of opening of the tenders for this work and that the tenderer shall not be allowed to withdraw or modify the offer in his own during the period. If any tenderer withdraws or makes any modification or additions in the terms and conditions of his own tender, then the RMC shall, without prejudice to any other right or remedy, be at liberty to reject the tender and forfeit the earnest money in full.

**IT - 33. CHANGE IN QUANTITY**

The RMC reserves the right to vary the quantities of items or group as specified in the scheduled of prices as may be necessary.

**IT - 34. NEW EQUIPMENT AND MATERIAL**

All materials, equipment and spare parts thereof shall be new, unused and originally coming from manufacturer's plant to the corporation. The rebuilt or overhauled equipment/materials will not be allowed to be used on works.

**IT - 35. RIGHTS RESERVED**

The owner reserves the right to reject any or all tenders, to waive any informality or irregularity in any tender without assigning any reason.

The owner further reserves the right to withhold issue of work order even after agreement and no additional payment will be made to the successful tenderer on account of such withholding. The owner is not obliged to give reasons for any such action.

**IT - 36. RIGHT OF OWNER**

RMC reserves right to reduce the scope of work & award the tender to two or more agencies without assigning any reason even after the awards of contract.

**IT - 37. MOBILIZATION ADVANCE**

No mobilization advance will be given.

**IT - 38. CONDITIONAL TENDER**

- (a) The scope of work is clearly mentioned in the tender documents. The contractor shall have to carry out the work in accordance with the

details specifications. No condition will be accepted. The conditional tender will liable to be rejected.

- (b) **The tenderer, if he so wishes based upon his experience to propose any variation or modification in the type of construction, materials and / or specifications etc., he may furnish his proposals in full details IN THE TECHNICAL BID ONLY, stating each of the variation or modification proposed, details of his proposal over the provisions in the tender including the cost aspects. The tenderer shall however ensure that his proposals will not result into any change in the General requirement of tender. The Technical Committee of RMC will consider and examine such proposals, and if required may also inspect the works executed with such alternative proposals and convey the decision in the matter before opening of the Financial Bid.**

**It is compulsory to quote the prices for main offer without which alternate offer will not be considered.**

**IT 39 1% CESS & REGISTRATION: For the welfare of labour working under construction Industry, the agency shall have to take the registration with competent authority as per current Circular of Government of Gujarat. Rajkot Municipal Corporation will deduct 1% Cess of the value of work and will deposit the same in Government.**

D.E.E.(ELE) D.E.E.(ELE) D.E.E.(ELE) D.E.E.(MECH) D.E.E.(MECH) D.E.E.(MECH) D.E.E. (MECH) D.E.E. (MECH)  
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Add. City Engineer(W.W.)

## GENERAL CONDITIONS OF CONTRACT

## **6: GENERAL CONDITIONS OF CONTRACT**

### **GC-01 DEFINITION AND INTERPRETATION**

1. In the contract (as here in after defined) the following words and expressions shall, unless repugnant to the subject or context there of, have the following meanings assigned to them.

The **“Owner /Corporation/Employer”** shall mean **Rajkot Municipal Corporation** and shall include its Municipal Commissioner or other Officer authorized by the Corporation and also include owner’s successors and assignees.

The **“Contractor”** shall mean the person or the persons, firm or company who’s tender has been accepted by the owner and includes the contractor’s legal

1.3 The **“Engineer-In-Charge”** shall mean the person designated as such by the owner from time to time and shall include those who are expressly authorized by the Municipal Commissioner to act for and on its behalf for all functions pertaining to the operation of this contract.

1.5 **“Engineer-In-Charge’s Representative”** shall mean any resident Engineer or Assistance to the Engineer-in-Charge appointed from time to time by the owner to perform duties set forth in the Tender document whose authority shall be notified in writing to the contract by the Engineer-In-Charge.

**“Tender”**, the offer or proposal of the Tenderer submitted in the prescribed form setting forth the prices for the work to be performed, and the details thereof.

**“Contract Price”** shall mean total money payable to the contractor under contract document.

**“Addenda”** shall mean the written or graphic notices issued prior to submission of tender which modify or interpret the contract document.

**“Contract Time”** - The time specified for the completion of work.

**“Contract”** shall mean agreement between the parties for the execution of works including therein all contract documents.

**“Contract Document”** shall mean collectively the tender documents, designs, drawings, specifications, agreed variations, if any and such other documents constituting the tender and acceptance thereof.

**“The Sub-Contractor”** shall mean any person, firm or company (other than the Contractor) to whom any part of the work has been entrusted by the Contractor with the written consent of the Engineer-in-charge and the legal representative successors and permitted assignee of such person, firm or company.

The **“Specifications”** shall mean all directions, the various technical specifications, provisions and requirements attached to the contract which pertain to the method and manner of performing the work, to

the quantities and qualities of the work and the materials to be furnished under the contract for the work and any order(s) or instruction(s) there under. It shall also mean the latest Indian Standard Institute Specification relative to the particular work or part thereof, so far as they are not contrary to the Tender specifications and in absence of any other country applied in Indian as a matter of standard Engineering practice and approved in writing by the Engineer-in-Charge with or without modification.

The **"Drawings"** shall include maps, plans, tracings, or prints thereof with any modification approved in writing by the consultants, Engineer-in-Charge and such other drawings as may, from time to time, be furnished or approved in writing by consultants, Engineer-in-Charge in connection with the work.

The **"Work"** shall mean the works to be executed in accordance with the contract or the part thereof as the case may be and shall include extra, additional, altered or substituted works as required for the purpose of the contract. It shall mean the totality of the work by expression or implication envisaged in the contract and shall include all materials, equipment and labor required for or relative or incidental to or in connection with the commencement, performance and completion of any work and / or incorporation in the work.

The **"Permanent Work"** shall mean works which will be incorporated in and form part of the work to be handed over to the owner by the contractor on completion of the contract.

The **"Temporary Work"** shall mean all temporary works of every kind required in or about the execution, completion and maintenance of the work.

**"Site"** shall mean the land and other places, on, under, in or through which the permanent works are to be carried out and any other lands or places provided by the Corporation for the purpose of the contract together with any other places designated in the contract as forming part of the site.

**"The Construction Equipment"** shall mean all appliances I equipment of whatever nature required in or for execution, completion or maintenance of works or temporary works (as here in be fore defined) but does not include materials or other things intended to form or forming part of the permanent work.

**"Notice in writing or written Notice"** shall mean a notice written, typed or in printed form delivered personally or sent by Registered post to the last known private or business address or Registered Office of the Contractor and shall be deemed to have been received in the ordinary course of post it would have been delivered.

The **"Alteration / variation order"** shall mean an order given in writing by the Engineer-in-charge to effect additions or deletions from or alterations in the work.



**"Final Test Certificate"** shall mean the final test certificate issued by the owner within the provisions of the contract.

The **"Completion Certificate"** shall mean the certificate to be issued by the Engineer-in-Charge consultant (when the work has been completed and tested to his satisfaction).

The **"Final Certificate"** shall mean the final certificate issued by the Engineer-in-Charge after the period of defects liability is over and the work is finally accepted by the owner.

**"Defects Liability Period"** shall mean the specified period between the issue of completion certificate and the issue of final certificate during which the contractor is responsible for rectifying all defects that may appear in the works.

**"Approved"** shall mean approved in writing including subsequent confirmation in writing of previous verbal approval and **"Approval"** means approved in writing including as aforesaid.

**"Letter of Acceptance"** shall mean intimation by a letter to tenderer that his tender has been accepted in accordance with the provisions contained therein.

**"Order"** and **"Instruction"** shall respectively mean any written order or instruction given by the Engineer-in-charge within the scope of his powers in terms of the contract.

**"Running Account Bill"** shall mean a bill for the payment of "On Account" money to the contractor during the progress of work on the basis of work done and the supply of non-perishable materials to be incorporated in the work.

**"Security Deposit"** shall mean the deposit to be held by the owner as security for the due performance of the contractual obligations.

**"The Appointing Authority"** for the purpose of Arbitration shall be the Municipal Commissioner, Rajkot Municipal Corporation.

**"Retention Money"** shall mean the money retained from R.A. Bills for the due completion of the "LET WORK".

Unless otherwise specifically stated, the masculine gender shall include the feminine and neuter genders and vice-versa and the singular shall include the plural vice-e-versa.

## GC.02 LOCATION OF SITE AND ACCESSIBILITY

Non-availability of access roads shall in no case be the cause to condone delay in the ion of the work or be the cause for any claim or extra compensation. The work is to be carried out at mentioned below:

Sr.No.	Location
01	At various Water Works head works and sources of Rajkot Municipal Corporation. Rajkot.

**GC.03 SCOPE OF WORK**

The scope of work is defined broadly in the special conditions of contract and specifications. The Contractor shall provide all necessary materials, equipment and labor etc. for the execution and maintenance of the work till completion. All material go with the work shall be approved by the Engineer-in-charge prior to procurement and use.

**POWER SUPPLY**

The Contractor shall make his own arrangement for Power Supply.

**LAND FOR CONTRACTOR'S FIELD OFFICE, GODOWN, ETC.**

Owner will not be in a position to provide land required for Contractor's field office, godown, etc. The Contractor shall have to make his own arrangement for the same.

**GC.04 RULLING LANGUAGE**

The language according to which the contract shall be construed and interpreted shall be English. All entries in the contract documents and all correspondence between the contractor and the corporation or the Engineer-in-charge shall be in English. All ions for the materials shall be given in metric units only.

**GC.05 INTERPRETATION OF CONTRACT DOCUMENTS**

The provision of the General Conditions of Contract and special conditions of contract shall prevail over those of any other documents of the contract unless specifically provided otherwise, should have there be any discrepancy, inconsistency, error or omission in the several documents forming the contract, the matter may be referred to the Engineer-in-charge for his instructions and decision. The Engineer-in-Charge's decision in such case shall be final and binding to the contractor.

Works shown upon the drawings but not described in the specifications or described in the specifications without showing on the drawings shall be taken as described in the specification and shown on the drawings. The headings and the marginal notes to the clause of these General Conditions of contract or to the specifications or to any other part of tender documents are solely for the purpose of giving a concise indication and not a summary of contents thereof. They shall never be deemed to be part thereof or be used in the interpretation or construction of the contract.

Unless otherwise states specifically, in this contract documents the singular shall include the plural and vice versa wherever the context so requires. Works imparting persons shall include relevant corporations/body of individual/firm of partnership.

Notwithstanding the subdivision of the documents into separate sections and volumes every part of each shall be supplementary to and complementary of other part and shall be read with and into the context so far as it may be cable to do so.

Where any portion of the General Conditions of Contract is repugnant to or at variance with any provisions of the special conditions of contract, then, unless different intention appears, the provisions of the special conditions of contract be deemed to override the provisions of General Condition of Contract to extent of each repugnancy of variance.

The materials, design, and workmanship shall satisfy the relevant ISS, and codes referred to. If additional requirements are shown in the specifications, the same shall be satisfied over and above ISS and other codes.

If the specifications mention that the contractor shall perform certain work or certain facilities, it shall mean that the contractor shall do so at his own cost

### **CONTRACTOR TO ACERTAIN HIS OWN INFORMATIONS**

The details given in the tender are arranged making necessary investigations for framing an estimate. However, when the work is being executed, changes in soil conditions are likely to be met with in view of the formation of soil, strata in Rajkot District. It is, therefore, desirable that the contractor makes his own investigations or additional investigations as may be required for correctly assessing the cost of different items of work and submit his tender accordingly. Any change in description or quantity of an item shall not vitiate the contract or release the contractor from executing the work comprised in the contract according to the drawings and specification at the tendered rates.

He is deemed to have known the scope, nature and magnitude of the work and the requirements of materials and labor involved and as to whatever work he has to complete in accordance with the contract. The Contractor is expected to visit the site and surroundings to satisfy himself as to the nature of all existing structures, if any, and also as to the nature and the conditions of railways, roads, bridges and culverts, means of transport and communications whether by land, air or water and as to possible interruptions thereto and the access and gross from the site, to have examined and satisfied himself as to the sites for obtaining sand, stones, bricks and other materials, the site for disposal of surplus materials, the available accommodation and make such enquiries as may be necessary for executing and completing the work, to have local enquiries as to the sub-soil, subsoil water and variation thereof, storms, prevailing winds, climatic conditions and all other similar matters, effecting work. He is expected to be familiar with his liability for payment of Government taxes, customs and excise duty, octroi and other charges etc. in contract with the execution of this contract. The Government shall give a certificate for this in the Appendix - III.

### **GC.06 CONTRACTOR TO UNDERSTAND HIMSELF FULLY**

The contractor by tendering shall be deemed to have satisfied himself, as to all considerations and circumstances affecting the tender price, as to the

possibility of executing the works as shown and described in the contract and to have fixed his according to his own view on these matters and to have understood that no additional allowances except as otherwise expressly provided, will afterwards be beyond the contract price. The contractor shall be responsible for any misunderstanding or incorrect information, however, obtained.

#### **GC.07 ERRORS IN SUBMISSIONS**

The contractor shall be responsible for any errors or omissions in the particulars plied by him, whether such particulars have been approved by the Engineer-in charge or not.

#### **GC.08 SUFFICIENCY OF TENDER**

The contractor shall be deemed to have satisfied himself before tendering as to the correctness of the tender rates which rates shall, except as are otherwise provides for, cover all the contractor's liabilities and obligations set forth or implied in the contract for the proper execution of the work for compliance with requirements of Article GC.19 thereof.

#### **GC.09 DISCREPANCIES**

The drawings and specifications are to be considered as mutually explanatory of each other, detailed drawings being followed in preference to small-scale drawings and figured dimensions in preference to scale and special conditions in preference to General Conditions. The special directions or dimensions given in the specifications shall supersede all else. Should any discrepancies however, appear or should any misunderstanding arise as to the meaning and intent of the said specifications or drawings, or as to the dimensions or the quality of the materials or the due and proper execution of the works, or as to the measurement or quality and valuation of the work executed under this contract or as extra there upon, the same shall be explained the Engineer-in-charge and his explanation shall subject to the final decision of the Commissioner in case reference be made to it, be binding upon the contractor and the contractor shall execute the work according to such explanation and without addition or to deduction from the contract price and shall also do all such works and things necessary for the proper completion of the works as implied by the drawings specifications, even though such works and things are no specially shown and described in said specifications. In cases where no particular specifications are given any article to be used under the contract, the relevant specifications of the Indian Standard Institution shall apply.

#### **GC.10 PERFORMANCE GUARANTEE (SECURITY DEPOSIT)**

A sum of 5% of the accepted value of the tender shall be deposited by the tenderer separately (hereinafter called the contractor when tender is accepted) as security deposit with the owner for the faithful performance, completion and maintenance of the works in accordance with the contract documents and to the satisfaction of the

Engineer-in-charge and assuring the payment of all obligations arising from the execution of the contract. This shall be deposited in one of the forms mentioned below

A Fixed Deposit Receipt of a only nationalized Bank duly endorsed in favor of the Rajkot Municipal Corporation, Rajkot.

By a Bank Guarantee of only Nationalized Bank to be encased at Rajkot.

2. If the contractor, sub-contractor or their employees shall break, deface or destroy any property belonging to the owner or other agency during the execution of the contract, the same shall be made good by the contractor at his own expense and in default thereof, the Engineer-in-charge may cause the same to be made good by other agencies and recover expense from the contractor (for which the certificate of the Engineer-in-charge shall be final). These expenses can be recovered from the security deposit if recovery from other 1 source is not possible. The amount as reduced in security deposit will be made good by deduction from the next R.A. Bill of the Contractor.

#### **GC.11      INSPECTION OF WORK**

Engineer-in-Charge shall have full power and authority to inspect the work at any time wherever in progress either on the site or at the contractor's or any manufacturer's workshop or factories wherever situated and the contractor shall afford to Engineer-in-charge every facility and assistance to carry out such inspection, contractor or his authorized representative shall, at all time during the usual working hours and all times when so notified, remain present to receive orders and instructions.

Orders given to contractor's representative shall be considered to have the same force as if they had been given to the contractor himself. Contractor shall give not less than ten (10) days notice in writing to the Engineer-in-charge before covering up or otherwise placing beyond reach of inspection and measurement any work in order that the same may be inspected and measured. In the event of broach of the above, the same shall be uncovered at contractor's expenses for carrying out such inspection or measurement.

No material shall be dispatched from contractor's store on site of work before obtaining approval in writing of the Engineer-in-charge. Contractor shall provide at all times during the progress of work and maintenance period of

proper means of access with ladders, gangways, etc. and make necessary arrangement as directed for inspection or measurement of work by Engineer-in-charge.

#### **GC.12 DEFECT LIABILITY**

Contractor shall guarantee the work for a period of 60 months from the date of issue of completion certificate. Any damage or defect that may arise or that may remain undiscovered at the time of issue of completion certificate connected in any way with the equipment or materials supplied by him or in the workmanship shall be rectified or replaced by contractor at his own expense as desired by Engineer-in-charge or in default Engineer-in-charge may cause the same to be made good by other agency and deduct expenses of which the certificate of Engineer-in-charge shall be final from any sums that may then or any time thereafter become due to contractor or from his security deposit or the proceeds of sale thereof or of a sufficient portion thereof.

From the commencement to completion of work contractor shall take full responsibility for the care of the work including all temporary works and in case any damages, occur from any cause whatsoever he shall at his own cost, repair and make good the same so that on completion, work shall be in good order and in conformity, in every respect, with the requirements of contract and as per the instructions of the Engineer-in-charge.

If at any time before the work is taken over, the Engineer-in-charge shall -

Decide that any work done or materials used by the contractor are defective or not in accordance with the contract or that work or any portion thereof is defective or do not fulfill the requirements of contract (all such materials being herein after called defects in this clause) he shall, as soon as reasonably practicable, give notice to contractor in writing of the said defect specifying particulars of the same then contractor shall at his own expense and with all speed make good the defects so specified.

In case contractor fails to do so, owner may take, at the cost of the contractor, such steps as may in all circumstances be reasonable to make good such defects. The expenditure so incurred by owner will be recovered from he amount due to contractor. The decision of Engineer-in-charge with regard to the amount to be recovered from contractor will be final and binding on the contractor.

**GC.13 POWER HAVE ENGINEER-IN-CHARGE TO GIVE FURTHER INSTRUCTIONS**

The Engineer-in-charge shall have the power and authority from time to time and at times to give further instructions and directions as may appear to him necessary proper for the guidance of the contractor and the works and efficient execution of works according to the terms of the specifications, and the contractor shall receive, execute, obey and be bound by the same, according to the true intent and meaning thereof, as fully and effectively as though the same had accompanied or had been mentioned or referred to in the specifications. No work which radically changes the original nature of the contract shall be ordered by the Engineer-in charge and in the vent of any deviation being ordered, which in the opinions of the tractor changes the original nature of the contract, he shall nevertheless carry it out and any disagreement as to the nature of the work and the rate to be paid to thereof shall be resolved.

The time of completion of works shall, in the event of any deviations being ordered resulting in additional cost or reduction in cost over the contract sum, be extended or reduced reasonably by the Engineer-in-charge. The Engineer-in-charge's decision in the case shall be final and binding.

