

Diamond Research and Mercantile City Limited

Name of work : Design, Engineering, Procuring, Constructing, Erecting, Commissioning (EPC) of 230 (Two hundred thirty) KLD Tertiary Sewage Treatment Plant and successive Operation and Maintenance for the period of 5 (Five) years for DREAM CITY, Surat.

E- Tender

TENDER NOTICE (online) NO : MD/DCL/04/2017-18

Bid Fee (Non-refundable)	Rs.2,688 /- (Rupees Twenty Thousand Six Hundred Eighty Eight only) by Demand Draft in favour of The Managing Director, Dream City Limited, Surat.
Start date for downloading Bid Document	Dt.26/10/2017
Last date for downloading Bid Document and online submission	Till 08/11/2017 up to 18:00 hrs.
Submission (in Hard Copy) of Bid fee & E.M.D.	In sealed envelope, strictly by RPAD/Postal Speed Post from 09/11/2017 to 13/11/2017 up to 17:00 hrs. To MD, Dream City Limited & Chairman, SUDA, "SUDA Bhavan", B/H Old Multistoried Building, Nanpura, Surat-395001. Phone: 2465007, 2465008, 2465009, Gujarat by RPAD or Speed Post Only.
Earnest Money Deposit (E.M.D)	Rs.1,00,000/- (Rupees One Lac only) by Demand Draft in favour of The Managing Director, Dream City Limited, Surat.
Opening Of tender Documents	Dt.09/11/2017
Bid Document Availability	https://smc.nprocure.com , https://www.suratmunicipal.gov.in/Information/News

Tender to be submitted to:
The Managing Director,
Dream City Limited,
Surat – 395 001.

DIAMOND RESEARCH AND MERCANTILE CITY LIMITED

VOLUME-I
CONDITIONS OF CONTRACT AND SPECIFICATIONS
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1. NOTICE INVITING TENDERS

(A) RECEIPT AND OPENING OF TENDER :

Online Tenders will be received from the established and reliable contractors on or before **18.00 hours on 08/11/2017** on website Dream City.nprocure.com. The tender received after due time and date specified will not be accepted.

(B) NAME OF WORK:- **Design, Engineering, Procuring, Constructing, Erecting, Commissioning (EPC) of 230 (Two hundred thirty) KLD Tertiary Sewage Treatment Plant and successive Operation and Maintenance for the period of 5 (Five) years for DREAM CITY.**

1. EARNEST MONEY DEPOSIT : Rs. 1,00,000.00
2. TIME LIMIT : 03 (Three) months [Including monsoon]
3. Document Fee : Rs. 2,688.00

(C) OPENING OF TENDERS :

The tenders will be opened online in presence of bidders and opening authority subject to receipt of Tender Fees, EMD and other Documents in hard copy. The tenders will be opened in three stages i.e Qualification Bid, Technical Bid and Commercial Bid.

(D) PURCHASE OF TENDER DOCUMENTS :

Tender Documents can be downloaded from Dream City.nprocure.com up to **08/11/2017**.

Tender documents fees of Rs. 2,688.00 towards the cost of tender documents in pay order or by demand draft of any nationalized bank, in favour of "The Managing Director, Dream City Limited" payable at Surat and shall be submitted along with EMD and other documents. The cost of the Tender Documents will not be refunded in any circumstances. Dream City ltd. shall not be liable for any postal delay in any case.

(E) CONTRACT PERIOD :

The total contract period is hereby fixed as **03 (Three) months** [Including monsoon] from the 15th Day of issuance of work order.

(F) Tenderer must comply with and agree to all instructions & requirements in the Notice and in the Instructions to Tenderers, including requirements in the Contract Documents.

- (a) All tenders must be submitted in the prescribed Tender form.
- (b) Each Tender must be accompanied by the completion Schedule.
- (c) Each tender must be accompanied by the Tender Security (Earnest Money Deposit) Rs. 1,00,000.00 as specified in the tender notice
- (d) The successful tenderer shall execute the Contract Agreement within fifteen days after the date of Notice of award.

- (e) The successful Tenderer will be required to furnish a performance bond (Security Deposit) of and amount equal to (2%) Two percent of the tendered amount.
- (f) The successful Tenderer shall furnish insurance in accordance with the contract documents.
- (g) The Dream City Limited may withhold issuance of the Notice of proceed for a period not exceeding fifteen days after the date of execution of the contract agreement.
- (h) The tender and tender guarantee bond (Earnest Money Deposit) shall be submitted by the Agency in whose name tender has been issued. Transfer of tender documents to any other party is prohibited.
- (i) All intending tenderers will have to purchase digital signatures in order to participate in the online bidding process.
- (j) All the applicant contractors are required to have their own employers' code number under EPF Act, 1952 and are required to comply the applicable provisions of said statute regularly and totally.**

(G) Tender Validity Period :

The validity period of the tender submitted for this work shall be of one hundred twenty (120) calendar days from the last day of online submission of tender for this work and the Tenderer shall not be allowed to withdraw or modify the tender offer on his own during the validity period.

(H) Rights Reserved :

Without assigning any reason, The Dream City Limited reserves the right to reject the lowest or any other or all tenders or part of its. To waive any informality or irregularity in any tender, which in the opinion of the Dream City Limited does not appear to be in its best interest and the tenderer shall have no cause of action or claim against the Dream City Limited or its officers, employee, successors or assignees for rejection of this tender.

The Dream City Limited further reserves the right to withhold issuance of the notice to proceed, after execution of the contract agreement by the successful Tenderer. The Dream City Limited is not obliged to give reasons for any such action.

During Tender validity period, if any Tenderer withdraws or makes any modifications or additions in the terms and conditions on his own in this tender, then The Dream City Limited shall without prejudice to any right or remedy be at liberty to reject the tender and forfeit the Earnest Money Deposit in full. Such Tenderer may be disqualified from tendering for further works under the jurisdiction of The Dream City Limited.

The Dream City Limited reserves the right to increase or decrease the scope of work and split the tender in two or more parts without assigning any reason even after the award of contract.

Signature Of The Contractor.

I/c. Town Planner
Surat Municipal Corporation
and Dream City Limited

2. QUALIFICATIONS OF TENDERERS :

The tenderer shall fulfill the following requirements / experiences for qualification in its name.

- A. The Tenderer must have achieved average annual turnover during last five financial years, ending on 31st March, 2017 (in all classes of engineering activities) of Rs. 29.45 Lacs.
- B. The Tenderer should have satisfactorily completed sewage treatment plant / effluent treatment plant / common effluent treatment plant / tertiary treatment plant including Design, Procurement, Construction, Testing, Trial run and Commissioning with PLC – Automation during the past 7 years (i.e. Financial year 2009 – 2016) on EPC/ TURN KEY basis and must have experience of Operation & Maintenance of the said plant(s) for minimum continuous 6 (Six) months within past 7 years as prescribed above (i.e. financial year 2009 – 2016) of at least;

One number of STP of 184 KLD Capacity

Or

Two nos. of STP of 115 KLD Capacity each

Or

Three nos. of STP of 92 KLD Capacity each

The above STP shall have treated sewage disposal / reuse standards as below.

Parameter	Units	Values
BOD (3 days at 27 deg C)	mg/L	≤ 10
TSS	mg/L	≤ 10

- C. To meet all financial criteria as indicated in notice inviting tender (NIT), the bidder may consider following enhancement factors for the cost of works executed and financial figures to arrive at common base for the value of the works completed in India. Cut of month shall be considered from month of tender submission

Financial Year	Multiplying factor
Immediate last year of the assessment year*	1.1
Second	1.21
Third	1.33
Fourth	1.46
Fifth	1.61
Sixth	1.77
Seventh	1.95

*Here assessment year shall be reckon from year and month in which tender is submitted

- D. The experience of Joint Venture / Sub-contractors / back to back work SHALL NOT BE considered.
- E. The Bidder should submit Solvency Certificate of 20% of the estimated cost of the tender i.e. Rs. 19.63 lacs issued by schedule bank / Nationalized bank only.
- F. The Bidder should submit the list of the works already completed in last 7 years in prescribed performa and attested copies of certificates issued by head of the office concerned for completed work.

- G. The Bidder shall submit Declaration regarding the work on hand with the bidder in prescribed Performa. Attested copies of work orders, interim certificate if any shall also be attach as supporting documents for above.
- H. The Bidder shall submit the attested copy of partnership deed, power of attorney, etc.
- I. Joint Venture shall not be allowed.
- J. Even though the Bidder meet the above criteria, they are subject to be disqualified if they have
 - i) Made misleading or false presentations in the forms, statements and attachments submitted in proof of the qualification requirements; and / or
 - ii) During verification if it is found from client that of poor performance such as abandoning the works, not properly completing the contract and penalized for the same, litigation history, or financial failure etc.
 - iii) The Bidder shall note that in case the Bidder / MOU partner is blacklisted / stated as defaulter / penalized / barred participating in tenders by any of government agencies / semi government agencies in India during last 7 years then in that case, the Bidder will be disqualified though the bidder satisfies all the prequalification conditions mentioned above.

Signature Of The Contractor.

I/c. Town Planner
Surat Municipal Corporation
and Dream City Limited

3. INFORMATION TO TENDERER :

1. Tender validity period 120 days (One hundred & Twenty days) from the last date of receipt of tender
2. Earnest Money Deposit Rs. 1,00,000.00
3. Security Deposit Two Percent (2%) of tendered Amount.
4. Time of Completion 03 (Three) months [Including monsoon]
5. Period of liability for defects. Twelve Months after completion of work.
6. Penalty for delay Zero Point two percent (0.2%) of the contract price per day maximum up to ten percent of the contract price.
7. Last date of download of tender Date :- 08/11/2017 up to 18.00 hrs from Dream City.nprocure.com
8. Last date of submission of online Tender Date :- 08/11/2017 up to 18.00 hrs
9. Last date of submission of Tender fees, EMD and other Documents From 09/11/2017 to 13/11/2017 up to 1700 hrs
10. Pre-Bid : Bidders shall have to post their queries on e-mail address dreamclsurat@gmail.com on or before Dt. 04/11/2017.

Signature Of The Contractor.

I/c. Town Planner
Surat Municipal Corporation
and Dream City Limited

4. SUBMISSION OF TENDER

(Following condition shall supersede relevant condition mentioned elsewhere in the bidding document)

- E.M.D & Tender fee shall be submitted in electronic format only through online (by scanning) while uploading the bid . This submission shall mean that E.M.D & tender fee are received for purpose of opening the Bid . Accordingly , offer/tenders of those tenders whose E.M.D & tenders fee is received electronically , shall be opened. However, for the purpose of realization of EMD and tender fee , bidder shall send the EMD as well as Tender fee in required format in original through RPAD/Speed post so as to reach to Account Department (Dream city) within 7 days from the last date of submission of price-Bid . punitive action shall be initiated for non submission of EMD & Tender fees in original to Account Department (Dream City limited) by bidder including abeyance of registration and cancellation of E- tendering code for one year . All documents of supporting of Bid shall be in electronic format only through online (by scanning) during the bidding period & hard copy will not be accepted separately.”
- All Documents must be coloured scanned to be seen as original. Scanning in Black and White or gray shall not be acceptable .
- All the Documents must be notarized with clearly displaying stamp , number and name of the notary.
- Price Bid shall have to be quoted strictly online only. No hard copy of price bid shall be accepted.
- Addenda/corrigenda to these tender documents , if issue must be signed and submitted online only.

“Following Documents shall only be submitted in HARD COPY to Dream City Limited by all bidders”

- Earnest Money Deposit as mentioned in the Tender . (i.e DD/Bank Guarantee)
- Tender fees as mentioned in the tender
- Affidavit on Non judicial Stamp Paper of Rs. 100/-

Technical bid and qualification documents mentioned in the tender and price bid are not to be submitted in physical form . please note that Non – Submission of Hard Copies of technical Bid as well as price Bid does not absolve the bidders from any liability created from the bid condition and bidding process . Price bid shall have to be quoted strictly online only. Technical –Bid in Hard copy shall be Submitted only by Successful bidders upon intimation from DREAM CITY.”

Signature Of The Contractor.

I/c. Town Planner
Surat Municipal Corporation
and Dream City Limited

5. AFFIDAVIT

- 1.0 I, the undersigned, do hereby certify that all the statements made in the required attachments are true and correct.
- 2.0 The undersigned also hereby certifies that neither our firm M/s _____ nor any of its constituent partners have abandoned any work in India nor any contract awarded to us for such works has been rescinded during last five years, prior to the date of this bid.
- 3.0 The undersigned hereby authorize(s) and request(s) any bank, person, authorities, government or public limited institutions, firm or Dream city ltd to furnish pertinent information deemed necessary and requested by the DREAM CITY to verify our statements or our competence and general reputation.
- 4.0 The undersigned understands and agrees that further qualifying information may be requested, and agrees to furnish any such information at the request of the DREAM CITY.
- 5.0 The DREAM CITY and its authorised representatives are hereby authorised to conduct any inquiries or investigations to verify the statements, documents, and information submitted in connection with this application and to seek clarification from our bankers and clients regarding any financial and technical aspects. This Affidavit will also serve as authorisation to any individual or authorised representative of any institution referred to in the supporting information, to provide such information deemed necessary and requested by yourselves to verify statements and information provided in the Tender or with regard to the resources, experience and competence of the Applicant.

Signed by the authorised signatory of the firm

Title of the office

Name of the firm

Date

Note: The affidavit format as indicated above to be furnished on non judicial stamp Paper of **Rs.100.**

6. TURN KEY TENDER AND CONTRACT FOR WORKS

General Rules and Directions for the Guidance of Contractors.

1. All work proposed to be executed under this contract shall be notified in a form of invitation to tender Posted on a board hung up in the Dream city ltd Office and signed by the Officer authorized by Managing Director.

This form will state the work to be carried out, as well as the date for submitting and opening of the tender, earnest money to be deposited with the tender, and the amount of security deposit to be deposited by the successful tenderer and the percentage, if any to be deducted from bills. It will also state whether a refund of quarry fees, royalties, octroi dues, ground rents and water-charges will be granted. Copies of the specifications, designs, drawings and estimated rates, schedule rates and any other documents required in connection with the work which will be signed by the Managing Director, for the purpose of identification shall also be opened for inspection by Contractors at the Office of the Dream City office during office hours.

Where the works are proposed to be executed according to the specification recommended by a Contractor and approved by a competent authority on behalf of the Dream City Limited such specification with designs and drawings shall form part of the accepted tender.

2. In the event of the tender being submitted by a firm, it must be signed by each partner thereof, and in the event of the absence of any partner, it shall be signed on his behalf by a person holding a power-of-attorney authorizing him to do so.
3. Receipt for payments made on account of any work when executed by a firm, should also be signed by all the partners, except where the contractors are described in their tender as a firm in which case the receipts shall be signed in the name of the firm by one of the partners, or by some other person having authority to give effectual receipt for the firm.
4. Any person who submits a tender shall fill up the usual printed form including the column total according to sepific item, stating at what rate he is willing to undertake each item of the work. Tenders which propose any alteration in work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort, will be liable to rejection. No single tender shall include more than one work, but contractors who wish to tender for two or more works shall submit a separate tender for each. Tenders shall have the name and the number of the works to which they refer written outside the envelope.
5. Managing Director or his duly authorized Assistant will open tenders in the presence of any intending contractors who may be present at the time, and will enter the amounts of the several tenders in a comparative statement in suitable form. In the event of a tender being accepted, the contractors shall there upon, for the purpose of identification, sign copies of the specifications and other documents mentioned in Rule 1. In the event of a tender being rejected the deposit will be refundable on application.
6. Dream City Limited shall have the right of rejecting all or any of the tenders without assigning any reasons.
7. No receipt for any payment alleged to have been made by a Contractor regard to any matter relating to this tender or the contract shall be valid and binding to Dream City Ltd unless it is signed by the Managing Director.

8. The memorandum of work to be tendered for and the schedule of materials to be supplied by Dream City Limited and their rates shall be filled in and completed by the office of the Dream City Limited before the tender form issued. If a form issued to an intending tenderer has not been so filled in and completed, he shall request the said office to have this done before he completes and delivers his tender.
9. All work shall be measured net by standard measure and according to the rules and custom of the Department of Dream City Limited without reference to any local custom.
10. Under no circumstances shall any Contractor be entitled to claim enhanced rates for any items in this Contract.
11. Every Contractor shall, if so desired by the Managing Director, produce along with his tender a banker's certificate of his financial stability. If he fails to produce such a certificate his tender will not be considered.
12. All corrections and additions or pasted slips should be initialed.
13. For the Capital and O&M works, all the prevailing taxes (i.e. GST, etc.) in the tender shall remain to the contractors account and it shall be applicable as defined in the tender elsewhere specifically. However, if any new taxes or service tax is levied by the Government, during the period of contract (Capital and O&M); the same shall be reimbursed/recovered on submission of documentary proof of its payment.
14. Tenderers shall also note that as per the provisions of government, 01 % (one percent) construction cess on the work done amount shall be levied and shall be deducted from each running bill & final bill. The contractor shall quote the rate accordingly. This shall be applicable on capital works only. This shall not be applicable on O&M works.
15. The successful tenderer shall submit the copy of technical bid duly sealed & signed within fifteen days of issue of work order.
16. The tenderer shall invariably submit the Certificate of Provident Fund of Employee without which bill for payment shall not be processed.
17. The successful tenderer shall submit the copy of labour license within fifteen days of issue of work order.
18. For the necessary modification / alteration / addition to complet the job, if any civil breaking or repairing is to be done, shall have to be carried out by contractor at his own cost, as per standard engineering practice. It shall be sole responsibility of contractor to clear construction and demolition waste (C.D. Waste) by their own risk and cost. The contractor shall ensure that their site must be clear in all respect by disposing C.D. Waste generated during the work. If its found that contractor is irregular and showing negligence to dispose C.D. Waste than SMC is empowered to dispose the said C.D. waste through SMC authorized C.D. waste contractor /agency. All the necessary expenditure made towards disposal of this C.D. waste shall be recovered from the contractor along with the administrative charges and penalties.

Signature Of The Contractor.

I/c. Town Planner
Surat Municipal Corporation
and Dream City Limited

7. TENDER FOR WORKS

I/We hereby tender for the execution for the Dream City Limited (herein before and herein after referred to as "Dream City Limited") of the work specified in the memorandum within the time specified in such memorandum at the tendered rates specified in schedule B (memorandum showing items of work to be carried out) and in accordance in all respects with the specification, designs, drawings, and instructions in writing referred to in clause 13 of the annexed conditions of contract and agree that when materials for the work are provided by Dream City such materials and the rates to be paid for them shall be as provided in schedule A hereto.

Should this tender be accepted I/We hereby agree to abide by and fulfill all the terms and provisions of the conditions of contract annexed hereto so far as applicable, and in default thereof to forfeit and pay to Dream City in office the sums of money mentioned in the said conditions.

Receipt No. _____ dated _____ from Dream City in respect of the sum of Rs. _____ (Rupees _____ only) / A crossed order cheque of Rs. _____ (Rupees _____ only) No. _____ dated _____ on the _____ in favour of Managing Director, Dream City Ltd is herewith forwarded representing the earnest money the full value of which is to be absolutely forfeited to Dream City should I/We not deposit the full amount of security deposit specified in the Memorandum, in accordance with Clause 1 of the said conditions.

Contractor:

Address:

Dated the _____ day of _____ 2017

(Witness)

(Address)

(Occupation)

The above tender is hereby accepted by me on behalf of the Dream City Limited.

I/c. Town Planner
Surat Municipal Corporation
and Dream City Limited

Dated _____ day of _____ 2017

8. CONTRACT AGREEMENT FOR

Design, Engineering, Procuring, Constructing, Erecting, Commissioning (EPC) of 230 (Two hundred thirty) KLD Tertiary Sewage Treatment Plant and successive Operation and Maintenance for the period of 5 (Five) years for DREAM CITY.

Articles of agreement made this _____ day of the month of _____ 2017. Between Managing Director of Dream City (which expression shall include his successors and assignees of one part) and _____ hereinafter called the contractor (which expression shall include their administrator and assignees of the other part).

WHEREAS the Contractors above named tendered for the works above mentioned and the same having been accepted by the General Body of Dream City Limited vide Resolution No. _____ dated _____; it is hereby agreed that the Contractor should carry out the works according to the terms and conditions of the contract detailed in the Item Rate Tender Books, - conditions and specifications, which have been signed by the contractors on.

In witness whereof the said Contractors and the Managing Director on behalf of the Dream City Limited have hereinto set their respective hands this _____ day of the month of _____ of the year 2017.

Signed, sealed and delivered by the said contractor in the presence of

Contractor,

I/c. Town Planner
Surat Municipal Corporation
and Dream City Limited

Dy. Commissioner
Surat Municipal Corporation
and Dream City Limited

I am responsible if the Contractor does not abide by the Condition of this contract.

Sealed with the common seal of the Dream City limited in the presence of ---

Surety.

1. _____
2. _____

9. SURETY

This bond is made this _____ day of the month of _____ 2017. The Two Thousand eight _____ between Shri _____ (hereinafter called the surety) of the first part and the Managing Director on behalf of the Dream City Limited of the second part.

WHEREAS the Contractor/Contractors Shri/Ms. _____ of _____ has/have entered into a contract with the Dream City Limited for the works detailed below :-

Name of the work	Tender Amount	G.B. Resolution No. & date Sanctioning Contract

AND WHEREAS one of the conditions of the contract being that the Contractor/ contractors shall give surety/sureties to the Dream city ltd for the due fulfillment of the contract to the full value of the total expenditure of the work.

NOW THIS BOND WITNESSES and it is hereby agreed and declared as follows :-

I/We Surety/Sureties hereby bind myself/ourselves responsible for the due fulfillment of the contract in all its respects by the Contractor/Contractors and I/We do hereby agree and undertake to indemnity and keep harmless.

The Dream City Limited jointly as well as severally if the Contractor / Contractors fail / fails to carry out the whole or any part of the contract work as per the conditions and specifications of the work and as agreed to between the parties to the contract to the extent of full value of the total expenditure to be incurred in that behalf by Dream City Limited provided always that the expression "the Surety/Sureties" hereinbefore used shall include the heirs, executors, assigns or administrators of each and every person in this context.

IN WITNESS WHEREOF the said surety/sureties and the Managing Director on behalf of the Dream City Limited have hereinto set their respective hands this _____ day the month of _____ of the year 2017.

Surety

Signed in the presence.

Signed in the presence.

Dy. Commissioner
Surat Municipal Corporation
and Dream City Limited

10. IMPORTANT POINTS TO BE BROUGHT TO TENDERER'S NOTICE

THE TENDER MAY BE REJECTED OUTRIGHT IF THE TENDERER

- A. Stipulates the validity period less than what is stated in the form or tender.
- B. Stipulates his own conditions.
- C. Does not quote his rates inclusive of terminal or GST etc. in his rates.
- D. Does not disclose the full names and addresses of all his partners in the case of partnership concern.
- E. Does not fill in and sign the tender form as well as the bill of quantities and rates, annexure, specifications etc.
- F. Does not pay the Earnest Money Deposit by Pay Order or demand draft with the PART – A: QUALIFICATION BID of the tender.
- G. Does not submit the tender before the stipulated time on the specified date in the accounts office as directed.

Signature Of The Contractor.

I/c. Town Planner
Surat Municipal Corporation
and Dream City Limited

11. CONDITIONS OF CONTRACT

Clause 1.

The Person/persons whose tender may be accepted [here-in after called the Contractor, which expression shall unless excluded by or repugnant to the context include his heirs, executors, administrators and assignees] shall [within 15 days of the receipt by him of the notification of the acceptance of his tender] deposit with Dream City Limited cash or D.D. or pay order endorsed to Managing Director sum sufficient which will make up the full Security deposit specified in the tender.

If the amount of the Security Deposit to be paid in Lump Sum within the period Specified above is not paid the tender Contract already accepted shall be considered as Cancelled. The Security deposit lodged by Contractor Shall be refunded after the expiry Memorandum after deducting dues, if any which become liable to be recovered from the contractor under the terms and condition of this Agreement.

(A) Tender Costing Less than Rs. 1.00 Lac.

The Total Security deposit shall be recovered at the rate of 5% of approved tender Cost from contractor. Out of which 50% of amount as a Initial Security Deposit shall be payable at the rate of 2.5% of approved Tender Cost in form of Cash or D.D./ Pay Order of any Nationalized Bank (encashable at Surat city). The remaining amount of the Security deposits i.e. 2.5% of tendered amount shall be recovered from the running account bills in form of retention money at the rate of 2.5% of the gross amount of each bill. So as to make the total Security Deposit of 5% of the tendered amount up to the Final bill.

In Addition to 2.5% of RMD/ SD additional 10% Amount shall be retained from each Bill which shall be Released in Final Bill. Under no circumstances the said retention shall be released prior to Final Bill.

(B) Tender Costing More than Rs. 1.00 Lac and up to Rs. 2.00 Lacs.

The Total Security Deposit shall be recovered at the rate of 4% of approved tender Cost from contractor. Out of which, 50% of amount as a initial Security Deposit shall be payable at the rate of 2% of approved tender cost in from of Cash or D.D./ Pay Order of any Nationalized bank (encashable at Surat city). The remaining amount of the Security deposits i. e. 2% of tendered amount shall be recovered from the running account bills in form of retention money at the rate of 2% of the gross amount of each bill, so as to make the total Security Deposit of 4% of the tendered amount up to the Final bill.

In Addition to 2% RMD/ SD additional 10% Amount shall be retained from each Bill which shall be released in Final Bill. Under no circumstances the said retention shall be released prior to Final Bill.

(C) Tender costing more than Rs. 2.00 Lacs and up to Rs. 25.00 Lacs.

The Total Security Deposit shall be recovered at the rate of 4% of approved tender Cost from contractor. Out of which, 50% of amount as Initial security Deposit shall be payable at the rate of 2% of approved Tender Cost in from Cash or D.D. / Pay Order of any Nationalized bank (encashable at Surat city). The remaining amount of the Security deposits i. e. 2% of tendered amount shall be recovered from the running account bills in form of retention money at the rate of 2% of the gross amount of each bill, so as to make the total Security Deposit of 4% of the tendered amount up to the Final bill.

In Addition to 2% of RMD / SD additional 5% Amount shall be retained from each Bill which shall be released in Final Bill. Under no circumstances the said retention shall be released prior to Final Bill.

(D) Tender costing more than Rs.25.00 Lacs and up to Rs. 1.00 Crore.

The Total Security deposit shall be recovered at the rate of 4% of approved tender Cost from contractor. Out of which, 50% of amount as Initial Security Deposit shall be payable at the rate of 2% of approved Tender Cost in form of form D.D./ Pay Order / FDR/ Bank Guarantee of any Nationalized Bank (encashable at Surat city). The remaining amount of the Security Deposit i.e. 2% of tendered amount

shall be recovered from the running account bills in the form of retention money at the rate of 2% of the gross amount of each bill, so as to make the total security deposit of 4% of the tendered amount up to the Final bill.

In Addition to 2% RMD/ SD additional 5% Amount shall be retained from each Bill which shall be Released in Final Bill. Under no circumstance the said retention shall be released prior to Final Bill.

(E) Tender costing more than Rs.1.00 Crore.

The Total security deposit shall be recovered at the rate of 4% of approved tender cost from contractor. Out of which, 50% of amount as a initial security Deposit shall be payable at the rate of 2% of approved Tender Cost in form D.D./ Pay Order / FDR/ Bank Guarantee of any Nationalized Bank (encashable at Surat City). The remaining amount of the security deposit i.e. 2% of tendered amount shall be recovered from the running account bills in form of retention money at the rate of 2% of the gross amount of each bill, so as to make the total Security Deposit of 4% of the tendered amount upto the Final Bill.

In Addition to 2% of RMD/SD additional 5% amount shall be retained from each bill which shall be released in Final bill. Under no circumstances the said retention shall be released prior to Final Bill.

The amount recovered from the running bills/ retention money shall not be allowed to be transferred in the form of Bank Guarantee. However, the remaining 50% (2% of Security Deposit) of the amount so, deducted from running bills will be allowed for conversion in the form of interest bearing fixed deposit receipt, issue in favour of the Dream City Limited, Dream City Limited, Surat by a Nationalized Bank located at Surat only. The initial Security Deposit at the rate of 2% submitted in form of Bank Guarantee will be refunded after payment of final bill and remaining 2% of Security Deposit deducted from the running bill shall be refunded only after the expiry of defect liability period, Audit related procedure and rectification of defects if any found so.

It is clarified that the amount of security deposit shall be collected on the basis of contract price and not on the basis of Estimated Amount put to tender. As initial Security Deposit as mentioned above (A) to (B) accepted by the competent Authority shall have to be paid toward Security Deposit at the time of execution of agreement.

Remaining amount towards SD shall be deducted from the running bills as retention money.

Contractor will be eligible to get interest on FDR (that is deducted from Running Bill and converted in to FDR for initial SD) for One year, after actual completion of work. After that contractor will not be eligible to get interest for any extended period what so ever.

If the Security Deposit is not paid within 15 days from the date of Work Order than penalty at the rate of 0.065% per day of the amount of Security Deposit will be charged. If the Security Deposit is not paid within one month with interest, necessary actions as per condition of contract will be taken.

The successful tenderer shall have to enter into an agreement on a non-judicial stamp paper of Rs. 100/- as per the form of the agreement approved by Dream City Limited, Surat.

The agreement shall be executed on stamp paper worth Rs. 100/-.

The Surety shall be executed on stamp paper worth Rs. 100/-.

Tenderer have to submit additional stamp papers @4.25% of Security deposit paid in FDR

Clause 2.

The time allowed for carrying out the work as entered in the tender shall be strictly observed by the Contractor and shall be reckoned from the date on which the order to commence work is given to the Contractor. The work shall throughout the stipulated period of the contract be proceeded with, all due diligence [time being deemed to be the essence of the contract on the part of the Contractor] and the Contractor shall pay as compensation a percentage amount [shown in the attached Memorandum] of the tendered cost of the whole work as shown by the tender for every day that the

work remains uncompleted or unfinished after the proper days. And further to ensure good progress during the execution of the work the Contractor shall be bound, in all cases in which the time allowed for any work exceeds one month, to complete parts of the work during the period shown in the attached Memorandum.

In the event of the Contractor failing to comply with these conditions he shall be liable to pay as compensation, the amount mentioned above for every day that the due quantity of work remained incomplete, provided always that the total amount of compensation to be paid under the provision of this clause shall not exceed 10 percent of the tendered cost of the work as shown in the tender.

Clause 3.

In any case in which under any clause of or clauses this contract the Contractor shall have tendered himself liable to pay compensation amounting to the whole of this security deposit [whether paid in one sum or deducted by installments] or in the case of abandonment of the work owing to serious illness or death of the contractor or any other cause, the Managing Director, Dream City Limited on behalf of the Dream city ltd shall have power to adopt any of the following courses, as he may deem best suited to the interest of Dream City Limited.

- a To rescind the contract [of which rescission notice in writing to the Contractor under the hand of the Managing Director, Dream City Limited shall be conclusive evidence] and in that case that security deposit of the Contractor shall stand forfeited and be absolutely at the disposal of Dream City Limited.
- b To employ labour paid by the Dream City Limited and to supply material to carry out the works, or any part of the work debiting the Contractor with correctness of which cost and price the certificate of the Managing Director shall be final and conclusive against the Contractor and crediting him with the value of the work done, in all respects in the same manner and at the same rates as if it had been carried out by the Contractor under the terms of his contract, and in that case the certificate of the Managing Director as to the value of the work done shall be final and conclusive against the Contractor.
- c To order that the work of the Contractor be in measured up and to take such part thereof as shall be executed out of his hands, and to give it to another Contractor to complete, in which case any expenses which may be incurred in excess of the sum which would have been paid to the original Contractor, if the whole work had been executed by him [as to the amount of which excess expenses the certificate in writing of the Managing Director shall be final and conclusive] be borne and paid by the original Contractor and shall be deducted from any money due to him by the Dream City under the contract or otherwise from his security deposit or the proceeds of sale thereof, or a sufficient part thereof.

In the event of any of the above courses be adopted by Managing Director the Contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchases or procured any materials or entered into any engagements, or made any advances on account of or with a view to the execution of the work or the performance of the contract. And in case the contract shall be rescinded under provision aforesaid, the Contractor shall not be entitled to recover, or be paid any sum for any work thereto actually performed by him under this contract unless and until the Managing Director shall have certified in writing the performance of such work and the amount payable to him in respect thereof, and he shall only be entitled to be paid the amount so certified.

for any work thereto actually performed by him under this contract unless and until the Managing Director shall have certified in writing the performance of such work and the amount payable to him in respect thereof, and he shall only be entitled to be paid the amount so certified.

Clause 4:

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

Clause 5.

In any case in which any of the powers conferred upon Managing Director by clause 3 and 4 hereof shall have become exercisable and the same shall not have been exercised the non-exercise thereof shall not constitute a waiver of any of the conditions hereof such powers shall notwithstanding be exercisable in any future case default by the Contractor for which by any clause or clauses hereof he is declared liable to pay compensation amounting to the whole of his security deposit and the liability of the Contractor for past and future compensation shall remain unaffected.

In the event of Managing Director taking action under the sub-clause (a) or (c) of clause 3, he may, be he so desires to take possession of all or any tools; plant materials and stores in or upon the works, or the site thereof or belonging to the Contractor, or procured by him and intended to be used for the execution of the work of any part thereof, paying or allowing for the same in account at the contract rates, or in the case of contract rates not being applicable at current market rates, to be certified by the Managing Director whose certificate thereof shall be final. In the alternative Managing Director may, by notice in writing to the Contractor or his clerk of the works, foremen or other authorized agent require him to remove such tools, plant, materials, or stores from the premises within a time to be specified in such notice; and in the event of the Contractor failing to comply with any such requisition, the Managing Director, Dream City Limited may remove them at the Contractor's expense or sell them by auction or private sale at the risk and account of the Contractor in all respects and certificate of the Managing Director as to the expense of any such removal, and the amount of the proceeds and expense of any sale shall be final and conclusive against the Contractor.

Clause 6.

If the Contractor shall desire an extension of the time for completion of the work on the ground of his having been unavoidably hindered in its execution or on any other ground, he shall apply in writing to Managing Director within 30 days from the date on which he was hindered as aforesaid or on which the cause for asking for extension occurred and Managing Director may, if in his opinion, there are reasonable grounds for granting an extension, grant such extension as he thinks necessary or proper. The decision of Managing Director in this matter shall be final.

Clause 7.

On the completion of the work the Contractor shall be furnished with a certificate by the Managing Director [hereinafter called the Engineer-in-charge] of such completion, but no such certificate shall be given nor shall the work be considered to complete until the Contractor shall have removed from the premises on which the work shall have been executed all scaffolding, surplus materials and rubbish, and shall have cleaned of the dirt from all woodwork, doors, windows, walls, floors or other parts of any building, in or upon which the work has been executed, or of which he may have had possession for the purpose of executing the work, nor until the work shall have been measured by the Engineer-in-charge or where the measurement have been taken by his subordinates until they have received the approval of the Engineer-in-charge, the said measurement being binding and conclusive against the Contractor.

If the Contractor shall fail to comply with the requirements of this clause as to the removal of scaffolding, surplus materials and rubbish, and cleaning off dirt on or

before the date fixed for the completion of the work, the Engineer-in-charge may, at the expense of the Contractor remove such scaffolding surplus materials and rubbish, and dispose off the same as he thinks fit and clean off such dirt as aforesaid; and the Contractor shall forthwith pay the amount of all expenses so incurred, but shall have no claim in respect of any such scaffolding or surplus materials as aforesaid except for any sum actually realised by the sale thereof.

Clause 8.

No payment shall be made for any work, estimated to cost less than Rupees one thousand, till after the whole of the said work shall have been completed and a certificate of completion given. But in the case of works estimated to cost more than rupees one thousand, the Contractor shall, on submitting a monthly bill therefore be entitled to receive payment proportionate to the percentage shown in the attached Memorandum of the part of the work than approved and passed by the Engineer-in-charge, whose certificate of such approval and passing of the sum so payable shall be final and conclusive against the Contractor.

All such intermediate payments shall be regarded as payments by way or advance against the final payments only and not as payments for work actually done and completed and shall not preclude the Engineer-in-charge from requiring bad, unsound imperfect or unskillful work to be removed and taken away and reconstructed, or re-erected, nor shall any such payments be considered as an admission of the due performance of the contract or any part thereof in such respect of the accruing of and claim; nor shall it conclude, determine or affect in any way the Powers of the Engineer-in-charge as to the final settlement and adjustment of the accounts or otherwise, or in any other way vary or affect the contract. The final bill shall be submitted by the Contractor within one month of the date fixed for the completion of the work, otherwise the Engineer-in-charge's certificate to the measurement and of the total amount payable for the work shall be final and binding on all parties.

Clause 9.

The rates for several items of the work agreed to within, shall be valid only when the item concerned is accepted as having been completed fully in accordance with the sanctioned specifications. In cases where the items of works are not accepted and so completed the Engineer-in-charge may make payment on account of such items at such reduced rates as he may consider reasonable in the preparation of final or on account bills.

Clause 10.

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

Clause 11.

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

Clause 12.

If the specification or estimate of the work provides for the use of any special description of materials to be supplied from the DREAM CITY Store or if it is required that the Contractor shall use certain stores to be provided by the Engineer-in-charge (such materials and

stores and the prices to be charged thereof as hereinafter mentioned being so far as practicable for the convenience of the Contractor but not so as in any way to control the meaning or effect of the contract specified in the schedule or memorandum hereto annexed) the Contractor shall be supplied with such materials and stores as may be required from time to time to be used by him for the purpose of the Contract only and the value of the full quantity of materials and stores so supplied shall be set off deducted from any sums then due, or thereafter to become due to the Contractor under the contract, or otherwise from the security deposit or the proceeds of sale thereof shall be held in Government securities; the same or a sufficient portion thereof shall in that case be sold for the purpose. All material supplied to the Contractor shall remain the absolute property of Dream City Ltd, and shall on no account be removed from the site of the work, and shall at all times be opened to inspection by the Engineer-in-charge. Any such materials unused and in perfectly good condition at the time of completion or determination of the contract shall be returned to the Dream City Limited store, if the Engineer-in-charge so requires by a notice in writing given under his hand, but the Contractor shall not be entitled to return any such materials except with such consent and he shall have no claim for compensation on account of any such materials supplied to him as aforesaid but remaining unused by him or for any wastage in or damage thereto.

Clause 13.

The Contractor shall execute the whole and every part of the work in the most substantial and workmanlike manner, and both as regards materials and in every other respect in strict accordance with the specifications. The Contractor shall also conform exactly, fully and faithfully to designs, drawings and instructions in writing relating to the work signed by the Engineer-in-charge and lodged in his office and to which the Contractor shall be entitled to have access for the purpose of inspection at such office, or on the site of the work during office hours, and the Contractor shall, if he so requires, be entitled at his own expenses to make or cause to be made copies of the specifications and of all such designs, drawings and instructions on aforesaid.

Clause 14.

The Engineer-in-charge shall have power to make any alterations in, or additions to the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and the Contractor shall be bound to carry out the work in accordance with any instructions in this connection which may be given to him in writing signed by the Engineer-in-charge and such alteration shall not invalidate the contract, and any additional work which the Contractor may be directed to do in the manner above specified as part of the work shall be carried out by the Contractor on the same conditions in all respect on which he agreed to do the main work and at the same rates as are specified in the tender for the main work. And if the additional and altered work includes any class of work for which no rate is specified in this contract, then such class of work shall be carried out at the rates entered in the schedule of rates of the Dream city ltd or at the rates mutually agreed upon between the Engineer-in-charge and the Contractor whichever are lower if the additional or altered work for which no rate is entered in the schedule of rates of the Dream city ltd is ordered to be carried out before the rates are agreed upon then the Contractor shall, within seven days of the date of the receipt by him of the order to carry out the work, inform the Engineer-in-charge of the rate which it is his intention to charge for such class of work and if the Engineer-in-charge does not agree to this rate he shall be notice in writing be at liberty to cancel his order to carry out such class of work, and arrange to carry it out in such manner as he may consider advisable provided always that if the Contractor shall commence the work or incur any expenditure in regards thereto before the rates shall have been determined as lastly herein before mentioned, then in such a case he shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of the determination of the rate as aforesaid according to such rate or rates as shall be fixed by the Engineer-in-charge. In the event of a dispute, the decision of the Managing Director, Dream City Limited will be final.

Where, however, the work shall have to be executed according to the designs, drawings and specifications recommended by the Contractor and accepted by the competent authority the alteration above referred to shall within the scope of such designs drawings and specification appended to the tender.

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

Clause 15 A

A. If at any time after the execution of the contract documents, the Engineer-in-charge shall for any reason whatsoever, require the whole or any part of the work as specified in the tender, to be stopped for any period or shall not require the whole or part of the work to be carried out at all or to be carried out by the Contractor, he shall give notice in writing of the fact to the Contractor who shall thereupon suspend or stop, the work totally or partially, as the case may be. In any such case, except as provided herein under, the Contractor shall have no claim to any payment or compensation whatsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not so derive in consequence of the full amount of the work nor having been carried out, or on account of any loss that he may be put to on account of materials purchased or agreed to be purchased, or for unemployment of labour recruited by him. He shall not also have any claim for compensation by reason of any alteration having been made in the original specifications, drawings, designs and instructions may involve any curtailment of the work as originals contemplated. Where which however, materials have already been purchased or agreed to be purchased by the Contractor, before receipt by him of the said notice, the Contractor shall be paid for such materials at the rate determined by the Engineer-in-charge, whose decision shall be final. If the Contractor suffers any loss on account of his having to pay labour charges during the period during which to stoppage of work has been ordered under this clause the Contractor shall on application be entitled to such compensation on account of labour charges as the Engineer-in-charge, the labour could have been employed by the Contractor elsewhere for the whole or part of the period during which the stoppage of the work has been ordered as aforesaid.

Clause 15 B.

The Contractor shall not be entitled to claim any compensation from Dream City Limited for the loss suffered by him on account of delay by Dream City Ltd in the supply of materials entered in schedule A where such delay is caused by ---

- i Difficulties relating to the supply of railway wagons and availability of Government controlled materials.
- ii Force Majored.
- iii Act of God.
- iv Act of the Nation's enemies or any other reasonable cause beyond the control of the Dream city ltd.

In the cause of such delay in the supply of materials Dream City Limited shall grant such extension of time for the completion of the work as shall appear to the Managing Director, Dream City Limited to be reasonable in accordance with the circum stances of the case. The decision of Managing Directoras to the extension of item shall be accepted as final by the Contractor.

Clause 16.

The Contractor is to set out and level the work and will be responsible for the accuracy of the same. He is to provide and maintain measuring and surveying instruments including steel tapes, theodolite and dumpy level at all times for proper carrying of the work and for the use of the Managing Director and his representatives including skilled attendance.

Clause 17.

The Contractor is to cover up and protect the works from the weather, and is to suspend all wet operations during such weather which, in the Managing Director opinion, will be detrimental to the work.

Clause 18.

Samples of each class of material and workmanship shall be submitted by the Contractor for the approval of the Managing Director and after such approval these samples shall be deposited at any place the Managing Director may appoint and the Contractor shall be required to perform all the works of this contract in accordance with the samples.

Clause 19.

On completion, all work must be cleaned down; rubbish removed and the works and land cleaned of rubbish; surplus materials and other accumulations, and everything left in a clean and ordinary condition.

Clause 20.

The Contractor shall provide, erect and maintain proper sheds and temporary buildings for the storage and protection of materials and goods and for the execution of work which may be fabricated or brought on the site.

Clause 21.

The Contractor is to set out and level the works and will be responsible for the accuracy of the same. He shall also be responsible for the correctness of the positions, levels, dimensions and alignment of all parts of the structure as shown in the drawings supplied to him. If at any time any error shall appear during the progress of any part of the work, the Contractor shall at his own expense rectify such error if called upon to the satisfaction of the Managing Director.

Clause 22.

The Contractor shall permit the execution of the work not provided for in the tender by artists; tradesman, or others engaged by the Dream city ltd. The Contractor shall allow all reasonable facilities and the use of his scaffolding and water for the execution of such work, but is not required to provide any special scaffolding for the execution of such work except by special arrangement with Dream City Limited.

Clause 23.

Under no circumstances whatsoever shall the Contractor be entitled to any compensation from Dream City Ltd on any account unless the Contractor shall have submitted a claim in writing to the Engineer-in-charge within one month of cause of such claim occurring.

Clause 24.

If at any time before the security deposit is refunded to the Contractor, it shall appear to the Engineer-in-charge or his subordinate in charge of the work that any work has been executed with unsound imperfect, or unskillful workmanship or with materials of inferior quality; or that any materials or articles provided by him for the execution of the work are unsound, or of a quality inferior to that contracted for, or otherwise not in accordance with the contract, it shall be lawful for the Engineer-in-charge to intimate this fact in writing to the Contractor and then notwithstanding the fact that the work, materials or articles complained of may have been inadvertently passed, certified and paid for, the Contractor shall be bound forthwith to rectify, or remove and reconstruct the

work so specified in whole or in part as the case may require, or if so required, shall remove the materials or articles so specified and provide other proper and suitable materials or articles at his own charge and cost; and in the event of his failing to do so within a period to be specified by the Engineer-in-charge in the written intimation aforesaid, the Contractor shall be liable to pay compensation at the rate of one percent on the amount of the estimate for every day not exceeding ten days, during which the failure so continues and in the event of any such failure as aforesaid the Engineer-in-charge may rectify or remove and re-execute the work or remove and replace the materials or articles complained or as the case may be at the risk and expense in all respects of the contractor, should the Engineer-in-charge consider that any such inferior work or materials as described above may be accepted or made use of it; shall be within his discretion to accept the same at such reduced rates along with the appropriate penalty as the Managing Director, Dream City Limited may deem fit. The period to be counted from that date of final completion and handing over of the work to Dream City Limited during which the Contractor is so liable for any defects in the work shall be the Defects Liability Period shown in the attached Memorandum.

Clause 25.

All works under in cause of execution or executed in pursuance of the contract shall at all time be open to the inspection and supervision of the Engineer-in-charge and his subordinates, and the Contractor shall at all times during the usual working hours, and at all other times at which reasonable notice of the intention of the Engineer - in - charge or his subordinate to visit the work shall have been given to the Contractor, either himself be present to receive orders and instructions, or have a responsible agent duly accredited in writing present for that purpose, Orders given to the Contractor's duly authorised agent shall be considered to have the same force and effect as if they had been given to the Contractor himself.

Clause 26.

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

Clause 27.

If the Contractor or his workmen; or servants shall break, deface injure or destroy any part of a building in which they may be working, or any building, road, fence enclosure or grass land or cultivated ground continuous to the premises on which the work of any part thereof is being executed, or if any damage shall be done to the work for any cause whatever while it is in progress of if any imperfection becomes apparent in it within the Defect liability period mentioned above by the Engineer-in-charge the Contractor shall make good the same at his own expense, or in default the Engineer-in-charge may cause the same to be made good by other workmen and deduct the expenses [of which certificate of the Engineer-in-charge shall be final] from any sum that may be due or thereafter become due to the Contractor, or from his security deposit or the proceeds of sale thereof or of a sufficient portion thereof.

Clause 28.

The Contractor shall supply at his own cost all materials [except such special materials, if any, as may be supplied from the DREAM CITY Stores in accordance with the contract]. Plant tools, appliance implements, ladders, cordage, tackle, scaffolding and any temporary works which may be required for the proper execution of the work, in the original; altered or substituted from, and whether included in these specification or, other documents forming part of

the contract or referred to in these conditions he is entitled to be satisfied, or which he is entitled to require together with carriage there for, to and from the work, the Contractor shall also supply without charge the requisite number of persons with the means and materials necessary for the purpose of setting out works and counting, weighing, and assisting in the measurement of examination at any time and from time to time of the work or materials, failing this the same may be provided by the Engineer-in-charge at the expense of the Contractor and the expense may be deducted from any money due to the Contractor under the contract, or from his security deposit or the proceeds of sale there for of sufficient portion thereof. The Contractor shall provide all necessary fencing and lights required to protect the public from accident; and shall also be bound to bear the expenses of every suit, action or other legal proceedings, at law, that may be brought by any person for injury sustained owing to negligence of the above precautions, and to pay damages and costs which may be awarded in any such suit, action or proceedings, to any such person, or which may with the consent of the Contractor be paid in compromising any claim by any such person.

Clause 29.

The Contractor shall make his own arrangements for drinking water for the labour employed by him.

Clause 30.

Compensation for all damage done intentionally or unintentionally or by the contractor's laborers whether in or beyond the limits of the Dream city ltd property shall be estimated by the Engineer-in-charge or such other office as he may appoint and estimates of the Engineer-in-charge subject to the decision of the Managing Director, Dream City Limited on appeal be final and the Contractor shall be bound to pay the amount of the assessed compensation on demand failing which the same will be recovered from the Contractor as damage from the security deposit or deducted by the Engineer-in-charge from any sum that may be due or become due from Dream City Limited to the Contractor under this contract or otherwise.

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

Clause 31.

No work shall be done on Sunday/Holidays without the sanction in writing of the Engineer-in-charge.

Clause 32.

The contract shall not be assigned or sublet without the written approval of the Engineer-in-charge, and if the Contractor shall assign or sublet his contract or attempt to do so, or become insolvent or commence any proceedings to be adjudicated an insolvent or make any composition with his creditors, or attempts or attempt to do the Engineer-in-charge may, by notice in writing rescind the contract. Also if any bribe, gratuity gift, load, perquisite, reward or advantage, pecuniary or otherwise, shall either directly or indirectly be given, promised, or offered by the Contractor, or any of his servants or agents to any public officer or person in the employ of Dream City Ltd in any way relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract the Engineer-in-charge may by notice in writing rescind the contract. In the event of contract being rescinded, the security deposit of the Contractor shall thereupon stand forfeited and be absolutely at the deposit of the Dream city ltd and the same consequences shall ensue as if the contract had been rescinded under clause 3 hereof and in addition the Contractor shall not be entitled to recover or be paid for any work thereto for, actually performed under the contract.

Clause 33.

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

Clause 34.

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

Clause 35.

All works to be executed under the contract shall be executed under the directions and subject to the approval in all respects of the Managing Director who shall be entitled to direct at what point or points and in what manner they are to be commenced, and from time to time carried on.

Clause 36.

Except where otherwise specified in the contract the decision of Managing Director shall be final, conclusive and binding on all parties to the contract upon all questions relating to the meaning of the specifications, drawings, designs and instructions hereinbefore mentioned and as to the quality of workmanship, or materials used on the work, or as to any other question, claim, right, matter, or thing whatsoever in any way arising aloof, or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions, or otherwise concerning the works or the execution or failure to execute the same, whether arising, during the progress of the work or after the completion or abandonment thereof.

Clause 37.

When the estimate on which a tender is made includes lump sums in respect of parts of the work the Contractor shall be entitled to payment in respect of the items of work involved or the part of the work in question at the same rates as are payable under this contract or such items or if the part of the work in question is not in the opinion of the Engineer-in-charge capable of measurement the Engineer-in-charge may at his discretion pay the lump sum amount entered in the estimate, and the certificate in writing of the Engineer-in-charge shall be final and conclusive under the provisions of the clause.

Clause 38.

In the case of any class of work for which there are no such specifications as are mentioned in Rule 1 such work shall be carried out in accordance with the Municipal or Gujarat Government P.W.D. specifications, and in the event of there being no Municipal or Government P.W.D. specifications, then in such a case the work shall be carried out in all respects in accordance with the instructions and requirements of the Engineer-in-charge.

Clause 39.

The expression "works" or "work" where used in these conditions shall, unless there be something in the subject or context repugnant to such construction be construed to mean the work or works the contracted to be executed under or in virtue of the contract, whether temporary or permanent, and whether original, altered, substituted or additional.

Clause 40.

All quarry fees and royalties shall be paid by the Contractor. All octroi, GST shall also be paid by the Contractor according to the Municipal rules in force at the time and no refund shall be given.

Clause 41.

The Contractor shall be responsible for and shall pay any compensation to his workmen payable under the Workmen's Compensation Act 1923 [VIII of 1923] or any statutory modification thereof for injuries caused to workmen. The Workmen Compensation policy and all the insurances pertaining to Plant and Equipment, fire, burglary shall be in the Contractors scope. However, the events such as earthquake and flood shall be considered as a Force Majeure and relevant clauses of the tender shall apply for the same

Clause 42.

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

Clause 43.

No compensation shall be allowed for any delay caused in the starting of the work on account of any acquisition of land in the case of clearance work, for any delay in accordance to estimate.

Clause 44.

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

Clause 45.

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

Clause 46.

No Contractor shall employ any person who is under the age of 18 years. If any contractor found employing person or persons under the age of 18 years, during course of the construction at any stage, legal actions shall be taken against him as stipulated in Child Labour (Prohibition & Regulation) Act 1986 and also, a penalty of Rs.20,000/- (Rupees Twenty thousand) shall be imposed which shall be deposited with District Collector in Child Labour Rehabilitation cum Welfare Fund.

No Contractor shall employ donkeys or other animals with breeching of string or thin rope. The breeching must be at least three inches wide and should be of tape [Nawar].

No animals suffering from sores, lameness or emaciation or which is immature shall be employed on the work.

The Engineer-in-charge or his agent is authorised to remove from work any person or animal found working which does not satisfy these conditions and no responsibility shall be accepted by the Dream city ltd for any delay caused in the completion of the work by such removal.

The Contractor shall pay fair and reasonable wages to the workmen employed by him in the contract undertaken by him in the event of any dispute arising between the Contractor and his workmen on the grounds that the wages paid are not fair and reasonable, the dispute shall be referred without delay to the Managing Director who shall decide the same.

The decision of the Managing Director shall be conclusive and binding on the Contractor but such decisions shall not in any way affect the condition in the contract regarding the payment to be made by Dream City Limited at the sanctioned tender rates.

Clause 47.

Payment to the Contractors shall be made by cheque drawn on any bank in Surat, provided the amount exceeds Rs. 10. Amounts not exceeding Rs. 10 will be paid in cash.

Clause 48.

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

Clause-49

The work contract tax shall not be paid to the contractor.

Clause-50.

Disputes if any, shall be discussed and mutually settled and in case of disagreement the same shall be referred to Managing Director, Dream City Limited. After referring to Managing Director, Dream City Limited if the said dispute is not solved, the same shall be referred to the court subject to Surat Jurisdiction only.

Clause-51

The following conditions are being included in this tender and shall be considered as a part of tender document.

In case the total amount of work done is 5% less than the contract value, prorata S.D. to that extent may be refunded to the contractor while releasing the payment of final bill. In short, the S.D. to be retained by the DCL after payment of final bill shall be equal to 2% of the amount of final bill as per the prevailing norms or as per the norms decided from time to time.

If there is increase in amount of work more than 5% of the Contract value. The Additional S.D. shall be recovered from the running bill. When the total of any of work done by the Contractor upto running bills under consideration is more than 5% of the contract value. However, such S.D. shall be recovered in the round figure of Rs. 1000/- i.e. the amount of work done when it exceeds 5% of the contract value it shall be rounded off to the nearest multiple of Rs.25000/- such additional S.D. shall be recovered for the works amount to Rs. 5 Lacs or more at the rate of 4% of the additional amount.