**GC.14 PROGRAMME**

The time allowed for execution of works shall be the essence of the contract. The contract period shall commence from the date of notice of intimation to proceed. The tenderer at the time of submitting his tender shall indicate in the construction schedule his programme of execution of work commensurate with the total time specified. The contractor shall provide the Engineer-in-charge a detailed programme of time schedule for execution of the works in accordance with the specifications and the completion date. The entire programme to be finalized by the contractor has to conform to the execution period mentioned along with the Bill of quantities in the tender documents. The Engineer-in-charge upon scrutiny of such submitted Programme by contractor, shall examine suitability it to the requirement of contract and suggest modifications, if found necessary. A bar chart is to be submitted by the Contractor.

Progress of work will be as under:

Should be 25 % in each quarter. i.e. in each 3 month

**GC.15 SUBLETTING OF WORK**

No part of the contract nor any share of interest thereon shall in any manner or degree be transferred, assigned or sublet by the contractor directly or indirectly to any person, firm or corporation whosoever except as provided for in the succeeding sub-clause, without the consent in writing of the owner.

**GC.16 SUB-CONTRACTS FOR TEMPORARY WORKS, ETC.**

The owner may give written consent to sub-contractors for execution of any part of the works at the site, being entered upon the contractor provided each individual contract is submitted to the Engineer-in-charge before being entered into and is approved by him. List of sub-contractors to be supplied.

Notwithstanding any subletting with such approval as aforesaid and notwithstanding the Engineer-in-charge shall have received of any subcontractors, the contractor shall be and shall remain solely responsible for the quality and proper and expeditious execution of the works and the performance of all the conditions of contract in all respects as if such subletting or subcontracting had not taken place and as if such work had been done directly by the contractor.

**GC.17 TIME FOR COMPLETION**

The work covered under this contract shall be commenced from the date the contractor is served with a notice to proceed with the work and shall be completed before the date as mentioned in the time schedule of work. The time is the essence of the contract and unless the same is extended as mentioned in clause G.C. 18 'Extension of Time', the contractor shall pay liquidated damages for the delay.

The general time schedule for construction is given in the tender document. Contractor shall prepare a detailed weekly or monthly construction Programme in consultation with the Engineer-in-charge soon after the agreement and the work shall be strictly executed accordingly.

The time for construction includes, the time required for testing, rectification, if any, retesting and completion of the work in all respects to the entire satisfaction of the Engineer-in-charge.

**GC.18 EXTENSION OF TIME**

Time shall be considered as the essence of the contract. If, however, the failure of the contractor to complete the work as per the stipulated dates referred to above arises from delays on the part of corporation in supplying the materials or equipment, it has undertaken to supply under the contract or from delays on the quantity of work to be done under the contract, or force major an appropriate extension of time will be given by corporation. The contractor shall request for such extension within one month of the cause of such delay and in any case before expiry of the contract period. No price variation will be applicable for extended time limit.

**GC.19 CONTRACT AGREEMENT**

The successful tenderer shall enter into and execute the contract agreement within 10(ten) days of the notice of award, in the form shown in tender documents with such modifications as may be necessary in the opinion of the corporation. It shall be incumbent on the contractor to pay the stamp duty and the legal charges for the preparation of the contract agreement.



**GC.20 LIQUIDATED DAMAGES**

If the contractor fails to complete the work or designated part thereof by the stipulated completion date for the work or for that part, he shall pay liquidated damages at the rate 0.1% of contract price per day of delay subject to maximum of 10% of the contract value or as decided by Municipal Commissioner.

The contractor shall complete one-sixth quantum of work within one fourth period, four-tenth quantum of work within one-half period and eight-tenth quantum of work within three-fourth period, failing which the contractor shall be liable to pay liquidated damages an amount as specified above, or as decided by Municipal Commissioner.

The amount of liquidated damaged shall, however, be subjected to a maximum of 10 percent of the contract value. Delays in excess of eight (8) week shall be a cause for termination of the contract and forfeiture of all security for performance.

**GC.21 FORFEITURE OF SECURITY DEPOSIT**

Whenever any claim against the contractor for the payment of a sum of money out under the contract arises, the corporation shall be entitled to recover such sum by appropriating in part or whole, the security deposit of the contractor. In case they deposit is insufficient, the balance recoverable shall be deducted from any then due or which at any time thereafter may become due to the contractor. The tractor shall pay to the owner on demand any balance remaining due.

**GC.22 ACTION OF FORFEITURE OF SECURITY DEPOSIT**

In any case in which under any clause or clauses of the contract, the contractor shall forfeited the whole of his security deposit or have committed a breach of any the terms contained in this contract, the owner shall have power to adopt any of following courses as he may deem best suited to his interest.

To rescind the contract (of which rescission notice in writing to the contractor under the hand of the owner shall be conclusive evidence) in which case the security deposit of the contractor shall stand forfeited and be absolutely at the disposal of the security deposit of the contractor shall stand forfeited and be absolutely at the disposal of the owner.

To employ labor and to supply materials to carry out the balance work debiting contractor with the cost of labor employed and the cost of materials supplied for which a certificate of the Engineer-in-charge shall be final and conclusive against the contractor and 10% of costs on above to cover all departmental charges and crediting him with the value of work done at the same rates as if it has been carried out by the contractor under the terms of his contract. The certificate of

Engineer-in-charge as to the value of the work done shall be final and conclusive against the contractor.

To measure up the work of the contractor and to take such part thereof as shall be unexecuted out of his hand and give it to another contractor to complete, the same. In this case the excess expenditure incurred than what would have been paid to the original contractor, if the whole work had been executed by him, shall be borne and paid by the original contractor and shall be deducted from any money due to him by the owner under the contract or otherwise and for the excess expenditure, the certificate of the Engineer-in-charge shall be final and conclusive.

In the event any of the above courses being adopted by the owner, the contractor shall have no claim for compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any agreements or made any advance on account of or with a view to the execution of the work or the performance of the contract.

In purchase the contractor shall not be entitled to recover or be paid any sum for any work actually performed under this contract unless the Engineer-in-charge will certify in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

In the event of the owner putting in force the powers as stated in a, b, c, above in him under the proceeding clause, he may, if he so desires, take possession or any tools and plant, materials and stores in or upon the works or the site belonging to the contractor, or procured by him and intended to be used for execution of the work or any part thereof paying or allowing for the same in account at the contract rates to be certified by the Engineer-in-charge. The Engineer-in-charge may give notice in writing to the contractor or his representative requiring to remove such tools, plant, materials or stores from the premises within the time specified in the notice and in the event of the contractor failing to comply with any notice, the Engineer-in-charge may remove them at the Contractor's expenses sell them by auction or private sale on account of the Contractor and his risks in respects without any further notice as to the date, time or place of the sale and the certificate of Engineer-in-charge as to the expense of any such removal and the amount of the proceeds and the expenses of any such sale shall be final and conclusive against the contractor:

### **GC.23 NO COMPENSATION FOR ALTERATION IN ON RESTRICTION IN WORK**

If at any time from the commencement of the work, the owner shall for any reasons whatsoever not require the whole work or part thereof as specified in the tender to be carried out, the Engineer-in-charge shall give notice in writing of the fact to the contractor, who 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 derive in consequence of the full amount of the work not having been carried out. He also shall not have any claim for compensation by reasons of any alterations having been made in original specifications, drawings, designs and instructions, which shall involve any curtailment of the work, as originally contemplated.

When the contractor is a partnership firm, the prior approval in writing of the owner shall be obtained before any change is made in the constitution of the firm. Where the contractor is an individual or a Hindu Undivided Family or business concern, such approval as aforesaid shall, likewise be obtained before contractor enters into an agreement with other parties where under, the reconstituted firm would have the right to carry out the work hereby undertaken by the contractor. In either case if prior approval as aforesaid is not obtained, the contract shall be deemed to have been allotted in contravention of subletting cause hereof and the same action may be taken or the same consequence shall ensure as provided in the subletting clause.

#### **GC.24 IN THE EVENT OF DEATH OF CONTRACTOR**

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

#### **GC.25 MEMBERS OF THE OWNER NOT INDIVIDUALLY LIABLE**

No official or employee of the owner shall in any way be personally bound or liable for the acts or obligation of the owner under the contract, or answerable for any default or omission in the observance or performance of any of the acts, matters or things, which are herein, contained.

#### **GC.26 OWNER NOT BOUND BY PERSONAL REPRESENTATIONS**

The contractor shall not be entitled to any increase on the schedule of rates or any other rights or claims whatsoever by reason of representation, promise or guarantees given or alleged to have been given to him by any person.

#### **GC.27 CONTRACTOR'S OFFICE AT SITE**

The contractor shall provide and maintain an office at the site for the accommodation of his agent and staff and such office shall remain open at all reasonable hours to receive information's, notices or other communications.

#### **GC.28 CONTRACTOR'S SUBORDINATE STAFF AND THEIR CONDUCT**

The contractor on award of the work shall name and depute a qualified Engineer, having experience of carrying out work of similar nature, whom equipments, materials, if any, shall be issued and instructions for work given. The contractor shall also provide to the satisfaction of Engineer-in-charge sufficient and qualified staff, competent subagents, foreman and loading hands including those specially qualified by

previous experience to supervise the type of works comprised in the contract in such manner as will ensure work of the best quality and expeditious working. If, in the opinion of the Engineer-in-charge, additional properly qualified supervision staff is considered necessary, it shall be employed by the contractor without additional charge on account thereof. The contractor shall ensure to the satisfaction of the Engineer-in-charge that sub-contractors, if any, shall provide competent and efficient supervision over the work entrusted to them.

If and whenever any of the contractor's or sub-contractor's agents, sub-agents, assistants, foreman or other employees shall, in the opinion of Engineer-in-charge, be guilty of any misconduct or be incompetent or insufficiently qualified or negligent in the performance of their duties or that in the opinion of the owner or Engineer-incharge, it is undesirable for administrative or any other reason for person or persons to be employed in the works, the contractor if so directed by the Engineer-in-charge, shall at once remove such person or persons from employment thereon. Any persons or persons so removes shall not again the reemployed in connection with the works without the written permission of the Engineer-in-charge. Any person, so removed from the works shall be immediately replaced at the expense of the contractor by a qualified and competent substitute. Should the contractor be required to repatriate any person removed from the works he shall do so after approval of Engineer-in-charge and shall bear all costs in connection there with.

The contractor shall he responsible for the proper behavior of all the staff, foreman, workmen and others and shall exercise proper control over them and ii particular and without prejudice to the said generality, the contractor shall be bound to prohibit and prevent any employee from trespassing or acting in any way detrimental or prejudicial to the interest of the community or of the properties or occupiers of land and properties in the neighborhood and in the event of such employees so trespassing, the contractor shall be responsible therefore and relieve the owner of all consequent claims, actions for damages or injury or and other grounds whatsoever. The decision of the Engineer-in-charge upon and matter arising under these claims shall be final.

If and when required by the owner, the contractor's personnel entering upon the owner's premises shall be properly identified by badges of a type acceptable to the owner which must be worn at all times on owner's premises.

#### **GC.29 TERMINATION OF SUBCONTRACT BY OWNER**

If any subcontractor engaged upon the works at the site execute any work which in the opinion of Engineer-in-charge is not in accordance with the contract documents the owner may by written notice to the contractor request him to terminate such contract and the contractor upon the receipt of

such notice shall terminate such sub-contracts and the latter shall forthwith leave the works failing which the owner shall have the right to remove such subcontractors from the site.

No action taken by the owner under the above clause shall relieve the contractor of his liabilities under the contract or give rise to any right to compensation, extension time or otherwise.

**GC.30      POWER OF ATTORNY**

If the contractor shall not commence the work in the manner previously described in the contract documents or if he shall at any time, in the opinion of Engineer-in charge.

Fail to carry out works in conformity with the contract documents, or

Fail to carry out the works in accordance with the time schedule or  
Substantially suspend work or the works for a period of seven days without authority from Engineer-in-charge or

Fail to carry out and execute the work to the satisfaction of the Engineer-in-charge, or

Fail to supply sufficient or suitable construction plant, temporary works, labor, materials or things or

Commit breach of any other provisions of the contract on his part to be performed or observed or persists in any of the above mentioned breaches of the contract for seven days after notice in writing shall have been given to the contractor by the Engineer-incharge requiring such breach to be remedied or

Abandon the work or

During the continuance of the contract becomes bankrupt, make any arrangement compromise with his creditors, or permit any execution to be levied or go liquidation whether compulsory or voluntary not being merely a voluntary liquidation for the purpose of amalgamation or reconstruction then in any such

The owner shall have the power to enter upon the works and take possession thereof the materials, temporary works, constructional plant and stores therein and to revoke the contractor's license to use the same and to complete the works by his other contractor or workmen, to relate the same upon any terms to such other person, firm or corporation as the owner in his absolute discretion may think to employ, and for the purpose aforesaid to use or authorize the use of any Is, temporary works, constructional plant, and stores as aforesaid with making payment or allowance to the contractor for the said materials other than such as may be certified in writing by the Engineer-in-charge to be reasonable and without making payment or allowance to the contractor for the use of said temporary works, constructional plant and stock or being liable for any loss or damage thereto. If the owner shall be reason of his taking possession of the works or of the

work being got completed by other contractor incurred excess expenditure be deducted from any money, which may be due for the work done by the contractor under the contract and paid for. Any deficiency shall forthwith be made good and paid to the owner by contractor and the owner shall have power to sell in such manner and for such price as he may think fit all or any of the constructional plant, materials etc. consist constructed by or belonging to and to recoup and retain the said deficiency or any part thereof out of the proceeds of the sale.

### **GC.31 CONTRACTOR'S RESPONSIBILITY WITH THE OTHER CONTRACTOR AND AGENCIES**

Without repugnance to any other condition, it shall be the responsibility of the contractor executing the work, to work in close co-operation and coordination with other contractors or their authorized representatives and the contractor will put a joint scheme with the concurrence of other contractors or their authorized representatives showing the arrangements for carrying his portion of the work to the Engineer-in-charge and get the approval. The Engineer-in-charge before approving the joint scheme will call the parties concerned and modify the scheme if required. No claim will be entertained on account of the above. The contractor shall conform in all respects with the provisions of any statutory regulations, ordinances or by laws of any local or duly constituted authorities or public bodies which may be applicable from time to time to works or any temporary works, The contractors shall keep the owner indemnified against all penalties and liabilities of every kind arising out of non-adherence to such statutes, ordinance, laws, rules, regulations etc.

### **GC.32 OTHER AGENCIES AT SITE**

The contractor shall have to execute the work in such place and condition where other agencies will also be engaged for other works, such as site grading, filling and leveling, electrical and mechanical engineering works, etc. No claim shall be entertained works being executed in the above circumstances.

### **GC.33 NOTICES**

Any notice under this contract may be served on the contractor or his duly authorized representative at the job site or may be served by' registered post direct to the official address of the contractor. Proof of issue of any such notice could be conclusive of the contractor having been duly informed of all contents therein.

### **GC.34 RIGHTS OF VARIOUS INTERESTS**

The owner reserves the right to distribute the work between more than one contractor. Contractor shall co-operate and afford reasonable opportunity to

other contractors for access to the works, for the carriage and storage of materials and execution of their works. Whenever the work being done by department of the owner or by other contractor employed by the owner is contingent upon work covered by this contract, the respective rights of the various interests shall be determined by the Engineer-in-charge to secure the completion of various portions of the work in general harmony.

### **GC.35 PRICE ADJUSTMENTS**

No adjustment in price shall be allowed, as time of completion is less than one year in this tender.

### **GC.36 TERMS OF PAYMENT**

The payment of bills shall be made progressively according to the rules and practices followed by the corporation. The progressive payment unless otherwise provided in the contract agreement or subsequently agreed to by the parties shall be made generally monthly on submission of a bill by the contractor in prescribed form of an amount according to the value of the work performed less the price of materials supplied by owner, aggregate of previous progressive payments and as required by clause GC-37 (Retention of money) herein. All such progressive payments shall be regarded as payments by way of advance against final payment.

Payment for the work done by the contractor will be based on the measurement at various stages of the work, in accordance with the conditions at clause in Price Bid.

### **GC.37 RETENTION MONEY**

1. Pursuant to clause GC-36 (terms of payment) on at money due to the contractor for work done, corporation will hold as retention money five (5) percent of the value of work. The retention money will not normally be due for payment until the completion of the entire work & till such period the work has been finally accepted by the Municipal Commissioner and a completion certificate issued by the Municipal Corporation in pursuant to Clause-79 (Completion Certificate). It is clarified that same will be deducted @ 10 % of value of each bill till 5 % value of work is recovered or above the security deposit.

### **GC.38 PAYMENTS DUE FROM THE CONTRACTOR**

All costs, damages or expenses, for which under the contract, contractor is liable to the Municipal Corporation, may be deducted by the Municipal Corporation from any money due or becoming due to the contractor under the contract or from any other contract with the Municipal Corporation or may be recovered by action at law or otherwise from the contractor.

### **GC.39 CONTINGENT FEE**

The contractor warrants that he has not employed a person to solicit or secure the contract upon any agreement for a commission, percentage, and

brokerage contingent fee. Breach of this warranty shall give the Municipal Commissioner the right to cancel the contract or to take any drastic measure as the corporation may deem fit. The warranty does not apply to commissions payable by the contractor to establish commercial or selling agent for the purpose of securing business.

No officer, employer or agent of the Municipal Corporation shall be admitted to any share or part of this contract or to any benefit that may rise there from.

#### **GC.40 BREACH OF CONTRACT BY CONTRACTOR**

If the contractor fails to perform the work under the contract with due diligence or shall refuse or neglect to comply with instructions given to him in writing by the Engineer-in-charge in accordance with the contract, or shall contravene the provisions of the contract, the Municipal Commissioner may give notice in writing to the contractor to make good such failure, neglect, or contravention. Should the contractor fail to comply with such written notice within 14 (fourteen) days of receipt, it shall be lawful for the Municipal Corporation, without prejudice to any other rights the Municipal Corporation may have under the contract, to terminate the contract for all or part of the works, and make any other arrangements it shall deem necessary to complete the work outstanding under the contract at the time of termination. In this event the performance Bond shall immediately become due and payable to the Municipal Corporation. The value of the work done on the date of termination and not paid for shall be kept as deposit for adjustment of excess expenditure incurred in getting the remaining work completed and the corporation shall have free use of any works which the contractor may have at the site at the time of termination of the contract.

#### **GC.41 DEFAULT OF CONTRACTOR**

i) The Municipal Commissioner may upon written notice of default to the contractor terminate the contract circumstances detailed here under:

**If in the opinion of the Municipal Commissioner, the contractor fails to make completion of works within the time specified in the completion schedule or within the period for which the corporation has granted extension to the contractor.**

**If in the opinion of the Municipal Commissioner, the contractor fails to comply with any of the other provisions of this contract.**

In the event, the corporation terminates the contract in whole or in part as provided in Article GC. 50 (termination of the contract) the Municipal Corporation reserve the right to purchase upon such terms and in such manner as it may be deem appropriate, plant similar to one which is not supplied by the contractor and the contractor will be liable to the Municipal Corporation for any additional costs for such similar plant and/or for liquidated damages for delay until such time as may be required for the final completion of works.



If this contract is terminated as provided in this paragraph GC.30 (Power of Entry) (1) the Corporation in addition to any other rights provided in this clause, may require the contractor to transfer title and deliver to the corporation.

Any completed works.

Such partially completed information and contract rights as the contractor has specifically produced or acquired for the performance of the contract so terminated.

iv) In the event, the corporation does not terminate the contract as provided in the paragraph GC.50 (termination of contract) the contractor shall continue performance of the contract, in which case he shall be liable to the corporation for liquidated damages for delay until the works are completed and accepted.