In many cases, the contractors are stopping the work half-way due to number of reasons and when the department has to take actions in accordance to clause 3(a) or (b) or (c) of the contract the remaining work has to be carried out by advertising the tender for the remaining work and the whole administrative process right from inviting tenders to finalizing the tender etc.

In such cases a fixed amount of Rs. 1000/- should be recovered from the original contract towards the cost of advertisement and other administrative charges incurred by the department in finalizing the contract for the remaining work.

In case a separate advertisement is issued for a single work actual cost of advertisement shall be recovered such recovery shall be in addition to the recovery to be made under clause-3 or such other relevant clauses.

Clause 52.

The tender is sent to you with one set of conditions of contract, technical specification and one set of Schedule-B with one set of drawings, please return the same duly filled in along with all the set in a sealed cover. The mode of submission of tender shall be as indicated in tender notice

The Tender submission shall be by Registered Post A.D./Speed post/online.

Clause 53.

A sum of Rs. 1,00,000.00 on account of Earnest Money should be paid in pay order or demand draft only to the Managing Director, Dream City Limited. Earnest Money in the form of cheque will not be accepted. The amount will be forfeited in case after his quotation is accepted, the contractor does not complete the contract documents and pay the amount of Security Deposit of 2% of tender amount within the specified time as mentioned in clause 1 of condition of contract, otherwise it will be refunded. The work is to be completed within 03 (Three) months [Including monsoon] from the date of written order to commence the work. The Insurance Company's bond will not be accepted against the Security Deposit.

Note:- The contractor are also allowed to pay the 50% amount of earnest money in pay order or demand draft of any Nationalised Bank payable at Surat in favor of the Managing Director, Dream City Limited Dream City Limited only and rest of 50% in form of Bank guarantee of any Nationalised Bank located at surat.

Clause 54.

The contractor will quote item rate, both in words and figures. The final total as per the item-rates quoted above shall also be given both in words and figures.

Clause 55.

No alteration in the form of quotation and in schedule of quantities and no additions in the shape of special stipulation will be permitted. Quotation which do not fulfill all or any of the above conditions or are incomplete in any respect are liable to be rejected.

Clause 56.

The tenderer must obtain for himself on his own responsibility and at his own expense all the information which may be necessary for the purpose of filling this tender and for entering into a contract for the execution of the same from the office of the Managing Director, Dream City, Surat, during the office hours between 11:00 A.M. to 6:00 P.M. on weekdays except Sunday & Holidays and must examine the drawings and inspect site of the work and acquaint himself with all local conditions and matters pertaining thereto before submitting the tender.

Clause 57.

Each of the pages (having reference for signature of the contractor) of the tender documents is required to be signed by the person or persons submitting the tender in token of his/their having acquainted himself/themselves with General Conditions etc., as laid down. Any tender with any of the documents not so signed which will be rejected.

Clause 58.

The tender form must be filled in English and all entries must be made by hand written in ink, if any of the documents is missing or unsigned, the tender shall be considered invalid.

Clause 59.

The rates quoted by the contractor shall include all eventualities such as heavy rain, sudden floods, etc. which may cause damage to the executed work or which may totally wash out the work. Until the completion certificate is issued to the contractors, DREAM CITY shall not be responsible for such damage or wash out to the construction work.

Clause 60.

Time is the essence of the contract. The work should be completed within 03 (Three) months [Including monsoon] from the date of the work order issued to the contractor to commence the work. The successful contractor will have to give a schedule of the various items of work to be done so that the work is completed within the stipulated time.

Clause 61.

Rate for extra items, as far as possible will be derived from the quoted tender items where it is not possible to do so, the same shall be carried out from the S.O.R.2014-2015 or arrived at by adding 15% towards overhead and profits on the actual cost of labour, material and plant and machinery input as approved by the Engineer-in-charge.

Clause 62.

In case of delay in execution of work the penalty at the rate of 0.2% of contract value per day subject to the maximum of 10% of the contract value, shall be payable by the contractor to the Dream city ltd towards compensation.

Clause 64.

No claim for any extra or compensation for damage will be entertained on account of such variation, except where the quantity is increased by more than 30%. No claim for any extra or compensation for damages will be entertained on account of such variation where the quantity is decreased to any percentage or where the item is totally deleted.

Clause 65.

It should be noted that the contractor shall have to complete the work in stipulated time of 03 (Three) months [Including monsoon] as per the terms of the contract. The Contractor shall submit complete CPM/PERT chart and get it approved within one month of the award of the work.

Clause 66.

The Contractor shall also arrange to obtain the license from the competent Authority under the contract labour (regulation and abolition) Act 1970.

Clause 67.

Before payment of final bill on completion of the work, total amount of that work done at sanctioned rate shall be considered with the total amount of work done, had it been executed at the rate of second tenderer. While comparing total amount, quantity to be taken into consideration will be the quantity executed and not the quantity put to tender and will also include variation of quantity within the limits of quantity executed ie 30% of the estimated quantity. In case the latter is less than the total amount of work done at sanctioned rate; than the amount of difference the two shall be deducted from the final bill before making payment. In other words the work when executed shall not exceed as compared to the rate of second lowest tenderer. It may be noted that extra items shall not be included in comparing the rates with the second lowest tenderer.

Clause 68.

The following additional information shall be forwarded by the tenderer along with the submission of the tender:

- a A list of works of comparable nature executed, along with their value and time of completion.
- b A list of works in hand showing the cost of the work to be completed against each with the certificate from the Head of the office concerned.
- c A list of machinery in their possession and which they will bring for the proposed work.
- d Solvency certificate without which such tenders are liable to be rejected. The Solvency certificate should be for the amount equal to 20% of the tender value of the work.
- e Every contractor shall furnish along with the tender, information regarding income-tax the circle of the district in which he is assessed for income-tax the reference No. and year of assessment.

Clause 69.

Acceptance of quotation will rest with the competent authority who does not bind himself to accept the lowest and reserves the right to reject any or all quotations/tenders and no reasons will be given for acceptance or rejection thereof. The tenderers whose quotation is accepted will have to enter into a regular contract and abide by all rules and regulations embodied in the tender.

Clause 70.

The tender will be liable to be rejected outright, if while submitting it ---

- a The tenderer proposes any alteration in the work specified in the tender or in the time limit allowed for carrying out the work or any other condition.
- b Any of the pages of the tender are removed or replaced.
- c In the case of item rate tender, the rates are not entered in ink in figures and words and the total of each item and grand total are not struck by the tenderer in ink in the last column of Schedule 'B' under his signature.
- d Any errors are made by him in the tender.
- e All corrections and additions or pasted slips are not initiated by tenderers.
- f The tenderer or in the case of a firm each partner thereof does not sign or the signature/signatures is/are not attested by a witness on page of the tender in the space provided for the purpose.
- g The tenderers which do not fulfill any of the conditions of those in the printed form and those tenders which are incomplete.

Clause 71.

The contractor has to make all arrangements for procuring the materials required on his own work.

Clause 72.

In case of any discrepancy with tender document the contractor may contact the Managing Director, Dream City Limited, Surat.

Clause 73.

In view of the difficult position regarding the availability of foreign exchange, no foreign exchange would be released by the DREAM CITY for the purchase of plant and machinery required for the execution of the work contracted

Clause 74.

The contractor will have to construct shed for storing valuable materials at works site having locking arrangement. The material will be taken for use in the presence of the DREAM CITY person. No materials will be allowed to be removed from the site of works.

Clause 75.

Tender once accepted shall be binding on the contractor even if the formal agreement is not signed.

Clause 76.

Tender once offered can not be withdrawn except with the express permission of Dream City Limited.

Clause 77.

The successful tenderer may be required to furnish surety of 10% of the contract value on stamp paper if so desired by Managing Director.

Clause 78.

The tenderers are requested to give complete specification of prices quoted.

Clause 79.

For all R.C.C. works such as Footings, Columns, Beams, Slabs, Chhajjas, Pardis, Lintels, etc., a 15 cm x 15 cm x 15cm sizes test cube as per the P.W.D. Standard will have to be taken by the contractor and as per instructions and directions of the Engineer-in-charge. These test cubes will be for 7 days and 28 days respectively. After 7 days, 28 days these test cubes will be tested in the Government approved laboratory by the contractor at his own expense and results will be submitted directly to the respective head of the DREAM CITY.

Clause 80.

This tender document contains **Error! Bookmark not defined.** pages (Technical Bid), which should be furnished along with earnest money deposit, duly filled in and signed. No pages can be removed from the conditions of contract, specifications of drawings, otherwise it will be considered as an intentional fault and the tender will be liable for rejection and the amount of earnest money deposit forfeited.

Clause-81.

If the work executed is found to be of inferior quality OR of any substandard quality not conforming to the specifications at any point of time during the inspection of by Engineer-in-charge or any Higher Authority, the contract shall be terminated without assigning any reasons there off and no payment shall be made towards the probable damages or loss caused to the contractor and materials purchased by him for this work and no compensation whatsoever either shall be paid to contract by Dream City.

Clause-82.

The Successful contractor shall take "all contract risk insurance policy" for the tendered cost of the work. "Work's man compensation policy" for all workers and labour of contractor and clients working at site and "Third party insurance policy" to fully cover all third party type risk for the whole contract i.e. Construction, supply, installation, testing and commissioning and Operation & maintenance of sewage treatment plant. The insurance policy so taken by the contractor for such purpose shall be in the joint name of the contractor and the client and the policy shall be deposited with the clients.

Clause-83.

The Contractor should note that the conditional tenders shall be out rightly rejected.

Clause-84.

Out of the amount payable/creditable to contractor's account, the Central Government/State Government tax/taxes shall be deducted at source in accordance with the relevant laws/rules from time to time prevailing.

Clause-85.

Now no octroi is to be paid as the same is exempted and therefore the question of reimbursement does not arise. The contractors shall quote their rates considering this aspect of exemption of octroi.

Clause-86.

Surat Dream City shall not provide 'C' or 'D' Form for tax purposes.

Clause-87

Price variation or escalation shall NOT be paid to the contractor as detailed in the tender.

Clause-88

While preparing final bill on completion of the work, the total amount of work done as sanctioned shall be compared with the total amount of work done, had it been executed at the rate of second lowest tenderer and if the later is less than the total amount of work executed by the successful contractor at sanctioned rates, than the amount of difference between the two, shall be deducted before making final payment. In short, the work when executed, shall not cost more to the Dream city ltd, if compared with the rates of the second lowest tenderer.

Clause-89

The final bill shall be paid only after the successful commissioning of the total plant.

Clause-90

Special Clause regarding EPF act 1952 and payroll and muster roll.

All the applicant contractors are required to have their own employer code number under EPF Act, 1952 and are required to comply the applicable provisions of said statute regularly and totally.

Further the contractors for services are required to produce the certified copies of paid challans in respect of employees/workers employed by said contractor in respect of work allotted by Dream City Limited, along with copies of Pay Roll and Muster Roll. If the same are not produced, the bills will not be released.

Signature Of The Contractor

I/c. Town Planner
Surat Municipal Corporation
and Dream City Limited

12. GST CLAUSE

FOR CONSTRUCTION / ERECTION / COMMISSIONING / INSTALLATION / REPAIRS MAINTENANCE / RENOVATION / FABRICATION OF STRUCTURE INCLUDING BUILDING (MEANS ALL WORKS CONTRACT / TURN KEY PROJECT / SUPPLY OF MATERIAL / GOODS)

- GST (GOODS & SERVICE TAX) has come in existence from 1st July, 2017. Contractor / Successful Bidder is bound to pay any amount of GST prescribed by the Govt. of India as per the Terms of Contract agreed upon during the course of execution of this Contract. However all the quoted rates must be inclusive of GST.
- During the course of execution of Contract, if there is any change in rate of GST (Goods & Service Tax) by the Government the same shall be reimbursed / recovered separately by SMC, subject to the submission of original Receipt / Proof for the amount actually remitted by the successful Tenderers/ Contractor to the competent Authority along with a certificate from chartered Accountant of Contractor/ Successful Bidder certifying that the amount of GST paid to the Government and the same shall be intimated /submitted / claimed within 30(Thirty) Days from the date of payment Remittance of GST within stipulated period shall be the sole responsibility of the Successful Bidder /Contractor ,failing which, SMC may recover the amount due, from any other payable dues with SMC and decision of Municipal commissioner shall be final and binding on the Contractor / Successful Bidder in this regard. Further the non payment of the GST to the Government may lead to the termination of contract and forfeiture of Security Deposit /Performance Guarantee Amount.
- If any other new taxes / Duties /Levies / Cess or any other incidentals etc. or any increase in the existing taxes / Duties /Levies / Cess or any other incidentals etc. (Excluding GST) are imposed during the course of the contract, the same shall be borne by contractor / successful Bidder only, in no case SMC shall be liable for the same.
- The Contractor will submit the invoice to the SMC having GSTIN of SMC mentioned therein and the taxes shall be shown separately on the face of the invoice so as to claim as ITC by SMC.

Signature Of The Contractor.

I/c. Town Planner
Surat Municipal Corporation
and Dream City Limited

13. SCHEDULE -A

CEMENT AND STEEL :

Dream City Limited shall not issue cement and reinforcement steel to be used for this work. The cement and reinforcement steel required for the above said work shall be procured by contractor at its own cost.

The brands for cement – OPC / PPC shall be Ambuja, Ultratech, Sanghi and J. K. Laxmi confirming to IS 12269/87 (with its latest amendments) of 53 grade (for OPC cement) only.

Approved make of CRS – Fe 500 reinforcement steel :- TATA, SAIL, Rastriya Ispat, Electrotherm (India) ltd. and J.S.W. Steel ltd. If Steel purchased from Electrotherm (India) ltd. and J.S.W. Steel ltd. than purchase bill / testing certificate of the that product shall be obtained from company itself and the name of the contractor /work shall be appeared on the bill /testing report.

Any of the above mentioned brands of Cement and Reinforcement steel shall only be used by the contractor at the time of execution.

The minimum cement content and maximum W/C ratio shall be as per table below.

Concrete Grade	Minimum (Kg/M ³)	Max. W/C Ratio
M 20	350	0.55
M 25	375	0.50
M 30	410	0.45
M 35	425	0.45

For concrete with volumetric / nominal mix and other items with use of cement the same shall be as per prevailing Dream City Limited standards. The contractor shall not be allowed to use Fly Ash in Cement Concrete.

MINIMUM CONSUMPTION OF CEMENT AND REINFORCEMENT STEEL :

The allowable actual minimum consumption than the theoretical consumption, for cement and steel shall not be more than 5% of theoretical consumption.

TESTING OF CEMENT AND STEEL :

It should be specifically noted that the cement and steel brought by the contractor at site of work shall be used only after the same is tested at the approved laboratory as per the direction of the Engineer-in-charge. Such approved laboratory may be located at Surat, Baroda, Ahmedabad or Mumbai.

All the charge for the transport and testing of the samples shall have to be borne by the contractor. The frequency of testing such material shall be in accordance to the relevant Indian Standards as directed by Engineer-in-charge.

Signature of Contractor

I/c. Town Planner
Surat Municipal Corporation
and Dream City Limited

14. SCHEDULE - B

AS PER SEPARATE PRICE BID uploaded

Note :

1. All works shall be carried out as per Government of Gujarat's P.W.D. Handbook and our specifications contained in this document and as directed.
2. All the columns in the Schedule-B for the quotation as a turn key tender should be filled on line.
3. Rates quoted include clearance of site (prior to commencement of work and at its close before handing over) in all respects and hold good for work under all conditions, site, moisture, weather etc.
4. Rate for each job and the total amount of work shall be filled .

Signature Of The Contractor.

I/c. Town Planner
Surat Municipal Corporation
and Dream City Limited

15. IMPORTANT INSTRUCTION TO TENDERER

1.

Affix latest passport size photo of tenderer

Specimen Signature of the Contractor

2.

1	2	3	4
AFFIX LATEST PASSPORT SIZE PHOTOGRAPH OF ALL PARTNERS IN CASE OF PARTNERSHIP AGENCY			

Specimen signature of all partners incase of partnership agency.

- i. _____
- ii. _____
- iii. _____
- iv. _____

Submission of Registered Agreement is compulsory in case of partnership agency.

- 3. Submission of income tax clearance certificate of last three years is compulsory for tenderer submitting agency.
- 4. Submission of GST certificate, with proof of residence is compulsory for tenderer.
- 5. In case of Government royalty applicable to tenderer, it is compulsory to submit a receipt of royalty payment with tender.
- 6. The Photograph and specimen signature of contractor will be cross checked, whenever contractor receives payment in account section of DREAM CITY.
- 7. The specimen signature of contractor will be cross checked by Account Department of DREAM CITY, in case of representative of Contractor along with letter of authority of a person who signed an agreement, receives payment.
- 8. All partners of tenderer should put their specimen signature at the relevant places in the tender. A Passport size photograph of all partners who have signed the tender shall be affixed in the tender.

The successful tenderer shall be required to execute necessary agreement where in the same partners shall put on their signatures.

Signature of the Contractor

I/c. Town Planner
Surat Municipal Corporation
and Dream City Limited

16. MEMORANDUM

I / We _____ the undersigned do hereby tender for carrying-out the work described in the schedule subject to the conditions annexed in Schedules attached herewith in tender documents.

1. General Description of work : **Design, Engineering, Procuring, Constructing, Erecting, Commissioning (EPC) of 230 (Two hundred thirty) KLD Tertiary Sewage Treatment Plant and successive Operation and Maintenance for the period of 5 (Five) years for DREAM CITY.**
2. Earnest Money Deposit : Rs.1,00,000.00
3. Security Deposit:
 - i Pay order or F.D.R.or D.D.of any Nationalised Bank. :- -
 - ii In form of Bank guarantee of any Nationalised Bank:- 2% of Tender Amount (Shall be released at the time of final bill)
 - iii To be deducted from Running Bill in form of Retention Money:- 2% (Shall be released after defect liability period)
4. Time Limit : **03 (Three) months** [Including monsoon]
5. Penalty for delay : 0.2% (Zero point two percent) of the contract price per day maximum upto 10% (Ten Percent) of the Tender Amount.
6. The progress of work should confirm to : 1/4 of the work in 1/4 of the time.
1/2 of the work in 1/2 of the time.
3/4 of the work in 3/4 of the time.
7. Percentage to be retained from running account bills:- Additional 5% (Shall be released at the time of final bill)
8. Defect Liability Period : 12 Months (Twelve Months)
9. Water Charges
 - a. Water charges shall have to be paid by the Contractor at the rate of 3% of the amount of work done and shall be deducted from the running account bill, if water supplied by DREAM CITY.
 - b. Exemption shall be granted if the contractor makes its own arrangement of water supply and inform Dream City within one month of commencement of work.

Signature of the contractor.

I/c. Town Planner
Surat Municipal Corporation
and Dream City Limited

17. DEFECTS LIABILITY PERIOD AND REFUND OF SECURITY DEPOSIT

The Defects Liability Period shall be as under and the amount of Security Deposit in the form of Bank Guarantee for the works under different items of contract after completion of the works shall be refunded as under:

Sr. No.	Security Deposit & Retention Money	Amount of Retention money to be refunded on completion of work and certification issued by Engineer -In – Charge that effect	Remarks
1	5% of Contract value as Security Deposit. (Construction cost)	Contractor shall provide a Bank Guarantee of 5% of Contract value, valid for 9 months (6 months completion period + 3 months addl.), before start of work as security deposit. The Security deposit shall be released after completion and handing over of works.	
2	5% from each running bill shall be deducted as retention money (Construction cost)	The retention money shall be released at the end of successful completion of five (05) year O&M period commencing on completion of work and certificate issued by Engineer in charge to that effect.	
3	5% of contract value as Performance Bond (Construction cost)	Performance Bond valid for the period of 60 months shall be submitted by the contractor after completion and handing over of work. Security deposit may also be converted into performance bond and shall be released within one month after the completion of defect liability period of 60 months.	
4	5% of Contract value as Security Deposit. (O&M Cost)	Contractor shall provide a Bank Guarantee of 5% of total O & M Contract Value (for 5 years period), valid for 60 months. before start of work as security deposit. The security deposit shall be released after 60 months on successful completion of O&M contract.	
5	Retention Maoney from each running bill / Monthly O&M Bill shall be deducted	The 5% retention money shall be deducted for capital works from each running bill and retention money as described under Cluase 8 on Page no 86 shall be deducted for a particular year of O&M (with first year of O&M considered as commencing on completion of work and certificate issued by Engineer in charge to that effect and so on) shall be released within	

The Defect Liability period shall be 60 months after successful commissioning of entire works, as well as issuance of certificate of completion of Engineer in charge of entire work and certificate of completion to that effect is issued by Engineer-in-charge.

Signature of Contractor

I/c. Town Planner
Surat Municipal Corporation
and Dream City Limited

Name :

Company's seal :

18. PROJECT SPECIFIC CONDITIONS

1. Scope

- 1.1 Work under this contract consists of:
- 1.1.1 Detailed engineering design of all plan areas, section, mechanical, electrical and piping systems according to the current and applicable BIS codes as applicable. The proposed plans of the TSTP shall be subject to the approval of the Consultant.
 - 1.1.2 The execution of the Civil & Structural Works shall be done by contractor as per approved plan, section & details submitted by contractor.
 - 1.1.3 Design, manufacture, assembly, installation, testing and commissioning of the main treatment units like tanks, mechanical equipment for the Tertiary Sewage Treatment Plant (TSTP) of capacity and design parameters given in this tender elsewhere.
 - 1.1.4 **The tenderer shall have to mandatorily propose Packaged Containerised TSTP in the tender with proven technology, subject to approval by Dream City. It shall be made so that in future, if required can be dismantled, shifted and re-erected at other location.**
 - 1.1.5 **The maximum plot area provided for TSTP shall be 350 sq.mt. only.**
 - 1.1.6 The N.G.L. and F.G.L. may be considered as 5.0 mt and 5.5 mt. R.L. respectively.
 - 1.1.7 Drain channel, sump with a drainage submersible pump with pipe work, valves and discharge pipe up to nearest collection tank in plant area shall be provided.
 - 1.1.8 Provide water meter on outgoing treated effluent for measuring the outflow.
- 1.2 The work also includes:
- a) Mechanical & Electrical works
 - b) Piping as specified.
 - c) Testing, commissioning and operation of plant with water and under load conditions.

2. Major Works to be carried out by Contractor – Broad Scope of work

- 2.1. Construction of all architectural, civil and structural works related to the construction of the building, its internal lighting, mechanical ventilation, sludge disposal system.
- 2.2. All Mechanical, Electrical and Instrumentation (PLC) work
- 2.3. Electrification of pump house.
- 2.4. Incoming sewer line from existing sewer manhole, sewer pump and rising main connection to the plant.
- 2.5. All TSTP units including civil, mechanical, electrical and instrumentation works.

- 2.6. Collection tank to collect the final treated sewage and pumps to transmit the treated sewage to under construction works at Dream City Limited.
- 2.7. Battery limits of the contractor's works are within the campus as shown in drawing.

3. Power supply

- 3.1. Power will be available at 410/220 V, 3/single phase, 4 wire 50 cycles earthed neutral system. All equipment shall be suitable for a variation of $\pm 10\%$. Any equipment / component operating at other than the above power supply shall be provided with necessary transformers and related accessories.
- 3.2. The power supply shall be provided by Dream City at one point / energy meter from Power Supply Company. From there onwards, all the works shall be in contractor's scope. It shall be bidder's responsibility to carry forward power to MCC panel through cable.

4. Specifications

- 4.1. The specifications lay down minimum standards of equipment and workmanship. Should the tenderer wish to depart from the specifications either on account of manufacturing practices, their own patented process or for any other reasons, he should submit a deviation statement to clearly draw attention to the proposed departures and submit such complete information, drawings and specifications to enable the relative merits of the deviations to be fully understood on a separate annexure.
- 4.2. In the absence of any deviations, it will be deemed that the tenderer accepts the tender specifications and accept the compliance with all statutory provisions and local codes.

5. Process Designs

- 5.1. The Consultant may consider favourably any proven process of sewage treatment as broadly specified in this tender document. The same shall be proven technology in India, efficient, low energy consumption, able to handle wider variation in influent load, can be located on space available and simple to operate.
- 5.2. Process designs must meet the basic design criteria of the flow as well as Influent and effluent characteristics specified in this tender elsewhere.

6. Drawings

The contractor shall submit the drawings as follows:

- 6.1. On award of the work, the contractor shall submit plant layout, hydraulic diagram, P&I diagrams, GA drawing with basic dimensions, Structural drawings, flow diagram with levels of elements.
- 6.2. Fabrication and equipment layout piping, valves and all other information required for installation.
- 6.3. Electrical layouts, detail of all MCC, cable sizing and system diagrams and earthing system.
- 6.4. Piping layout with pipe dia. slopes, fixing arrangements.

6.5. Three copies of the drawings shall be submitted for initial scrutiny. On approval of the same contractor shall submit six copies of the same incorporating corrections etc. Two sets will be stamped "GOOD FOR CONSTRUCTION" by the Consultant and returned to the contractor.

7. Other Submittals

7.1. Contractor shall furnish four sets of folders giving:

- a) Catalogues and technical information sheets of equipment to be installed.
- b) Performance curves, foundation details and fixing arrangements.

7.2. Contractors proposal for testing procedures for individual equipment and for overall testing of the plant.

7.3. Submittals shall be separate for:

- a) Mechanical and Piping works
- b) Electrical Works

7.4. All drawings and submittals mentioned above shall be approved by Consultant and two sets duly stamped shall be returned to the contractor for execution of the works.

7.5. NOC (No Objection Certificate) from State Pollution Control Board and any other statutory authority whose approval is required. The all the correspondence shall have to be carried out by contractor at its own. Only necessary legal fees shall be borne by DREAM CITY.

8. Execution of Work.

8.1. All work shall be executed only in accordance with the approved drawings and other submittals. Contractor shall ensure that all inserts, support plates, puddle flanges and other items required to be incorporated during execution shall be placed in position as per his own requirements during execution of the works.

8.2. All special tools and tackle required for erection and assembly of the equipment covered by the contract shall be obtained by the contractor himself. All other materials such as foundation bolt nuts, etc. required for the installation of the plant and equipment shall be supplied by the contractor and are part of the contract.

8.3. The surplus excavated stuff shall have to be disposed off within 5 km radius from the site, as directed by engineer-in-charge.

9. Testing & Handing Over

9.1. The contractor shall carryout tests on different equipment as required in the presence of the Consultant or his representative in order to enable him to determine whether the plant, equipment and installation comply with the specifications, local codes and in accordance with the letter and intents of the specifications.

- 9.2. The installation shall be handed over to the Engineer in Charge only on successful completion, operational tests and acceptance of the effluent quality by the Dream city ltd/ pollution control and statutory authorities.
- 9.3. The contractor shall have to take workman compensation policy and shall have to take insurance of complete plant and equipments.

10. Statutory Permissions

- 10.1. Contractor shall submit a write-up of process of the plant, drawings, design parameters flow and P&I diagrams as necessary and required for submission to the State pollution control authority.
- 10.2. Contractor shall furnish at his own cost, analysis of influent at source (for evaluation) and the effluents from the TSTP for submitting to State Pollution Control Board and any other statutory authority whose approval is required.
- 10.3. Contractor shall perform all testing and operation of the plant in presence of the Pollution Control Board if so stipulated by them.
- 10.4. Contractor to obtain all statutory approval as required for PCB or any other approval. Only official fee will be reimbursed to contractor by the Owner.

11. Completion documents

On successful completion of the entire work, the contractor shall submit 4 sets of following documents to Engineer in charge.

- 11.1. A brief write-up of process, day to day operating and maintenance instructions.
- 11.2. List of approved chemicals and procedure for storage and safety norms.
- 11.3. Completion drawing and data, catalogues, performance charts, technical data sheets and equipments installed.
- 11.4. Manufacturer's maintenance and operating instructions for mechanical and electrical equipment.
- 11.5. Laminated and framed "As Built" drawings with plans, section, process flow diagrams, pipe runs, levels and final disposal point schedule of equipment installed with all their model Nos. plate data and date of installation.
- 11.6. Test readings of Influent & Effluent parameters taken at final handing over time
- 11.7. Consent / NOC (No Objection Certificate) from State Pollution Control Board and any other statutory authority whose approval is required. The all the correspondence shall have to be carried out by contractor at its own. Only necessary legal fees shall be borne by DREAM CITY.

12. Performance Guarantee

- 12.1. Equipment supplied and installed shall be guaranteed to yield the specified effluent standards which must meet and accepted with the requirements of local authorities.
- 12.2. The guarantee implicitly includes replacement of the entire plant on failure to meet desired effluent parameters, replacement of individual equipment or repairs as warranted. Decision on each and every aspect on this matter shall rest with the Consultant and shall be final and binding on the contractor.
- 12.3. If any legal matter arrives due to nonperformance of TSTP, the contractor shall be solely responsible for the same. The said matter shall have to be resolved by the contractor at his risk and cost.

13. Defects Liability

- 13.1. All equipment and the entire installation shall be guaranteed against defective materials and workmanship for a period of 60 months reckoned after successful commissioning of system along with the documentation. During the defects liability period, the contractor shall replace defective parts and components free of cost. Rectification or repair may be permitted in case the defect is of minor nature.

Signature of Contractor

I/c. Town Planner
Surat Municipal Corporation
and Dream City Limited

Name :

Company's seal :

19. DESIGN SPECIFIC CONDITIONS

1. Basis of Design

- 1.1. The process design, capacity/ rating of pumps and equipment etc. shall hold good for the capacity of 230 KLD and shall be good for meeting the treated parameters as provided in the tender elsewhere. The various acts and guidelines provided hereunder shall be followed strictly as applicable.
- a. Permissible limit as prescribed in IS: 2490 (Part-I)-1974 and environment (Protection) Rules 1986.
 - b. Water (Prevention and Control of Pollution) Act, 1977 & 1978.
 - c. Environment (Protection) Act, 1986.
 - d. Environment (Protection) Rules, 1986.
 - e. Hazardous Wastes (Management & Handling) Rules, 1989.
 - f. Manufacturer, Storage and Import of Hazardous Chemicals Rules, 1989.
 - g. Manufacturer, use import and storage and hazardous Micro-Organizers, Genetically Engineered organizations or Cell Rules, 1989.
 - h. Manual on sewage & sewage treatment - CPHEEO
 - i. The Public Liability Insurance Act, 1991.
 - j. All standards as laid down by Central Pollution Control Board and any other relevant statutory authority.
 - k. 100% recycle of waste water and removal of sludge in cake form, no water to be discharged outside the premises.

2. Design Consideration

- 2.1. Net Output Capacity : 230 m³/day (230 KLD)
- 2.2. Peak Factor : 2.5
- 2.3. Area Available : 350 Sq.mt. (Maximum)
- 2.4. Operation : Municipal Sewage (round the clock)

2.5. Influent Sewage Characteristics

The influent wastewater characteristics to be used as the basis of design are provided below:

Influent Wastewater Characteristics*		
Param	Units	90%tile Values
pH		6.5-7.5
BOD ₅ at 20 ^o C	mg/L	< 250
COD	mg/L	< 500
TSS	mg/L	< 350
TKN	mg/L	< 50

Total Phosphorus	mg/l	< 10
TDS	mg/l	< 1500
Total coliform	MPN/100 mL	10 ⁷ – 10 ⁸

* Please note that above values are indicative. The Tenderers are advise to obtain the actual data from site. Moreover, the inlet parameters other than mentioned in the tender, shall have to be measured and verified by the bidder at its own. No arguments / objection shall be entertained later on for any parameters. It shall be solely contractor's responsibility to take care of it to achieve the desired treatment standards as mentioned in the tender.

2.6. Final Treated Effluent Characteristics

Treated Effluent Quality Requirements (at final outlet of TSTP)		
Parameter	Units	Values
pH - instantaneous range		6.5 - 8.0
BOD (3 days at 27 deg C)	mg/L	≤ 5
TSS	mg/L	≤ 5
Total Nitrogen	mg/L	≤ 10
Total Phosphorus	mg/L	≤ 2
Turbidity	NTU	≤ 2
Oil & Grease		NIL
TDS	mg/L	≤ 1000
Chlorides	mg/L	≤ 500
Total coliform	MPN/100 mL	≤ 25
E-coli		NIL
Odor	-	Odorless
Bio-assay test	-	90% survival of fish, after 96 hour in 100% tertiary treated sewage

Note: All other parameters as per present CPCB/GPCB norms for on land for irrigation or whichever is stringent.

The dewatered sludge shall have minimum sludge TSS as dry solids as 20% w/w.

3. Salient Features

- The plant should be suitable for low/peak flow in line with usage.
- The plant should not create any noise, with no nuisance on fly or mosquito and no foul odors.
- The plant should work without the use of in-organic chemical additives (except for P removal and sludge dewatering)
- The plant should be provided with territory treatment to provide zero bacteriological standard for reuse on:
 - a) Construction
 - b) Gardening
 - c) Irrigation system

- The bidder must not consider the coarse air bubble aeration grid in Aeration tank of Packaged unit; Fine bubble diffusers are mandatory.
- Ring type air blowers are not acceptable; For long life & better performance bidder has to consider double walled Acoustic hood equipped roots air blower.
- As required air & water piping support to be done by bidder as per packaged unit requirement as well as site requirement.
- Access platform across packaged unit with proper provision to collect the sample inside the packaged unit to be done by bidder & the access platform should be non- corrosive type material such as aluminum or any suitable.
- Proper non metallic canopy over all field mounted instruments as well as pumps, motors etc. are in contractor's scope.
- Required civil work such platform for packaged unit is in contractor's scope.
- The treatment plant must be compact & modular in type with easy to be shifted type & plastic/Non metallic tanks for treatment during the process is not allowed.
- Underground type treatment plant is not allowed as visual inspection by the operate to aeration tank/settling tank etc... at any time should be allowed to be done as the treated water is to be used for reuse application.
- Required provision of post filtration system such as tertiary treatment followed by UF system is in bidder scope.
- All rotating part such as pumps, blowers to be considered as one working & one standby.
- Entire plant must be factory fabricated, any kind of fabrication of treatment plant unit at site is not permitted except required piping support.
- Before dispatch of the system, Hydro test of the entire system along with assembly arrangement shall be examined by the team of S.M.C.

4. Treatment Objectives:

Considering the raw sewage quality and the required treated effluent quality, the Contractor shall furnish a process train to achieve the following objectives –

- To achieve guaranteed treated effluent quality to reuse it in construction / gardening / irrigation / farming, as defined in the tender elsewhere.
- To ensure that the offered treatment process is the most appropriate and state of the art in terms of both efficiency of treatment and cost (the Tenderer shall have to produce the performance records with the same treatment systems applied elsewhere.)
- To ensure that the process is cost effective from both capital and O&M costs consideration.
- To ensure that the sludge produced is dewatered to a “spade able” or “open body truck able” consistency – so that it can be easily disposed off.
- The process preferably should be free from utilization of chemical/any organic chemicals except for sludge removal process. No toxic chemical shall be used by the Contractor. He shall submit the toxicity test report from any govt. recognized laboratory at his own cost before using such chemical.
- Oils/lubes/fuels/media/chemicals etc. to be used will be defined by Tenderer.

5. Treatment Technologies:

The treatment process proposed by Tenderer should be well-established and proven process for treatment of sewage in Indian Environmental condition.

The following processes shall not be accepted by the DREAM CITY.

- Oxidation pond (facultative/anaerobic/aerobic)
- Aerated Lagoons

- Trickling filters
- Rotating Biological Rotators (RBC)
- Anaerobic Treatment

Tenderer must provide all information necessary for a complete evaluation of his technology by the DREAM CITY, including drawings, design calculations, technical specifications, datasheets proposed construction/installation methodology and other relevant details. Any bid without above information will be considered as non responsive and summarily rejected. Bid must satisfy the DREAM CITY's performance requirements as set out in the Bid documents. Tenderer shall include with their Bid evidence acceptable to the DREAM CITY of satisfactory past performance of same technology based plant designs and the associated equipment and processes offered and full details of similar plant capacities called for to enable proper evaluation of design.

6. Treatment Process

The treatment process for TSTP under this contract is open. Tenderer is free to adopt and use appropriate treatment process/technology for this project: However the technology selected should be such that the treatment parameters should meet the effluent standards as stipulated in the tender document and shall have proven track record of the same technology for the desired treatment parameters for atleast 5 years in India or abroad. The treatment technology should also include sludge treatment, as required and its safe disposal. Contractor shall provide a complete, fully functional facility designed for proper, easy, operation and to meet the stated performance requirements. This shall include any and all additional, ancillary, supporting, or other processes, components, equipment, or other items necessary to achieve these objectives, regardless of whether such items are explicitly listed in these bid documents or not. **As the resue of treated sewage shall be for gardening purpose, no in-organic chemicals shall be allowed to use for sewage treatment. Further, the treated sewage shall be used partly for lake restoration also, so the contractor shall have to carry out necessary bio-remediation (eco-friendly culture only) also to take care of excessive nutrients to prevent any algal formation / eutrophication.**

7. Project Components / Units

The total units covered under scope of work are:

- **Sewage Intake arrangement from near by sewerage network. The Intake arrangement shall consists of Intake sewer line, sump and pumps (2 working + 1 stand by). The length of existing manhole to the STP site shall be approximately 100 meters.**
- **Sewage treatment: any proven open technology. It shall include preliminary, primary Biological, Tertiary including PSF, ACF, MF, UF, RO etc. as required, disinfection and Sludge Treatment as the technology chosen by tenderer.**
- **The final treated effluent is to be disinfected compulsorily with UV before its further use.**
- **The contractor shall have to make sure that there shall not be any formation of odor or foul gases during the treatment. The contractor may make use of deodorant to control the odor.**
- **Treated effluent line upto Collection tank for reuse in Garden and to fill in Lake.**
- **Collection Sump to collect the treated sewage for gardening gardens. The collection sump shall be designed for 1,15,000 liters of storage capacity. The collection sump shall be completely below the ground level.**

- The Collection Sump shall be equipped with Electro-mechanical arrangement to transfer the treated sewage up to under construction works at Dream City, i.e. about 350 meters from the TSTP campus. The transmission line shall be of minimum 80 mm diameter GI/CI/DI pipe only.
- Sludge shall be dewatered through mechanical dewatering system only, as applicable and disposal shall be done in safe and hygienic manner.
- All interconnecting piping shall be of DI – K7 class / HDPE – min 6 kg/cm² / UPVC – min 6 kg/cm² pipes only. The air pipe shall be of SS 314 only.
- All the necessary civil, mechanical, electrical, instrumentation, interconnecting piping works etc. as required to complete the job to achieve the desired objective of the project as mentioned elsewhere in the tender shall be part of this tender.

8. Design Criteria

The tenderer shall have to strictly follow the design criteria / norms as specified in the CPHEEO manual on Sewerage and Sewage Treatment. The design criteria considered other than CPHEEO manual shall not be considered valid and tender shall be rejected. The tenderer shall have to submit the design sheet along with the references considered for the design. DREAM CITY may verify the same for tender acceptance and evaluation.

Signature of Contractor

I/c. Town Planner
Surat Municipal Corporation
and Dream City Limited

Name :

Company's seal :

20. SPECIAL CONDITIONS

1. Sewage Treatment Plant

1.1. General

The sewage treatment plant (STP) system outlined in this section specifies the special conditions for the system design, manufacture, supply and installation of a TSTP.

The work shall be carried out in a manner consistent with good practice in the local market. A qualified and experienced Engineer shall be engaged for site supervision.

The Contractor shall submit analytical test reports of effluent water samples after the commissioning or after the system is put into operation or as required by the Engineer in charge. The report shall contain analysis of all data related to those requirements laid down by the DREAM CITY in the tender.

The effluent from the Tertiary Sewage Treatment Plant shall be suitably treated and the effluent water recovered shall be used for gardening / irrigation purposes etc.

1.2. Scope of Supply of Material :

a] Supply of Material :

All materials, testing appliances, tools, tackles & spares etc. necessary for the successful execution & completion and till plant handing over to DREAM CITY shall be procured and provided by the tenderer. **No material will be supplied to the contractor, either free of cost or at issue rate by the Dream City Limited, for this complete work.**

b] Water :

Contractor shall have to make his own arrangement for water required for construction, testing and for his labour/employees too. However, if DREAM CITY accepts to provide water supply, the same shall be on the chargeable basis as per prevailing rate (i.e. 3 % of the total civil cost of the project). Further, if accepted, the water supply shall be given at one point only and necessary arrangements for piping/pumps etc. shall have to be done by the contractor.

c] Power :

Power required for the construction, erection and other allied job shall be arranged by the contractor at his own cost.

The Contractor shall have to make his own arrangement for getting electric power for construction and trial run of the TSTP. The DREAM CITY will issue only recommendation letter to the contractor if required. No compensation shall be paid for delay in getting power supply. All the rest formalities for getting the power supply, connection charges, deposits, monthly energy bills etc. shall be done and borne by the contractor. The necessary electrical connection for commissioning and operation of the STP shall be taken by DREAM CITY. However, **during O&M Contract, the energy**

– **electricity bills for all the equipment under this contract shall have to be borne by contractor only.**

d] Cement :

Cement required for the construction, erection works shall be procured by the contractor at his own cost. All the cement to be used for the proposed work for any civil engineering activity shall be Portland Pozzolana Cement (Fly Ash based), conforming to IS: 1489, Part-I (Latest Edition) and from the specified contractors/manufacturers only.

e] Steel :

All reinforcement and structural steel required for construction, erection and other allied job shall be procured by the contractor at his own cost. All the reinforcement steel to be used for the RCC work for the proposed sewage treatment plant at all levels, shall be CRS (Corrosion Resistant Steel) type of Fe 500 Grade conforming to IS:1786 and from the specified contractors/manufacturers only.

f] Chemical and Consumables :

Only necessary electrical power will be supplied free of charge by DREAM CITY during testing and commissioning. All other consumable items including chemicals and all other arrangements shall have to be made by the contractor at his own cost.

1.3. Safety :

All the safety and factory rules shall be strictly followed. The contractor is fully responsible for the safety of his staff and workmen and must equip them with safety appliances and tools.

1.3.1. The Contractor shall be responsible for provision of safety arrangements & protective clothing for all persons/employees on the site whether or not engaged in actual operation or supervision. The Contractor shall also be responsible for safety arrangements of all equipment used for construction and shall employ trained workmen conversant with safety regulation. The contractor shall use only tested equipment and tools and shall periodically renew tests to the satisfaction of the Engineer. All test certificates shall be made available to the Engineer at the site of the work. If at any time, in the opinion of the Engineer, this provision is not complied with, the contractor shall forthwith replace such equipment and tools.

1.3.2. The contractor shall display notices and arrange proper fencing at such places where hazardous work is being carried out. The contractor shall provide at his own expense on the works to the satisfaction of the Engineer at such places, proper and sufficient fire fighting, first aid appliances etc. which shall at all times be available for use.

1.4. Time Schedule :

The work shall be executed strictly as per the time schedule/bar chart submitted and as agreed upon along with price-bid offer. The entire job/project has to be completed within a period of **03 (Three) months [Including monsoon]** from the date of placement of order. The time limit includes the time required for testing, rectification, if any, retesting and completion in all respect to the entire satisfaction of

the Engineer-in-charge. The timely completion of this project is very very important for the citizen of Surat City, and hence weightage will be given on strict compliance of work as per the sanctioned schedule of work/bar chart. The time limit of this project is **03 (Three) months [Including monsoon]** is exclusive of commissioning and trial run period. The commissioning shall be 1 month from the date of completion and the trial run shall be 2 months from the date of successful commissioning. The time period of completion shall be reckoned from the date of notification of award of work. The Tenderer shall have to submit a detailed PERT/BAR chart network, with the time frame consisting adequate number of contractual activities covering key phases of the works such as design, drawing, approval procurement, manufacturing, testing, construction and field erection activities.

Monthly construction programme, progress and financial target achieved shall be drawn up and submitted at every first of calendar month. The tenderer shall strictly adhere to the schedule of work by deploying adequate personnel.

1.5. Penalty for delay :

The Contractor is bound to do the work as per the sanctioned schedule of work/bar chart. The contractor shall have to submit the progress report with physical and financial achievement at every first of calendar month. The Engineer-in-charge will review the same and if the contractor fails to achieve the target set as per the sanctioned bar chart, he shall pay penalty for delay, at one fifth of one percent of financial target set of respective month.

If the contractor fails to complete the work within the stipulated completion date for the work, he shall pay **penalty for delay** at 0.2% (Zero point two percent) of contract value per day of delay in completion and handing over the work or part thereof as the case may be to The Dream City Limited. The amount of **penalty for delay** shall, however, be subjected to a maximum of 10% (ten percent) of the contract value. Delays in excess of one hundred days will be a cause for termination of the contract and forfeiture of all security for performance.

1.6. Signing Of The Contract

The successful tenderer shall be required to execute an within ten days of the receipt by him of the notification of acceptance of tender. In the event of failure on the part of the successful tenderer to sign the agreement within the above stipulated period, the acceptance of the tender shall be considered as cancelled and Earnest Money Deposit amount will be forfeited.

1.7. Forfeiture Of Retention Money

Whenever any claim against the contractor for the payment of a sum of money arises out of or under the contract, the Dream City shall be entitled to recover such sum by appropriating in part or whole of the retention money of the contractor. In case, the retention money is insufficient or if no retention money has been taken from the contractor, then the balance or the total sum recoverable, as the case may be, be deducted from any sum then due or which at any time thereafter may become due to the contractor. The contractor shall pay on demand any balance remaining due.

1.8. No Compensation For Alteration In Or Restriction Of Work

If at any time after the commencement of the work, the Dream city ltd shall for any reason whatsoever not require the whole 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 by reason of any alterations having been made in the original specifications, drawings, designs and instruction which shall not involve any curtailment of the works as originally contemplated.

1.9. Right Of The Dream city ltd To Determine/Terminate Contract

- i The Dream city ltd shall, at any time, be entitled to determine and terminate the contract, if in the opinion of the Dream city ltd the cessation of the work becomes necessary owing to paucity of funds or for any other cause whatsoever, in which case the cost of approved materials at the site as verified and approved by the Engineer-in-charge and of the value of the work done to date by the contractor shall be paid for in full at the rate specified in the contract. A notice in writing from the Dream city ltd to the Contractor of such determination and the reason, thereof shall be the conclusive proof of the fact that the contract has been so determined and terminated by the Dream city ltd.
- ii Should the contract be determined under sub-clause (i) of this clause and the contractor claims payments to compensate expenditure incurred by him in the expectation of completing the whole of the work, the Dream city ltd shall consider and admit such claims as are deemed fair and reasonable and are supported by vouchers to the satisfaction of the Engineer-in-charge. The decision of the Managing Director, Dream City Limited on the necessity and propriety of any such expenditure shall be final and conclusive and binding on the contractor.

1.10. Collection Of Data Tenderers' Responsibility

The tenderer shall visit the site and acquaint himself fully of the site and no claims whatsoever will be entertained on the plea of ignorance or difficulties involved in execution of work or carriage of materials.

1.11. Royalties :

Royalties for the construction materials i.e. Sand, Stone, aggregates, Rubble, murrum, gravel as specified from time to time by the State Government shall be paid by the contractor. All ruling regulations have to be strictly adhered to.

1.12. Payment terms will be as follows:

[A] Capital Work:

- (i) 20% to be paid on 50% completion of work.
- (ii) 20% to be paid on 75% completion of work.
- (iii) 20% to be paid on completion of work in all respect.
- (iv) 10% to be paid on completion of 1st month trial run.
- (v) 10% to be paid on completion of 2nd month trial run.
- (vi) 10% to be paid on completion of 3rd month trial run.

(vii) 10% to be paid after 6 month of successful commissioning of the plant

[B] Operation and Maintenance Work:

(i) Monthly basis as quoted in the tender.

1.13. Following must be specifically noted;

- [a] No advance payment terms are accepted.
- [b] No 'D' or 'C' Form or Octroi exemption certificate will be furnished by the Dream city ltd.
- [c] The plant is located within the DREAM CITY Limit.
- [d] Rates quoted must be inclusive of all taxes, octroi, work contract tax and no dispute at later date will be entertained.
- [e] Applicable GST/income tax and surcharge as per Rules, will be deducted from all the payments made to the contractor as a TDS.
- [f] Completion period will remain **03 (Three) months [Including monsoon]**. Extension in completion period is not accepted. Further, it is ensured that comments will be offered on the drawings submitted for approval within 15 days of submission of drawing.
- [g] EMD & SD shall be furnished as per tender terms and conditions only
- [h] Tenderer to specifically note that he has to select the contractors from the Contractors List only given in the tender documents. However, for any of the items for which no vendor is mentioned, he must seek prior consent from Dream City while selecting the particular contractor out of Contractor List.
- [i] The defect liability period of **60** (One Hundred Twenty) months shall be considered only after the successful completion of three month trial run and commissioning of the plant.
- [j] It is to note that, it is the responsibility of contractor to watch and ward and make keep security arrangement.

1.38 Price Escalation shall not be paid to the contractor by the Dream City Limited in any case.

1.39 All the applicable taxes as per the Government Rules and Regulations shall have to borne by the Contractor only, no compensation shall be paid on this account.

1.40 Interest of any kind what so ever shall never be paid/entertained in any case including delayed payment of Running bills or final bill or any such or all dues with Dream City Limited.

Signature Of The Contractor.

I/c. Town Planner
Surat Municipal Corporation
and Dream City Limited

21. SPECIFICATIONS FOR CIVIL AND STRUCTURAL WORKS

A. GENERAL

I Scope :

- a. This specification gives the general design requirements and manners of construction of all civil and structural works, the scope of which is given separately.
- b. Placing in position and fixing of all mechanical items, insert plates, sleeves, anchor bolts are also part of work covered by this specification.
- c. Contractor shall be responsible for the designs and construction of all RCC works, structural steel and other relevant civil works.
- d. The contractor shall submit to the SMSS all the design calculations and drawings for substructure, superstructure and all other connected works for approval. However the approval of the drawings by the SMSS does not absolve the contractor of his responsibilities regarding the soundness of the structure.
- e. The contractor shall submit a schedule of drawings proposed to make in line with the time schedule included elsewhere in these specifications. The contractor shall submit necessary prints at the time of submissions for approvals and final records.

II Design :

- a. The design shall generally be on the basis of structural design specifications enclosed herewith.
- b. All structures/part of structures in contract with water shall be designed as water retaining structures as per IS 3370 parts I to IV [latest revision].
- c. Soil data to be used for the design of the structures shall be as per the enclosed recommendations.

III Construction :

- a. The construction shall be done as per latest relevant Indian standards.

DESIGN SPECIFICATIONS :

Scope :

The design criteria given herein establish the minimum basic requirements for design of reinforced concrete, structures and structural steel works.

IV Codes and Standards :

- a. Design loads in building : IS : 875.
- b. Concrete Structures :
 - General Purpose : IS : 456
 - Raft foundations : IS : 2950
 - Machine foundations : IS : 2974
 - Water retaining Structures. : IS : 3370
- c. Steel Structures :
 - Structural steel in General buidling constn : IS : 800
 - Steel tubes in general buidling construction : IS : 806
 - Metal arc welding for general building constn : IS : 816
- d. All other relevant codes specified or referred in the above codes and wherever the reference is made it shall be with latest revisions.
- e. Any exceptions or additions to these specifications, including any mandatory rules or regulations which are to apply, will be indicated on the design drawings/calculations.

V. Soil and Foundation Data :

The soil investigation data is enclosed as Annexure with Volume-I-BI of tender. Detailed Soil Investigation Report can be had from the office of the Managing director, if required by the Tenderer.

B. GENERAL TECHNICAL SPECIFICATIONS :

3.0.1 GENERAL :

All the items occurring in the work and as found necessary during actual execution shall be carried out in the best workman-like manner as per specifications and the written orders of the Engineer-in-charge.

Extra claim in respect of extra work shall be allowed only if such work is ordered to be carried out in writing by the Engineer-in-charge as extra

The contractor shall engage a qualified Engineer for the Execution of work who will remain present for all the time on site and will receive instructions and orders from the Engineer- in- charge or his authorised representative. The instructions and orders given to the Contractor's representative on site shall be considered as if given to the contractor himself.

A work order book as prescribed shall be maintained on the site of the work by the contractor and the contractor shall sign the orders given by the inspecting officers and shall carry out them promptly.

Quantities specified in the tender may vary at the time of actual execution and the contractor shall have no claim for compensation on account of such variation.

Diversion of road, if necessary, shall be provided and maintained during the currency of the contract by the contractor at his cost.

Figured dimensions of drawings shall supercede measurements by scale. Special dimensions or directions in the specification shall supercede all other dimensions.

All levels are given on drawings and the contractor shall be responsible to take regular level on the approved alignment before actually starting the work. The levels shall be connected to the G.T.S. levels and shall be got approved from the Engineer-in-charge.

If the arrangement for temporary drainage is required to be made during any work of this contract. The same shall be made by the contractor without claiming any extra cost.

3.0.2 LOCATION AND ACCESS TO SITE :

The place of the proposed project at Kavi Kalapi Lake Garden is located within the city limit and at the distance of about 6 kms. from the Surat Railway Station.

3.0.3 DESCRIPTION OF WORK :

The work under the contract consists of providing and executing civil, mechanical, electrical, instrumentation, PLC works. Services to be executed for sewage treatment plant which includes the necessary items to be executed. The work also includes providing necessary inserts, brackets supports in walls are required for installaing any other facilities to be provided by other agencies.

Painting and colouring operating platforms, leaders, hand railing, rungs etc. with one coat of red oxide primer and two coats of approved enamel.

It is not the intention of this tender to give detailed description and specifications of each and every item. The successful tenderer shall execute each item so as to ensure smooth and efficient working of the total system of which a item is a part. The successful tenderer shall not refuse to carry out any additional items of construction if the same are required for smooth and efficient working of the total system in the opinion of the Dream City or the Engineer-in-charge.

All the items specified in the tender shall be carried out by the successful tenderer as per the practices set out in the relevant latest editions of Indian Standard specifications and IRC specifications.

3.0.4 WATER SUPPLY FOR WORK ;

The contractor shall make his own arrangement for supply of proper quantity and quality of water required for construction work and also for consumption of his employees unless otherwise charged as per prevailing Dream City Rules and Regulation.

3.0.5 POWER SUPPLY ;

Dream City shall help the contractor by giving a recommendation letter for electric power from G.E.B. / Torrent S.E. Co. not guarantee the supply of electricity and no compensation for non-supply or irregularity of electric power will be entertained. The contractor shall make his own arrangement to get electric power from G.E.B.at his own cost. He shall also keep a generator for power as standly.

3.0.6 CEMENT AND STEEL :

Contractor shall make his own arrangement to get cement and steel of the approved quality from any of the approved agencies at his own cost and delay in getting cement and steel from these agencies shall not be taken as a reasons for delay in execution of the various item of work.

3.0.7 CLASSIFICATION OF STRATA :

All materials encountered in excavation will be classified in the following ground irrespective of mode of excavating the materials and decision of the Engineer-in-charge in this regard shall be final and binding to the contractor.

3.0.8 SOILS & HARD MURRUM :

Soils of all sorts, silt, sand, gravel, soft murrum, stiff clay, kunkar and other excavation not covered in the item mentioned hereunder.