#### **GC.42 BANKRUPTCY**

If the contractor shall become bankrupt or insolvent or has a receiving order made against him, or compound with his creditors, or being the Corporation commence to be wound up not being a member voluntary winding up for the purpose of amalgamation or reconstruction, or carry on its business under a receiver for the benefit of his creditors or any of them, the corporation shall be at liberty to either (a) terminate the contract forthwith by giving notice in writing to the contractor or to the receiver or liquidator or to any person or organization in whom the contract may become vested and to act in the manner provided in Article GC.41 (Default of Contractor) as though the last mentioned notice had been the notice referred to in such article or (b) to give such receiver, liquidator or other persons in whom the contract may become vested the option of carrying out the contract subject to his providing a satisfactory guarantee for the due and faithful, performance of the contract up to an amount to be agreed. In the event that the corporation terminates the contract in accordance with this article, the performance bond shall immediately become due and payable on demand to corporation.

#### **GC.43 OWNERSHIP**

Works hand over pursuant to the contract shall become the property of the corporation from whichever is the earlier of the following times, namely When the works are completed pursuant to the contract.

When the contractor has been paid any sum to which he may become entitled in respect thereof pursuant to clause GC.36 (terms of payment).

#### **GC.44 DECLARATION AGAINST WAIVER**

The condemnation by the corporation of any breach or breaches by the contractor or an authorized sub-contractor of any of the stipulations and conditions contained in the contract, shall in no way prejudice or affect or be

construed as a waiver of the corporation's rights, powers and remedies under the contract in respect of any breach or breaches.

#### **GC.45 LAWS GOVERNING THE CONTRACT**

This contract shall be construed according to and subject to the laws of India and the State of Gujarat and under the jurisdiction of the courts of Gujarat at Rajkot.

#### **GC.46 OVER PAYMENT AND UNDERPAYMENT**

Whenever any claim for the payment of a sum to the corporation arises out of or under this contract against the contractor, the same may be deducted by the Corporation from any sum then due or which at any time thereafter may become due to the contractor under this contract and failing that under any other contract with the corporation or from any sum due to the contractor with the Corporation (which may be available with the Corporation), or from his retention money or he shall pay the claim on demand. The corporation reserves the right to carry out post payment audit and technical examinations of the final bill including all supporting vouchers, abstracts etc. The corporation further reserves the right to enforce recovery of any payment when detected, notwithstanding the fact that the amount of the final bill may be included by one of the parties as an item of dispute before an Arbitrator appointed under Article GC.49 (arbitration) of this contract and notwithstanding the fact that the amount of the final bill figures in the arbitration award. If as a result of such audit and technical examinations any over payment is discovered in respect of any work done by the contractor or alleged to have been done by him under the contract, it shall be recovered by the corporation from the contractor as prescribed above. If any under payment is discovered by the corporation, the amount due to the contractor under this contract, may be adjusted against any amount then due or which may at any time thereafter become due before payment is made to the contractor.

#### **GC.47 SETTLEMENT OF DISPUTES**

Except as otherwise specifically provided in the contract, all disputes concerning questions of fact arising under the contract shall be decided by the Engineer-in-charge subject to a written appeal by the contractor to the Engineer-in-charge and those decisions shall be final and binding on the parties hereto. Any disputes or differences including those considered as such by only one of the parties arising out of or in connection with this contract shall be to the extent possible settled amicably between the parties. If amicable settlement cannot be reached then all disputed issues shall be settled as provided in Article GC-48 (Disputes or differences to be referred to) and Article No. GC. 49 (Arbitration).

#### **GC.48 DISPUTES OF DIFFERENCES TO BE REFERRED TO**

If at any time, any question, disputes or differences of any kind whatsoever, shall arise between the Engineer-in-charge and the contractor upon or in

relation to or in connection with this contract either party may forthwith give to the other, notice in writing of the existence of such question, dispute or difference as to any decision, opinion, instruction, direction, certificate or evaluation of the Engineer-in-charge. The question, dispute or difference shall be settled by the Municipal Commissioner, Rajkot Municipal Corporation, who shall state his decision in writing and give notice of same to the Engineer-in-charge and to the contractor. Such decision shall be final and binding upon both parties. The contract and work on contract if not already breached or abandoned shall proceed.

#### **GC.49 ARBITRATION**

In case of any dispute arising during the course of Execution the matter should be referring to Municipal Commissioner who will be sole Arbitrator and whose decisions will be final and biding to the contractor. Jurisdiction will be at Rajkot.

#### **GC.50 TERMINATION OF THE CONTRACT**

If the contractor finds it impracticable to continue operation owing to force major reasons or for any reasons beyond his control and/or the corporation find it impossible to continue operation, then prompt notification in writing shall be given by the party affected to the other.

If penalty or liquidated damages is higher than 10 % of contract value or estimated cost of tender ,in such case contract may be terminated on the cost and risk of contractor and also may be lead to debarred for 3 years or blacklisted in this connection decision of Municipal Commissioner is to be bound to contractor.

If the delay or difficulties so caused cannot be expected to cease or become unavoidable or if operations cannot be resumed within two (2) months then either party shall have the right to terminate the contract upon ten (10) days written notice to the other. In the event of such termination of the contract, payment to the contractor will be made as follows

**The contractor shall be paid for all works approved by the Engineer in-charge and for any other legitimate expenses due to him.**

**If the corporation terminates the contract owing to Force Major or due to any cause beyond its control, the contractor shall additionally be paid for any work done during the said two (2) months period including any financial commitment made for the proper performance of the contract and which are not reasonably defrayed by payments.**

**The corporation shall also release all bonds and guarantees at its disposal except in cases where the total amount of payment made to the contractor exceeds the final amount due to him in which case the contractor shall refund the excess amount within thirty (30) days after the termination and the corporation thereafter shall release all bonds and guarantees. Should the contractor fail to refund the**

**amounts received in excess within the said period such amounts shall be deducted from the bonds or guarantees provided.**

iii) On termination of the contract for any cause the contractor shall see the orderly suspension and termination of operations, with due consideration to the interests of the corporation with respect to completion, safeguarding or storing of materials procured for the performance of the contract and the salvage and resale thereof.

#### **GC.51 SPECIAL RISKS**

If during the contract, there shall be an outbreak of war (whether war is declared or not), majeure epidemic, earthquake or similar occurrence in any part of the world beyond the control of either party to the contract which financially or otherwise materially affects the execution of the contract, the contractor shall unless and until, the contract is terminated under the provisions of this article use his best endeavors to complete the execution of the contract, provided always that the corporation shall be entitled at any time after the onset of such special risks, to terminate the contract by giving written notice to the contractor and upon such notice being given this contract shall terminate but without prejudice to the rights of either party in respect of any antecedent breach thereof.

The contractor shall not be liable for payment of compensation for delay or for failure to perform the contract for reasons of Force Major. Such as acts of public enemy, acts of Government, fires, floods, cyclones, epidemics, quarantine restrictions, lockouts, strikes, freight embargos and provided that the contractor shall within Ten (10) days from the beginning of such delay notify the Engineer-in-charge in writing, of the cause of delay, the corporation shall verify the facts and grant such extension as the facts justify.

#### **GC.52 CHANGE IN CONSTITUTION**

Where the contractor is a partnership firm, the prior approval in writing of the owner shall be obtained before any change is made in the constitution of the firm. Where the contractor is an individual or undivided family business concern such approval as aforesaid shall likewise be obtained before the contractor enters into any partnership agreement where under the partnership firm would have the right to carry out the works hereby undertaken by the contractor. If prior approval as aforesaid is not obtained, the contract shall be deemed to have been assigned in contravention of contract.

### **GC.53 SUB-CONTRACTUAL RELATIONS**

All work performed for the contract by a sub-contractor shall be pursuant to an appropriate agreement between the contractor and the sub-contractor, which shall contain provision to:

Protect and preserve the rights of the corporation and the Engineer in charge with respect to the works to be performed under the sub-contract so that the sub-contracting party will not prejudice such rights.

Require that such work be performed in accordance with the requirements of contract documents.

Require under such contract to which the contractor is a party, the submission to the contractor of application for payment and claims for additional costs, extension of time, damages for delay or otherwise with portions of the work in sufficient time, that the contractor may apply for payment and comply in accordance with the contract documents for like claims by the contractor upon the Corporation.

Waive all rights the contracting parties may have against one another for damages caused by fire or other perils covered by the property insurance except such rights as they may have to the proceeds of such insurance held by the corporation as trustee and,

Obligate each sub-contractor specifically to consent to the provisions of this Article.

### **GC.54 PATENTS AND ROYALTIES**

Contractor, if licensed under any patent covering equipment, machinery, materials or composition of matter to be used or supplied or methods and process to be practiced or employed in the performance of this contract agrees to pay all royalties and license fees, which may be due with respect thereto. If any equipment, machinery, materials, composition, matters, to be used or supplied or methods practiced or employed in the performance of this contract, is covered by a patent under which contractor is not licensed, then the contractor before supplying using the equipment, machinery, materials, compositions, methods of process shall obtain such license and pay such royalties and license fees as may be necessary for performance of this contract. In the event contractor fails to pay such royalty or to obtain any such license, the contractor at his own expenses will defend any suit for infringement of such patents, which is brought against the contractor or the owner as a result of such failure, and the contractor will pay any damages and costs awarded in such suit. The contractor shall promptly notify the owner if the contractor has acquired knowledge of any plant under which a suit for infringement could be reasonably brought because of the use by the owner of any equipment machinery, materials, process methods to be supplied in hereunder, Contractor agrees to and does hereby grant to owner together with the right to extend the same to any of the subsidiaries of the

owner an irrevocable royalty free license to use in any country, any invention made by the contractor or his employees in or as a result of the performance of work under contract.

With respect to any subcontract entered into by contractor pursuant to the provisions of the relevant clause hereof, the contractor shall obtain from the sub-contractor an understanding to provide the owner with the same patent protection that contracts is required to provide under the provisions of the clause.

The owner shall indemnify and save harmless the contractor from any loss account of claims against contractor for the contributory infringement of pat rights arising out of and based upon the claim that the use by the corporation the process included in the design prepared by the owner and used in the operating of the plant infringes on any patent rights.

#### **GC.55 LIEN**

If, at any time, there should be evidence of any lien or claim for which owner might have become liable and which is chargeable to the contractor, the owner shall have the right to retain out of any payment then due or thereafter to become due a amount sufficient to completely indemnify the owner against such lien or claim or such lien or claim be valid the owner may pay and discharge the same and deduct the amount as paid from any money which may be due or become due and payable to the contractor. If any lien or claims remaining unsettled after all payments are made, the contractor shall refund or pay to the owner all money that the latter may be compelled to pay in discharging such lien or claim including all costs and reasonable expenses.

#### **GC.56 EXECUTION OF WORK**

The whole work shall be carried out in strict conformity with the provisions of the contract documents, detailed drawings, specifications and the instructions of the Engineer-in-charge from time to time. The contractor shall ensure that the whole work is executed in the most substantial, and proper manner with best workmanship using materials of best quality in strict accordance with the specifications to the entire satisfaction of the Engineer-in-charge.

#### **GC.57 WORK IN MONSOON**

When the work continues in monsoon, the contractor shall maintain minimum labor force required for the work and plan and execute the construction and erection work according to the prescribed schedule. No extra rate will be considered for such work in monsoon. During monsoon and entire construction period the contractor shall keep the site free from water at his own cost.

#### **GC.58 WORK ON SUNDAYS AND HOLIDAYS**

No work except curing shall be carried out on Sundays and Holidays. However, if the exigencies of the work need continuation of work on Sundays

and Holidays, written permission of the Engineer in-charge shall be obtained in advance.

**GC.59 GENERAL CONDITIONS FOR CONSTRUCTION WORK**

Working hours shall be eight every day. The over time work in two shifts could be carried with the written permission of the Engineer-in-charge but no compensation shall be paid for the same. The rate quoted shall include this. The Contractor shall plan his work in such a way that his laborers do not remain idle. The owner will not be responsible for idle labor of the contractor. The contractor shall submit to the owner progress report every week. The details and Performance of the report will be as per mutual agreement.

**GC.60 DRAWINGS TO BE SUPPLIED BY THE OWNER**

The drawings attached with the tender documents shall be for general guidance of the Contractor to enable him to visualize the type of work contemplated and scope of work involved. Details working drawings according to which the work is to be done shall be furnished from time to time as the work progresses. The contractor shall study the drawings thoroughly in connection with details and bring to the notice of the Engineer in-charge discrepancy if any, before actually carrying out the work.

**GC.61 DRAWINGS TO BE SUPPLIED BY THE CONTRACTOR**

Where drawings, data are to be furnished by the contractor they shall be as enumerated in special conditions of contract and shall be furnished within the specified time. Where approval of drawings has been specified it shall be the contractor's responsibility to have these drawings got approved before any work is taken up with regard to the same. Any changes becoming necessary in those drawings during the execution of the work shall have to be carried out by the contractor at no extra cost. All final drawings shall bear the certification stamp as indicated below duly signed by both the contractor and Engineer-in-charge.

"Certified true for

..... Project.

Agreement No .....

Signed .....

Contractor

Engineer-in-charge

Drawings will be approved within three (3) weeks of the receipt Engineer-in-charge.

#### **GC.62 SETTING OUT WORK**

The Contractor shall set out the work on the site handed over by the Engineer-in-charge and shall be responsible for the correctness of the same. The work shall be carried out to the entire satisfaction of Engineer-in-charge. The approval thereof or partaking by Engineer-in-charge in setting out work shall not relieve contractor of any of his responsibilities. The contractor shall provide at his own cost all necessary level posts, pegs, bamboos, flags, ranging rods, strings and other materials and laborers required for proper setting out of the work. The contractor shall provide fix and be responsible for the maintenance of all stakes, templates, level markets, profiles and similar other things and shall take all necessary precautions to prevent their removal or disturbance and shall be responsible for the consequences for such removal or disturbance. The contractor shall also be responsible for the maintenance of all existing survey marks, boundary marks, and distance marks and centerline marks either existing or face lines or cross lines shall be marked by small masonry pillars. Each pillar shall have distance mark at the center for setting up the theodolite. The work shall not be started unless the setting out is chocked and approved by Engineer-in-charge in writing but such approval shall not relieve the contractor of his responsibilities about the correctness of setting out. The contractor shall provide all materials, labor and other facilities necessary for checking at his own cost. The contractor shall protect pillars boring geodetic marks on site. On completion of the work the contractor shall submit the geodetic documents according to which the work has been carried out.

#### **GC.63 RESPONSIBILITIES OF CONTRACTOR FOR CORRECTNESS OF WORK**

The contractor shall be entirely and exclusively responsible for the correctness of every part of the work and shall rectify completely any errors therein at his own cost when so instructed by Engineer-in-charge. If any error has crept in the work due to non-observance of this clause, the contractor will be responsible for the error and bear the cost of corrective work.

1. Material to be supplied by the contractor

Contractor shall procure and provide all the material required for the execution and maintenance of work including M.S. rods; all tools, tackles, construction plant and equipment except, the materials to be supplied by the owner detailed in the contract documents. Owner shall make recommendations for procurement of materials to the respective authorities if desired by the contractor but assumes no responsibility of any nature.



Owner shall insist for procurement of materials with ISI marks supplied by reputed firms of the DGS & D list.

2. If however, the Engineer-in-charge feels that the work is likely to be delayed due to contractor's inability to procure materials, the Engineer-in-charge shall have the right to procure materials from the market and the contractor will accept these materials at the rates decided by Engineer-in-charge.

**GC.64 ARTICLE OF VALUE OF TREASURE FOUND DURING CONSTRUCTION**

All gold, silver and other minerals of any description and all precious stones, coins, treasures, relics, antiquities and other similar things which shall be found in, under or upon site shall be the property of the owner and the contractor shall properly preserve the same to the satisfaction of the Engineer-in-charge and shall hand over the same to the owner.

**GC.65 DISCREPANCIES BETWEEN INSTRUCTIONS**

If there is any discrepancy between the various stipulations of the contract documents or instructions to the contractor or his authorized representative or if any doubt arises as to the meaning of such stipulation or instructions, the contractor shall immediately refer in writing to the Engineer-in-charge whose decision shall be final and conclusive and no claim for losses caused by such discrepancy shall in any event be admissible.

**GC.66 ACTION WHEN NO SPECIFICATIONS IS ISSUED**

In case of any class of work for which no specification is supplied by the owner in the tender documents, such work shall be carried out in accordance with relevant Ia-test ISS and if ISS do not cover the same, the work shall be carried out as per general technical specification for building work; and if not covered in then it is to be with standard Engineering practice subject to the approval of Engineer-in-charge.

**GC.67 ABNORMAL RATES**

Contractor is expected to quote rate for each item after careful analysis of cost involved for the performance of the completed item considering all specifications and conditions of contract.

**GC.68 ASSISTANCE TO ENGINEER-IN-CHARGE**

Contractor shall make available to Engineer-in-charge free of cost all necessary instruments and assistance in checking of any work made by the contractor setting out for taking measurement of work etc.

**GC.69 TESTS FOR QUALITY OF WORK**

All workmanship shall be of the best kind described in the contract documents and in accordance with the instructions of Engineer-in-charge and shall be subjected from time to time to such tests at contractor cost as the Engineer-in-charge may direct at the place of manufacture of fabrication or on the site or at any such place. Contractor shall provide assistance, instruments, labor, and materials as are normally required for examining, measuring and testing of any work or workmanship as may be selected and required by Engineer-in-charge.

All tests necessary in connection with the execution of work as decided by Engineer-in-charge shall be carried out at an approved laboratory at contractor's cost.

Contractor shall furnish the Engineer-in-charge for approval when requested or if required by the specification, adequate samples of all materials and finished goods to be used in work sufficiently in advance to permit tests and examination thereof. All materials furnished and finished goods applied in work shall be exactly as per the approved samples.

**GC.70 ACTION AND COMPENSATION IN CASE OF BAD WORKMANSHIP**

If it shall appear to the Engineer-in-charge that any work has been executed with materials of inferior description, or quality or are unsound or with unsound, imperfect or unskilled workmanship or other wise not in accordance with the contract, the contractor shall, on demand in writing from Engineer-in-charge or his authorized representative specifying the work, materials or articles complained of, notwithstanding that the same may have been inadvertently passed, certified and paid for, forthwith rectify or remove and reconstruct the work, so specified. In the event of failure to do so within a period to be specified by the Engineer-in-charge in his aforesaid demand, contractor shall be liable to pay compensation at the rate of half a percent of the estimated cost of work for every work limited to a maximum of ten (10%) percent of the value of work while his failure to do so continues and in the case of any such failure the Engineer-in-charge may on expiry of the notice period rectify and remove and re execute the work or remove and replace with others at the risk and cost of the contractor. The decision of the Engineer-in-charge as to any question arising under this clause shall be final and conclusive.

**GC.71 SUSPENSION WORK**

Contractor shall, if ordered in writing by Engineer-in-charge or his representative temporarily suspended the work or any part thereof for such time (not exceeding one month) as ordered and shall not after receiving such written notice proceed with the work until he shall have received a written order to proceed therewith. The contractor shall not be entitled to claim compensation for any loss or damage sustained by him by reason of temporary suspension of work as aforesaid. An extension of time for completion of work will be granted to the contractor corresponding to the

delay caused by such suspension of work if he applies for the same provided the suspension was not consequent upon any default or failure on the part of the contractor.