3.0.9 SOFT-ROCK & HARD-ROCK :

This shall include all materials which is rock but which does not need blasting and can be removed with a pick-bar, wedges, pavements breakers, penumatic etc.

Signature & Seal of Contractor

I/c. Town Planner
Surat Municipal Corporation
and Dream City Limited

22. MECHANICAL SPECIFICATIONS

PART I - GENERAL

GENERAL MECHANICAL REQUIREMENTS

The following clauses specify general mechanical requirements and standards of workmanship for equipment and installation and must be read in conjunction with the particular requirements for Contract. These general specification clauses shall apply where appropriate except where redefined in the particular required sections of the Specification which shall be applicable.

List of Standards

Titles of various standards referred to in the specifications are indicated below. This list does not necessarily cover all the standards referred to:

BS 5135	Specification for arc welding of carbon manganese steels
BS 5316 Part-2	Specification for acceptance test for centrifugal, mixed flow and axial pumps – Test for performance and efficiency
BS 6072	Method for magnetic particle flow detection
BS 6405	Specification for non-calibrated short link steel chain (Grade 30) for general engineering purposes : Class 1 & 2
BS 6443	Method for penetrate flow detection
ASTM A-36	Specification for Structural Steel
ASTM A-216	Specification for Steel Castings, Carbon suitable for fusion welding for high temperature service
ASTM A-276	Specification for stainless steel and heat resisting steel bars and shapes
ASTM A-351	Specification for castings, Austenitic – Ferritic (Duplex), for Pressure containing parts
ASTM A-743	Specification for castings, Iron – Chromium, Iron – Chromium – Nickel and Nickel Base Corrosion Resistant for general Application
ASTM A-744	Specification for castings, Iron Chromium – Nickel, Corrosion – Resistant
IEC – 189 Part 1 & 2	Low frequency cables and wires with PVC insulation and PVC Sheath
AWWA C 501	Cast Iron Sluice Gates
IS 5	Colours for ready mixed paints and enamels
IS 210	Grey Iron Castings
IS 318	Leaded Tin Bronze Ingots and Castings
IS 325	Three Phase Induction Motors
IS 807	Code of Practice for Design, manufacture, erection and testing (Structural Portion) of cranes and hoists
IS 1239	Mild Steel tubes, tubular and other wrought steel fittings
IS 1536	Centrifugally Cast (Spun) iron pressure pipe for water gas and sewage
IS 1537	Vertically cast iron pressure pipes for water, gas and sewage
IS 1538	Specification for cast iron fittings for pressure pipes for water,

	gas and sewage
IS 1554	PVC insulated (Heavy duty) electric cables
IS 2062	Steel for general structural purposes
IS 2147	Degrees of protection provided by enclosures for low voltage switch gear and control gear
IS 3177	Code of practice of electric overhead traveling cranes and gantry cranes other than steel work cranes
IS 3624	Vacuum and Pressure gauges
IS 3815	Point hooks with shank for general engineering purposes
BS 2910	Methods for radiographic examination of fusion welded circumferential butt joints in steel pipes
BS 3017	Specification for mild steel forged ram shorn hooks
BS 3100	Specification for steel castings for general engineering purposes
BS 3923	Methods for ultrasonic examination of welds
BS 4360	Specification for weldable structural steels
BS 4772	Specification for ductile iron pipes and fittings
BS 4870	Specification for approval testing of welding procedures
BS 4871	Specification for approval the sting of welders working to approved welding procedures
BS 4942	Short chain link for lifting purposes
IS 5120	Technical requirements of roto dynamic special purpose pumps
IS 5600	Horizontal / vertical non clog type centrifugal pump for sludge handling
IS 7090	Guide lines for rapid mixing devices
IS 7208	Guide lines for flocculator devices
IS 10261	Requirements for clarifier equipment for waste water treatment
IS 8413	Requirements for biological treatment and equipment
Part-II	Activated sludge process and its modifications
IS 10037	Requirements for sludge dewatering equipment, sludge
Part-I	Drying beds, sand, gravel and under drains
IS 6280	Specification for Sewage Screens
IS 3938	Electric Wire rope hoists

Materials

All materials incorporated in the works shall be the most suitable for the duty concerned and shall be new and of first class commercial quality, free from imperfection and selected for long life and minimum maintenance.

Design and Construction

- a. The plant design, workmanship and general finish shall be of sound quality in accordance with good engineering practice, Design shall be robust and rated for continuous service, at the specified duties, under the prevailing operational site conditions.
- b. The general design of mechanical and electrical Plant, particularly which of wearing parts, shall be governed by the need for long periods of service without frequent attention but shall afford ready access for any necessary maintenance.

- c. Similarly items of Plant and their component parts shall be completely interchangeable. Spare parts shall be manufactured from the same material specification as the originals.
- d. No welding, filling or plugging of defective work will be permitted without the written permission of the Engineer. All welding spatter shall be removed.
- e. It shall be the responsibility of the contractor to ensure that all the equipment selected is fully compatible, mechanically, electrically and also with respect to instrumentation, control and automation.
- f. It shall be the responsibility of the contractor to ensure his equipment interfaces with other equipment correctly. Any interfaces must not affect the integrity of the equipment, or invalidate any warranties or guarantees.
- g. Each component or assembly shall have been proven in service in a similar application and under conditions no less than those specified therein.
- h. The equipment shall be compatible with the civil structure, when installed, with sufficient space for operator access and maintenance procedures.
- i. All materials shall be of the best commercial quality and free from any flaws, defects or imperfections.
- j. Materials shall be selected to eradicate or reduce corrosion to a minimum.
- k. Basic Material purchased for this project such as MS sheets should not be more than 6 months old.
- l. Entire plant must be factory fabricated, any kind of fabrication of treatment plant unit at site is not permitted except required piping support.
- m. Before dispatch of the system, Hydro test of the entire system along with assembly arrangement shall be examined by the team of S.M.C.
- n. The Plate selected for the fabrication of the packaged unit should be Mild Steel IS 2062 Gr. B type as minimum or higher specification.
- o. Before surface coating via. Paint / fibre glass reinforced plastic coating, surface preparation via. Sand blasting SA 2.5 minimum is required with immediate application of the ISO FRP lining of minimum 2mm thck & outside with 2 coat red oxide & 2 coat of Epoxy paint is mandatory. (Each step of the fabrication activity should be documented by contractor & to be submitted while SMC team visit for pre-dispatch inspection.
- p. Minimum Corrosion allowances for system to be taken as 2.5mm.
- q. Vendor has to submit the design sheet of the pressure vessel as per latest ASME Sec. VIII Div. I.

DESCRIPTION

- A. The requirements of this Section are subject to the General Conditions of Contract. Other applicable sections of the Specifications shall be constructed to form a part of this Section where the context so requires. Specific characteristics, dimensions and other details applicable to any particular equipment shall be given in the Schedule to Technical data provided at the end of the relevant Section.
- B. The Contractor shall provide all the required labour, permanent equipment and materials, tools, construction plant and equipment, safety equipment, transportation and test equipment for supplying, installing, adjusting and fully testing all the mechanical work shown General Assembly Drawings, in detail included in these Schedules.

QUALITY ASSURANCE

A. STANDARDS

All mechanical equipment and the materials used therewith shall comply with the relevant Indian Standards unless a more rigorous requirement is specifically stipulated. If no applicable Indian Standard is available for any item of equipment or materials, the corresponding British Standards laid down by the regulating Authority in the United States dealing with the subject in question shall be adopted. In every situation the latest specifications, standards etc. shall apply unless otherwise stated. In instances where there is a conflict between two codes (the Indian Standards excepted), the more restrictive of the two shall apply.

B. EXTRA WORK

Any item of equipment or materials not shown in the Drawings or specified elsewhere, but is clearly essential to make the system operable, shall be supplied and installed by the Contractor as if it had been shown or specified therein. Subject, however, to the above requirement, work that is not included in the Contract Documents shall not be performed except when approved in writing by the Engineer-in-charge/Dream City

C. QUALITY STANDARDS

Where the name of one or more manufacturers has been shown on the drawings or mentioned in these specifications, it has been so done to indicate type and quality required and acceptable. No restrictive choice is either implied or intended, and tenderers are free to offer other makes of equipment or materials provided they comply with these specifications and the requirements shown on the Drawings.

D. DATA

All equipment furnished shall have a data plate fabricated out of 316 Stainless steel with a minimum thickness of 1.6 mm with embossed or preprinted lettering, and fastened to the frame with corrosion-resistant pins. Name plates shall have stamped on them the name of the manufacturer, serial number, model number, type operating and performance data and other pertinent information. Letters and numerals shall not be smaller than 4.75 mm. high.

E. TAGGINGS

Name tags shall be provided and attached to each item of equipment and device to identify it. The name tags shall be of rectangular shape and shall be approximately 37 mm x 76 mm in size. They shall be made from brass or stainless steel sheet etc. and have a minimum thickness of 0.75 mm. Letters and numerals shall be less than 4.75 mm high. The name and number of each item of equipment or device, as shown on the drawings, shall be shown on each name tag. A 4.75 mm diameter hole shall be provided in the upper left hand corner of each tag and shall be used to attach the name tag to the equipment and devices, with 3.2 mm stainless steel chain.

DRAWINGS

A. PROJECT DRAWINGS

The mechanical drawings are diagrammatic and indicate the general layout of the complete construction work.

1. Locations of equipment, inserts, anchors, motors, panels, conduits, stub-ups, fittings, fixtures, air, water and process inlets, unless specifically dimensioned on the drawings, shall be determined to suit site conditions encountered and the Contractor shall be responsible for ensuring clearances between pipes, equipment and similar appurtenances, without extra cost to the Dream City.
2. The contractor shall review the Drawings and specifications of other trades and shall include the mechanical work shown thereon that shall be required for the installations.
3. Should there be a need to deviate from the Mechanical Drawings and Specifications, the Contractor shall submit written details and reasons for all changes to the Engineer-in-charge for approval before making such changes, Any extra cost to make such changes must be borne by the Contractor unless such changes are discussed, negotiated and finalized at the tender stage and included in the letter of Award of the Contract.
4. In the event of conflicting interpretations of the construction drawings, the Engineer-in-charge interpretation shall prevail.

B. SHOP DRAWINGS

1. Prior to fabrication of custom-made equipment or placing orders for available manufactured equipment, the Contractor shall obtain from the manufacturer and submit to the Consultation for his approval five copies of shop drawings for showing details of fabrication, assembly, foundation drawings, installations and data covering materials used, power drive assembly, parts, devices and other accessories forming a part of the equipment to be furnished. Unless otherwise specified, these shall constitute data covering materials used, power drive assembly, parts, devices and other accessories forming a part of the equipment to be furnished. Unless otherwise specified, these shall constitute the initial submittals.

2. The Contractor will submit six (6) copies of certified performance or certified test curves as specified for all pumps, blowers or com-pressers furnished, unless otherwise specified with the tender. The Contractor shall notify the Engineer-in-charge three (3) weeks prior to any testing, should the Engineer-in-charge elect to witness the tests or have the tests witness by an authorized representative on his behalf.

C. RECORD DRAWINGS

1. The Contractor shall maintain a complete and accurate record set of drawings for the mechanical installation and construction work.
2. Record all work that in installed differently that shown on the project drawings.
3. Upon completion of the work, the contractor shall submit to the Engineer-in-charge in triplicate complete set of "Record Drawings". These shall be a clean, legible and unambiguous set of drawings with all changes from the approved project drawings distinctly shown in these two descriptions shall be used throughout the Contract.
4. All underground piping shall be located by the dimensions, baseline stationing, approximate elevation and other pertinent data required to facilitate the relocation of the pipes or fittings when later necessary.

ADAPTATION OF EQUIPMENT

Should the equipment selected require any revision to the structure, piping, electrical or other shown on the drawings, the Contractor shall include the cost of such revisions in his bid for the equipment and no extra payment shall be made for such revision. All such revisions shall be subject to the approval of the Engineer-in-charge. It should however be noted that no equipment will be accepted which require any major structural, piping electrical or other changes.

UTILITY SERVICE INTERRUPTION

All utility service interruptions initiated by the Contractor in the course of execution of his work shall be scheduled in advance and approved by the Utility Authority and the Engineer-in-charge.

MANUALS

A. QUANTITY AND PROCEDURE

The Contractor shall obtain from the manufacturer and hand over to the Engineer-in-charge three sets of Instruction and Maintenance Manual's for the equipment furnished under these Specifications, to provide adequate information for proper installation, operation and maintenance of the equipment. This requirement shall cover all equipment furnished. The Engineer-in-charge shall approve the manuals for the adequacy of the contents and the format and return one (1) set to the contractor for his use in the start-up of the equipment.

If any errors or inadequacies discovered are of minor nature, extra sheets or addenda shall be supplied by the contractor in consultation with the Engineer-in-charge. If gross

inadequacies are detected, the Engineer-in-charge shall point these out, together with brief comments on the shortcomings, to the Contractor who shall then have the manuals recast and improved to a general level of acceptance.

The extra sheets, addenda or revised manuals shall all be resubmitted to the Engineer-in-charge for recruiting and approval within fourteen (14) days of date on which the Engineer-in-charge's comments are conveyed to him.

B. SCHEDULE

Manuals for approval shall be submitted to the Engineer-in-charge not later than the date of dispatch from factory.

C. CONTENTS

The Instruction Manuals shall contain, but not limited, to at least the following information, where applicable.

1. General introduction and over all equipment description, purpose, functions, simplified theory of operations etc.
2. Specifications.
3. Installation, instruction and precautions
4. Start-up procedures
5. Operation procedures
6. Shut down procedures
7. Short and long term inactivation procedures
8. Maintenance, calibration and repair instructions
9. Parts lists and spare parts recommendations
10. Name and address of critical spare parts and repair facility.
11. Preventive and predictive maintenance schedule of each item as per the manufacturer standard.

D. FORMAT

The Instruction and Maintenance information shall be assembled into binders of not more than 100 mm th. and shall be arranged and indexed in the order as in these specifications. The first sheet shall contain the booklet index and be of laminated plastics. Each volume shall have the project name and volume embossed into the cover in gold colour. The format and designs shall be shown to and the approval obtained from the Engineer-in-charge before the binders are finalised.

Each different section shall be headed with a laminated plastic page containing the following information.

1. Manufacturer's name
2. Local address and telephone number
3. The year of purchase
4. Equipment model and serial number of all such items as motors, pumps, variable speed drives etc.

A master table of contents should be given in Volume Drawings and pictorials shall illustrate the text sufficiently to ensure a clear brief presentation. In the event that a manual covers a family of similar equipment, the inapplicable information shall be struck off neatly or the relevant sections emphasized by use of thick arrows, circles or boxes, whichever is cleanest and neatest.

E. BINDERS

Binders shall be of type approved, after an inspection of samples, by the Engineer-in-charge. In general they have an expanding back and be of simulated blue leather. The information on the cover shall be as described in sub-division and approved by the Engineer-in-charge.

F. EQUIPMENT GUARANTEE

This requirement shall conform to the General Conditions of Contract. Unless specified otherwise elsewhere, the Contractor shall furnish and replace, at no cost to the DREAM CITY any component of the equipment that is defective or shows undue wear within one (1) year from the date of acceptance of the work by the Engineer-in-charge. In addition to performance guarantees, processes or systems shall comply with the requirements stipulated in the relevant sections of the Specifications.

PART 2 - PRODUCTS

MATERIALS AND WORKMANSHIP

All equipments furnished under this or allied sections shall be new guaranteed free from defects in materials, design and workmanship. In inadequate information is provided in the specifications, it shall be the manufacturer's responsibility to ascertain the conditions shall be successful. All parts of the equipment shall be adequately proportioned to safely withstand all stresses that may occur or be induced in them during fabrication, erection and intermittent or continuous operation.

All equipment shall be designed, fabricated and assembled in accordance with the best current engineering and workshop practice. Individual parts shall be manufactured to standard sizes and gauges so that spares, furnished at any time, can be installed the field. Corresponding parts of duplicate units shall be fully interchangeable. Equipment shall not have been in service at any time prior to delivery, except as required for tests. All materials

used shall be appropriate for the service conditions. Iron casting shall be tough, close-grained gray iron free blow-holes, flaws or excessive shrinkage and shall comply with the requirements of I.S. 210.

Except where otherwise specified structural and miscellaneous fabricated steel used in items of equipment shall conform to the relevant Indian Standards. All structural members shall be considered as subject to shock or vibratory loads. Unless otherwise specified all steel which will be submerged, in part or fully, during normal operation of the equipment shall have a minimum nominal thickness of 6.0 mm. The location of the fabricator and his shop schedule shall be furnished to the Engineer-in-charge prior to commencement of fabrication to enable him to schedule shop inspections if he so decides.

SAFETY GUARDS

All belt or chain drives, fan blades, couplings, exposed shafts, and other moving or rotating parts shall be covered on all sides by safety guards which shall be free of sharp edges and corners.

Each guard shall be designed for easy installation and removal. All necessary supports and accessories shall be provided for each guard. Supports and accessories, including bolts, shall be hot-dipped galvanised. All safety guards in out-door locations shall be designed to prevent the entry of rain and dripping water.

The canopy of 14 SWG Galvanised sheet be provided over and around the motor & gear boxes with proper louvers ventilation in order to protect from direct rain fall and the cost of the same shall be included in the cost of the equipment. All the canopy shall be painted with epoxy paint.

Above all safety guards should be supplied and fitted free of cost.

EQUIPMENT BASES AND BEDPLATES

A heavy cast iron or welded steel base shall be provided for each item of equipment which is to be installed on a concrete foundation. Equipment assemblies, unless otherwise specified or shown on the drawings, shall be mounted on a single, heavy cast iron or welded steel bedplate. Bases or bedplates shall be provided with machined support pads, tapered dowels for alignment or making adjustments, adequate opening to facilitate grouting and openings for electrical conduits. All seams and contact edges between steel plate and shapes shall be continuously welded and ground smooth.

JACKING SCREWS AND ANCHOR BOLTS

Jacking screws shall be provided in the equipment bases and bedplates to aid in leveling prior to grouting.

Equipment suppliers shall provide anchor bolts, nuts, washers and sleeves of adequate design as required for proper anchorage of the bases and bedplates to the concrete bases. Sleeves shall be minimum of one and a half times the diameter of the anchor bolts. Unless otherwise shown or specified, anchor bolts for items of equipment mounted on base-plates

shall be long enough to permit 38 mm of grout beneath the base plates and to provide adequate anchorage into structural concrete. Anchor bolts shall be 316 stainless steel and no bolts of other material shall be permitted except with the written permission of the Engineer-in-charge.

Anchor bolts, together with template or setting drawings, shall be delivered sufficiently early to permit setting the bolts accurately in place when the structural concrete is placed.

Signature of Contractor

I/c. Town Planner
Surat Municipal Corporation
and Dream City Limited

23. SPECIFICATION OF ELECTRICAL WORKS – ELECTRICAL DESIGN CRITERIA

PART - 1

1.0 GENERAL

1.1 Provisions

1.1.1 Other applicable sections including the General and part of electrical requirements as if repeated in this Section.

1.2 Work included

1.2.1 The Contractor shall provide all the required labour, project equipment and materials, tools, construction equipment, safety equipment, transportation, test equipment and satisfactorily complete all the electrical work included in these Specifications. Provide and install wiring for equipment that will be furnished and installed by other Sections of these Specifications.

1.2.2 All works shall be executed strictly in accordance with the latest National Electrical Code.

1.3 Regulations

1.3.1 All the electrical equipments and materials including their installation shall conform to the following applicable latest codes and standards.

- i Indian Electricity Rules 1956.
- ii The Indian Electricity Act 1910.
- iii Fire Insurance Regulations.
- iv Regulations laid down by the Electrical Inspector of the Government of Gujarat,
- v Regulations laid down by Factory Inspector of Gujarat.
- vi Indian Standards Institution's Specifications.
- vii Factory Act.
- viii Any other Rules & regulations and Condition of Supply laid down by the Local Electric Supply Company viz. Dakshin Gujarat Vij Company Limited (DGVCL) or Torrent Power-Surat Electricity Co. (TPSECo.)

1.4 Variances

1.4.1 In instances where two codes are at variance, the more restrictive requirements shall apply.

1.5 Contractor's Expense

1.5.1 The contractors shall obtain and pay for the required bonds, insurance, licenses, permits and inspections, and pay all taxes, fees and utility charges that shall be required for the electrical construction work. The contractor shall obtain at his own expenses the necessary certificate for the approval of the total work carried out from

the Electrical Inspector. DREAM CITY will pay all the legal fees for obtaining the power from DGVCL / T.P.S.E.Co. No any penalty shall be paid by DREAM CITY.

1.6 Extra work

1.6.1 Work that is not included in the tender documents shall not be performed, except when approved in writing by DREAM CITY

1.7 Rates for additions or extras

1.7.1 Any additional item of work over and above those schedules in the tender are to be carried out at the same basic rates as quoted in the tender for the same type of work.

1.8 Contractor responsible for supply of Equipment and Materials

1.8.1 If during the period of erection, the contractor or his workmen damage or destroy any part of the building structure or materials, the Contractor shall be completely responsible for the damages and he will have to make rectification / replacement at his own cost. The decision of the Engineer-in-charge will be final.

1.8.2 Final options to select any particular make shall rest with DREAM CITY No disputes in this regards shall be entertained at later date.

1.9 Project Drawings

1.9.1 Locations of equipment, inserts, anchors, motors, panels, pull boxes, manholes, conduits, stub-ups, fittings, lighting fixtures, power and convenience outlets, exterior lighting units and ground wells are approximate, and the Contractor shall be responsible for field verification of scaled dimensions on Drawings. No extra charges will be allowed for field adjustments, wiring changes, conduit rerouting, or additions needed to complete the installation and produce satisfactory operation of all equipment.

1.9.2 The contractor shall review the Drawings and Specifications of other trades and shall include the electrical work that shall be required for the installations.

1.9.3 If there shall be a need to deviate from the Electrical Drawings and Specifications, the Contractor shall submit written details and reasons for all changes to DREAM CITY / Consultants for approval.

1.9.4 In the event of varying interpretation of the tender Documents, the Engineer-in-Charge's interpretation shall govern.

1.10 Shop Drawings

1.10.1 After the award of the contract, the contractor shall submit, for the Engineer-in-charge's approval, the required manufacturer's Shop Drawings including complete schematic wiring diagrams for the electrical equipment as indicated in this Section and on the Drawings, a complete descriptive materials list that includes all other products intended or required for the installation, detailed installation drawings for all materials and equipment.

1.10.2 The contractor shall check the Shop Drawings for equipment requirements, dimensions, weight, and conduit locations. On the drawings, mark any corrections, if required, for approval before submitting to the Engineer-in-charge.

1.10.3 Submit Shop Drawings and materials lists for approval in 3 copies. It shall be understood that this requirement specifically requires the submission of Shop Drawings for conduit location which shall indicate any interferences with other work, should the contract Drawings make such interference unavoidable.

1.11 Record Drawings

1.11.1 The contractor shall maintain a complete and accurate record set of drawings for the electrical construction work.

1.11.2 Records all work that is installed differently than shown on the Drawings.

1.11.3 Upon completion of the work, transfer all marked changes to a clean set of drawings with red ink.

Mark the drawings "Record" and submit them to the Engineer-in-charge when the electrical work is completed in 7 sets.

1.12 Coordination

1.12.1 The contractor shall coordinate the electrical work with the other trades, other contractors, code authorities, utilities DGVCL / Torrent Power-Surat Electricity Co. and the Engineer-in-charge.

1.12.2 Where connections shall be made, the Contractor shall properly schedule all the required work, including the power shutdown periods.

1.12.3 When two trades join together in an area, the Contractor shall be certain that no electrical work is omitted.

1.13 Public Utility

1.13.1 The contractor shall provide the electrical work for power and telephones as indicated in the tender documents, and according to the service requirements.

1.14 Site Investigations

1.14.1 The Contractor shall visit the project site prior to submitting his bid, carefully inspect all areas, and become acquainted with the existing conditions.

1.15 Contract Bid

1.15.1 The contractor shall evaluate all job condition that affect the construction work for the project.

1.15.2 The best bid shall include the total cost for all the electrical work required by the tender documents, site investigations and all other contract expenses.

1.16 Service Manuals

1.16.1 Service manuals shall be furnished with the equipment. One (1) shall be given with the equipment, and a minimum of seven (7) copies given to the Engineer separately.

Additional copies shall be provided where so stated in the purchases order. Service manuals shall contain all necessary data for operation and maintenance of the equipment. A recommended spare parts list shall be furnished with the manual. A complete set of shop drawings shall be folded and inserted in each manual.

PART -2

2.0 EQUIPMENT & MATERIALS

2.1 Contractor shall provide the equipments and materials that are required to complete all the electrical work outlined in this Section.

2.2 Incidental items, not included in the tender drawings and Specifications, that can legitimately and reasonably be inferred to belong to the electrical work shall be provided by the Contractor at no additional cost to the DREAM CITY The decision of the Engineer-in-charge in this matter shall be final.

2.3 All equipments and materials shall be new, of latest design and standard products of established manufacturers. For uniformity, only one manufacturer shall be accepted for each type of product.

2.4 Contractor shall provide adequate and protective storage for all equipments and materials during the construction work. The contractor is responsible for its safe custody for his materials at site.

2.5 All equipments shall be procured from reputed manufacturers and shall bear ISI Certification mark wherever applicable. The equipment shall conform to the latest I.S. Standard Specification. A list of the Preferable Manufacturers is attached along with the Tender.

2.6 The following site tests are to be conducted (over and above the equipment to be tested at manufacturer's work) on equipment complete job in presence of Dream city ltd's representative prior to commissioning.

A. LT Switch Board:

All site tests as per Indian Standards and high voltage test of busbars after erection and as per detail specification including site test for relay etc.

B. Earth Resistant test.

2.7 The materials supplied and installed shall be genuine only and as per the specifications. If the same are not found satisfactory the same shall have to be replaced "Free of Cost".

Manufacturer's certificate towards genuineness of material shall have to be supplied (if required by the department) otherwise the material shall be rejected. In case of doubt/dispute the Dream city ltd shall ask the contractor to send the material/equipment to the manufacturer's work for testing genuineness. The decision/report received from the manufacturer shall be conclusive and binding on both the parties i.e. the Dream city ltd and the contractor. If the material / equipment sent for testing is not found to be genuine then the whole expenses for testing shall be borne by the contractor and the contractor shall replace the whole lot of materials/ equipments supplied by him free of cost.

- 2.8 The entire installation shall be got approved by the Government Electrical Inspector prior to commissioning. All formalities including preparation and submission of all drawings, getting approval, arranging visits of Electrical Inspector and obtaining permission to energize the installation, etc. shall be done by the Contractor for which no extra payment shall be claimed by the contractor.
- 2.9 The responsible authorised person of the contractor should be available at site daily when work is in progress. The Dream city ltd shall not be responsible for any accident or damage done to the workman/staff of the contractor. No compensation of any kind shall be paid by the Dream city ltd. The contractor shall observe Govt. Rules regarding labour, etc.
- 2.10 L.T. switch gear shall be painted with final coat of paint using spray machine at site before commissioning without any extra cost, if required.
- 2.11 All the equipments shall be tested for tests as per latest relevant IS in presence of Dream city ltd's representative prior to dispatch and certificate thereof shall be supplied.

If required by the Dream city ltd, the equipment shall be sent to recognized test lab for ascertaining the guaranteed parameters. The Contractor should agree to the same. The test results so obtained shall be binding to the Dream city ltd and to the Contractor.