#### **GC.72 OWNER MAY DO PART OF THE WORK**

When the contractor fails to comply with any instructions given in accordance with the provisions of this contract, the owner has the right to carry out such parts of work as the owner may designate whether by purchasing materials and engaging labor or by the agency of another contractor. In such case the owner shall deduct from the amount which otherwise might become due to contractor, the cost of such work and materials with ten (10) percent added to cover all departmental charges and should the total amount thereof exceed the amount due to contract, contractor shall pay the difference to owner.

#### **GC.73 POSSESSION PRIOR TO COMPLETION**

The Engineer-in-charge shall have the right to take possession of or to use any completed or partly completed work or part of work. Such possession or use shall not be deemed to be an acceptance of any work completed in accordance with the contract. If such prior possession or use by Engineer-in-charge delays the process of work, equitable adjustment in the time of completion will be made and the contract shall be deemed to be modified accordingly.

#### **GC.74 COMPLETION CERTIFICATE**

As soon as the work has been completed in accordance with contract (except in minor respects that do not effect their use for the purpose for which they are intended and except for maintenance thereof) as per general conditions of contract the Engineer-in-Charge shall issue a certificate (hereinafter called Completion Certificate) in which shall certify the date on which work has been completed and has passed the said tests and owner shall be deemed to have taken over work on the date so certified. If work has been divided in various groups in contract, owner shall be entitled to take over any group or groups before the other or others and there upon the Engineer-in-charge will issue a completion certificate which will, however, be for such group or groups so taken over only.

In order that contractor could get a completion certificate, he shall make good, with all speed any defect arising from the defective materials supplied by contractor or workmanship or any act or omission of contractor that may have been discovered or developed after the work or groups of works has been taken over. The period allowed for carrying out such work will be normally, one month. If any defect be not remedied within the time, specified, owner may proceed to do work at contractor's risk and expenses and deduct from the final bill such amount as may be decided by owner. If by reason of any default on the part of the contractor, a completion certificate

has not been issued in respect of every portion of work within one month after the date fixed by contract for completion of work, owner shall be at liberty to use work or any portion thereof in respect of which a completion certificate has been issued, provided that work or the portion thereof so used as aforesaid shall be afforded reasonable opportunity for completion of that work or the portion thereof so used as aforesaid shall be afforded reasonable opportunity for completion of that work for the issue of completion certificate.

#### **GC.75 SCHEDULE OF RATES**

The rates quoted by the contractor shall remain firm till the completion of the work and shall not be subject to escalation. Schedule of rates shall be deemed to include and cover all costs, expenses and liabilities of every description and all risks of every kind to be taken in executing, completing and handing over the work to owner by contractor. The contractor shall be deemed to have known the nature, scope magnitude and the extent of work and materials required though contract documents may not fully and precisely furnish them. He shall make such provision in the schedule of rates as he may consider necessary to cover the cost of such items of work and materials as may be reasonable and necessary to complete work. The opinion of Engineer-in-charge as to the item of work which are necessary and reasonable for completion of work shall be final and binding on contractor although the same may be not shown on drawings or described specifically in contract documents.

The schedule of rates shall be deemed to include and cover the cost of all constructional plant, temporary work, materials, labor and all other matters in connection with each item in schedule of rates and the execution of work or any portion thereof finished complete in every respect and maintained as shown or described in the contract document or as may be ordered in writing during the continuance of the contract.

The schedule of rates shall be deemed to include and cover the cost of all royalties and fees for the articles and processes, protected by letters patent or otherwise incorporated in or used in connection with work, also all royalties, rents and other payments in connection with obtaining materials of whatsoever kind for work and shall include an indemnity to owner which contractor hereby gives against all actions, proceedings, claims, damages, costs and expenses arising from the incorporation in or use on the works of any such articles, processes or materials. Octroi or other municipal or local board charges if levied a material, equipment or machineries to be brought to site for use on work shall be borne by the contractor.

No exemption or reduction of custom duties, excise duties, sales tax or any other taxes or charges of the central or state Government or of any local body whatsoever will be granted or obtained and all such expenses shall be deemed to have been included in and covered by schedule of

rates. Contractor shall also obtain and pay for all permits or other privileges necessary to complete the work.

The schedule of rates shall be deemed to include and cover risks on account of delay and interference with contractor's conduct of work which may occur from any cause including orders of owner in the exercise of his powers and on account of extension of time granted due to various reasons.

For work under unit rate basis no alteration will be allowed in the schedule of rates by reasons of work or any part of them being modified, altered, extended, diminished or omitted.

#### **GC.76 RUNNING ACCOUNT PAYMENTS TO BE REGARDED AS ADVANCES**

All running account payments shall be regarded as payments by way of advance against the final payment only and not as payment for work actually done and completed and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be removed and taken away and reconstructed or rejected or to be considered as an admission of the due performance of contract or any part thereof.

Five (5) percent of the gross R.A. bill amount shall be retained from each bill as retention amount and the same will be paid with the final bill.

#### **GC.77. NOTICE FOR CLAIM FOR ADDITIONAL PAYMENT**

If the contractor considers that he is entitled to extra payment or compensation or any claim whatsoever in respect of work, he shall forthwith give notice in writing to the Engineer-in-charge about his extra payment and/or compensation. Such notice shall be given to the Engineer-in-charge within ten (10 days) from the happen of any event upon which contractor basis such claims & such notice shall contain full particulars of the nature of such claim with full details and amount claimed. Failure on the part of the contractor to put forward any claim with the necessary particulars as above, within the time above specified shall be an absolute waiver thereof. No omission by owner to reject any such claim and no delay in dealing therewith shall be waiver by owner or any rights in respect thereof.

#### **GC.78 PAYMENT OF CONTRACTOR'S BILL**

The price to be paid by the owner to contractor for the work to be done and for the performance of all the obligations undertaken by the contractor under contract shall be based on the contract price and payment to be made accordingly for the work actually executed and approved by the Engineer-in-charge.

No payment shall be made for work costing less than Rs. 10,000/- till the work is completed and a certificate of completion given. But in case of work estimated to cost more than Rs. 1 0,000/-. Contractor on submitting the bill thereof will be entitled to receive a monthly payment

proportionate to the part thereof, approved and passed by Engineer-in-charge, whose certificate of such approval and passing of the sum so payable shall be final and conclusive against contractor. This payment shall be made after necessary deductions as stipulated elsewhere in the contract documents for materials, security-deposit etc. The payment shall be released to the contractor within fifteen (15) days of submission of the bill duly pre-occupied on proper revenue stamp. The owner shall make payment due to contractor by crossed account payee cheque in Indian Currency forwarding the same to the registered office of the contractor. Owner shall not be responsible if the cheque is mislaid or misappropriated by unauthorized persons.

#### **GC.79 FINAL BILL**

Contractor shall submit the final bill within one (1) month of the date of physical completion of work, otherwise the Engineer-in-charge's certificate of the measurement and of total amount payable for work shall be final and binding on all parties.

#### **GC.80 RECEIPT FOR PAYMENT**

Receipt for payment made on account of work when executed by a firm must be signed by a person holding power of attorney in this respect on behalf of contractor except when described in the tender as a limited company in which case the receipt must be signed in the name of the company by one of its principal officers or by some other person having authority to give effectual receipt for the company.

#### **GC.81 COMPLETION CERTIFICATE**

When the contractor fulfils his obligation as per terms of contract he shall be eligible to apply for completion certificate. Contractor may apply for separate completion certificate in respect of each such portion of work by submitting the completion documents along with such application for completion certificate.

The Engineer-in-charge shall normally issue to contractor the completion certificate within one (1) month after receiving an application thereof from contractor after verifying, from the completion documents and satisfying himself that work has been completed in accordance with and as set out in the construction and erection drawings and the contract documents. Contractor after obtaining the completion certificate is eligible to present the final bill for work executed by him under the terms of contract.

Within one month of completion of work in all respects contractor shall be furnished with a certificate by the Engineer-in-charge of such completion but no certificate shall be given nor shall work be deemed to have been executed until all (i) scaffolding, surplus materials and rubbish is cleared off site completely, (ii) until work shall have been measured by the Engineer-in-charge whose measurement shall be binding and

conclusive and (iii) until all the temporary works, labor and staff colonies etc. constructed are removed and the work site cleaned to the satisfaction of the Engineer-in-charge. If contractor shall fail to comply with the requirements as aforesaid or before date fixed for the completion of work, the Engineer-in-charge may at the expense of contractor remove such scaffolding, surplus materials and rubbish and dispose of the same as he thinks fit.

The following documents will form the completion documents:

**Technical documents according to which the work has been carried out.**

Three sets of construction drawings showing therein the modifications and corrections made during the course of execution signed by the Engineer in-charge.

Completion certificate for 'Embedded' or 'Covered' up work.

Certificate of final levels as set out for various works.

Certificate of test performed for various work.

Material appropriation statement for the materials issued by owner for work and list of surplus materials returned to owner's store duly supported by necessary documents.

4. Upon expiry of the period of defect liability and subject to Engineer-in charge being satisfied that work has been duly maintained by contractor during the defects liability period as fixed originally or as extended subsequently and that contractor has in all respects made up any subsidence and performed all his obligations under contract, the Engineer-in-charge shall (without prejudice to the rights of owner in any way) give final certificate to that effect. The contractor shall not be considered to have fulfilled the whole of his obligation until final certificate shall have been given by the Engineer-in-charge.
5. Final certificate only evidence of completion  
 Except the final certificate no other certificate of payment against a certificate or on general account shall be taken to be an admission by owner of the due performance of contract or any part thereof or of occupancy or validity or any claim by the contractor.

**GC.82 TAXES, DUTIES, OCTROI ETC. (DELETED)**

Contractor agrees to and does hereby accept full and exclusive liability for the payment of any and all taxes including sale taxes, duties, octroi, etc. now or herein after imposed, increased or modified from time to time in respect of work and materials and all contributions and taxes for unemployment, compensation, insurance and old age pension or annuities now or hereinafter imposed by the Central or State Government

authorities with respect to or covered by the wages, salaries or other compensation paid to the persons employed by contractor.

If the contractor is not liable to sale tax assessment, a certificate to that effect from the competent authority shall be produced, without which final payment to the contractor shall not be made. The owner shall supply IP, 'C' and 'D' from, and the contractor shall be required to pay full sales tax as applicable.

Contractor shall be responsible for compliance with all obligations and restrictions imposed by the labor law or any other law affecting employeremployee relationship.

Contractor further agrees to comply and to secure the compliance of all subcontractors with applicable central state, municipal and local laws and regulations and requirement. Contractor also agrees to defend, indemnify and hold harmless the owner from any liability or penalty which may be imposed by central, state or local authority by reasons of any violation by contractor or subcontractor of such laws; regulations or requirements and also from all claims, suits or proceedings that may be brought against owner arising under, growing out of or by reasons or work provided for by this contract by third parties or by Central or State Government Authority or any Administrative Sub-Division thereof.

The Sales Tax on work contract will be borne by contractor.

### **GC.83      INSURANCE**

Contractor shall at his own expenses carry and maintain with reputable Insurance Companies to the satisfaction of owner as follows:

Contractor agrees to and uses hereby accept full and exclusive liability for compliance with all obligations impose by the Employee's State Insurance Act 1948, and Contractor further agrees to defend, indemnify and hold owner hardness from any liability or penalty which may be imposed by the central or state government or local authority by reasons of any assorted violation by Contractor or sub-Contractor or the Employees, State Insurance Act 1 948 and also from all claims, suits or proceedings that may be brought against owner arising under, growing out of or by reasons of the work provided for by this contract whether brought by employees of contractor, by third parties or by Central or State Government authority or any administrative sub division thereof.

Contractor agrees to fill in with the Employees State Insurance Corporation, the declaration form and all forms which may be required in respect of contractor's or sub-contractor's employees whose aggregate remuneration is Rs. 400/- p.m. or less and who are employed in work provided for or those covered by ESI from time to time under the agreement. The Contractor shall deduct and secure the agreement of the sub contractor to deduct the employee's contribution as per the first schedule of the Employees State Insurance Act from



wages. Contractor shall remit and secure the agreement of subcontractor to remit to the State Bank of Indian Employees State Insurance Corporation Accounts, the employee's contribution as required by the act. Contractor agrees to maintain all cards and records as required under the Act in respect of employees and payments and contractor shall secure the agreements of the sub contractors to maintain in such records, any expenses incurred for the contributions, making contributions or maintaining records shall be to contractors or sub-contractors own account. Owner shall retain such sum as may be necessary from the contract value until contractor shall furnish satisfactory proof that all contribution as required by the Employees State Insurance Act 1 948 have been paid.

Workman's compensation and employees liability insurance: Insurance shall be affected for all contractors' employees engaged in the performance of this contract. If any part of work is sublet, contractor shall require the sub contractor to provide workman's compensation and employer's liability insurance, which may be required by owner.

Other Insurance required under law of regulations or by owner Contractor shall also carry and maintain any and all other insurance which may be required under any law or regulation from time to time. He shall also carry and maintain any other insurance, which may be required by owner.

#### **GC.84      DAMAGE TO PROPERTY**

Contractor shall be responsible for making good to the satisfaction of owner any loss of and any damage to all structures and properties belonging to owner or being executed or procured or being procured by owner or of other agencies within the premises of all work of owner, if such loss or damage is due to fault and / or the negligence of willful act or omission of contractor, his employees, agent, representatives or subcontractors.

Contractor shall indemnify and keep owner harmless of all claims for damage to properties other than property arising under by reasons of this agreement, such claims result from the fault and / or negligence or willful act or omission of contractor, his employees, agents, representative or sub contractors.

#### **GC.85      CONTRACTOR TO INDEMNIFY OWNER**

The contractor shall indemnify and keep indemnified the owner and every member, officer and employee of owner from and against all actions, claims, demands and liabilities whatsoever under the in respect of the breach of any of the above clauses and / or against any claim, action or demand by any workman / employee of the contractor or any sub contractor under any laws rules or regulations having force

of laws, including but not limited to claims against the owner under the workman compensation Act 1923, the employees Provident Funds Act 1952 and / or the contract labor (Abolition and Regulations) Act 1970.

**GC.86 PAYMENTS OF CLAIMS AND DAMAGES**

If owner has to pay any money in respect of such claims or demands aforesaid, the amount so paid and the cost incurred by the owner shall be charged to and paid by contractor without any dispute notwithstanding the same may have been paid without the consent or authority of the contractor.

In every case in which by virtue of any provision applicable in the workman's Compensation Act 1923 or any other Act, owner be obliged to pay compensation to workmen employed by contractor the amount of compensation so paid, and without prejudice to the rights of owner under sec. (12) sub section (2) of the said Act, owner shall be at liberty to recover such amount from any surplus due to or to become due to the contractor or from the security deposit. Owner will not be bound to contest any claim made under section (12) subsection (12) of the said act except on written request of contractor and giving full security for all costs consequent upon the contesting of such claim.

The contractor shall protect adjoining sites against structural, decorative and other damages that could be caused to adjoining premises by the execution of these works and made goods at his cost, any such damage, so caused.

**GC.87 IMPLEMENTATION OF APPRENTICE ACT 1954**

Contractor shall comply with the provisions of the apprentice Act 1954 and the orders issued there under from time to time. If he fails to do so, it will be a breach of contract.

**GC.88 HEALTH AND SANITARY ARRANGEMENTS FOR WORKERS**

Contractor shall comply with all the rules and regulations of the local sanitary authorities or as framed by owner from time to time for the protection of health and provide sanitary arrangements of all labor directly or indirectly employed on the work of this contract.

**GC.89 SAFETY CODE GENERAL**

Contractor shall adhere to safe construction practice and guard against hazardous and unsafe working conditions and shall comply with owner's rules as set forth herein.

1. First Aid and Industrial Injuries

**Contractor shall maintain first aid facilities for its employees and those of his sub-contractors.**

**Contractor shall make outside arrangements for ambulance service and for the treatment of industrial injuries. Name of those providing these services shall be furnished to Engineer-in-charge, prior to start of construction, and their telephone numbers shall be prominently posted in contractor's field office.**

**All injuries shall be reported promptly to Engineer-in-charge and a copy of Contractor's report covering each personal injury requiring the attention of a physician shall be furnished to owner.**

2. General Rules

- 2.1 Carrying and striking, matches, lighters inside the project area and smoking within the job site is strictly prohibited. Violators of smoking rules shall be discharged immediately. Within the operation area, no hot work shall be permitted, without valid gas, safety, fire permits. The contractor shall also be held liable and responsible for all lapses of his sub-contractors/employees in this regard.**

3. Contractor's Barricades

- 3.1 Contractor shall erects and maintains barricades without any extra cost, required in connection with his operation to guard or protect during the entire phase of the operation of this contract for,**

Excavation

Hoisting areas

Areas adjudged hazardous by Contractor's OR Owner's inspectors.

Owner's existing property liable to be damaged by Contractor's operations, in the opinion of Engineer-in-charge/Site Engineer.

Railroad unloading sports.

Contractor's employees and those of his subcontractors shall become acquainted with owner's barricading practices and shall respect the provisions thereof.

Barricades and hazardous areas adjacent to but not located in normal routes of travel shall be marked by red lantern at night.

4.

7.0 Safety equipment

All necessary personal safety equipment as considered necessary by the Engineer-in-charge should be made available for the use of persons employed on the site and maintained in a condition suitable for immediate use, and the contractor should

take adequate steps to ensure proper use of equipment by those concerned.

Workers employed on mixing asphalt materials, cement and lime mortars shall be provided with protective footwear and protective gloves.

#### Hoisting equipment

Use of hoisting machines and tackles including their attachments, and storage and supports shall conform to the following standards or conditions.

These shall be of good mechanical construction, sound material and adequate strength and free from patent defect and shall be kept in good condition and in good working order.

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.

Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years should be in charge of any hoisting machine including any scaffolding.

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, the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load and the conditions under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.

In case of departmental machine, the safe work load shall be notified by the Engineer-in-charge, As regards contractors machine, the contractor shall, notify the safe working load of the machine to the Engineer-in-charge. Whenever the contractor brings any machinery to site of work he should get it verified by the Engineer-in-charge concerned.

#### **GC.90 ACCIDENTS**

It shall be the contractor's responsibility to protect against accidents on the works. He shall indemnify the owner against any claim for damage or for injury to person or property resulting from, and in the course of work and also under the provision of the workman's compensation Act. On the

occurrence of an accident arising out of the works which results in death or which is so serious as to be likely to result in death, the contractor shall within twenty four hours of such accident, report in writing to the Engineer in charge, the facts stating clearly and in sufficient details the works involving injuries to person or damage to property other than that of the contractor shall be promptly reported to the Engineer in charge, stating clearly and in sufficient details the facts and circumstances of the accidents and the action taken. In all cases the contractor shall indemnify the owner against all loss or damage resulting directly or indirectly from the contractor's failure to report in the manner aforesaid. This includes penalties or fines, if any, payable by the owner as a failure to conform to the provisions of the said act in regard to such accidents.

In the event of an accident in respect of which compensation may become payable under the workman's compensation Act VIII of 1923 including all modification thereof, the Engineer-in-charge may retain out of money due and payable to the contractor such sum or sums of money as may in the opinion of the Engineer-in-charge be sufficient to meet such liability. On receipt of award from the labor commissioner in regard to quantum of compensation, the difference in amount will be adjusted.

**GC 91**

**Legal litigation shall be done only at the Rajkot Jurisdiction only.**

D.E.E.(ELE)	D.E.E.(ELE)	D.E.E.(ELE)	D.E.E.(MECH)	D.E.E.(MECH)	D.E.E.(MECH)	D.E.E. (MECH)	D.E.E. (MECH)
E/Z	C/Z	W/Z	E/Z	C/Z	W/Z	Raiyadhar	Bedi

Add. City Engineer(W.W.)