- 2.12 All motors should be with duty S1, Totally Enclosed Fan Cooled type only. Unless otherwise specified, motors shall be provided with class 'F' insulation as a minimum. In case of motors with class 'F' insulation the permissible temperature rise above the specified ambient temperature shall be limited to class 'B'.
However, for motors operating with Variable Frequency Drive, winding shall be vacuum impregnated and Class H insulation only and with forced cooling arrangement.
- 2.13 Efficiency of equipment and energy saving is one of the important aspect of consideration of tender. Hence, DREAM CITY hereby reserves its right to decide final selection of make upon the energy saving aspect. In this regard the decision of Managing Director will be final and no dispute of the contractors will be entertained at a later date for the same.
- 2.14 The successful Tenderer shall have to submit CPRI test certificate for minimum 2000 Amp. busbar with 50 KA short circuit capacity for 1 sec. from the L.T. panel contractor selected by him. Otherwise L.T. panel shall not be accepted.

2.15 All power cables shall be Copper Armoured Cables only.

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24. GENERAL CONDITIONS FOR EQUIPMENT ERECTION AND COMMISSIONING

- 9.1 In accordance with the specific installation instructions, as shown on manufacturer's drawings or as directed by the Dream city Ltd's Representative, the Contractor shall unload, erect, install, site test and place into commercial use all the electrical equipment included in the contract. Equipment shall be installed in a neat, workman like manner so that it is level, plumb, square and properly aligned and oriented. Tolerances shall be as established in manufacturer's drawings or as stipulated by the Dream city Ltd. No equipment shall be permanently bolted down to the foundation or structure until the alignment has been checked and found acceptable to the Dream city Ltd.
- 9.2 The Contractor shall furnish all supervision, labour, tools, equipment, rigging materials and incidental materials, such as bolts, wedges, anchors, concrete inserts etc. required to completely install, test and adjust the equipment.
- 9.3 Manufacturer's drawings, instructions and recommendations shall be correctly followed in handling, setting, testing and commissioning of all equipment.
- 9.4 The Engineer may engage the manufacturer's erection Engineers to supervise the erection of the relevant equipment referred to in the Technical Specification. The Contractor shall erect and commission the equipment as per the instructions of the Erection Engineer(s) and shall extend full co-operation to him.
- 9.5 In case of any doubt / misunderstanding as to correct interpretation of a manufacturer's drawings of instruction, necessary clarifications shall be obtained from the Dream city Ltd. The Contractor shall be held responsible for any damage to the equipment consequent to not following a manufacturer's instructions correctly.
- 9.6 The Contractor shall move all equipment into the respective building through the regular doors or floor opening provided specifically for the equipment. The Contractor shall move the equipment from the storage site to the crane, attach to the crane hook and install in final location. The Contractor shall make his own arrangements for the lifting of equipment.
- 9.7 Where assemblies are supplied in more than one section, the Contractor shall make all the necessary mechanical and electrical connections between sections including the connections between busbars/ wires. The Contractor shall also carry out the necessary adjustments /alignments isolators and their operating mechanisms. All insulators and bushings shall be protected against damage during installation. Insulators or bushings

chipped, cracked or damaged due to negligence or carelessness shall be replaced by the Contractor at his own expense.

- 9.8 The Contractor shall take utmost care in handling instruments, relays and other delicate machanisms. Wherever the instruments and relays are supplied separately, they shall be mounted only after the associated control panels/desks have been erected and aligned. The blocking materials/mechanism employed for the safe transit of the instruments and relays shall be removed after ensuring that the panels/desks have been completely installed and no further move-ments of the same would be necessary. Any damage to relays and instruments shall be immediately reported to the Dream city ltd.

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25. SPECIFICATION FOR ERECTION, TESTING & COMMISSIONING OF ELECTRICAL EQUIPMENTS AND ACCESSORIES

10.1.1 Scope :

This specification is intended to cover complete installation, testing and commissioning of electrical equipments i.e. motor control centres, control panels/ switchgears, motors, push button stations out door sub -station etc. complete.

10.1.2 Codes and Standards :

- i. The installation, testing and commissioning of all electrical equipments shall comply with all currently applicable statutory regulations, fire insurance and safety codes in the locality where the work will be carried out. Nothing in this specification shall be construed to relieve the Contractor of his responsibility.
- ii. Unless otherwise specified, the work, material and accessories shall conform to the latest applicable Indian, British or IEC Standards, some of which are listed below :

IS : 3072 Installation and maintenance of switchgear.

IS : 900 Installation and maintenance of Induction motors.

IS : 3106 Selection, installation and maintenance of fuses.

IS : 1886 Installation & maintenance of transformers.

IS : 1180 Distribution Transformers.

IS : 4029 Guide for testing three phase induction motors.

IS : 335 Insulating oil for transformers & Switch-gears.

IS : 5124 Installation & maintenance of A.C. Induction Motor starters upto 1.1 KW.

IS : 226 Specification for structural steel.

IS : 5216 Guide for safety procedure and practices in electric work.

IS : 3202 Climate proofing of electrical equipment.

IS : 2274 Code of practice for electrical wiring installations.

IS : 6665 Code of practice for industrial lighting.

IS : 1866 Code of practice for maintenance of insulating oil.

IS : 1653 Rigid steel conduits for electrical wiring.

IS : 2667 Fittings for rigid steel conduits for electrical wiring.

10.1.3 Good workmanship shall be in accordance with best engineering practice to ensure satisfactory performance and service life.

10.1.4 Detailed Requirement of Installations :

a. Switchgear, Control Panel etc.

All alignment, levelling, grouting, anchoring adjustments shall be carried out in accordance with manufacturers instructions and/or as directed by the purchaser.

All modules shall be taken out and internals shall be cleaned preferably with vacuum cleaner.

All connections and fixing of equipments in switch-gear.

In some cases, minor modifications may have to be carried out at site in the wiring and mounting of the equipment to meet the requirements of the desired control scheme and the contractor shall have to do the same at no extra cost.

b. Motors :

The installation of Motors shall be carried out in accordance with manufacturer's instructions and/or as directed by the purchaser.

Checking and cleaning of bearings and charging/filling of lubricants, wherever necessary.

Cleaning of core the winding, varnishing out the windings and measurement of air gap for motor assembly at site if demanded.

Motors shall be run on un-coupled condition for few hours before coupling them with the drive equipment.

Motors shall be coupled with drive, adjusted and shall be tested on load.

c. Miscellaneous Items :

The contractor shall install miscellaneous items such as motor starters, local start/stop push button stations etc.

The equipment will be generally wall, column or stand mounted.

The exact location will be as shown in the final drawings.

All supports or brackets needed for installation shall be fabricated and painted by the Contractor.

All welding, cutting, chipping and grinding as & when necessary shall be carried out by the Contractor.

d. Installation of Cables :

Cables shall be laid in accordance with layout drawings and cable schedule etc. to be supplied by Contractor and approved by the SMSS High voltage, medium voltage and control cables shall be separated from each other by adequate spacing or running through independent pipes.

and instructions issued by the Dream city Ltd's representative. Cables shall be laid directly buried in earth, on cable racks, on cable trays, in conduits, on walls etc. as per the requirements.

All cables routes shall be carefully measured and cables cut to required lengths, leaving sufficient length for the final connection of the cable to the terminals of the equipment.

The various cable lengths cut from the cable reels shall be carefully selected to prevent undue wastage of cables.

Cables shall be laid in trenches at requisite depths. Before cables are placed, the trench bottom shall be filled with a layer of sand. This sand shall be covered with 150 mm of sand, on top of the largest diameter cables, the sand shall be lightly pressed. A protective covering of approved type of brick shall be laid. The remainder of the trench shall then be back filled with soil, rammed and levelled.

As each row of cables is laid in place and before covering with sand every cable shall be given an insulation test in the presence of Engineer-in-charge. Any cable which proves defective shall be marked and replaced with a new cable and the end of defective cable sealed to avoid leakage of water, if it is not feasible to remove the defective cable altogether.

When cable rises from trenches to motor, push button, lighting panels etc. it shall be taken in GI pipes for mechanical protection upto a minimum of 150 mm above grade etc. The top of the pipe shall be filled with PUTTI after pulling of cable for sealing purpose.

Straight through joints if required shall be made by using epoxy resin type torpplain or M-seal.

Cables shall be neatly arranged and dressed in the trenches in such a manner so that criss-crossing is avoided and final take off to the motor/switchgear is facilitated.

All cables will be identified close to their termination points by cable numbers as per cable schedule. Cable numbers will be punched on AL strips [2 mm thick] securely fastened to the cable wrapped round it.

Each underground cable shall be provided with identifying tags of lead securely fastened every 20 m of its underground length with atleast one tag at each end before the cable enters the ground, at each bend or turning and the road crossing.

In unpaved area, cable trenches shall be identified by means of cable marker. These posts shall be placed at location changes, in the direction of cables and at interval of not more than 50 m.

A minimum clearance of 300 mm shall be maintained between cable trench and parallel runs of underground piping. Cables which enter building below ground level shall pass through the building foundation in G.I. pipes. Space between the cable and pipe shall be sealed so as to be liquid tight. Sealing compound used shall be impervious to liquids that may be in the ground.

Following guide shall be used for sizing the pipe size :

- a. 1 cable in pipe 53% full
- b. 2 cable in pipe 31% full
- c. 3 or more cables 43% full
- d. Multiple cable 40% full

At road crossing and other places where cables enter pipe sleeves adequate bed of sand shall be given so that the cables do not slack and get damaged by pipe ends. All cable

entry places to the buildings shall be suitably sealed as instructed by the Engineer-in-charge.

Drum number of each cable from which it is taken shall be recorded along with the cable number in the cable schedules. A proper register to indicate the drum No., type of cables, size of cable, length cut and laid, the points between which the lengths are laid and corresponding dates etc. shall be prepared and maintained in consultation with the Engineer-in-charge.

A similar register for cable termination and jointing work shall also be prepared and maintained.

e. Tray and Supports for Cables :

Armoured cables which run exposed above ground shall generally be run in cable racks or cables trays except individual cables or groups of upto two or three running along structures may be attached directly to the structures. In the cable trenches below the switchgears, cable racks and trays shall be used for supporting cables. Cable trays shall be ladder type of steel construction with ladder runs of 450 mm centres or the trays may be perforated type. Lengths shall preferably be 6 meters [approx. depending on fabrication facilities] in widths of 150, 300 and 450 mm as per design requirements for greater width, trays may be bolted together. Side heights shall be sufficient to provide mechanical protection for the cables.

Cable trays shall be supported at every 300 mm or less longitudinal run [based on maximum uniform loading of 35 kg. per meter length for 3 meter span] shall be so fouted that there is no danger of mechanical damage.

They shall be kept separate as far as possible from major piping and where practicable at elevation above the top level. Routings shall follow the major structure axes.

Where more than one level of cable trays is required, levels shall have a minimum of 450 mm clear space between top of cable layer and bottom of next higher load tray. Top level shall also have 450 mm clearance to any overhead construction running immediately over and parallel to it. This is to allow adequate access to all cables. A 300 mm clearance is satisfactory for short obstruction of 300 mm or less.

Cable trays and inaccessible portion of supporting steel shall be painted if necessary, before laying of cables. The painting shall be done with one coat of red lead paint and two coats of aluminium white paint.

Cable laid in horizontal trays shall be fixed to the tray at intervals not exceeding 1 meter where cables are run individually or structures strapping intervals shall not exceed 600 mm. Vertical runs shall have strapping at intervals.

Outdoor cable trays shall be galvanised and the cable fixing straps, bolts, nuts, washers etc. shall also be galvanised.

f. Cable Termination :

Cable termination shall include the following :

a. Making necessary holes in the bottom/top plates for fixing cable gland/box.

- b. Fixing double compress cable gland/box, connecting armour clamp to cable armour.
- c. Dressing of cables, pouring compound etc. wherever necessary to make termination complete.
- d. Putting cable lugs, crimping them on to cores of cables, taping bare conductors upto lugs, wherever necessary.
- e. Terminating to equipment terminals.
- f. Supply and fixing of cable and core identification ferrules.

Wherever purchaser has not provided M.S. plates for fixing cable tray supports, contractor shall install approved concrete fasteners for fixing cable tray supports.

g. Conduits & Pipes :

Contractor shall supply and install conduits, pipes as specified and as shown in drawings prepared by him and approved by purchaser. All accessories/fittings required for making installation complete shall be supplied by contractor.

Flexible metallic conduits shall be used for termination to equipment which are likely to be disconnected at periodic intervals.

Conduits or pipes shall run along walls, floors and ceilings on steel supports embedded in soil, floor, wall or foundation, in accordance with relevant layout drawings. Under ground position of conduit installation to be embedded in the foundation or structural concrete shall be installed in close coordination with co-lateral work. Exposed conduit shall be neatly run and evenly spaced.

Exposed conduit shall be adequately supported by racks, clamps, straps or by other approved means. These fittings shall be of same material as conduits.

Each conduit run shall be marked with its designation as indicated on the drawings. Identification shall be made where possible

When one or more cables are drawn through a conduit, cables shall fill not more than 50% of the internal cross sectional area of the conduit.

The entire system of conduit after installation shall be tested for mechanical and electrical continuity throughout and permanently connected to earth by means of earthing clamp efficiently fastened to the conduit.

For jointing purpose, contractor shall have available at site, dies for threading, pipe or conduit. All such threaded ends shall be cleaned after threading and anticorrosive paint applied.

10.2 Specification for Erection, Testing and Commissioning Illumination System :

10.2.1 Scope :

This specification covers complete installation, testing and commissioning of indoor and outdoor illumination system.

10.2.2 Code and Standards :

The wiring, installation and commissioning of complete illumination system shall comply with all currently applicable statutory regulations, fire insurance and safety codes in the locality where the work will be carried out. Nothing in this specification shall be construed to relieve contractor of his responsibility.

10.2.3. Unless otherwise specified, the work, material and accessories shall conform to the latest applicable Indian, British or IEC standards, some of which are listed below :

IS : 2274 & 732	Electrical Wiring installation
IS : 1653	Specification for conduits
IS : 694	PVC insulated [light duty] electric cables for working upto 1100 V
IS : 3961 Part V	Recommended current ratings for PVC insulated [light duty] cables
IS : 2208	HRC cartridge fuse links
IS : 1293	3 pin plugs and socket outlets
IS : 3854	Switches for domestic and similar purpose
IS : 5133	part I Steel & cast Iron boxes for the enclosure of electrical accessories.
IS : 5216	Guide for safety procedures and practices in electrical work
IS : 6665	Code of practice for industrial lighting
IS : 1913	General safety requirements for electric light fittings.
IS : 3202	Climate proofing of electrical equipments
IS : 3387	Accessories for rigid steel conduits
IS : 3480	Flexible steel conduit for electrical wiring.
IS : 2509	Rigid non-metallic conduits
IS : 3419	Fittings for rigid non-metallic conducts.
IS : 2667-1964	Fittings for rigid steel conduits for electrical wiring.

10.2.4 Good workmanship will be in accordance with best engineering practices to ensure satisfactory performance and service life.

10.2.5 General Requirements :

Except as specifically approved by the site office, installation of conduits and lighting fixtures shall be taken only after all major services such as piping, structural work etc. in that particular area have been completed.

Location of lighting fixtures, switches and receptacles shown on the drawing are indicative and shall be relocated to suit site condition.

Except as noted mounting height of various lighting equipment from finish floor level shall be as follows :

- i] Lighting Panels 1200 mm
- ii] Lighting control switches 1000 mm
- iii] Receptacle with switch
 - a] For indoor 500 mm
 - b] For outdoor 1000 mm

All cables and conduits from lighting panel upto first lighting fixture shall be identified with aluminium tags giving circuit reference number.

Lighting panel number shall be indicated when more than one panel for an area is to be provided.

A number of lighting panels shall be marked separately for supplying power to the space heaters mounted in the various switchgear panels and motors.

Steel surfaces exposed to weather shall be thoroughly cleaned for removal of rust and shall be given a primary coat of zinc chromate and two finishing coats of paint. All metal parts not accessible for painting shall be made of corrosion resistant material.

Cable/Conduit separators shall be provided at an interval of 500 mm for horizontal runs and 750 mm for vertical runs.

Cable/Conduits shall be kept, wherever possible atleast 300 mm away from pipes, heating devices and other equipments.

For the purpose of calculating connected loads of various circuits a multiplying factor of 1.25 will be assured to account the losses in the control gear.

Contractor shall supply junction boxes, pull boxes, terminal blocks, glands, conduits and accessories [elbows, tees, bends etc.] and supporting anchoring, materials to make the installation complete.

Contractor shall work in co-ordination with the civil contractor when opening sleeves are required in walls and floors. Holes made by contractor shall necessarily be patched in a good and approved manner.

All types of wiring concealed or unconcealed shall be capable of easy inspection. In all types of wiring due consideration shall be given for neatness and good appearance.

In hazardous areas, the grounding wire shall run along the conduits throughout the installation and all conduits and fixtures shall be effectively grounded. Conduits shall be grounded at the ends adjacent to switch at which they originate.

Wherever specified, Delighting system shall be installed to provided necessary illumination in case of an emergency. Emergency lighting cables shall run in a separate conduit system.

A street lighting, steel tubular poles conforming to I.S. complete with fixing brackets shall be used. These poles shall be coated with bituminous preservative paint on the inside surface as well as embedded on outside surface.

Exposed outside surface shall be painted as with red lead primer and two coats of Aluminium paint.

Before a complete installation is put into service, installation tests stipulated in I.S.2274 and other codes of practices shall be carried out by contractor in the presence of Dream city ltd's representative.

10.2.6 Working in Conduits :

Individual lighting circuits inside building shall be wired with 250/440 V grade copper/aluminium conductor of approved make PVC insulated flexible wires/cables. The circuit wire shall be colour coded as follows :

White - Phase or DC positive wire
Black - Neutral or DC negative wire.

Full wires in a conduit shall be drawn simultaneously. No subsequent drawings are permissible. Necessary pull wires shall be provided by the Contractor.

Wires shall not be pulled through more than two equivalent 90 deg.bends in a single conduit run.

Wiring shall not be spliced at any place other than junctions boxes with approved type connectors of terminal strips and for lighting fixtures, connections shall be Tee off through suitable roundconduit or junction box.

For vertical run of wires in conduit, wires shall be suitably supported by means of wooden plays at each pull junction boxes.

10.2.7 Outdoor Lighting :

Lighting for all outlying areas shall be carried out using 1.1 KV grade aluminium conductor, PVC insulated steel wire armoured cables between lighting panel and junction box near the lighting fixture.

All lighting poles shall be stopped tubular steel poles type ITSTP as per IS;2713 and shall be painted.

Cables for road and out-door lighting shall be directly buried in ground at a depth of 900 mm or routed in available cable trenches.

10.2.8 Earthing :

For outdoor earthing of lighting poles, masts etc. cut G.I. wire shall be used. The wire shall be run buried in ground at a depth of 900 mm.

Lighting fixtures, receptacles, junction boxes, switches, conduits and hand rails shall be earthed using G.I.wire of minimum size 12 SWG.

The earthing wire shall run over the entire length.

10.2.9 Testing and Commissioning :

After completion of the work, complete illumination system shall be thoroughly checked and tested by contractor in presence of the Dream city ltd's representative as per check list.

The contractor shall provide all tools, materials, labour and supervising personnel for carrying out the test.

The contractor shall carry out all rectifications, repairs or adjustment work, found necessary during testing and commissioning.

The contractor shall record the test results on approved proforms and furnish test reports/results [4 copies] for approval.

On successful commissioning of the system and carrying out necessary rectification work, the purchaser will take over the installation either wholly or in parts as the case may be.

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26. SPECIFICATION FOR INTERCONNECTING PIPING

11.1 General :

All pipe work shall be in conformity with the requirements of the applicable drawings and this specification. Velocities shall be adopted as per standard practice and shall be approved by Engineer-in-charge.

All the pipeline shall be as defined in the tender elsewhere and as per the latest IS, except specified hereunder.

All chemical dosing pipes shall be of HDPE material of class III. All water supply and distribution piping to various utility services shall be GI-Class C. The relevant applicable standards to be adopted for supply, laying, jointing of various type of pipes, notation and description are as under:-

S.No.	Notation	Description	Relevant IS code
	C.I.	Centrifugally cast [spun] iron pipes & fittings for water, gas and sewage	IS-1537 & IS-153
	C.I.	Code of practice for laying Cast Iron Pipes.	IS-3114
	C.I.	CastIron Sluice Valves	IS-780
	G.I.	Galvanised iron pipes and fittings	IS-1239
	H.D.P.E	High Density Poly Ethylene Pipes.	IS-4984
	H.D.P.E	HDPE Fittings	IS-8008
	H.D.P.E	Code of Practice for laying HDPE pipes	IS-7634
	H.D.P.E	Testing of HDPE Pipes	IS-7634
	M.S.	Mild Steel hexagonal bolts and nuts.	IS-1367
	M.S.	Steel pipe flanges	IS-6392
	M.S.	M.S. Pipes - Steel for manufacture	IS:2062:1992
	R.C.C.	Supply of Reinforced Cement Concrete NP3 Class pipes.	IS-458
		Code of practice for RCC Pipe	IS-783
		Rubber for flanged joints.	IS-638
	G.R.P.	Glass Reinforced Plastic Pipe	IS 14402: 1996 IS 13916 : 1994
	UPVC	Unplasticised PVC Pipe	IS 13592 IS 4985

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27. SPECIFICATIONS FOR PLC AND INSTRUMENTATION

This section outlines the Instrumentation System. The Scope of Instrumentation, Control and Automation works for TSTP under this contract shall comprise of design, manufacture, programming, configuration, supply, installation and erection, testing and commissioning of the entire system as per the scope of work. The scope of work also includes the 5 years of O&M of Instrumentation System.

SCOPE OF WORK FOR INSTRUMENTATION:

General

A complete instrumentation and control system shall be provided for semi automatic operation of the Sewage treatment plant as specified. The Tenderer shall take into consideration the following aspects:

- 1) Complete System Integration including Design, Supply and Installation of all field instruments, PLC system for the complete Process control of the Sewage Treatment Plant shall be done by one agency. The Tenderers shall identify this agency and provide their credentials in advance.
- 2) Wherever Civil, Electrical or Mechanical inputs are required, the same can be provided by the respective disciplines as per the Automation system integrator's requirement.
- 3) The Equipment Cabinets, system Cabinets, Panels, Power distribution Cabinets, etc. in the complete Project shall be sourced from One Approved Enclosure Supplier and shall be assembled & wired by one Approved Control Panel Contractor thus providing uniform documentation and uniform Look & Feel for Operation and Maintenance.
- 4) The Tenderer to provide documentary evidence of undertaking given by their identified Automation system integrator for comprehensive support (Warranty) including all services, spares and consumables for a period of 60 months after taking over the system.

Reference Standards:

Unless otherwise approved, instrumentation shall comply with relevant quality standards test procedures and codes of practice collectively referred to as Reference Standards including those listed below in accordance with the requirements detailed elsewhere in this specification.

IEC -1:1982	Analogue signals for process control systems. Specification for direct current signals.
IEC 60947-4-1:2000	Specification for low-voltage switchgear and control gear. Contactors and motor starters. Electromechanical contactors and motor starters.
IEC 60947-4-2:1999	Specification for low-voltage switchgear and control gear. Contactors and motor-starters. AC semiconductor motor controllers and starters.
IEC 60947-4-3:1999	Specification for low-voltage switchgear and control gear. Contactors and motor-starters. AC semiconductor controllers and contactors for non-motor loads.
IEC 60770-1:1999	Transmitters for use in industrial process control system. Methods for performance evaluation.

IEO 6817:1997	Measurement of conductive liquid flow in closed conduits. Method using electromagnetic flow meters.
BS EN 837-1:1998	Pressure gauges. Bourdon tube pressure gauges. Dimensions, metrology, requirements and testing.
BS EN 60529:1992	Specification for degrees of protection provided by enclosures (IP code).
BS EN 60546-1:1993	Controllers with analogue signals for use in industrial-process control system. Methods for evaluating performance.
BS EN 60584-2:1993	Thermocouples. Tolerances.
BS EN 60654 : 1998	Operating conditions for industrial –process measurement and control equipment. All relevant parts.
BS EN 61000-6:2001	Electromagnetic compatibility (EMC). Generic standards. Emission standard for industrial environments.
BS 89:1990	Direct acting indicating analogue electrical measuring instruments and their accessories. All parts.
BS 90:1975	Specification for direct-acting electrical recording instruments and their accessories.
BS 1042-1.4:1992	Measurement of fluid flow in closed conduits. Pressure differential devices. Guide to the use of devices specified in sections 1.1 and 1.2.
BS 1041-2.1 :1985	Code for temperature measurement. Expansion thermometers. Guide to selection and use of liquid-in-glass thermometers.
BS 1041-2.2 :1989	Code for temperature measurement. Expansion thermometers. Guide to selection and use of dial-type expansion thermometers.
BS 1041-3 :1989	Temperature measurement. Guide to selection and use of industrial resistance thermometers.
BS 1042-1.4 :1992	Measurement of fluid flow in closed conduits. Pressure differential devices. Guide to the use of devices specified in sections 1.1 and 1.2.
BS 1553-1:1977	Specification for graphical symbols for general engineering. Piping systems and plant.
BS 1646-1 :1979	Symbolic representation for process measurement control function and instrumentation. Basic requirements.
BS 1646-2:1983	Symbolic representation for process measurement control functions and instrumentation. Specification for additional basis requirements.
BS 1646-3 :1984	Symbolic representation for process measurement control functions and instrumentation. Specification for detailed symbols for instrument interconnection diagrams.
BS 1646-4:1984	Symbolic representation for process measurement control functions and instrumentation. Specification for basis symbols for process computer, interface and shared display/control functions.
BS 2765:1969	Specification for dimensions of temperature detecting elements and corresponding pockets.
BS 3680	Measurement of liquid flow in open channels. All relevant parts.
BS 3693:1992	Recommendations for design of scales and indexes on analogue indicating instruments.
BS 4675-2:1978	Mechanical vibration in rotating machinery. Requirements for instruments for measuring vibration severity.

BS 4999-142:1987	General requirements for rotating electrical machines. Specification for mechanical performance vibration.
BS 6739:1986	Code of practice for instrumentation in process control systems installation design and practice.

Instrument Society of American Standards and Recommended Practices:

S 5.1	Instrumentation symbols and identification.
S 5.4	Instrumentation loop diagrams.
S 7.3	Quality standard for instrument air.
RP 16.1	Terminology, dimensions and safety practices for indicating variable 2, 3 area meters.
RP 16.4	Nomenclature and terminology for extension type variable area meters (Rota meters)
RP 16.5	Installation, operation, maintenance instructions for glass tube variable area meters (Rota meters)
RP 16.6	Methods and equipment for calibration of variable area meters (Rota meters)
RP 18.1	Specifications and guides for the use of general purpose annunciators.
S 26	Dynamic response testing of process control instrumentation.
S 37.1	Electrical transducer nomenclature and terminology.
S 37.3	Specifications and test for strain gauge pressure transducers.
S 50.1	Compatibility of analog signals for electronic industrial process instruments.
S 51.1	Process instrumentation terminology.
RP 60.08	Electrical Guide for Control Centers.

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28. VARIOUS BIS CODE TO BE FOLLOWED BY BIDDER

The list of Codes provided hereunder are indicative only and the latest amendments shall be followed. The contractor shall have to follow the relevean code, as per the requirement of the project and decision of engineer-in-charge shall be final and binding to the contractor.

BIS No.	Title
4082	Recommendation on stacking and storage of construction materials at site (first revision)
7969	Safety code for handling and storage of building materials
1498	Classification and identification of soils for general engineering purposes (first revision) (Amendments 2) (Reaffirmed)
2682 : 1984	Chlordane emulsifiable concentrates (second revision) (Amendment 1) (Reaffirmed 1994)
3764:1992	Excavation work - Code of safety (first revision)
6313(Part2)	Code of practice for anti-termite measures in buildings: Part 2 Preconstruction chemical treatment measures (Reaffirmed)
875 (Part 1)	Code of practice for design loads (other than earthquake) for buildings and structures: Part 1 Dead loads -Unit weights of building material and stored materials
875 (Part 2)	Code of practice for design loads (other than earthquake) for buildings and structures: Part 2 Imposed loads
875 (Part 3)	Code of practice for design loads (other than earthquake) for buildings and structures: Part 3 Wind loads
875 (Part 4)	Code of practice for design loads (other than earthquake) for buildings and structures: Part 4 Snow loads
875 (Part 5)	Code of practice for design loads (other than earthquake) for buildings and structures: Part 5 Special loads and load combinations
1080 : 1986	Code of practice for design and construction of shallow foundations on soils (other than raft, ring and shell)
1904	Code of practice for design and construction of foundations in soils: General requirements
2950(Part1)	Code of practice for design and construction of raft foundations: Part 1 Design
2974(Part1)	Code of practice for design and construction of machine foundations: Part I Foundations for reciprocating type machines
2974(Part2)	Code of practice for design and construction of machine foundations: Part 2 Foundations for impact type machines (hammer foundations)
2974(Part3)	Design and construction of machine foundations - Code of practice: Part 3 Foundations for rotary type machines (medium and high frequency)
2974(Part4)	Code of practice for design and construction of machine foundations: Part 4 Foundations for rotary type machines of low frequency

BIS No.	Title
2974(Part5)	Code of practice for design and construction of machine foundations: Part 5 Foundation for impact machines other than hammers (forging and stamping press, pig breakers, drop crusher and jolter)
6403	Code of practice for determination of bearing capacity of shallow foundations.
8009(Part1)	Code of practice for calculation of settlement of foundations: Part 1 Shallow foundations subject to symmetrical static vertical loads
8009(Part2)	Code of practice for calculation of settlement of foundations: Part 2 Deep foundations subjected to symmetrical static vertical loading. .
11089	Code of practice for design and construction of ring foundation
13094	Guidelines for selection of ground improvement techniques for foundation in weak soils.
13301	Guidelines for vibration isolation for machine foundations
SP 36 (Part 2):	Compendium of Indian Standards on soil engineering: Part 2 Field testing 1988
2720 (Parts 1 to 41)	Methods of test for soils
6452	Specification for high alumina cement for structural use
6909	Specification for supersulphated cement
8041	Rapid hardening Portland cement
8042	White Portland cement
8043	Hydrophobic Portland cement
8112	43 grade ordinary Portland cement
13330	Sulphate resisting Portland Cement
383	Coarse and fine aggregates from natural sources for concrete
432 (Part 1& 2)	Mild steel and medium tensile steel bars and hard-drawn steel wire for concrete reinforcement
456	Code of practice for plain and reinforced concrete
516	Method of test for strength of concrete
650	Standard sand for testing of cement
1199	Methods of sampling and analysis of concrete
1343	Code of practice for Pre-stressed concrete
1566	Hard-drawn steel wire fabric for concrete reinforcement
1786	High strength deformed steel bars and wires for concrete reinforcement
2386 (Part 1 to 8)	Methods of test for aggregates for concrete
2502	Code of practice for bending and fixing of bars for concrete reinforcement
2595	Code of practice for radiographic testing
2645	Integral cement waterproofing compounds
3025	Methods of sampling and test (physical and chemical) for water used in industry

BIS No.	Title
3085	Method of test for permeability of cement mortar & concrete
3370 (Part 1 to 4) :	Code of practice for concrete structures for the storage of liquids
3466	Masonry cement
3812	Fly ash for use as pozzolana and admixture
4031 (Part 1) .	Methods of physical tests for hydraulic cement: Part I Determination of fineness by dry sieving
5816	Method of test for splitting tensile strength of concrete cylinders
6452	Specification for high alumina cement for structural use
7861 (Part 1)	Code of practice for extreme weather concreting: Part I Recommended practice for hot weather concreting
7861 (Part 2)	Code of practice for extreme weather concreting: Part 2 Recommended practice for cold weather concreting
8142	Method of test for determining setting time of concrete by penetration resistance
9012	Recommended practice for Concreting
9013	Method of making, curing and determining compressive strength of accelerated cured concrete test specimens
9077	Code of practice for corrosion protection of steel reinforcement in RB and RCC construction
9103	Admixtures for concrete
9284	Method of test for abrasion resistance of concrete
10262	Recommended guidelines for concrete mix design
13311 (Part 1)	Non-destructive testing of concrete - Methods of test : Part 1 Ultrasonic pulse velocity
13311 (Part 2)	Non-destructive testing of concrete - Methods of test : Part 2 Rebound hammer
SP 20 (S & T)	Handbook on masonry design and construction
SP 21 (S & T)	Summaries of Indian Standards for building materials
SP 23 (S & T)	Handbook on concrete mixes (based on Indian Standards)
SP 24 (S & T)	Explanatory handbook on Indian Standard Code for plain and reinforced concrete
SP 34 (S & T)	Handbook on concrete reinforcement and detailing
3696 (Part 1)	Safety code of scaffolds and ladders : Part 1 Scaffolds
4014 (Part 1 & 2)	Code of practice for steel tubular scaffolding
2116	Sand for masonry mortars
2212	Code of practice for brick work
2250	Code of practice for preparation and use of masonry mortars SP 25 (S & T): Handbook on caused and prevention of cracks in building
1123	Method of identification of natural building stones

BIS No.	Title
1127	Recommendations for dimensions and workmanship of natural building stones for masonry work
1129	Recommendation for dressing of natural building stones
1597 (Part 1)	Code of practice for construction of stone masonry : Part 1 Rubble stone masonry
3622	Specification for sandstone (slab and tiles)
4101 (Part 1)	Code of practice for external facing and veneers: Part 1 Stone facing
303	Plywood for general purposes
4990	Plywood for concrete shuttering work
6313 (Part 1)	Code of practice for anti-termite measures in buildings: Part 1 Constructional measures
6313 (Part 2)	Code of practice for anti-termite measures in buildings: Part 2 Preconstruction chemical treatment measures (first revision) (Amendments 3)
737	Wrought aluminum and aluminum alloy sheet and strip for general engineering purposes
883	Design of structural timber in building - Code of practice
1003 (Part 1)	Timber paneled and glazed shutters: Part 1 Door shutters
1003 (Part 2)	Timber paneled and glazed shutters: Part 2 Window and ventilator shutters 1038. Steel doors, windows and ventilators
1081	Code of practice for fixing and glazing of metal (steel and aluminum) doors, windows and ventilators
1361	Steel windows for industrial buildings, ventilation blinds for windows
1826	Venation blinds for windows
1948	Aluminum doors, windows and ventilators
1977	Structural steel (ordinary quality)
2062	Steel for general structural purposes
2191 (Part 1)	Wooden flush door shutters (cellular and hollow core type) : Part I Plywood face panels
2202 (Part 1) :	Wooden flush door shutters (solid core type) : Part 1 Plywood face panels
2202 (Part 2)	Wooden flush door shutters (solid core type) : Part 2 Particle board and hard board face panels
3548	Code of practice for glazing in building
3629	Specification for structural timber in building (first revision) (Reaffirmed 1991)
4020 (Parts 1-16)	Door shutters, method of test
4021	Timber door, window and ventilator frames
4351	Specification for steel door frames
4913	Code of practice for selection, installation and maintenance of timber doors and windows

BIS No.	Title
4962	Specification for wooden side sliding doors
5509	Fire retardant plywood
5539	Specification for preservative treated plywood
6248	Specification for metal rolling shutters and rolling grills
7205	Safety code for erection of structural steel work
7452	Hot-rolled steel sections for doors, windows and ventilators
12896	Classification of Indian timbers for door and window shutters and frames
2074	Ready mixed paint, air drying, red oxide-zinc chrome, and priming
809	Rubber flooring materials for general purposes
1195	Bitumen mastic for flooring
1196	Code of practice for laying bitumen mastic flooring
1197	Code of practice for laying of rubber floors
1198	Code of practice for laying, fixing and maintenance of linoleum floor
1237	Cement concrete flooring tiles
1322	Bitumen felts for waterproofing and damp-proofing
1443	Code of practice for laying and finishing of cement concrete flooring tiles
1580	Bituminous compounds for water proofing and caulking purposes
1609	Code of practice for laying damp-proofing treatment using bitumen felts
1661	Code of practice for application of cement and cement-lime plaster finishes
2114	Code of practice for laying in-situ terrazzo floor finish
2571	Code of practice for laying in-situ cement concrete flooring
3384	Specification for bitumen primer for use in waterproofing and damp proofing
3414	Code of practice for design and installation of joints in buildings
3461	Specification for PVC - asbestos floor tiles
3462	Specification for unbaked flexible PVC flooring
3478	Specification for high density wood particle boards
3502	Steel Chequered plates
3629	Specification for structural timber in building
3670	Code of practice for construction of timber floors
4443	Code of practice for use of resin type chemical resistant mortars
4457	Ceramic unglazed vitreous acid resisting tile
4631	Code of practice for laying of epoxy resin floor toppings
4860	Acid resistant bricks
4971	Recommendations for selection of industrial floor finishes
5318	Code of practice for laying of flexible PVC sheet and tile flooring
5389	Code of practice for laying of hardwood parquet and wood block floors
5491	Code of practice for laying of in-situ granolithic concrete flooring topping
9197	Epoxy resin, hardness and epoxy resin compositions for floor toppings
9472	Code of practice for laying mosaic parquet flooring

BIS No.	Title
10440	Code of practice for construction of RB and RBC floors and roofs
459	Corrugated and semi-corrugated asbestos cement sheets
777	Glazed earthenware wall tiles
1414	Code of practice for fixing wall covering
1661	Code of practice for application of cement and cement-lime plaster finishes
1,946	Code of practice for use of fixing devices in walls, ceilings and floors of solid construction
2095	Gypsum plasters boards
2098	Asbestos cement building boards
2402	Code of practice for external rendered finishes
2441	Code of practice for fixing ceiling covering
3630	Code of practice for construction of non-load bearing gypsum block partitions
4671	Expanded polystyrene for thermal insulation purposes
5390	Code of practice for construction of timber ceiling
5509	Fire retardant plywood
7316	Decorative plywood using plurality of veneers for decorative faces
1322	Bitumen felts for waterproofing and damp-proofing
1346	Code of practice for waterproofing of roofs with bitumen felts
1580	Bituminous compounds for water proofing and caulking purposes
1609	Code of practice for laying damp-proofing treatment using bitumen felts
1834	Hot applied sealing compound for joint in concrete
2508	Low density polyethylene films
2527	Code of practice for fixing rainwater gutters and down pipes for roof drainage
2645	Integral cement water proofing compounds
3037	Bitumen mastic for use in waterproofing of roofs
3067	Code of practice for general design details and preparatory work for damp proofing and waterproofing of buildings
3384	Specification for bitumen primer for use in waterproofing and damp proofing
4365	Code of practice for application of bitumen mastic for water proofing of roofs
5871	Bitumen mastic for tanking and damp-proofing
6494	Code of practice for waterproofing of underground water reservoirs and swimming pools
7198	Code of practice for damp-proofing using bitumen mastic
7290	Recommendations for use of polyethylene film for waterproofing of roofs
9759	Guidelines for dewatering during construction
13182	Waterproofing and damp-proofing of wet areas in building Recommendations

BIS No.	Title
1172	Code of basic requirements of water supply, drainage and sanitation
1239 (Part 1)	Mild steel tubes, tubular and other wrought steel fittings : Part 1 Mild steel tubes
1536	Centrifugally cast (spun) iron pressure pipes for water, gas and sewage
1537	Vertically cast iron pressure pipes for water, gas and sewage
1592	Asbestos cement pressure pipes
3114	Code of practice for laying of cast iron pipes
5822	Code of practice for welded steel pipes for water supply
1626 (Part 1)	Asbestos cement building pipes and pipe fittings, gutters and gutter fittings and roofing fittings: Part 1(Pipe and pipe fittings)
2064	Selection, installation and maintenance of sanitary appliances - Code of practice
2065	Code of practice for water supply in buildings
3076	Low density polyethylene pipes of potable water supplies; sewage and industrial effluents
4984	Specification for high density polyethylene pipes for potable water supplies; sewage and industrial effluents
4985	Specification for un-plasticized PVC pipes for potable water supplied
7634 (Part 2)	Code of practice for plastics pipe work for potable water supplies: Part 2 Laying and jointing polyethylene (PE) pipes
7634 (Part 3)	Code of practice for plastics pipe work for potable water supplies: Part 3 Laying and jointing of UPVC pipes
1916	Steel cylinder pipes with lining and coating
4127	Code of practice for laying of salt glazed stoneware pipes
12709	Glass fiber reinforced plastic pipes, joints and rings for potable water supply
3597	Concrete pipes-methods of test
7319	Perforated concrete pipes
NBC	National Building Code of India
SP 35 (S & T)	Handbook of water supply and drainage with special emphasis on plumbing
277	Galvanized steel sheet (plain and corrugated)
458	Precast concrete pipes (with and without reinforcement)
651	Salt glazed stoneware pipes and fittings
782	Caulking lead
783	Code of Practice for laying of concrete pipes
1626 (Part 1)	Asbestos cement building pipes and pipe fittings, gutters and gutter fittings and roofing fittings: Part 1(Pipe and pipe fittings)
1726	Cast iron manhole covers and frames
1742	Code of Practice for building drainage
3006	Specification for chemically resistant glazed stoneware pipes and fittings

BIS No.	Title
4111	Code of Practice for ancillary structures in sewerage system (Parts 1 to 5)
4733	Methods of sampling and test for sewage effluents 12592 (Parts 1: Precast manhole covers & frames)
2470 (Parts 1: & 2)	Code of Practice for installation of septic tank
784	Pre-stressed concrete pipes
1893	Criteria for earthquake resistant design of structures
4326	Earthquake -resistant •design and construction of buildings- Code of practice
13920	Ductile detailing of reinforced concrete structures subjected to seismic forces - Code of practice
13935	Repair and seismic strengthening of buildings - Guidelines
2190	Selection, installation and maintenance of first-aid fire extinguishers - Code of practice
3696 (Part 2)	Safety code of scaffolds and ladders: Part 2 Ladders
4912	Safety requirements for floor and wall openings, railings and toe boards
10005	S.I. units and recommendations for use of their multiples and of certain other units
6060	Code of practice for day lighting of factory buildings
3103	Code of practice for industrial ventilation
3483	Code of practice for noise reduction in industrial buildings
2440	Guide for day lighting of buildings
1200 (1 to 28)	Method of measurement of Building and Civil Eng. Works
7973	Code of practice for architectural and building working drawings
962	Code of practice for architectural and building drawings
13415	Code of safety for protective barrier in and around buildings
8969	Safety code for erection of concrete framed structures

In addition to the above-referred codes, CPHEEO manual on sewerage and sewage treatment and other relevant codes shall be applicable as per requirement. The HDPE/DWC/DI/RCC/UPVC pipes and valves shall be laid in accordance with the latest BIS/EN/ISO/ASTM specifications.

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Surat Municipal Corporation
and Dream City Limited

Signature & Seal of Contractor

29. OPERATION & MAINTANANCE (O&M)

Operation and maintenance of the treatment plant is very much essential for sustainability of the treatment plant and to achieve discharge standards. The operational aspects include regular checking of the performance of the units including the electrical and mechanical equipments, to identify any non-functionality of the units to evolve the strategic measures to be taken to make the plant fully functional to meet the stipulated standards. Plant shall be operated as per design criteria. Variance in input value of design criteria should recorded.

The O&M Contract shall comprise all expenses for operation and maintaining the Facilities, as provided in this tender document. In addition to the cost of material/equipment spares, repair/replacement of equipment and labour, all other expenses such as expenses for patrolling, administration and management, permanent & temporary staff, running office, maintenance of all structures, updating of operation and maintenance manual, etc. and all other incidental and indirect expenses for the works detailed in this tender document or for works otherwise required as per good engineering practices for Operation and Maintenance of the entire system including Electricity cost are included in the quoted rates.

- 1. The contract includes operation and maintenance of entire Tertiary Sewage Treatment Plant on round the clock basis for a period of 60 Calendar Months (Five Years) on terms and condtions described under this tender. However, the same contract may be extended for another 24 Calender Months (Two Years) on mutually agreed upon basis between DREAM CITY and the Contractor.**
2. The Tertiary Sewage Treatment Plant set up on turnkey basis shall be operated and maintained by the contractor including all Electrical and Mechanical works. Contractor has to incur all the costs, taxes, duties, transportation, labour, machining, welding, repairing, replacing and making good any and all parts/plant equipment, consumables, motors, pumps, aerators, gear unit, capacitor, HT/LT switchgear, PLC panel, lighting system, cables, battery charger, battery, instruments, meters, chemicals for laboratory etc.
3. Average power factor of 0.96 shall be maintained in electrical bill by the Contractor. Penalty on account of poor power factor (i.e. less than 0.9) will be recovered from the contractor from his monthly O&M bill.
4. The Contractor will be held responsible for O & M and satisfactory performance of the TSTP by all means. Major components and works shall include the following but not limited to:
 - a) Operate the plant efficiently for Five years, including all consumables, parts or components, labour transportation and other charges, including cost of power. The difference in power cost would be borne by DREAM CITY, as defined in the tender elsewhere. Raw sewage shall be collected by contractor from nearby sewerage network.
 - b) The contractor shall have to submit analysis report for Raw & treated sewage samples daily. The Contractor is responsible for submission of daily and monthly O & M report. Further, the contractor shall have to carry out the treated sewage sample analysis for various parameters as mentioned in the tender elsewhere at NABL accredited laboratory for atleast once in a month. The contractor shall also have to carry out bio-essay test once in a month from NABL accredited laboratory. DREAM CITY may also randomly get it analysed at their Central Laboratory.

- c) Contractor shall submit six copies of the O & M Manual for approval of DREAM CITY, which may be modified, if required by DREAM CITY, and two copies would be returned by DREAM CITY duly approved and signed.
 - d) The contractor shall carryout cement paint/ enamel paint/ white wash for exterior finish of civil units once before the end of second year of O & M of the plant and shall also carry out painting on mechanical equipments/ above ground pipe lines/ hand railing before the end of second year of O & M of the plant.
 - e) The contractor shall hand over the plant back to DREAM CITY on expiry of his contract in fully working condition satisfying the requirement of treated sewage. All the electrical, mechanical and instrumentation including standby shall be in perfect working condition.
 - f) Contractor shall provide manpower as per requirement.
 - g) Insurance Certificates
 Within 14 days of the acceptance of this tender the Contractor shall produce to the DREAM CITY a certificate or certificates signed by the Contractor's insurers or their duly authorised agents covering all the persons with accidental policy of sufficient amount as per their grade (30 times monthly salary)
5. The Contractor will comply with all safety rules and regulations and all inter-disciplinary measures as followed by the DREAM CITY. The DREAM CITY will not be responsible for any accident / injury to the staff or any person of the Contractor or loss or damage to any property.
 6. All Central / State Government / Semi-Government / Local Body's rules and regulation pertaining to this contract, all legal formalities pertaining to provident fund, factory act, all legal formalities shall be followed and observed by the Contractor without any extra cost to the DREAM CITY. Please note that failure in complying so, all liabilities arising as per laws will be to the Contractor's account.
 7. The quoted rate shall remain firm and valid for throughout O&M contract period. No price variation / escalation shall be paid.
 8. The payment of O&M charges will be made as below: For the first year, 15% amount from each R.A. Bill shall be retained and for the second to Tenth year, 10 % amount from each R.A. Bill shall be retained. All security deposits/retention money shall be released on successful completion of O&M period of 5 years. O & M cost should be incremental in progressive manner every year. If any abnormal quoting found, then DREAM CITY will not pay accordingly for one year with respect to other years. In such case total of Five years will be calculated & will be equally divided for the period of Five years.
 9. Manure (Dry sludge)
 Manure shall be the property of the Dream city ltd. All rights to sell Manure (Dry Sludge) shall be with the Dream city ltd.
 10. First Aid Box
 The Contractor shall at his own cost provide and maintain at the Site of Works standard first aid boxes as directed and approved by the DREAM CITY for the use of his own as well as the DREAM CITY's staff on Site as stipulated by local regulations. Contractor shall arrange to train all their staff in first aid treatment within 3 months.
 11. Measurement And Analysis
 The DREAM CITY has the right to perform any analysis or inspection he deems necessary. The Contractor shall be responsible for the security and protection of flowmeters at the designed point. If there is any malfunctioning of the meters, action will be initiated.

12. Liquidated Damages

For non-conformance in meeting the Output Standards for Treated Sewage set as per this tender specifications, Guaranteed Power consumption & Power Factor for electrical installation.

Event triggering the recovery of Liquidated Damages	During the O&M Period		Liquidated Damages recoverable on Termination as a percentage of the immediately preceding year's total Payments
	Liquidated Damages	Frequency	
Non conformance of any treatment parameter as per Technical Specifications	Rs. 5.00	For every 1000 litres for every day of non conformance	At actual without any limit
quantity and quality as per tender specifications)	5% of net output requirement i.e. upto 950 kLD net output or as directed by engineer-in-charge Rs. 10.00 per liter for tolerance exceeding (-)5% of net output requirement i.e. below 950 kLD net output or as directed by engineer-in-charge		At actual without any limit
Non conformance of desired power factor of 0.95 (lag) or better as reflected in electricity bill of power supply company or as per power meter at associated HT/PCC breaker panel, as applicable	Penalty amount = (Rs. 0.3 x No. of Units consumed in given month) for concerned month of billing cycle for each 0.1 p.f. below 0.95 lag p.f. e.g. in a given month if p.f. is observed as 0.94 and if 1000 units are consumed per month, penalty amount for given month shall be Rs. 300/- and similarly if p.f. is 0.93, the penalty shall be Rs. 600/-, and so on.	As per billing cycle of power supply company	At actual without any limit
Non conformance of guaranteed power consumption i.e. actual power consumption as per electricity bill of power supply company, as applicable, exceeding guaranteed power consumption	Rs. 15/- per unit of actual power consumed over and above than the guaranteed power consumption per occurrence as reflected in power supply company bill	As per billing cycle of power supply company	At actual without any limit

Signature of Contractor

I/c. Town Planner
Surat Municipal Corporation
and Dream City Limited

30. VENDOR LIST

Vendor's List- Electrical Items

SR. NO.	PRODUCT	VENDOR
(1)	H.T VCB PANEL	CGL, ABB, JYOTI, SIEMENS, AREVA, SCHEINDER, BICCO LAWRIE, L & T
(2)	AIR BREAK SWITCH	ATLAS, PACTIL, NATIONAL, POWER SYSTEM GUJARAT, DANKE
(3)	LIGHTING ARRESTOR	CGL, LAMCO, OBLUM, NATIONAL, POWER SYSTEM GUJARAT, ATLAS
(4)	D.O.FUSE ASSEMBLY WITH FUSE	ATLAS, PACTIL, NATIONAL, POWER SYSTEM GUJARAT, DANKE
(5)	PIN, POST INSULATOR	ATLAS, PACTIL, NATIONAL, POWER SYSTEM GUJARAT DANKE, JAYSHREE
(6)	TRANSFORMER	AREVA, CROMPTON GREAVES, SIEMENS, VOLTAMP, ABB, KIRLOSKAR
(7)	HT PROTECTIVE RELAYS	L & T, SIEMENS, AREVA, ABB, ESSUN RAY RULL, SCHNEIDER
(8)	L.T POWER CABLE	CCI, UNIVERSAL, FINOLEX, INCAB, TORRENT, HAVELLS, BHARATCAB, GLOSTER, KEI
(9)	H.T POWER CABLE	CCI, UNIVERSAL, FINOLEX, INCAB, TORRENT, HAVELLS, GLOSTER, KEI
(10)	H.T, LT JOINTING KITS	RAYCHEM, XICON, M-SEAL
(11)	AIR CIRCUIT BREAKER	L&T, SIEMENS, SCHNIDER, ABB, CONTROL & SWITCH GEAR
(12)	MCCB	L&T, SIEMENS, SCHNIDER, ABB, CONTROL & SWITCH GEAR
(13)	MCB, ELCB	SIEMENS, MDS, L& T, MG, INDOKOPP, SCHNEIDER, HAGER, HAVELLS, ABB, C & S, LAGRAND
(14)	LT SWITCHGEARS	L&T, SIEMENS, SCHNEIDER, TELEMCHANIQUE, ABB, CONTROL & SWITCH GEAR
(15)	SOFT STARTERS	EMOTRON, SIEMENS, AB, ABB, SCHNEIDER, L & T
(16)	A.C. DRIVES	SIEMENS, AB, ABB, SCHNEIDER, YASKAWA, YOKOGAVA, DENFOSS, HITACHI
(17)	ELECTRONIC TIMERS, TIME SWITCH	GEC, HAGER, SIEMENS, SCHNEIDER, ABB, LEGRAND
(18)	MANUAL CHANGE OVER SWITCH	L & T, SIEMENS, SCHNEIDER, ABB, HPL
(19)	FUSES	L&T, SIEMENS, SCHNEIDER, ABB, BUSSMAN

SR. NO.	PRODUCT	VENDOR
(20)	LED INDICTORS	ESBEE (L & T), SIEMENS, SCHNEDIER, ABB, RAAS CONTROL, TEKNIK, VAISHNO, BINAY
(21)	PUSH BUTTON	L & T, SIEMENS, SCHNEIDER, ABB, RAAS CONTROL, BINAY
(22)	SELECTOR SWITCH	KEYCEE, SALZER, SIEMENS
(23)	EPOXY CAST RESIN C.T	L & T, PACTIL, ASHMOR, KAPPA, C & S, SILKANA, GILBERT, PRECISE
(24)	ELECTRONIC MOTOR PROTECTION DEVICE	SCHNEDIER, L & T, SIEMENS, C & S, ABB, SOFTHARD
(25)	CABLE TERMINATION KIT (LUGS & GLANDS)	DOVELLS, JENSON, HEX, 3D, HMI
(26)	DIGITAL METERS	SECURE, L & T, ABB, CONSERV, SOCOMEC, SIEMENS, TRINITY
(27)	ANALOG METERS	MECO, RISHLINE, IMP, AE, RISHABH (L & T)
(28)	APFC RELAYS	EPCOS, KBR, L & T, DUCATII, BELLUK, TRINITY, SCHNEIDER, ABB
(29)	CAPACITOR	EPCOS, SCHNEIDER, DUCATII, CROMPTON, L & T, YESHA, KHATAU, SUBODHAN, ASIAN, ABB.
(30)	TERMINAL CONNECTOR	CONNECTWELL, WAGO, PHOENIX, ELEMEX
(31)	ON LINE UPS	TATA LIBERT, MERLIN GERIN, SOCOMAC, APC
(32)	SMF BATTERY	PANASONIC, EXIDE, BASE, PRESTOLITE, ROCKET, AMRON, TATA-GREEN
(33)	ENGINE OF D.G. SET	GREAVES, CUMMINS, LEYLAND, KIRLOKAR, CATERPILLAR
(34)	ALTERNATOR OF D.G.SET	CROMPTON, KEC, STAMFORD
(35)	TOOLS & TACKELS	TAPARIA
(36)	TEST EQUIPMENT	KUSUM, RISHABH, WACO, FLUKE, MOTWANE
(37)	PANEL BOARD MANUFACTURER	CPRI & FIA APPROVED (TO BE GOT APPROVED PRIOR TO SUPPLY)
(38)	CRIMPING TOOLS	JAISON, ISMAL
(39)	H.T CONNECTORS	NUTAN, POWER SYSTEM GUJARAT
(40)	CABLE TRAYS	INDIANA, SHARDA, B.M.ENGINEERING, TUSHARTECH, SUPERFAB, BVK ENTERPRISE
(41)	COPPER / ALUMINUM LUGS	DOWELS / JENSON / HEX
(42)	STREET LIGHT POLE	AS PER IS
(43)	LUMINARIES	PHILIPS / BAJAJ / CROMPTON / GE/SURYA