## **QUALIFYING CRITERIA**

## STATEMENT - A

01. Name of tenderer, full address, contact person and phone & fax nos.
02. Whether the firm is a Joint Stock Co., Undivided Hindu Family, Individual or Registered Partnership Firm. (Attested copy of Deeds or Articles of Association to be enclosed).
03. Name or person holding the Power of Attorney. (Attested copy of Power of Attorney to be enclosed).
04. Name of Partners with their Liabilities. (Attested copy of Partnership Deed to be enclosed).
05. Name of Bankers and Full Address.
06. Organization of Firm
07. Technical Qualification and Experience of the Proprietor or Partners & Leading Technical Employees in the Firm.
08. Details of Technical and Supervisory Staff proposed to be deployed on this Project.
  - a. Name
  - b. Qualification
  - c. Status
  - d. Experience in years
  - e. Date of Joining the Firm
09. The following Undertaking shall be submitted:
  - a. I/We hereby certify that I/We am/are not Partner(s) Blacklisted, Debarred, terminated or connected with firm blacklisted in any state, C.P.W.D., M.E.S. / or Railways or any Government, Semi-Government Organization.
  - b. At present I/We am/are Registered as Approved Contractor(s), Firms in any State, C.P.W.D., M.E.S. or Railways.
  - c. We, the Partners / Owners of this Firm, hereby give an Undertaking that we are jointly and severally responsible to meet all the Liabilities ever and above the business of this firm and make good the above Financial Loss sustained by the RAJKOT MUNICIPAL CORPORATION as a result of our abandoning the works entrusted to us i.e. this firm.











## STATEMENT - F

### INFORMATION REGARDING FINANCIAL CAPACITY OF THE CONTRACTORS

Sr no	Details	Amount (RS in Lacs)	Remarks
1	Working Capital		A Banker's certificate may please be attached
2	Annual Turnover		A copy of annual audited report certified by chartered accountant to be attached.
	2012-13		
	2013-14		
	2014-15		
	2015-16		
	2016-17		
	2017-18		
	2018-19		
3	Price of biggest job carried out in recent past		

**NOTE:-**

The bidder should have fund based working capital like over draft, cash credit, term loan etc. for which bidder to submit sanction letter from bank. If in balance sheet surplus and reserve are sufficient same can also be considered as a working capital. The solvency certificate cannot be considered as a working capital as same is not fund based credit.

**STATEMENT: G****FORM OF CONTRACT AGREEMENT**

THIS AGREEMENT made this \_\_\_\_\_ day of \_\_\_\_\_ by and between the RMC hereinafter called RMC and \_\_\_\_\_ hereinafter called "The Contractor".

WITNESSETH

Whereas, RMC has caused Specifications Drawings and other Contract documents to be prepared for certain works described as \_\_\_\_\_ and

Whereas Contractor has offered to perform the proposed works in accordance with the terms of the Contract Documents.

Now, therefore, in consideration of the natural covenants and Agreements of the parties herein contained and to be performed, contractor hereby agrees to complete the works at prices and on the Terms and Conditions herein contained and RMC hereby employees the contractor and agrees to pay him the contract prices provided herein for the fulfillment of the works and the performance of the covenants set forth herein.

The further terms, conditions and covenants of the contract, are set forth in the following exhibit parts each of which is attached hereto and by this reference made a part hereof.

- (a) The said tender and Appendix there.
- (b) The Pre-qualification Bid (Volume I-A).
- (c) The Conditions of Contract and Annexure thereto. (Volume I-B)
- (d) The Guarantee Bond.
- (e) The Specifications and Drawings.
- (f) The Price Bid (Volume II)
- (g) All Correspondence

The consideration of the payments to be made by the RMC to the Contractor as hereinafter mentioned, the contractor hereby covenants with the RMC to execution the works in conformity with the provision of the Contract.

The RMC hereby covenants to pay the contractor in consideration of the diligent and proper execution of the works the contract price at the time and in the manner prescribed by the Contract.

IN WITNESS WHEREOF, this Agreement has been executed in duplicate on the day and year first above written.

\_\_\_\_\_  
\_\_\_\_\_

Contractor

Add. City Engineer(W.W.)

**STATEMENT: H**  
**Form of Bid Security (Bank Guarantee) – ( Deleted )**

WHEREAS, \_\_\_\_\_ [Name of Bidder] (hereinafter called "the Bidder") has submitted his biddated \_\_\_\_\_ [Date] for the construction of \_\_\_\_\_ [Name of Contract] (hereinafter called "the Bid").

KNOW ALL MEN by these presents that We \_\_\_\_\_ [Name of Bank] of \_\_\_\_\_ [Name of Country] having our registered office at \_\_\_\_\_ (hereinafter called "the Bank) are bound as principal obligator unto \_\_\_\_\_ [Name of Employer] (hereinafter called "the Employer") and unconditionally and irrevocably guarantee the payment to the sum of \_\_\_\_\_ for which payment well and. truly to be made to the said Employer the Bank binds himself, his successors and assigns by these presents.

SEALED with the Common Seal ofthe said Bank this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_

**THE CONDITIONS of this obligation are:**

- (1) If the bidder withdraws his Bid during the period of bid validity specified in the Form of Bid:  
or
- (2) If the Bidder refuses to accept the correction of errors in his Bid; or
- (3) if the Bidder, having 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 Contract Agreement in accordance with the' Instructions to Bidders, if required; or
  - (b) fails or refuses to furnish the Performance Security, in accordance with the Instructions to Bidders;

We undertake to pay to the Employer up to the above amount upon receipt of its first written demand, without the Employer having to substantiate its demand, provided that in its demand the Employer will note that the amount claimed by it is due to it owing to the occurrence of one or all of the three conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date \_\_\_\_\_ days after the deadline for submission of bids as such 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 OF THE BANK

\_\_\_\_\_

WITNESS \_\_\_\_\_ SEAL

\_\_\_\_\_

\_\_\_\_\_  
 (Signature, Name, and Address)

**STATEMENT : I DELETED**  
**FORM OF PERFORMANCE SECURITY (BANK GUARANTEE ONLY**  
**NATIONALIZED BANK)**

To: \_\_\_\_\_ (*name of Employer*)

\_\_\_\_\_ (*address of Employer*)

WHEREAS \_\_\_\_\_ (*name and address of Contractor*) (hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. \_\_\_\_\_ dated \_\_\_\_\_ 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 obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such as Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you as principal obligator, on behalf of the Contractor, un conditionally and irrevocably guarantee the payment of an amount to total of

\_\_\_\_\_ (*amount of Guarantee*)

\_\_\_\_\_ (*amount in words*), such sum being payable in the types and proportions- of currencies in which the Contract Price 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 us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed thereunder or of any of the Contract documents which may be made between you 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 modification.

this guarantee shall be valid until the date of issue of the performance certificate.

**SIGNATURE AND SEAL OF THE GUARANTOR**

Name of Bank \_\_\_\_\_

Address \_\_\_\_\_

**Date** \_\_\_\_\_



# **Instrumentation System Design Criteria**

## **Instrumentation System Design Criteria (ELECTROMAGNETIC FULL BORE TYPE FLOW METER)**

1. **The design criteria to be applied to instrumentation systems shall be as follows:**
  - (a) All instruments shall be suitable for continuous operation.
  - (b) **All transmitting instruments shall have a 4 - 20 mA linear output.**
  - (c) All digital outputs shall be volt free.
  - (d) All instruments shall be designed for the ambient conditions of temperature and humidity.
  - (e) All wetted parts of instruments sensors shall be non-corrosive and suitable for use with potable water containing residual chlorine.
  - (f) **All instrumentation systems for use out of doors shall be protected to IP 67.**
  - (g) All analogue displays shall be of the digital type with no moving parts.
  - (h) Instrumentation shall utilize solid state electronic microprocessor technology and avoid the use where practical of any moving parts.
  - (i) Instruments shall resume operation automatically on application of power following a power failure.

**2. Flowmeters :** full bore electromagnetic type flow meters shall be provided on the discharge header of the pumping station .flow computer /converter shall be microprocessor based and shall have self diagnosis facilities.

### **2.1 General Requirements :**

Flow measuring system shall consist of Flow Meter, Flow Computer and flow transmitter, digital flow indicator with interface to Datalogger and any other item required to complete the system.

- (a) Flow meter shall be rugged in construction and shall be suitable for continuous operation suitable for outdoor installation in chambers.

- (b) To avoid the effects of disturbances in the velocity profile, a straight and uninterrupted run, upstream as well as downstream from the location of the flow sensor shall be provided, as required by the flow meter manufacturer.
- (c) Contractor shall finalize the exact location of flow transducers in consultation with Engineer's Representative.
- (d) The flow transmitter shall be suitable for field mounting and shall accept input from the flow meter. It shall process the input signal and provide 4-20 mA output proportional to flow rate. Flow transmitters shall have backlit LCD/LED display to indicate instantaneous flow rate. The flow range shall be adjustable.
- (e) Flow measurement shall not be affected by physical properties of water viz. temperature, pressure, viscosity, density etc., within given limits. Contractor shall provide compensating electronic circuits, if required.
- (l) Material inspection & flow meter testing shall be carried out at manufacturer site by Third party Agency appointed by RMC and RMC Representative jointly. Inspection charges shall be borne by BIDDER, material cleared by Third party Agency shall only be dispatched for site. All necessary test certificates must be produced at the time of delivery. 100 % Inspection will be carry out.
- (m) After Material received at site Concerned Engineer – in charge shall carry out the physical verification regarding material received in good and acceptable condition and Each flow meter is bearing ISI Mark or any international standard make as well as Third Party Mark.
- (n) The overall accuracy of flow measuring systems shall be at least +/- 0.5% of the measured value.
- (o) Electromagnetic flow meters shall be provided on discharge common header of each pumping station.
- (p) The flow meter output shall be compatible with Data logger / Application Software.
- (q) The Contractor shall ensure that the range of flows from one to six transmission pumps running can be adequately measured by the flow meter system provided.
- (r) The Flow meter shall be capable of monitoring and displaying the following:  
Flow Rate: Forward, Reverse, Net Flow & totals Velocity
- (s) The Flow sensor shall be rated IP 68 and be suitable for indefinite submergence to a depth of 10 meters.
- (t) The Electronic display unit shall be protected to **IP67**.

- (u) The remote transmitter shall be capable of mounting up to 200m away from the sensor.
- (v) The software for meter shall have multi-password protection to prevent inadvertent or fraudulent programming/configuration changes.
- (w) The Meter shall be available with the following features:

**General**

- (1) Service : Raw / Pure water Rising and Gravity Mains
- (2) Line size : As listed in Annexure  
(250 mm to 1200 mm)
- (3) Flow range : 0.5 to 100 ML/Day
- (4) Overall accuracy of measurement : +/- 0.5% of measured Flow loop
- (5) Process fluid : Potable water/ Raw water
- (6) Maximum pressure in the pipe : 18 Kg/ Sq. Cm
- (7) **Material of the pipe & Thickness of pipe : To be ascertained by bidder**
- (8) Concrete chamber around the pipe : Required for mounting the flow sensors
- (x) Surge protection devices (SPD) : Required for protection from lightning between each flow sensor and flow surges. computing unit/flow transmitter.

**Flow Computer & Transmitter**

- (i) Type : Multi Channel indicating type.
- (ii) Type of display : a) 5½ digit, LCD, min. 12 mm height for flow rate in m<sup>3</sup>/hr.  
b) 8 digit, LCD, min. 12 mm height for totalised flow in ML.
- (iii) Weather protection class : IP 68 of IS 13947 part 1.
- (iv) Power supply : 24 V DC / 240 V AC
- (v) Mounting : To be mounted on specified by engineer-incharge.
- (vi) Input : From electromagnetic flow sensors

- (vii) Output : a) Isolated 4-20 mA. DC output for flow rate.  
b) Potential free 1 NO + 1 NC relay output for High and Low flow set point (adjustable)
- (viii) Zero and Span Adjustment : Required
- (ix) Surge protection device (SPD) : Required.  
between flow computing unit and RTU in control room
- (x) Battery backup for totalised flow : Required

The necessary Electromagnetic flow meter with transducer shall be provided for raw water and pure water channels in the Treatment plant in order to transmit the on-line flow status. This shall be designed suitably with parameters of internal dimension of channel, velocity and depth of flow.

The Contractor shall arrange for required no. of flanges which are essential for the erection of the meter. The cost shall include erection, testing and validation. No extra cost will be paid for allied works.

Before taking up of the work, the Contractor shall give the work schedule and get approved by the Engineer duly in consultation with the RMC authorities for obtaining shut down.

**Notes:**

1. Flow computer/ transmitter shall provide an isolated output of 4-20 mA proportional to flow rate for connecting to RTU for telemetry.
2. Wet calibration test for accuracy and repeatability, hydraulic tests for the flow sensor shall be performed by the vendor and test certificates for the same shall be submitted for consultant's/ purchaser's review and records.
3. All flow meters should be manufactured by any one of companies as mentioned in vendor list.
4. Agency who supply full bore type electromagnetic flow meter must have his own testing laboratory for testing electromagnetic flow meters upto pipe line of 900 mm. dia..
5. CALIBRATION:-  
All the flow meters shall be calibrated in manufacturer's test lab accredited by National agencies in accordance with ISO 17025. In case the manufacturer does not have accredited flow meter test lab, all flow meter then shall be calibrated at

FCRI, PALGHAT/PALAKKAD, KERALA. Cost of calibration of all flow meter shall be born by the manufacturer.

### **3. ULTRA SONIC WATER LEVEL SENSOR:**

- 3.1 For measurement of water levels in sumps, Ground Level Storage Reservoirs (GLSRs) and Elevated Storage Reservoirs (ESRs) it is proposed to install non-contact type ultrasonic water level sensors having 4-20 mA output for interfacing with the data logger.
- 3.2 The proposed ultrasonic type water level sensors shall have following minimum technical specifications –
- 3.3 Level measurements shall be provided for clear water reservoirs, master balancing reservoir, terminal balancing reservoir, dewatering sumps and surge vessels.
- 3.4 Ultrasonic level measuring devices shall comprise a transducer and control unit.
- 3.5 The transducer shall be suitable for flange or bracket mounting as required and shall be environmentally protected to IP 68. It shall have ambient temperature compensation, adjustable datum setting facilities.
- 3.6 It shall be programmable with an integral programming keyboard and provide a digital display of the measured variable. It shall be provided with diagnosis facilities and shall provide an isolated 4 to 20 mA DC output signal proportional to the range of measurement.
- 3.7 The design and application of ultrasonic level meters shall take into account the vessel or channel construction, the material, size, shape, environment, process fluid or material, the presence of foam, granules, size etc.
- 3.8 The installation shall avoid any degradation of performance from spurious reflections, absorption, sound velocity variations, sensor detection area, temperature fluctuations, specific gravity changes and condensation. For applications where spurious reflections are unavoidable the control unit shall be provided with facilities for spurious reflection rejection.
- 3.9 If turbulence exists, shielding, stilling tubes or other measures shall be provided to avoid effects on the measurement.
- 3.10 The accuracy of level measuring system shall be  $\pm 0.5\%$  of measured value.
  - (i) Service : Sumps & ESRs
  - (ii) Accuracy of measuring loop :  $\pm 0.5\%$  of full scale

**Sensor :**

- (i) Type : Ultrasonic
- (ii) Range : 0.30 to 20.00 Mtrs
- (iii) Output : To be connected to level transmitter
- (iv) Weather protection class : IP 68 as per IS 13947 part 1
- (v) Mounting : From top of reservoir, tank
- (vii) Mounting nozzle : Required

**Transmitter**

- (i) Type : Microprocessor based (Indicating type)
- (ii) Output : Isolated 4-20 mA corresponding to level
- (iii) Mounting : In a lockable enclosure
- (iv) Power supply : 24 Vdc
- (v) Weather protection class : IP 65 as per IS 13947 part 1
- (vi) Programming facility with : Required programmer
- (vii) Type of display : LCD with backlit.
- (viii) Span and zero adjustment : Required

Note: Transmitter is integral to the transducer is also acceptable. All level sensors should be manufactured by any one of companies as mentioned in vendor list.

**4 . Residual chlorine measurement system :**

- 4.1 Ascertaining the quality of water supplied to the consumer For measurement of residual chlorine, it is proposed to install online type Amperometric residual chlorine sensors having 4-20 mA output for interfacing with the data logger.
- 4.2 The proposed Amperometric residual chlorine sensors shall have following minimum technical specifications –

**Sensor** :  
**Method** : Amperometric

Electrodes	: Gold Cathode/Silver Anode
Sensor shaft	: PVC /GLASS
Range	: 0.05 to 5 mg/lit as per Manufacturers standard
Response Time	: T90<2 min
Temperature Sensor	: NTC
Temperature	: 45 deg C
Pressure	: 6 bar max.
Mounting	: Flow through assembly.
Flow rate	: Min 30-120 l/hr max
<b>Transmitter</b>	:
Type	: Microprocessor based
Display Type	: 2 line LCD
Accuracy	: 1 % of Max range
Repeatability	: 0.2 % of Measuring range
Resolution	: 0.01 mg/lit
Mounting	: Field mount
Analog Output	: 4 – 20 mA, DC, for chlorine
Temperature Compensation	: Manual/Automatic
Enclosure Protection	: IP 65
Power Supply	: 230 VAC, 50/60 Hz

**NOTE**:- Residual Chlorine measurement system should be manufactured by any one of companies as mentioned in vendor list.

## **5. Data Collection Platform (DCP)**

5.1 Data Collection Platform (DCP) shall have state of art, rugged and robust field proven design for un-attended operation in harsh environmental conditions. Multiple input interface for variety of measurement sensors i.e. 4-20mA, RS-485, Digital Inputs etc., and communication ports for interfacing wireless data communication devices (VHF Modems). Following are the minimum technical specifications for DCP.

### **Environmental**

Operating Temperature	: 0 to 55°C
Relative Humidity	: 0 to 99 % Non-Condensing

**Data Collection Platform**

I/O	: DI - 8, AI - 4, DO – 8 (AI- Expandable to 8)
Interface	: 1 x RS-232, 1 x RS-485,
Memory	: Program + 1 year data @ 15 min interval
Display	: Graphics Display
Keyboard	: 8 Membrane Keys/ Touch screen
ADC Resolution	: 16 Bit or Better
µProcessor	: 32 Bit or Higher
Power Supply	: 10-16 V DC 0.50W (Max)
Enclosure	: NEMA 4 / IP-54

**VHF Radio Modem**

Operation Band	: VHF 136 & 176 Mhz.
Interface	: RS-232
Antenna	: External Antenna
Baud Rate (over Air)	: 300-1200 bps
Power output	: As required (Programmable)

**Mains Power Supply**

Battery Charger	: Microprocessor Based
Indicators	: Charging, Mains on, Battery Low, Battery Reverse
Protection	: Short-circuit, Overload, Under-voltage
Battery(ies)	: Sealed Maintenance Free (SMF)
Capacity	: As required by power budget for DCP and sensors interfaced with the DCP

<b>Enclosure</b>	: MS fabricated wall-mount panel enclosure for housing DCP, Power Supply, etc., with required ingress protection shall be provided at each station
------------------	--

**6. Computers, Printers etc., at Master Control Center (MCC)**

6.1 Data and communication computers and work stations required at Master Control Center shall be of latest configuration, industrial grade, available in the market at the time of supply and shall be provided with the required operating system suitable for running the application software, and antivirus with 1-year subscription paid.



6.2 The printers i.e. report printers, event printers and alarm and trend printers shall be of reputed make and shall be latest model available in the market.

## **7. Application Software**

- 7.1 Data and communication within the network shall be controlled and monitored by the application software running on computers and work stations at Master Control Center (MCC). Application shall be responsible for un-attended data collection from all the field stations, validation of the received data, display and store the validated data in the database and perform various operations to generate 'Bulk Water Audit Report' and other reports as per the requirement of water supply engineers in the RMC
- 7.2 Real time data and Daily Bulk Water Audit Report along with other static reports shall be uploaded to the Web portal periodically for web based remote monitoring. Access to the web portal shall be secured with password protection. Periodic data upload shall be done by the application software without any human intervention or manual uploading.
- 7.3 Collected data shall be made available for secured access through Android Application also for remote monitoring initially it is proposed to take 8 Smart phones with pre-loaded application for remote monitoring.
- 7.4 Functional requirements of the application software, Web based remote monitoring and Android application is only to illustrate the requirement and bidder is required to submit the detailed functionality, forms and screens of the proposed application software along with his bid to demonstrate his technical capability and understanding of the system.
- 7.5 Formats for Reports, trends, alarms, events shall be finalized by the bidder in consultation with the operational staff and officers responsible for the operation of the water supply system.

**RAJKOT MUNICIPAL CORPORATION  
WATER WORKS DEPARTMENT**

Name of Work : Comprehensive operation and Maintenance of real time bulk water audit system for Rajkot Municipal Corporation for five years.

**SPECIAL CONDITIONS OF CONTRACT**

**1.0 CONDITIONS OF CONTRACT:**

\* If the flow meter not repair by OEM in that case the payment should be provided by Rajkot Municipal Corporation on the basis of rate of SOR of water supply and sewage board.

The whole work of chamber of the flow meter is in the scope of agency.

The daily report and Monthly Report must be generated in format.

All data and storage/ backup must be collected from old agency.

Scada control room, all instruments, modem, computer, printer all are coolect in working condition from old agency and after completing the work all instruments given to Rajkot Municipal Corporation in working condition.

1.1The supplier / manufacturer shall have fully equipped arrangement of manufacturing, testing, quality control and technical expertise for manufacturing Electromagnetic full bore type Flow Meter in India OR as a joint venture with reputed manufacturer abroad and to provide services during warranty and comprehensive maintenance period.

1.2If found necessary tenderer will have to arrange visit of staff of Rajkot Municipal Corporation to verify the existence of facilities detailed in 1.1 above with the tenderer before opening of the Price Bid.

1.3During the visit if it will be observed that the tenderer do not possess the required facilities then the price bid of the tenderer will not be considered for opening.

1.4Quantity mentioned in tender document is tentative and subject to change. Contractor has to take written instruction from Add. City Engineer, Water Works, Rajkot Municipal Corporation, for dispatch of meters to Rajkot Municipal Corporation. No payment will be made for

meters received by Rajkot Municipal Corporation without written instruction.

- 1.5 Rates quoted in tenders shall be valid from 180 days from the date of opening of price bid of tender.
- 1.6 Location for flow meter, level sensors and chlorine sensors' installation shall be given by Engineer in charge, Water Works, Rajkot Municipal Corporation, at the time of issue of supply and installation order.
- 1.7 Investigation for most suitable position at given location or pipe shall be done by manufacturer for the working of flow meter as per specifications. No additional payment will be made.
- 1.8 Supplier shall prepare the site in all respects to start the work.
- 1.9 Excavation / construction of chamber / installation of meter instrumentation cable, electrical cable. Control cable power back up system, testing with hydraulic flow, electrical and instrumentation etc in all respect for trouble free operation of flow meter at given location and condition shall be carried out by manufacturer to ensure the normal working of meters.
- 1.10 The all the consumable required for operation and Maintenance must be supplied by agency.
- 1.11 Contractor shall provide monthly report on common specific date / time for all the meters installed under the contract for 5 years for the parameters generated from flow meter apart from flow volume.
- 1.12 Add. City Engineer, Water Works, Rajkot Municipal Corporation may ask manufacturer to verify the flow meter reading by checking measurement through portable Electromagnetic full bore type Flow Meter and / or volumetric method in case of any doubt arising out of flow meter readings.
- 1.13 In case of any malfunction observed by flow meter, manufacturer shall attend the complaint within 48 hours and if flow meter required to remove from site for major repairing manufacturer shall first arrange the alternate meter.
- 1.14 Power back up system for minimum 8 hours shall be part of whole system and hence warranty and annual maintenance contract shall be applicable to both the items.
- 1.15 If any of the meters is not working (5 years AMC) for want of maintenance or spares, Rajkot Municipal Corporation will recover the

penalty in the following manner from the amount due to contractor inclusive of S.D.

1.16 Up to 2 days	No penalty
2-7 days	Rs.500/day/meter(flow, level and chlorine)
7-15 days	Rs.1000/day/meter (flow, level and chlorine)
Beyond 15 days	Rs.2000/day/meter (flow, level and chlorine)

Penalty shall be maximum up to 10 % of the contract value or estimated Cost of tender which ever is higher .

**1.17 DELETED**

**1.18** Physical security of flow meters, level sensors and chlorine sensors - after installation and commissioning of all, the responsibility of physical security of premises lies with Rajkot Municipal Corporation, however, successful bidder shall have to insure the work with insurance company and in addition shall provide RCC chamber for each meter with lock key arrangement and glass for local monitoring of flow parameters. Keys shall be with the bidder for a period of 5 years during O&M period.

**1.19** Constant Voltage Transformer (CVT) is not required.

**1.20** An UPS with built in battery charger, is required.

**1.21** Since the printer is Laser type, the type of Transmitter shall be suitable to same, so that online data print out facility could be available.

**1.22 DELETED**

**1.23 Bidder should present guarantee letter from O.E.M. for this project. Bidder should also present responsibility latter for their product for 5 years to work satisfactory and repairing.**

**1.24 DELETED**

**1.25** Regarding eligibility, either original manufacturer or authorized dealer having all the requirement of financial as well as technical can quote the rate. If authorized dealer is quoting the prices, the matter of qualification criteria of original manufacturer will not be considered but the authorized dealer will have to be qualified from his own strength.

**1.26** The bidder applying for this tender should bear the registration as well as experience certificate in his own name.

- 1.27 The experience of work for flow meter supplied without GSM system, such experience will be considered by Rajkot Municipal Corporation.
- 1.28 The bidder shall have to supply two batteries by matching to the load criteria of designer with backup capacity of 8 hours.
- 1.29 The bidders are requested to give their Price List for supply of spare parts.
- 1.30 In future, if required contractor/bidder is bound to supply, installation, testing and commissioning full bore type electromagnetic flow meter, level sensor & chlorine sensors and integrated it's data with existing system for any pipeline which is not mention in tender. Payment will be made as per quoted in this tender by bidder. Payment will be made as per contract awarded to him. Of course, enhance factor will be applied as per tender protocol :
- Contractor/bidder is bound for five years to supply, installation, testing and commissioning full bore type electromagnetic flow meter, level sensors & chlorine sensors whenever required by Rajkot municipal corporation.
- 1.31 The design of RCC chamber, it was clarified that the design of RCC chamber shall depend on the diameter of the pipe + 1 meter working space on each side. The construction of chamber shall be as per RMC prevailing specification.
- 1.32 Dewatering required for construction for RCC chamber will be in the scope of bidder.
- 1.33 Successful bidder has to connect existing flow meters with central server by installing RTU/DATA LOGGER..etc. . Rajkot municipal corporation will paid extra cost for item installed to connect existing flow meter with system as per price quoted by successful bidder.**
- 1.34 Successful bidder must arrange one telephone at control room for attending complains & complain register should be maintained.
- 1.35 Whole communication system must have at least 25 % more capacity for future expansion.
- 1.36 Whole Under the smart city project RMC developed integrated command center (ICCC) develop at multiactivity center @ nana mava cross road Agency has to intrigate entire scada system control room based at Dr.ambedkar bhavan central zone office the data available at

scada control room should be electronically transferred and should be made available on TV screen.

## 2.0 SECURITY DEPOSIT:

2.1 Security deposit of 5% of value of work will be released after 60 days from the date of final bill.

## 3.0 PAYMENT TERMS FOR ANNUAL MAINTENANCE CONTRACT

### (Annual Charges):

<b>2</b>	<b>Annual Maintenance Contract for five year.</b>	
2.1	1 <sup>st</sup> year O & M.	10% of Quoted rate
	2 <sup>nd</sup> year O & M.	15% of Quoted rate
	3 <sup>rd</sup> year O & M.	20% of Quoted rate
	4 <sup>th</sup> year O & M.	20% of Quoted rate
	5 <sup>th</sup> year O & M.	35% of Quoted rate
2.2	<ul style="list-style-type: none"> <li>• 25% after completion of 3 months</li> <li>• 25% after completion of 6 months</li> <li>• 25% after completion of 9 months</li> <li>• 25% after completion of 12 months</li> </ul>	

## 4.0 Testing of work

5.1 The bidder shall have workshop and testing facility for repairs, however, all the meters will be tested at an accredited laboratory which has been clarified in the tender documents.

5.2 Regarding testing of the meter, same will be tested as per relevant IS Code or any International standard practice.

5.3 In the tender document, it has been clarified that ISO requirement is compulsory.

5.0 The tenderer can visit all sites, master control room, ICC room,, existing

Software , mobile application, existing flowmeters, level sensors, chlorine sensors,RTU display units etc between date 11/2/2020 to dt :- 21/2/2020 during 10:00 am to 5:00 pm and can contact for zone details

East zone :

1. C.B.Mori ( DEE – East Zone ) – 96247 18189
2. V.h.umat (Dee- bedi Zone )- 9624082299
3. B.p.mehta (Dee-east zone )-9924539391

Central Zone :

1. 1. H.M.Khakhar (DEE- Central Zone)- 9904291600
2. K.pdethariya (Dee-Central zone )- 9624738181

West Zone :

1. J.l.shingala (Dee- Nyari zone )- 9723451964
2. B.b.dholariya (Dee- raiya dhar zone )-9624718240
3. K.s.kharadi (Dee-west zone )-9624066990

D.E.E.(ELE)	D.E.E.(ELE)	D.E.E.(ELE)	D.E.E.(MECH)	D.E.E.(MECH)	D.E.E.(MECH)	D.E.E. (MECH)	D.E.E. (MECH)
E/Z	C/Z	W/Z	E/Z	C/Z	W/Z	Raiyadhar	Bedi

Add. City Engineer(W.W.)

## **CLARIFICATION OF SPECIFICATIONS**



**RAJKOT MUNICIPAL CORPORATION  
WATER WORKS DEPARTMENT**

**DETAILED SPECIFICATIONS**

Comprehensive operation and Maintenance of real time bulk water audit system for Rajkot Municipal Corporation for five years.

**1.0 GENERAL SPECIFICATIONS AND CONDITIONS:**

- 1.1 Rajkot Municipal Corporation has provided the size of pipe is indicative. The actual size O.D./ I.D., thickness shall be measured by manufacturer before supply of meter, any deviation and delay or damage cost due to non-fitting of meter shall be borne by bidder. The liquidity damage due to delay in fitting for wrong selection of fittings and accessories lies with bidder.
- 1.2 If there is any problem with ovality of pipes after the pipes are out, the contractor as per the relevant standards shall jack up the pipes and the jointing work shall be carried out.
- 1.3 The contractor will have a full system of local offices in India and full service capability in the Metro-cities throughout the country. Full contact details for key personnel, both national and local shall be furnished on request. The supplier shall provide evidence of at least five years involvement in the manufacturing of meters worldwide.
- 1.4 The successful contractor shall arrange for training of 6 nos. RMC engineers in operation, maintenance and repairs of the flow meters for a period of 4 days at Manufacturer's premises in India or at RMC sites, so as to enable the engineers to get acquainted with technology and O&M. All the expenses towards training shall be borne by contractor.
- 1.5 The sensor / transmitter cables shall be capable of withstanding the climatic condition as applicable at site and should be weatherproof. the cable shall be installed in a suitable uPVC duct to minimize the risk of damage during excavations for other works. All cables shall be laid at a minimum depth of 0.5 m below the ground. Maximum length between the sensor and the transmitter shall not be more than that recommended by the meter manufacturer.
- 1.6 The transmitter shall operate so as to avoid loss of data in the event of temporary loss of electrical power supply and contractor shall include

provision of maintenance free battery back up facility (8 hours duration) to cater for temporary loss of such power supply. The contractor must keep allowance for normal variations in mains electrical power parameters to be expected at site.

- 1.7 All the integrator should be of the same type and make i.e. they should be compatible for all the meters supplied as part of this bid. The logger should be suitable for local conditions. Each signal transmitter should be provided with a appropriate dual channel flow readings and of type approved by the client, with a data storage capacity of 365 days at 1 hour logging interval. Logger shall be supplied with compatible communication leads from transmitters to loggers and loggers to portable download devices (hand held units / laptops).
- 1.8 The integrator shall receive a compatible pulse or continuous output as appropriate from the transmitter. Appropriate software of windows type or similar software approved shall be included for downloading the flow on to a portable download device. The loggers shall have integral maintenance free batteries with a minimum of 10 years life, on continuous operation and rated not worse than IP68 protection. transducer should be of appropriate type with an accuracy of + or - 2.0 %. The logging interval should have a range of 1 second to 24 hours.
- 1.9 The gateway for remote monitoring system should have minimum features as given below:
- Communication via modem, Ethernet, VHF radio link or GSM
  - Uses standard internet protocols (TCP/IP, http)
  - Limit value monitoring with alarm signaling via e-mail or SMS
    - Synchronized time stamping of all measured values
    - Download device with WAP and GSM mobile phone.
- RTU to D.C.P. communication is via VHF transmission only. D.C.P. to end user communication is via GSM/GPRS. For datalogger GSM/GPRS not acceptable.**
- 1.10 The necessary software with installation CD, hardware and modem (Including computer) required for connectivity of all installed flow meters with centralized computer of water works department of RMC shall be provided by the successful bidder. Software shall provide minimum following parameters.

Date Time, Flow Rate, Min - max - Average values of flow for given time span on particular date and water levels of GSRs & ESRs of each head works & filter plants, residual chlorine in water of each head

works and filter plants. Min - max - Average values of water level & residual chlorine for given time span on particular date.

- 1.11 All safety precaution with lighting protection unit shall be provided to all the input of sensors and at power supply end. Hence totally 6 lighting protection devices per flow meter should be provided. the flow meters, the failure / damage to flow meter for any reason for the warranty and period of annual maintenance contract shall be with manufacture, hence, cost of insurance against all failure / damage (if any) shall be borne by manufacturer. No additional payment will be made.
- 1.12 Contractor shall provide training to client's nominated staff in 1) Installation of metering equipments 2) Programming of meters and data loggers 3) Meter reading practices 4) down load of data from data loggers 5) operation and maintenance of portable download devices 6) analysis of the data 7) Operation and maintenance of the online calibration validation equipment 8) Planned Preventive Maintenance of meters and other accessories 9) Remote monitoring set up by wireless technology.

## **2.0 TECHNICALSPECIFICATIONS:**

### **A) GENERAL TECHNICAL SPECIFICATIONS:**

#### **1) Full Bore Electromagnetic Flow Meter**

1. The Full bore electromagnetic flow meter shall work on the principle of "Faraday's Law" suitable for water having turbidity up to 3000 ppm.
2. Flow measuring system shall consist of Flow Meter, Flow Computer and flow transmitter, digital flow indicator with interface to Datalogger and any other item required to complete the system.
3. Flow meter shall be rugged in construction and shall be suitable for continuous operation suitable for outdoor installation in chambers.
4. To avoid the effects of disturbances in the velocity profile, a straight and uninterrupted run, upstream as well as downstream from the location of the flow sensor shall be provided, as required by the flow meter manufacturer.
5. Contractor shall finalize the exact location of flow transducers in consultation with Engineer's Representative.
6. The flow transmitter shall be suitable for field mounting and shall accept input from the flow meter. It shall process the input signal and provide 4-20 mA output proportional to flow rate. Flow

transmitters shall have LCD/LED display to indicate instantaneous flow rate. The flow range shall be adjustable.

7. Flow measurement shall not be affected by physical properties of water viz. temperature, pressure, viscosity, density etc., within given limits. Contractor shall provide compensating electronic circuits, if required.
8. After Material received at site Concerned Engineer - incharge shall carry out the physical verification regarding material received in good and acceptable condition and Each flow meter is bearing ISI Mark or any international standard make as well as Third Party Mark.
9. The overall accuracy of flow measuring systems shall be at least +/- 0.5% of the measured value.
10. Electromagnetic flow meters shall be provided on discharge common header of each pumping station.
11. The flow meter output shall be compatible with Data logger / Application Software.
12. The Contractor shall ensure that the range of flows from one to six transmission pumps running can be adequately measured by the flow meter system provided.
13. The Flow meter shall be capable of monitoring and displaying the following:  
Flow Rate: Forward, Reverse, Net Flow & totals
14. The Flow sensor shall be rated IP 68 and be suitable for indefinite submergence to a depth of 10 meters. The sensor shall also be suitable for installation in underground pipes without the need for a metering RCC chamber.
15. The Electronic display unit shall be protected to IP68 to facilitate installations in RCC chambers which may be likely to be flooding.
16. The remote transmitter shall be capable of mounting up to 200m away from the sensor. Capability of transmitter should be minimum 200 mtr away from the sensor at every site.
17. The software for meter shall have multi-password protection to prevent inadvertent or fraudulent programming/configuration changes.

## **2. Ultrasonic Water Level Sensors**

1. For measurement of water levels in sumps, Ground Level Storage Reservoirs (GLSRs) and Elevated Storage Reservoirs (ESRs) it is proposed to install non-contact type ultrasonic water level sensors having 4-20 mA output for interfacing with the data logger.

2. The proposed ultrasonic type water level sensors shall have following minimum technical specifications –
3. Level measurements shall be provided for clear water reservoirs, master balancing reservoir, terminal balancing reservoir, dewatering sumps and surge vessels.
4. Ultrasonic level measuring devices shall comprise a transducer and control unit.
5. The transducer shall be suitable for flange or bracket mounting as required and shall be environmentally protected to IP 68. It shall have ambient temperature compensation, adjustable datum setting facilities.
6. It shall be programmable with an integral programming keyboard and provide a digital display of the measured variable. It shall be provided with diagnosis facilities and shall provide an isolated 4 to 20 mA DC output signal proportional to the range of measurement.
7. The design and application of ultrasonic level meters shall take into account the vessel or channel construction, the material, size, shape, environment, process fluid or material, the presence of foam, granules, size etc.
8. The installation shall avoid any degradation of performance from spurious reflections, absorption, sound velocity variations, sensor detection area, temperature fluctuations, specific gravity changes and condensation. For applications where spurious reflections are unavoidable the control unit shall be provided with facilities for spurious reflection rejection.
9. If turbulence exists, shielding, stilling tubes or other measures shall be provided to avoid effects on the measurement.
10. The accuracy of level measuring system shall be  $\pm 0.5\%$  of full scale.

### **3. Residual Chlorine Measurement System**

1. Ascertaining the quality of water supplied to the consumer For measurement of residual chlorine, it is proposed to install online type Amperometric residual chlorine sensors having 4-20 mA output for interfacing with the data logger.