SR. NO.	PRODUCT	VENDOR
(44)	SONT LAMP	PHILIPS / BAJAJ / CROMPTON / GE/SURYA
(45)	FLUORESCENT LIGHT FIXTURE ETC	PHILIPS / BAJAJ / CROMPTON / GE/SURYA
(46)	ELECTRONICS BALLAST	PHILIPS / BAJAJ / CROMPTON / GE/OPAL/INNOVA
(47)	TIME SWITCH	HAGER / SIEMENS / LEGRAND / GE / ABB / SCHNEIDER
(48)	ACCESSORIES OF WIRING	GEWISS / LEGRAND / MG / LK / PRECISION / ABB / ANCHOR / JAINEX / CLIPSEL / OR EQUIVALENT
(49)	EXHAUST FAN	GEC / CROMPTON / BAJAJ / ORIENT/ KHETAN /ORTEM
(50)	CEILING FAN	GEC / CROMPTON / BAJAJ / ORIENT/ KHETAN / ORTEM
**	INSTRUMENTATION	
(51)	PROGRAMMABLE LOGIC CONTROLLERS (PLC)	ABB, HONEYWELL, ROCKWELL (ALLEN BRADELY), SCHNEIDER, SIEMENS
(52)	AUXILIARY CONTROL RELAYS	OEN, PLA, OMRON, PHOENIX, ABB
(53)	SIGNAL (ANALOG) CABLES	ASSOCIATED CABLES, ASSOCITED FLEXIBLES & WIRES, BROOKS CABLES, DELTON, LAPP, FINOLEX, MOLEX, LEGRAND, HAVELLS, UDAY PYRO, RR KABEL
(54)	COMMUNICATION CABLES	LAPP, D-LINK, DELTON, FINOLEX, MOLEX, UDAY PYRO
(55)	DC POWER SOURCE	PHONIX, INTEX, MICROTEx, SCHNEIDER, SIEMENS, ALLEN BRADELY, OMRON, APLAB, IFM
(56)	ULTRASONIC TYPE LEVEL / DIFF. LEVEL / LOH & ROF / OPEN CHANNEL FLOW TRANSMITTER	ABB, E + H, KROHNE, SIEMENS, VEGA, EMERSON (ROSEMOUNT), HONEYWELL, YOKOGAWA, WIKA
(57)	RESISTANCE TEMPERATURE DETECTOR	ABB, ALTOP, DETRIV, GENERAL INSTRUMENTS CONSORTIUM (GIC), WIKA
(58)	PRESSURE SWITCH	INDFOSS /TELEMECHANIC/WAREE/SWITZER/ABB/SIEMENS/DENFOSS
(59)	FLOAT LEVEL SWITCH	ATMI, E+H, NIVELCO, P+F
(60)	SMOKE DETECTOR	GE, HONEYWELL, INVENSYS
(61)	CCTV STSTEM & DVR	BOSCH, PELCO, SENSORMATIC, ZICOM, SONY

SR. NO.	PRODUCT	VENDOR
(62)	DIFFERENTIAL PRESSURE / PRESSURE /TEMPERATURE TRANSMITTER	ABB / SIEMENS / YOKOGAVA / EMERSON / FUJI / DENFOSS
(63)	TEMPERATURE SCANNER	MASIBUS, LECTROTEK, INTAKE, ABB, FUJI
(64)	DIFFERENTIAL ULTRASONIC LEVEL TRANSMITTER	ABB, E+H, KROHNE, SIEMENS, VEGA
(65)	ELECTROMAGNETIC FLOWMETER (FULL BORE)	SIEMENS, ABB, KROHNE MARSHALL, E+H
(66)	WATER METER	ELSTER, ITRON(ACTRIS), ZENER, SAPPLE
(67)	ULTRARSONIC FLOWMETER	SIEMENS, ABB, KROHNE MARSHALL, E+H, ULTRAFLUX
(68)	ULTRASONIC PORTABLE FLOW METERS (FOR PIPE LINE)	DYNASONICS, GE PANAMETRIC (GE SENSING), KROHNE (FORBES MARSHALL), POLYSONICS (THERMO ELECTRON), SIEMENS, YOKOGAWA
(69)	SCADA SOFTWARE	WIN CC / WONDER WARE / RS VIEW / MONITOR PRO / INTTELUTION / VIJEO CITECT
(70)	OPERATOR SCREEN	ABB / SIEMENS / SCHNEIDER MODICON / ALLEN – BRADLEY / PRO-FACE
(71)	PROCESS INSTRUMENTS	SIEMENS / ABB / SCHNEIDER
(72)	ORIFICE PLATE	BALIGA / MICRO-PRECISION / PLACKA / STAR MECH / DANIEL
(73)	FLOAT / BUOYANCY SWITCH	P+F / WAAREE (IMPORTED)
(74)	ULTRASONIC LEVEL TRANSMITTER / OPEN CHANNEL FLOW METER	MILITRONICS / ENDRESS HAUSER/ VEGA/KAB INST/BELLS CONTROLS LTD./ELECTRONET/ISHCO
(75)	PRESSURE GAUGE	BELLS / H.GURU / WAREE
**	LABORATORY INSTRUMENTS	
(76)	PH / D.O. / RESIDUAL CHLORINE ANALYSERS	ABB, YOKOGAVA, FORBES MARSHALL, EMERSON, E + H, HACH

SR. NO.	PRODUCT	VENDOR
(77)	POCKET COLORIMETER, PORTABLE OR DESKTOP PH / TURBIDITY / DO / TDS / CONDUCTIVITY METERS, DATA LOGGING PRE-PROGRAMMED SPECTROPHOTOMETER, ANALYTICAL BALANCE	HACH, ORION, YSI, RADIOMETER, DENVER, THERMO SCIENTIFIC
(78)	WATER QUALITY ANALYSERS (TURBIDITY, FREE RESIDUAL CHLORINE, ETC.)	HACH, DKK-TOA, WTW, GLI, RADIOMETER
(79)	TOC ANALYSER	HACH, DKK-TOA, SHIDMATZU, TRL, CHEMITEC
(80)	RECORDER	ABB, HONEYWELL, YOKOGAWA
(81)	JAR TEST, AUTOCLAVE, LABORATORY OVEN, BACTERIOLOGICAL INCUBATOR, WATER STILL	HACH, ORBIT, LAB HOSP
(82)	AUTO SAMPLER	HACH / E + H
(83)	COMPUTER SYSTEM	WIPRO / DELL / ACER / LENOVO / HP-COMPAQ / IBM

Vendor's List- Mechanical Items

SR NO.	Product	Vendor
**	PUMPS	
(1)	NON CLOG SUBMERSIBLE PUMPS WITH GUIDE RAIL, AUTO COUPLING ETC.	GRUNDFOSS, AQUA, KIRLOSKAR, KISHOR, WORTHINGTON (WPIL), KSB, PULLEN, ABS
(2)	HORIZONTAL NON CLOG PUMPS	KSB, M&P, BEACON WEIR, KIRLOSKAR, WPIL, GRUNDFOSS
(3)	VERTICAL NON CLOG PUMPS	KSB, M&P, BEACON WEIR, KIRLOSKAR, WPIL, GRUNDFOSS

SR NO.	Product	Vendor
(4)	VERTICAL TURBINE PUMPS	JYOTI, KIRLOSKAR, WORTHINGTON (WPIL), MATHER & PLATT, FLOW MORE.
(5)	HORIZONTAL SPLITCASE PUMPS	JYOTI, KIRLOSKAR, WORTHINGTON (WPIL), MATHER & PLATT, FLOW MORE, BEACON.
(6)	SUBMERSIBLE PUMP	KSB, KISHORE, AQUA, GRUNDFOSS, KIRLOSKAR, ABS, XYLEM
(7)	SCREW/POSITIVE DISPLACEMENT TYPE PUMP	ROTO, NETZEH, TUSHACO, SEEPEX
(8)	SAMPLING PUMPS	MAIMOON MACHINE TOOLS, TULLU, KIRLOSKAR, CROMPTON
(9)	DOSING PUMPS	SWALLORE, V.K.PUMPS, SHAPOTOOLS, SEEPEX
**	MOTORS	
(10)	TEFC MOTOR FOR MECHANICAL SCREEN	ALSTOM, SIEMENS, ABB, NGEF, KIRLOSKAR, BHARAT BIJLEE, WEG, AEG, LOREYSOMER, BONFIGLOLI
(11)	MOTOR	KEC, JYOTI, CROMPTON, ABB, MARATHON, BB, SIEMENS, NGEF, BHEL, HAVELLS
**	VALVES, GATES ETC	
(12)	KNIFE EDGE GATE VALVE	JASH, DEZURIK, KSB, IVC, FOURESS, ORBINOX
(13)	NON RETURN VALVE	KIRLOSKAR, IVC, IVI, SR, FOURESS, CALSENS, AVISHKAR, UPADHYA, M & P
(14)	NON RETURN VALVE (BALL TYPE)	KIRLOSKAR, IVC, FOURESS, IVI, NORMAX, KISHOR
(15)	SLUICE VALVE & AIR VALVES	KIRLOSKAR, IVC, IVI, SR, FOURESS, CALSENS, AVISHKAR, UPADHYA
(16)	BUTTERFLY VALVE	KIRLOSKAR, IVC, IVI, FOURESS, INTERVALVE, AUDCO.
(17)	DUAL PLATE CHECK VALVE	ADVANCE, FLOVEL, KIRLOSKAR, IVC
(18)	METALLIC EXPANSION BELLOWS	D. WREN, PRECISE ENGR. (VEDANTA), PROCO, BELOFLEX
(19)	SLUICE GATE	JASH, I.V.C., YASHWANT, IVI
(20)	ELECTRICAL ACTUATOR	BEACON ROTORK, AUMA, LIMITORK, MARSH
(21)	S.S. ELBOW	PROCO, DHURUV, BELOFLEX, DWREN
(22)	C.I. FITTINGS	KESORAM, ELECTROSTEEL, KEJRIWAL, TISCO, UPADHYA NEW JANTA.
**	LIFTING EQUIPMENTS	
(23)	ELECTRIC HOIST & CHAIN PULLEY BLOCK	INDEF, MORRIS

SR NO.	Product	Vendor
(24)	E.O.T. CRANE	ACME MFG, MUKAND, EDDY CRANES, MORRIS, INDEF, SAYAJI, W.H.BRADY, BATLIBOI, MEEKA MACHINERY
**	PNEUMATIC SYSTEM	
(25)	AIR COMPRESSOR	INGERSOL RAND, KIRLOSKAR / ATLAS COPCO
(26)	AIR FILTER	GEM, NORGEN, ULTRA / ATLAS COPCO
(27)	AIR FILTER REGULATOR	ABB, DIVYA, JANATICS, PLACKA, SHAVO NORGREN / ATLAS COPCO
(28)	PPRC TUBES	VECTUS, FUSION, LEGRIS
(29)	PNEUMATIC CYLINDERS	SCHRADDER, FESTO, DREAM CITY, NUCON
(30)	SOLENOID VALVE	JANATICS, SCHRADER ROTEX, ASCO
(31)	LIMIT SWITCHES	TATA HONEYWELL, SIEMENS, BCH
**	CHLORINATORS	
(32)	CHLORINATOR	PENNWALT, ADVANCE, CHLOROTECH, JASCO, METITO, F & P
(33)	CHLORINE PRESSURE GAUGE	WIKA, H. GURU, WAREE, GLUCK
(34)	VACUUM GAUGE	WIKA, H. GURU, WAREE, GLUCK
(35)	CHLORINE BOOSTER PUMP	GRUNDFOSS, ABS, EBARA, FLYGT, KSB, KIRLOSKAR, WILO
(36)	NRV/DIAPHRAM VALVE	DPP, PARCH
(37)	INTERCONNECTING PIPES	ASTRAL, SUPREME, PRINCE
**	PIPES	
(38)	PPRC PIPES	VECTUS OR EQUIVALENT
(39)	SS PIPES	REMI / RATNAMANI
(40)	MS / G.I.PIPES	GST, AMBICA, TATA OR ANY MAKE BEARING ISI MARK / JINDAL / ASIAN
(41)	HDPE PIPES	PIL, MANEKYA, DURALINE, JAIN IRRIGATION, RIL, SANGHIR
(42)	GRP PIPES	GRAPHITE / EPP / CPP
(43)	AIR DIFFUSER	OTT / EDI / OVIVO
(44)	FRP PIPES & ACCESSORIES	SINTEX / SUMIP / DAKLE / RANI & CO. / GANDHI & ASSOCIATES / CPE / CHLOROTECH

SR NO.	Product	Vendor
(45)	PVC SHEETS	FINOLEX, TAINWALA / RANI & CO.
(46)	PAINT	ASIAN PAINTS / BERGER / SHALIMAR / DULUX
**	OTHER PRODUCTS	
(47)	CPVC / UPVC PIPES	ASTRAL / SUPREME / PRINCE
(48)	AUTOMATIC MECHANICAL COURSE BAR SCREEN	JASH, HUBER-CLIMBMAX, DEGREMONT-CLIMBER, JOHNSON, VOLTAS, HYDRODYNE, BRACKETTI-GREEN, SERECO SRL
(49)	GEAR BOX FOR MECHANICAL SCREEN & FOR ACTUATOR	MASTERGEAR, EMTROK, TRANSPOWER, MARSH, PERFECT, SUPRIYA, ELECON, GREAVES, CPEC, NUTEK, ESSENPRO, SANTHI, BONFIGLOLI
(50)	PROCESS EQUIPMENTS	EMCO KCP, HINDUSTAN DORR-OLIVER, VOLTAS, HYDRAULIC & GENERAL ENGINEERS, DEGREMOUNT, OVIVO, SHIVPAD ENGINEERS PVT. LTD., HUBER, TEKNOFANGHI / EKOTON
(51)	FINE SCREEN / MULTI RAKE BAR SCREEN	JASH ENGINEERING, EGNER UMWELTECHNOLOGIE GMBH, SPAANS BAB COCK BV., VOLTAS, HUBER, JHONSON
(52)	CENTRIFUGE / BELT FILTER PRESS	ALFA LAVAL, HUMBOLDT WEDAG, FLOTTWEG / GEA WESTFALIA SEPARATORS / TEKNOFANGHI / EKOTON
(53)	ASPRIRATOR AERATORS	WATER MATRIX, AIRE-O2, CIRCUIT SA, HITACHI
(54)	ARCHIMEDIAN SCREW THICKENER	TEKNOFANGHI, ANDRITZ, SERNAGIOTTO, HUBER
(55)	SURFACE AERATORS	VOLTAS, TRIVENI, BATLIBOI
(56)	BEARINGS	SKF, FAG, RHP, ABC.
(57)	AIR BLOWERS – SCREW TYPE	GARDNER DENVER – ROBUSCHI, INGERSOLL RAND, KAESER
(58)	CENTRIFUGAL / TURBO TYPE AIR BLOWER	SIEMENS / TURBO MAX / DAEHA ENGG. / KOREA FLUID MACHINERY / ATLAS COPCO
(59)	AGITATORS / STIRRER / MIXER	REMI, SCHURTEK GANSONS LTD., STD. ENGG., MIXRITE FIBRE & FIBRE.
(60)	SUBMERSIBLE MIXERS FOR ANAEROBIC / ANOXIC REACTORS	XYLEM, ABS, KBS, AIR O ₂ -USA
(61)	GEAR BOX	RADICON, ELECON, NUTEK, SAFEX, GREAVES, SHANTHI

SR NO.	Product	Vendor
(62)	PRESSURE GAUGE	H. GURU, BELLS, AIR MASTER, PRECISION.
(63)	FRP CHEQUERED PLATE / GRATINGS	SINTEX / TRANS POWER / TRIVANI FIBER
(64)	FABRICATION STEEL PLATES	TATA, SAIL, ESSAR, JINDAL, RASHTRIYA ISPAT
(65)	FIXED FILM BIO MEDIA	BRENTWOOD-USA / OVIVO / NORDDEUTSCHE-GMBH
(66)	RO MEMBRANE	TORAY / HYDRANUATICS / OVIVO
(67)	UF MEMBRANE	INGE / OVIVO / KOCH / HYFLUX
(68)	DISK / CLOTH MEDIA FILTER	SIEMENS / AQUA AEROBIC
(69)	FILTER NOZZELS	OVIVO / DEGREMONT / ECAIPL
(70)	TUBE SETTLER	BRENTWOOD-USA / SIEMENS / MM AQUA
(71)	MANUAL STRAINER	AMIAD / GOPANI / ECAIPL / ANSYS
(72)	CARTRIDGE FILTER	GOPANI / ANSYS / HY PRICESION OR EQUIVALENT
(73)	ACTIVATED CARBON FILTER	SPINE CODE / SUNSHIL / ECAIPL
(74)	DEGASSER UNIT	SPINE CODE / ECAIPL
(75)	DEGASSER BLOWER	LAXMI PROJECT OR EQUIVALENT
**	MISCELLANEOUS ITEMS	
(76)	FASTENERS	PRECISION TAPS, FIT TIGHT, F.E.DARUKHANAWALA, GKW, ECHJAY, SUNDARAM FASTENERS, AEP& CO., TATA, V.CHUNILAL & CO., STEEL & ALLIED, PRECISION ENGG., .
(77)	FLOAT TYPE FLOW INDICATOR	S.B.ELECTRONICS, NIVO CONTROL (P) LTD., DG CONTROLS, IMPERIAL FLOATS
(78)	REFRIGERATOR	VOLTAS, GODREJ, WHIRLPOOL, VIDEOCON.
(79)	AIR-CONDITIONERS	VOLTAS, BLUESTAR, SAMSUNG, LG, HITACHI, LLOYDS, CARRIER
(80)	HOTAIR BLOWER	WOLF, ARVY
(81)	MEMBRANE GAS DOME / HOLDER	MEMBRANE SYSTEM EUROPE, THE NETHERLANDS / ECO MEMBRANE, ITALY
(82)	CHLORINE SCRUBBER SYSTEM	PENNWALT, CHLOROTECH, F & P , ALPOL

Note: 1. The contractor shall distinctly understand that efficiency of equipment and energy saving is one of the important aspect of consideration of tender. Hence, DREAM CITY hereby reserves its right to decide final selection of make of each equipment/machineries upon the energy saving aspect. Final options to select any particular make shall rest with Dream city. In this regard the decision of Divisional head of the Department will be final and no dispute of the contractors will be entertained at a later date for the same.

I/c. Town Planner
Surat Municipal Corporation
and Dream City Limited

Signature of Contractor

31. EVALUATION OF TENDER

1. DREAM CITY will first open the qualification bids of all the tenderer those are able to submit the hard copies in time as per the time schedule, in the presence of the Tenderers or their authorized representatives who choose to attend on the prescribed place, date and time in the tender for tender opening. After opening of the qualification bid, DREAM CITY will evaluate the various tenderers for the qualification requirement provided in the tender.
2. Technical Bid will only be opened by Dream City Limited after evaluation of Qualification-bids submitted by the Tenderers. The technical bid of those tenderers will be opened who are qualified for the proposed work as per the qualification criteria provided in the tender. The Technical Bid and Price bid of the tenderers who are not qualified for the job, will not be opened and returned to the tenderer on award of the contract.
3. Price-Bid will not be opened by Dream City Limited until evaluation of Technical-bids submitted by the Tenderers is completed and any conclusion is made. In the evaluation of Technical-bid, all the drawings, details etc., submitted by the Tenderers will be scrutinized before opening of price bid.
4. In the process of evaluation of Technical-bid, if there are be some queries regarding the details, data, designs, drawings etc., submitted by the Tenderers with their Technical-bid then the same will be raised to the Tenderers and the Tenderers will have to give the answers / submit more details etc. accordingly. Dream City Limited may appoint a consultant or expert in the field for the evaluation of details, data & drawings etc. submitted by the Tenderers with their Technical-bids. After complete evaluation of Technical-bids submitted by all the Tenderers and after any conclusion is made by Dream City Limited to its' own discretion, Price-bids will be opened. If required, after evaluation of Technical-bids and before opening of original Price-bids, revised Price-bid may be invited by Dream City Limited from any / all the Tenderers in view of changes/amendments suggested / required during the course of evaluation of Technical-Bids / Drawings / Treatment Process etc.
5. The tenderer shall have to quote, the prices as per the Price Schedule given, considering the all tender terms, conditions, specification etc. and no deviation of any kind will be entertained and hence contractor must quote the prices strickly in line with tender stipulations, specification etc. Deviation offered alongwith tender documents will become "Cause of Tender's outright rejection", which must be specifically noted by the Tenderers.
6. Evaluation of tenders will be purely on the basis of Total of Lump sum Prices quoted for (I) Capital Cost quoted for Tertiary Sewage Treatment Plants on turn-key basis and (II) 5 Years Operation and Maintenance Cost for the proposed works, as quoted by the Tenderer in the Price Schedules, and will be solely at the discretion of Dream City Limited, without assigning any reasons thereof by tenderer.
7. The tenderer shall have to quote price, at the specified places in Price Schedule of the tender, cost of O&M contract for all the Five years, duly considering necessary price escalation. No separate price escalation shall be paid.
8. The tenderer shall have to also submit the details on the electricity consumption for the entire plant i.e. for various TSTP components, as per the tender. The tenderer shall have to submit the performance guaranteed in the table furnished hereunder in this tender for evaluation purpose. It shall be reviewed in future for actual electricity consumption also. **The details in table below shall be strictly submitted with TECHNICAL BID only.**

Performance Guranteed Statement

Details	Parameters	To be guaranteed by Contractor
Flow	230 KLD	
Power Consumption	To be filled in by Contractor in KWH/day	
Land requirement	Sq.mt.	

- For, tender submission, the rate of electricity may be considered as Rs. 7.00 per KWH.
9. Regarding the energy cost, it is to clarify that the electricity charges during O&M contract including all works shall be in the scope of contractor only. However, the tenderer shall have to submit the energy consumption details and charts for each equipmernt for 230 KLD TSTP.
 10. Regarding the land used cost, it is to clarify that the land will be provided free of cost to the contractor for executing the project. The details submitted on land used will be used to verify the same during actual execution. The land rate shall be used as Rs. 50000/- per sq.mt. The excess land usage over and above as specified by the contractor in this tender shall be deducted from his payment towards capital work at actual at a rate of Rs. 50,000/- per sq.mt.
 11. Information relating to the examination, clarification, evaluation and comparison of bids and recommandations for the award of a contract shall not be disclosed to tenderers or any other persons not officially concerned with such process until the award to successful tenderer has been announced. Any effort by a tenderer to influence the DREAM CITY's processing of tenders or award decisions may result in the rejection of his tender.
 12. The Dream City Limited reserves right to select any offer or to reject any or all offers without assigning any reasons thereof. Dream City Limited does not bind itself to accept the lowest offer.

Signature Of The Contractor.

I/c. Town Planner
Surat Municipal Corporation
and Dream City Limited

32. SAMPLE PRICE-BID FOR UNDERSTANDING PURPOSE

- 1.1 DREAM CITY proposes to construct Tertiary Sewage Treatment Plant of 230 KLD capacity.

The present tender covers the following works.

Design, Engineering, Procuring, Constructing, Erecting, Commissioning (EPC) of 230 (Two hundred thirty) KLD Tertiary Sewage Treatment Plant and successive Operation and Maintenance for the period of 5 (Five) years for DREAM CITY.

- 1.2 The tenderer shall have to quote his lumpsum price for the proposed work at the specified places in this volume of the tender (i.e. Price-Bid). The prices quoted must be fixed & firm for the total project period and they should be inclusive of all taxes, excise duty, work contract tax, octroi, GST etc. Only, If any new taxes are levied by the Central or State Government during the period of implementation of complete project, it shall be reimbursed at actual to the successful contractor on submission of proof for the same..
- 1.3 **The electricity charges during the contract period including all works shall be in the scope of the contractor. If the electricity charges levied by Electricity Company exceeds the defined rate of Rs. 7/- per KWH during contract period, than difference in the rate above Rs. 7/- per KWH shall be paid separately, at actual, to the contractor for O&M part. However, the electricity consumption in KWH shall not exceed to the guaranteed electricity consumption, as submitted by the contractor. If guaranteed electricity consumption exceed than complete additional bill over and above the guaranteed electricity consumption shall have to be borne by the contractor So, the price of every year shall be quoted accordingly.**
- 1.4 The O&M period shall be Five years under this contract. However, the same contract can be extended for another 2 years on mutually agreed upon basis between DREAM CITY and the Contractor.
- 1.5 **Minimum 10 % (Ten) of the Capital Works value, for O&M cost in each year, shall be quoted by the contractor for O&M works. In case the contractor quotes less than the rates as mentioned above the difference amount shall be submitted in the form of additional performance security for unbalanced quoted rates and same shall be released at the end of O&M contract. If any abnormal quoting found, then DREAM CITY will not pay accordingly for one year with respect to other years. In such case total of Five years will be calculated & will be equally divided for the period of Five years.**
- 1.6 **No Price Escalation /Variation shall be paid to the contractor by the Dream City Limited.**
- 1.7 **The chapter on price bid here is provided for reference only. The contractor has to strictly submit their price online only. If any price found with Technical Bid, the tender shall be rejected outrightly.**

SUMMARY

Sr. No.	Package	Project Description	Amount (Rs.)
1	Capital Work	EPC contract for 230 KLD capacity TSTP including design, construction, erection, testing, commissioning and trial run	To be quoted online only
		Total - Capital Work (A) :	To be quoted online only
2	O & M Work including electricity charges	Operation and Maintenance per KLD treated sewage supplied during First year	To be quoted online only
		Operation and Maintenance per KLD treated sewage supplied during Second year	To be quoted online only
		Operation and Maintenance per KLD treated sewage supplied during Third year	To be quoted online only
		Operation and Maintenance per KLD treated sewage supplied during Fourth year	To be quoted online only
		Operation and Maintenance per KLD treated sewage supplied during Fifth year	To be quoted online only

Signature Of The Contractor.

I/c. Town Planner
Surat Municipal Corporation
and Dream City Limited

COST BREAK-UP FOR CAPITAL WORKS

Payment terms for the proposed capital works (Turn-key job) shall be as follows:

[A] Capital Work:

- (i) 20% to be paid on 50% completion of work.
- (ii) 20% to be paid on 75% completion of work.
- (iii) 20% to be paid on completion of work in all respect.
- (iv) 10% to be paid on completion of 1st month trial run.
- (v) 10% to be paid on completion of 2nd month trial run.
- (vi) 10% to be paid on completion of 3rd month trial run.
- (vii) 10% to be paid after 6 month of sucessful commissioning of the plant

[B] Operation and Maintenance Work:

- (i) Monthly basis as quoted in the tender.

Note:-

- [1] The contractor shall specify in his offer the details of civil, mechanical, electrical, instrumentation, Online equipments, interconnecting piping works together with the cost of break-up for facility of verification of materials received in piece meal. Itemwise breakup of online equipments shall be given separately by contractor with Price-Bid.
- [2] Planning for the procurement of materials / equipments must be done in consultation with Surat Dream City for which barchart must be got approved and manufacturer/suppliers must be intimated accordingly. Testing & Commissioning of all the materials / equipments / pipes / valves etc. prior to delivery at site shall be carried out as described in Technical Bid.
- [3] Erection and commissioning of the equipment must be done in presence of manufacturer's representative. Manufacturer's drawing etc. must be got approved prior to supply/erection.

I/c. Town Planner
Surat Municipal Corporation
and Dream City Limited

Signature & Seal of Contractor