### **4. Data Collection Platform (DCP)**

1. Data Collection Platform (DCP) shall have state of art, rugged and robust field proven design for un-attended operation in harsh environmental conditions. Multiple input interface for variety of measurement sensors i.e. 4-20mA, RS-485, Digital Inputs etc., and

communication ports for interfacing wireless data communication devices (VHF Modems).

**5. Computers, Printers etc., at Master Control Center (MCC)**

1. Data and communication computers and work stations required at Master Control Center shall be of latest configuration, industrial grade, available in the market at the time of supply and shall be provided with the required operating system suitable for running the application software, and antivirus with 1-year subscription paid.

**6. Application Software**

1. Data and communication within the network shall be controlled and monitored by the application software running on computers and work stations at Master Control Center (MCC). Application shall be responsible for un-attended data collection from all the field stations, validation of the received data, display and store the validated data in the database and perform various operations to generate 'Bulk Water Audit Report' and other reports as per the requirement of water supply engineers in the RMC
2. Real time data and Daily Bulk Water Audit Report along with other static reports shall be uploaded to the Web portal periodically for web based remote monitoring. Access to the web portal shall be secured with password protection. Periodic data upload shall be done by the application software without any human intervention or manual uploading.
3. Collected data shall be made available for secured access through Android Application also for remote monitoring initially it is proposed to take 8 Smart phones with pre-loaded application for remote monitoring.
4. Functional requirements of the application software, Web based remote monitoring and Android application is only to illustrate the requirement and bidder is required to submit the detailed functionality, forms and screens of the proposed application software along with his bid to demonstrate his technical capability and understanding of the system.
5. Formats for Reports, trends, alarms, events shall be finalized by the bidder in consultation with the operational staff and officers responsible for the operation of the water supply system.

## 2) SPECIFIC TECHNICAL SPECIFICATIONS:

### 1. Electromagnetic Flow Meter

General		
(i)	Service	: Raw / Pure water Rising and Gravity Mains
(ii)	Line size	: As listed in Annexure
	Flow meter size.	: Flow meter size should be exactly corresponding to the size of the pipe line mention in the tender. Where ever size of pipe is odd size, size of flow meter should be nearest lower to the size of pipe line. SITC shall including with all accessories like expansion bellow, reducer/enlarger, flanges, nut-bolts, packing etc..
(iii)	Flow range	: 10 to 100 ML/Day
(iv)	Overall accuracy of measurement loop	: +/- 0.5% of measured flow (m.v.)
(v)	Process fluid	: Potable water/ Raw water
(vi)	Maximum pressure in the pipe	: 18 Kg/ Sq. cm
(vii)	Material of the pipe	: ma
(viii)	Thickness of pipe	: To be ascertained by bidder
(ix)	Concrete chamber around the pipe for mounting the flow sensors	: Required
(x)	Surge protection devices (SPD) between each flow sensor and flow computing unit/flow transmitter.	: Required for protection from lightning surges.

<b>Flow Computer &amp; Transmitter</b>			
(i)	Type	:	Multi Channel indicating type.
(ii)	Type of display	:	c) 5½ digit, LCD, min. 12 mm height for flow rate in m <sup>3</sup> /hr. d) 8 digit, LCD, min. 12 mm height for totalised flow in ML.
(iii)	Weather protection class	:	IP 67 of IS 13947 part 1.
(iv)	Power supply	:	24 V DC / 240 V AC
(v)	Mounting	:	To be mounted on chamber wall
(vi)	Input	:	From electromagnetic flow sensors
(vii)	Output	:	c) Isolated 4-20 mA. DC output for flow rate. d) Potential free 1 NO + 1 NC relay output for High and Low flow set point(adjustable)
(viii)	Zero and Span Adjustment	:	Required
(ix)	Surge protection device (SPD) between flow computing unit and RTU in control room	:	Required for protection from lightning surges. 2nos. on the signal loop and 2nos. on the power supply loop.
(x)	Battery backup for totalised flow	:	8 hrs. (minimum)
(xi)	Facility shall be provided that when any one sensor / path fails the flow meter shall continue to function by automatically discarding the faulty sensor/path from averaging function.	:	DELETED



(xii)	Facility to display flow measured by each path	:	DELETED
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## 2. Ultrasonic Level Sensor

(i)	Service	:	Sumps & ESRs
(iii)	Accuracy of measuring loop	:	± 0.5% of full scale
Sensor			
(i)	Type	:	Ultrasonic
(ii)	Range	:	0.30 to 7.00 Mtrs
(iii)	Output	:	To be connected to level transmitter
(iv)	Weather protection class	:	IP 68 as per IS 13947 part 1
(v)	Mounting	:	From top of reservoir, tank
(vii)	Mounting nozzle	:	Required
Transmitter			
(i)	Type	:	Microprocessor based (Indicating type)
(ii)	Output	:	Isolated 4-20 mA corresponding to level
(iii)	Mounting	:	In a lockable enclosure
(iv)	Power supply	:	24 Vdc
(v)	Weather protection class	:	IP 68 as per IS 13947 part 1
(vi)	Programming facility with programmer	:	Required
(vii)	Type of display	:	3 1/2 digit, 7 segment, backlit LCD
(viii)	Span and zero adjustment	:	Required

Note: Transmitter is integral to the transducer is also acceptable.

### 3. Residual Chlorine Sensor

	<b>Sensor</b>	:	
	Method	:	Amperometric
	Electrodes	:	Gold Cathode/Silver Anode
	Sensor shaft	:	PVC
	Range	:	0.05 to 5 mg/lit as per Manufacturers standard
	Response Time	:	T90<2 min
	Temperature Sensor	:	NTC
	Temperature	:	45 deg C
	Pressure	:	1 bar in CCA 250 assembly
	Mounting	:	CCA 250 Assembly
	Flow rate	:	Min 30-120 l/hr max
	<b>Transmitter</b>	:	
	Type	:	Microprocessor based
	Display Type	:	2 line LCD
	Accuracy	:	0.5 % of Max range
	Repeatability	:	0.2 % of Measuring range
	Resolution	:	0.001 mg/lit
	Mounting	:	Field mount
	Analog Output	:	4 – 20 mA, DC, for chlorine
	Temperature Compensation	:	Manual/Automatic
	Enclosure Protection	:	IP 65
	Power Supply	:	230 VAC, 50/60 Hz

#### 4. Data Collection Platform (DCP)

<b>Environmental</b>	
Operating Temperature	: 0 to 55°C
Relative Humidity	: 0 to 99 % Non-Condensing
<b>Data Collection Platform</b>	
I/O	: DI - 8, AI - 4, DO – 8 (AI- Expandable to 8)
Interface	: 1 x RS-232, 1 x RS-485,
Memory	: Program + 1 year data @ 15 min interval
Display	: Graphics Display
Keyboard	: 8 Membrane Keys/ Touch screen
ADC Resolution	: 16 Bit or Better
µProcessor	: 32 Bit or Higher
Power Supply	: 10-16 V DC 0.50W (Max)
Enclosure	: NEMA 4 / IP-54
<b>VHF Radio Modem</b>	
Operation Band	: VHF 136 & 176 Mhz.
Interface	: RS-232
Antenna	: External Antenna
Baud Rate (over Air)	: 300-1200 bps
Power output	: As required (Programmable)
<b>Mains Power Supply</b>	
Battery Charger	: Microprocessor Based

Indicators	:	Charging, Mains on, Battery Low, Battery Reverse
Protection	:	Short-circuit, Overload, Under-voltage
Battery(ies)	:	Sealed Maintenance Free (SMF)
Capacity	:	As required by power budget for DCP and sensors interfaced with the DCP
<b>Enclosure</b>	:	MS fabricated wall-mount panel enclosure for housing DCP, Power Supply, etc., with required ingress protection shall be provided at each station. Enclosure should be of IP 65 or IP 67.

**Item No.2:**

**Annual maintenance contract of real time bulk water audit system for Rajkot municipal corporation including 5 years annual maintenance contract as per specifications and as directed by Engineer in charge.**

1. The whole system shall be provided with 5 years operation and comprehensive annual maintenance contract. During this period, the successful bidder will be responsible for developing and implementing a Planned Preventive Maintenance (PPM) program for all the meters and other accessories supplied and installed as part of this contract. Supply of labour, materials, tools and equipment to carry out the agreed PPM, including supply of all consumables and spare parts. The contractor to attend for an emergency breakdown immediately (within 48 hours). O & M shall be sole responsibility of bidder and accordingly same should be satisfactorily carried out as per conditions of tender documents. Require consumables and spares should be provided by bidder only.
2. The contractor shall submit the preventive maintenance plan to be adopted during the period of operation and comprehensive annual maintenance apart from the break down repairs.
3. Comprehensive maintenance includes regular preventive maintenance of all components and hardware software used for satisfactory working of flow meter with accuracy of  $\pm 0.5\%$  of the measure value.

4. During the operation and comprehensive annual maintenance Add.city Engineer, Water Works may ask manufacturer to verify the flow meter reading either by checking measurement by portable Ultrasonic Flow Meter and / or volumetric method in case of any doubt arising out of flow meter readings. Bidder has to make his own arrangement for portable flow meter for verification.
5. In case of any malfunctioning is observed in system, contractor shall attend the complaint within 48 hours and if it is required to remove faulty part from site for major repairs then contractor shall first arrange the alternate part.
6. If any of the meters, level meters, chlorine meters is not working for want of maintenance or spares, Rajkot Municipal Corporation will recover the penalty in the following manner from the amount due to contractor inclusive of S.D.
- 7
 

Up to 2 days	No penalty
2-7 days	Rs.500/day/meter(flow, level and chlorine)
7-15 days	Rs.1000/day/meter (flow, level and chlorine)
Beyond 15 days	Rs.2000/day/meter (flow, level and chlorine)

Penalty shall be maximum up to 10 % of the contract value or estimated Cost of tender whichever is higher .

8. The scope of AMC has broadly defined in the tender documents. It is hereby further clarified that it will be responsibility of bidder to maintain all the meters in scientific way, so that meter will run continuously without any problem. All the relevant items of the meter will be in lock and key. Key will remain with the bidder only. RMC Engineer will not touch the meter. Bidder shall have to deploy qualified and experienced person who will all the time available at Rajkot.
9. Circular no. RMC/C/329, Dt. 22.12.2012 and order no. RMC/C/132, Dt.10.06.2013 of Rajkot municipal commissioner are count as a part of a tender and bidder must submit it with his sign and stamp. Failing of these is treated as reason for disqualify of tender.

The Contractor shall be required to perform the following services under these Conditions<sup>1</sup>:

The Contractor shall be responsible for corrective maintenance of all equipment. The Contractor shall be responsible for carrying out regular servicing and lubrication of

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<sup>1</sup> Provided here are certain standard services that RMC could require. However RMC may wish to review this and make changes depending on the exact nature of services they require from the Contractor.

moving parts, complying with maintenance instructions as defined in the Operation and Maintenance Manual, and ensuring that electromechanical equipment and motors operate correctly at all times.

The Contractor shall ensure that measurement systems operate correctly at all times. For the duration of the Annual Maintenance Contract period, the Contractor will be responsible for the supply and control of lubricants, spare parts and consumable materials excluding electrical power, necessary for the continuous operation of the works.

The Contractor will manage the consumables and utilities services to ensure their most economic consumption and to minimize wastage.

The quantities of all the unutilized spare parts and consumable materials will be fully handed-over to the Employer at the end of the O&M period.

The stores inventory, the issuing and recording of spare parts will be the responsibility of the Contractor.

The Contractor is also responsible for providing spare parts and material required for the operation and maintenance during the operation period, and shall bear the cost for the same, including the cost of storing and safeguarding.

The Contractor will make all necessary arrangements to ensure the continuous supply of spare parts and material for the works, and the rate of supply of these materials shall be in such quantities and amounts as would ensure uninterrupted operation.

The Contractor will specify the following personnel for the full term of Annual Maintenance Contract and training period with the following staff:

The agency shall have to pay performance guarantee for the amount of 10% of the value of the O&M cost shall have to enter in to agreement with RMC for O&M. The performance guarantee will in form of either FD or BG of any nationalize bank only.

Project Manager : 1 No.  
Technician : 3 No.

At the time of agreement the agency shall have to give Name of the dedicated team with CV & contact numbers as well as details of remuneration to be paid.

**Signature of Contractor**

Phase – 1 details

Location name	Level Sensor	Flow meter Nos And Size	Chlorine-sensor	RTU
Raiyadhar WTP- 1	1	2 a) 700 b)500	1	1
Raiyadhar WTP-2	-	1 a) 750	-	1
Nyari dam site	1	-	-	1
Nyari filter plant	2	1 a) 750	-	1
Aji dam site	1	2	-	1
Aji raw water	-	2	-	1

Aji filter plant-1	3	2 a) 600 b)600	1	1
Aji filter plant-2	3	2 a)450 b)450	1	1
Aji filter plant-3	4	1 a)800	1	1
Mavdi(punitnagar)	3	2 a)600 b)600	1	1
150 ft ring road	2	1 a)600	1	1
Sojitrnagar	2	1 a)500	1	1
Nyari filter ESR	1	2 a)350 b)750	1	1
Ghanteswar	1	2 a) 500 b)500	1	1
Chandresnagar	2	1 a) 600	1	1
Bajrangwadi	2	1 a)300	1	1
Nyara off take	1	1	-	1
Iswariya off take	1	-	-	-
Khabhala	1	-	-	-
Kalawad road (ub)	1	-	-	1
Mkt.hudko	1	1 a)250	-	1
Kothariya hudko	2	1 a) 300	1	1
Dudhsagar	2	2 a) 300 b) 300	1	1
Vinodnagar	3	1 a) 800	1	1
Greenland -1	1	1 a)450	1	1
Greenland-2	1	1 a)350	-	1
Bhadar	-	1a)800	-	1
Gondal	1	1 a)800	-	1
Ribda	1	1 a)800	-	1
Gurukul	2	2 a)750 b)500	2	1
Jubilee	2	2 a) 600 b)600	1	1
Lalbahadur	2	1 a)700	1	1
Railnagar	2	1a)600	1	1
TOTAL	51	40	20	31

Phase 2 details.

Location name	Flowmeter	RTU	remarks
Gondal	2 a)600 b)500	-	
Ribda	1 a)800	-	
Jubilee-2	2 a)800 b)700	1	
Nyara offtake	1 a)450	-	
Mavdi-2	1 a)800	1	
Nyari filter plant 1	1 a)450	1	
Nyari filter plant 2	2 a)600 b)350	1	
Aji filterplant 4	2 a)300 b)300	1	
Padhyuman park	1 a)250	1	

Raiyadhar WTP-2	1 a)700	1	Single extra
TOTAL	14	7	

**Note:**

1. Nos. & pipeline size given above are indicative.
2. Add. City Engineer, Water Works RMC, will decide for priority and necessity for installation depends on availability of budget.
3. RMC has right to choose the type of flow meter for specific location (Full Bore Electromagnetic Type).

D.E.E.(ELE) D.E.E.(ELE) D.E.E.(ELE) D.E.E.(MECH) D.E.E.(MECH) D.E.E.(MECH) D.E.E. (MECH) D.E.E. (MECH)  
 E/Z C/Z W/Z E/Z C/Z W/Z Raiyadhar Bedi

Add. City Engineer(W.W.)



Rajkot Municipal Corporation  
Water Works Department

**Name Of Contract : Comprehensive operation and Maintenance of real time bulk water audit system for Rajkot Municipal corporation for five yers.**

**:: DECLARATION ::**

I/We here declare that I/We have made myself thoroughly conversant with the local conditions regarding all material such as hardware material - all electrical goods availability of water etc. and labour on which I have based my rates for this work.

The specifications, clauses and conditions for this work have been carefully studied and understood by me before submitting the tender.

I/We undertake to use only the best materials, to be approved by the Engineer incharge before starting the work and also to abide by his decision of the Engineer incharge.

I/We hereby undertake to pay the labours engaged on the work as per Minimum Wages Act and its amendments from time to time is applicable to the zone concerned.

SEAL

UNDERTAKING FOR GUARANTEE

Rajkot Municipal Corporation  
Water Works Department

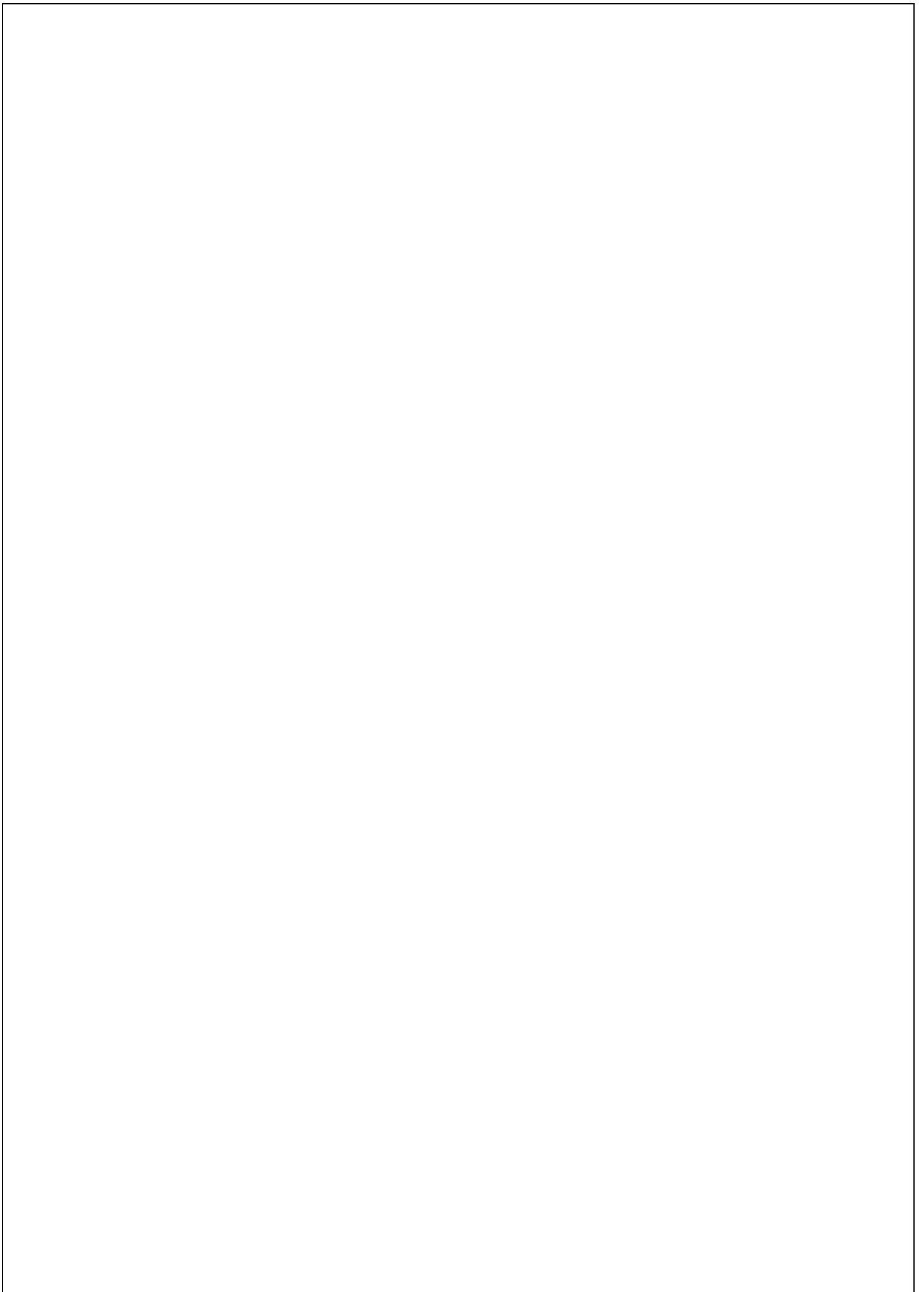
**Name Of Contract : Comprehensive operation and Maintenance of real time bulk water audit system for Rajkot Municipal corporation for five yers.**

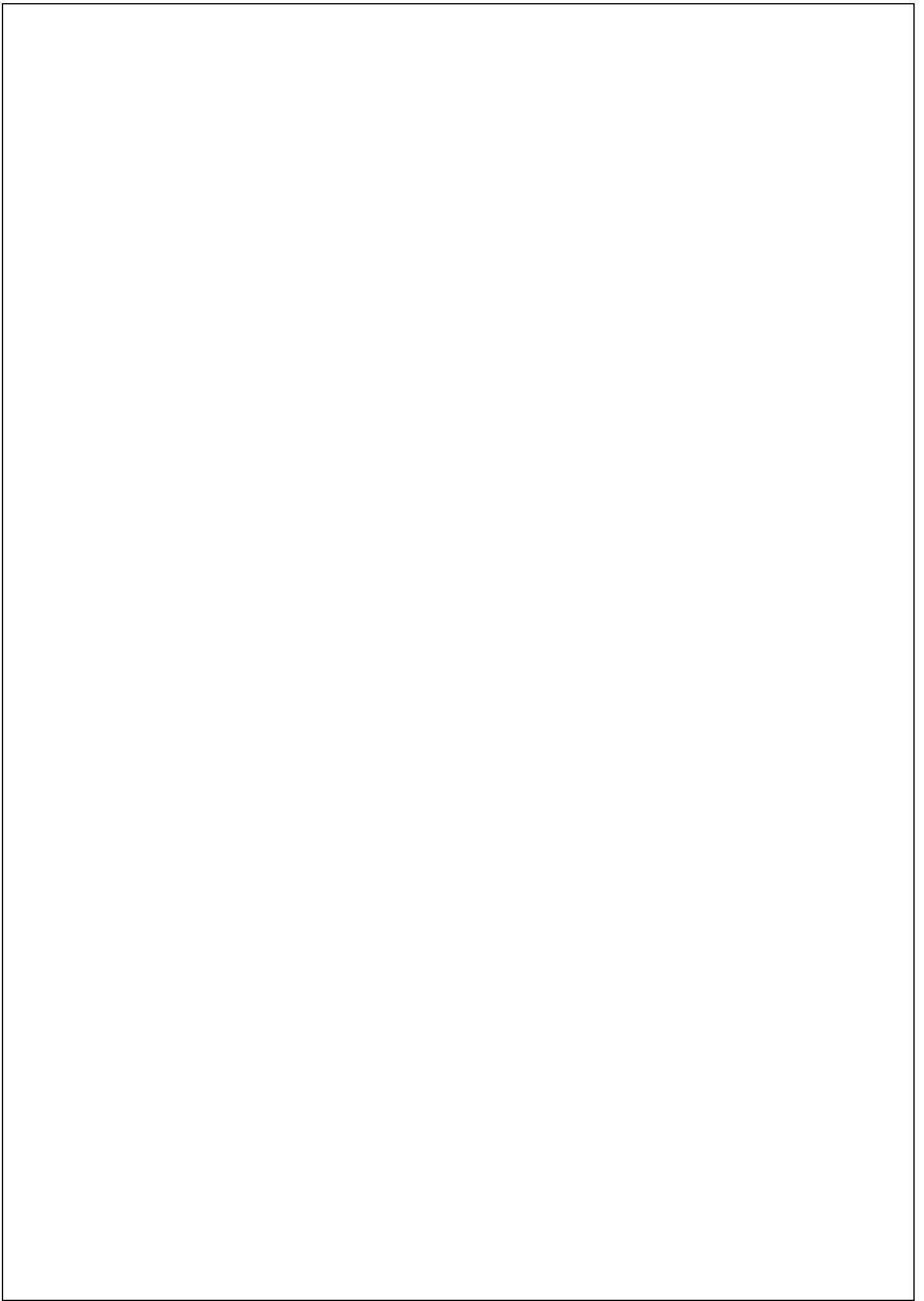
**UNDERTAKING FOR GUARANTEE**

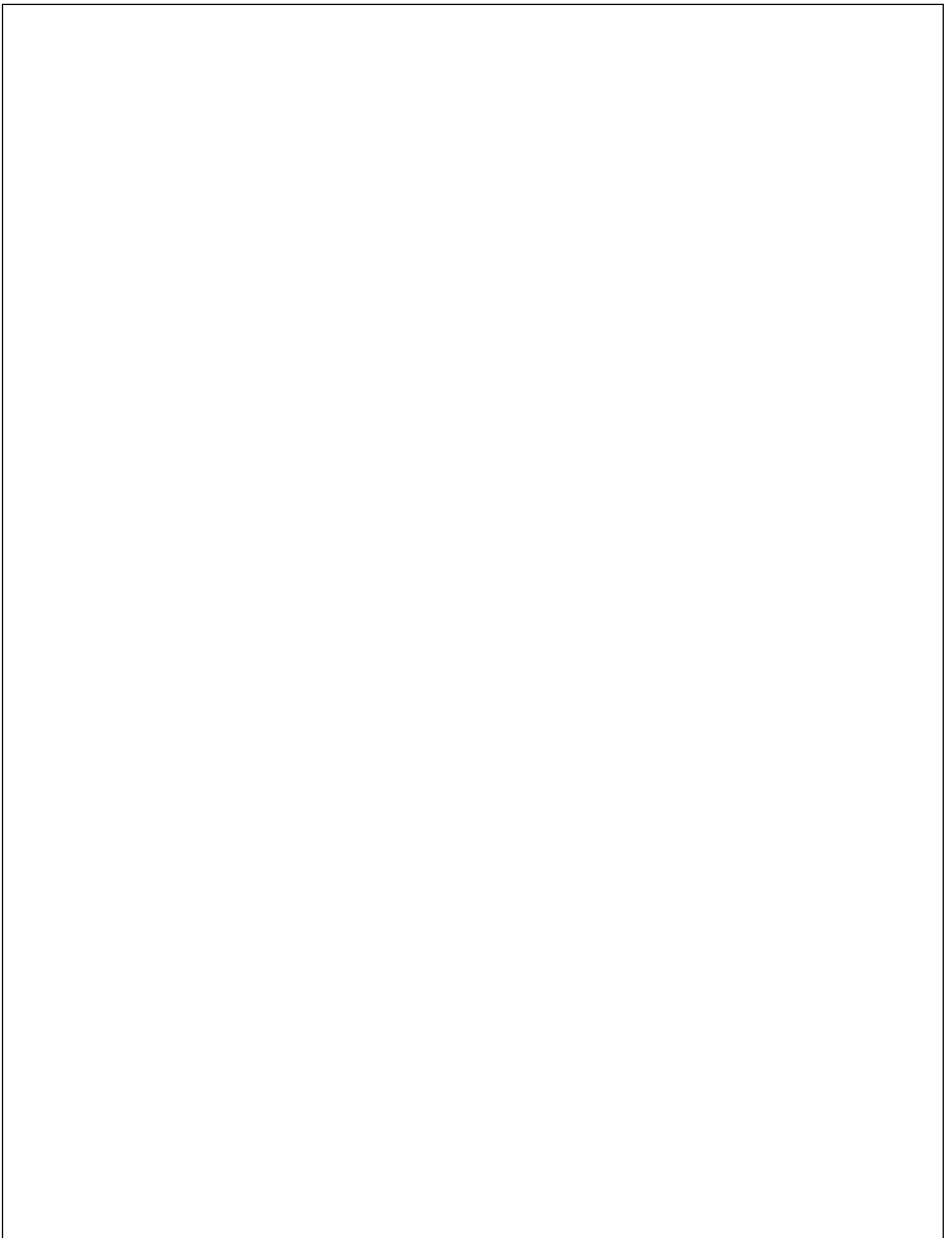
I/WE GUARANTEE THAT:

1. I/We replace, repair and adjust free of all charges, to the employer (RMC), any part of work which fails to comply with the specifications or the amendment to such specifications, as referred to in our specifications attached to tender, fair, wear and tear except until the completion and for a period of 60 months from the date of Acceptance Certificate issued by Rajkot Municipal Corporation.
2. All the work will be reliable
3. All the work will be of a type which has been proved in service, to be suitable for the duty required by the specifications and will be in the appropriate standard specifications approved by the Engineer incharge.
4. I/We accept and abide by the clause relating to quality and guarantee of work.

SEAL









**RAJKOT MUNICIPAL CORPORATION**  
**RAJKOT**

**E-TENDER NO.RMC/W W/W M-19-20**



Comprehensive Operation and Maintenance of Real Time Bulk  
Audit System for Rajkot Municipal Corporation for five years

**Milestone dates for e-tendering is as under**

1. Downloading of e-Tender documents	Dt. 10-02-2020 to 02-03-2020 upto 18 : 00 hrs.
3. Online submission of e – Tender	02-03-2020
4. Physical submission of EMD, e-Tender fee and other documents.	05-03-2020 up to 18:00 hrs.
5. Verification of submitted documents (EMD, e - Tender fee, etc.)	06-03-2020(if possible )
6. Opening of online tender	06-03-2020
7. Opening of Price Bid (if possible)	11-03-2020
9. Bid Validity	180 days
For further details, pre-qualification criteria etc. visit <a href="http://www.nprocure.com">www.nprocure.com</a>	

**Volume-II**  
**BID FORM WITH PRICE**

**Add. City Engineer**  
**WATER WORKS**  
Rajkot Municipal Corporation  
**Dr.Ambedkar Bhavan**  
**Dhebarbhai Road**  
**RAJKOT - 360 001**



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- 2.0 **PREAMBLE TO PRICE SCHEDULES**
- 3.0 **PRICE SCHEDULES**

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- SCHEDULE B - BREAKUP OF COST FOR ANNUAL MAINTENANCE CONTRACT
  - SCHEDULE C - INTERIM PAYMENT FOR WORK

**BID FORM (WITH PRICE)**

**CONTRACT No:** RMC/W W/ W M /19-20

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

The Municipal Commisioner  
Rajkot Municipal Corporation  
Dr. Ambedkar Bhavan  
Dhebar Road  
Rajkot

Dear Sir,

**SUB : Comprehensive operation and Maintenance for Real Time Bulk Audit System for Rajkot Municipal Corporation for Five years**

Having visited the site and examined the Bid Documents, Drawings, Conditions of Contract, Specifications, Schedules, Annexures, Preamble to Price Schedules, Price Schedules etc. including Addenda/Amendments to the above, for the execution of the above Contract, we the undersigned offer to design, engineer, procure, construct, complete, commission, to maintain the whole of the said Works for three years from the date of commissioning including defects liability period as given in Conditions of Contract and in conformity with the Drawings, Conditions of Contract, Specifications, Preamble to Price Schedules, Price

Schedules, Annexures, Bidding Documents, including Addenda Nos. \_\_\_\_\_ (insert numbers) for Lump sum fixed price of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_) for work and Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_) for Annual Maintenance Contract for a period of five years or such other sum as may be ascertained in accordance with the Conditions. **(all blank spaces are to be quoted on lineonly.)**

2. I / We agree that

(a) If we fail to provide required facilities to the Employer's representative or any other person/agency by the employer to perform on his behalf for carrying out the inspection and testing of materials and workmanship

or

(b) If we incorporate into the Works, materials before they are tested and approved by the Engineer's representative

or

(c) If we fail to deliver raw water of required quantity according to the conditions/stipulations of the Contract, the Engineer will be at liberty to take any action including termination of Contract and impose at his absolute discretion any penalties, and/or reject the work.

- 3. We agree to abide by this Bid for a period of 180 days from the date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before the expiry of that period.
- 4. In the event of our Bid being accepted, we agree to enter into a formal Contract Agreement with you incorporating the conditions of Contract thereto annexed but until such agreement is prepared this Bid together with your written acceptance thereof shall constitute a binding Contract between us.
- 5. We agree, if our Bid is accepted, to furnish Performance Bond/Security in the forms and of value specified in the Conditions of Contract of a sum equivalent to 5% of the Contract price for due performance of the Contract.
- 6. We have independently considered the amounts of liquidated damages shown in Appendix to Bid and agree that they represent a fair estimate of the damages likely to be suffered by you in the event of the Work not being completed by us in time.
- 7. We understand that you are not bound to accept the lowest or any Bid you may receive.

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 2013

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Name of the person)

\_\_\_\_\_  
(In the capacity of)

Company Seal

\_\_\_\_\_  
(Name of firm)

Duly authorized to sign Bid for and on behalf of  
(Fill in block capitals)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Witness

Signature \_\_\_\_\_  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
\_\_\_\_\_

**PREAMBLE TO PRICE SCHEDULES**

As mentioned in the Conditions of contract, the Contract being a lump sum type turnkey Contract on EPC basis, the provision of measurement will be applicable only for the assessment of value of work done for inclusion in any interim certificate for part payment to the Contractor.

The Schedule specifies the procedure for all such assessment of the items for civil works specified in Schedule B.

1. Each item of Schedule B has been divided into broad components. The Employer's Representative shall assess the value of each component as indicated herein below.
2. Percentages are indicated against each component of each item of civil works specified in Schedule B, based on the Employer's best appreciation of the value of the component as related to the total costs of the concerned item as whole. A head titled (any other item(s)) is included in each breakdown of schedule and the tenderer shall at the time of tendering indicate any additional items which he considers necessary but cannot be covered by any of the heads indicated in the breakup.
3. The percentage breakup as indicated in the Schedule may differ from that corresponding to the tenderer's scheme and design and he should take this into account while quoting his lump sum prices for the items specified in Schedule-B
4. The contractor shall, after approval of his detailed designs and drawings furnish to the Employer's Representative an initial bill of quantities to all major items, to be reviewed and updated periodically with the Employer's Representative. This bill of quantities will be used for assessment of percentage progress of the component at any stage. By measurement jointly taken by the Employer's Representative and the Contractor, mutually agreed and entered in the measurement books in the form and by the method approved by the Employer's Representative, and signed jointly by both the parties

#### BREAK UP OF SCHEDULE OF PAYMENT

Percentages are indicated against each component of each item of works specified in Schedule-A, based on the Employer's best appreciation of the value of the component as related to the total costs of the concerned item as whole. A head titled (any other item(s)) is included in each breakdown of schedule and the tenderer shall at the time of tendering indicate any additional items which he considers necessary but cannot be covered by any of the heads indicated in the breakup.

The contractor shall, after approval of his detailed designs and drawings furnish to the Employer's Representative an initial bill of quantities to all major items, to be reviewed and updated periodically with the Employer's Representative. This bill of quantities will be used for assessment of percentage progress of the component at any stage. By measurement jointly taken by the Employer's Representative and the Contractor, mutually agreed and entered in the measurement books in the form and by the method approved by the Employer's Representative, and signed jointly by both the parties

**COMPONENT OF WHOLE SYSTEM MENTIONED IN PRICE  
SCHEDULE : A, ITEM NO: 1**

2

**Annual Maintenance Contract**

COMPONENT OF WHOLE SYSTEM MENTIONED IN PRICE SCHEDULE : A, ITEM NO: 1		
<b>1</b>	<b>Annual Maintenance Contract</b>	
1.1	1 <sup>st</sup> year O & M.	10% of Quoted rate
	2 <sup>nd</sup> year O & M.	15% of Quoted rate
	3 <sup>rd</sup> year O & M.	20% of Quoted rate
	4 <sup>th</sup> year O & M.	20% of Quoted rate
	5 <sup>th</sup> year O & M.	35% of Quoted rate
1.2	<ul style="list-style-type: none"> <li>• 25% after completion of 3 months</li> <li>• 25% after completion of 6 months</li> <li>• 25% after completion of 9 months</li> <li>• 25% after completion of 12 months</li> </ul>	

**ANNUAL MAINTENANCE ONTRACT**

The works of this schedule comprises of the supply of all spare parts as required including the supply of all labour , materials, consumables ( except electrical power ), equipment, tools and tackles and comprehensive annual maintenance contract during the **1st Year, 2nd Year, 3rd Year, 4th Year and 5th Year** from the date of successful commissioning. Payment will be made as per shown in Table No.2 below.

**TABLE -2**

Sr. No	Description	Total Price Rs.
<b>1</b>	<b>Total price for A.M.C. for the First Year</b>	10% of Quoted rate
<b>2</b>	<b>Total price for A.M.C. for the Second Year</b>	15% of Quoted rate
<b>3</b>	<b>Total price for A.M.C. for the Third Year</b>	20% of Quoted rate
<b>4</b>	<b>Total price for A.M.C. for the Fourth Year</b>	20% of Quoted rate
<b>5</b>	<b>Total price for A.M.C. for the Fifth Year</b>	35% of Quoted rate
	<b>Grand Total</b>	<b>100 % of quoted rate</b>

**SIGNATURE**

**NAME AND DESIGNATION**

**COMPANY**

**DATE**

### **Note on Schedule**

The bid is lump sum bid for procurement, erection, testing, commissioning and Annual Maintenance Contract for REAL TIME BULK WATER AUDIT SYSTEM FOR RAJKOT MUNICIPAL CORPORATION INCLUDING 5 YEARS ANNUAL MAINTENANCE.

- 1.
2. The bidder shall quote his firm and fixed lump sum price for the entire work under this Contract inclusive of all the taxes, duties, custom, octroi, work contract tax etc.
3. The rates and prices shall be submitted in the formats given **online** as per enclosed Price Schedules A, B and C. Rates and prices received in any other formats will be rejected and the Bids will be disqualified.
4. It will be entirely at the discretion of the Employer to accept or reject the bidder's design proposal, without giving any reasons whatsoever and the bidder shall not be permitted to withdraw his bid on this account.
5. In Price Schedule-A, bidder shall quote his prices for entire work prices quoted in Schedule-A only will be considered for price evaluation & shall form a part of the Contract Agreement.
6. Schedule 'D' gives the basis of interim payment.
7. The bidder shall be deemed to have allowed in his price for provision, maintenance and final removal of all temporary works of whatsoever nature required for erection for the proper execution of works. The rates shall also be deemed to include any works and setting out that may be required to be carried out for laying out of all the works involved.
8. Prices shall be entered in figures and in words. Where there is a discrepancy between the unit rates and the amount entered, the latter shall govern.
9. The Price Schedules are to be read in conjunction with the Conditions of Contract, the Specifications and other sections of these bid documents and these documents are to be taken as mutually explanatory of one another.
10. Prices quoted by the bidder shall be firm for the entire period of Contract without any escalation.



11. The prices quoted shall also include the cost of materials utilized for testing.
12. The bidder should acquaint himself with the site conditions including the access to Worksite. The successful bidder shall have to make suitable access to worksites at his own cost. These accesses will be used by the other contractors working for RMC.
13. The security of the whole system will be the responsibility of bidder during the period of Annual Maintenance Contract.

Signature of Bidder.

## **PRICE SCHEDULES**

**PRICE SCHEDULE - A**

**PRICE SCHEDULE A : QUOTED  
PRICES**

Item	Lump sum Price (Rs.)	
	In figure	In Words
I) ANNUAL COMPREHENSIVE MAINTENANCE CONTRACT FOR FIVE YEARS.(IT MUST NOT be LESS THAN RS. 60,00,000/-)		
Total		

**Note: prices to be quoted online only.**