NARENDRA MODI MEDICAL COLLEGE

(FORMERLY KNOWN AS AMC MET MEDICAL COLLEGE)

L.G.Hospital Campus, Maninagar, Ahmedabad-380008

Website: www.narendramodimedicalcollege.edu.in

E-mail: dean.metmedical@ahmedabadcity.gov.in

Phone: - 079 – 25472101 to 25472109



E-TENDER FOR

RENOVATION WORK OF EXISTING FIRE FIGHTING SYSTEM AND COMPREHENSIVE MAINTENANCE CONTRACT WORKS AT NARENDRA MODI MEDICAL COLLEGE, SHETH LALLUBHAI GORDHANDAS MUNICIPAL GENERAL HOSPITAL BUILDING, BOYS HOSTEL AND GIRLS HOSTEL AT LG CAMPUS, MANINAGAR.

1	Tender documents available	On website a value parecure com
+	Tender documents available	On website : <u>www.nprocure.com</u>
		www.narendramodimedicalcollege.edu.in
2	Last Date & Time of submitting the filled	Till date: 24.07.2024 up to 02:00 pm only on
	ир	website <u>www.nprocure.com</u>
3	Last Date – Time and place of submission	Date: 24.07.2024 till 04:00 pm at the office of
	of <u>Volume – I (Technical Bid only) of</u>	the Office Superintendent, Narendra Modi
	Tender in Physical form	Medical College, Maninagar, Ahmedabad-
		380008.
3	Tender Vol-I(Technical Bid Only) Opening	Date: 24.07.2024 at 04:00 pm onwards
	Date & Time	

AHMEDABAD MUNICIPAL CORPORATION MEDICAL EDUCATION TRUST

E-TENDER FOR RENOVATION WORK OF EXISTING FIRE FIGHTING SYSTEM AND COMPREHENSIVE MAINTENANCE CONTRACT WORKS AT NARENDRA MODI MEDICAL COLLEGE, SHETH LALLUBHAI GORDHANDAS MUNICIPAL GENERAL HOSPITAL BUILDING, BOYS HOSTEL AND GIRLS HOSTEL AT LG CAMPUS, MANINAGAR.

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E-TENDER FOR
RENOVATION WORK OF EXISTING FIRE FIGHTING SYSTEM
AND COMPREHENSIVE MAINTENANCE CONTRACT WORKS AT
NARENDRA MODI MEDICAL COLLEGE, SHETH LALLUBHAI
GORDHANDAS MUNICIPAL GENERAL HOSPITAL BUILDING,
BOYS HOSTEL AND GIRLS HOSTEL AT LG CAMPUS,
MANINAGAR.

NOTICE INVITING E-TENDER &
INSTRUCTIONS TO BIDDERS

VOLUME-I

LETTER FROM TENDERER

To be submitted on Letter head along with bid

To, AHMEDABAD MUNICIPAL CORPORATION MEDICAL EDUCATION TRUST SUBJECT: Renovation Work Of Existing Fire Fighting System And Comprehensive Maintenance Contract Works At Narendra Modi Medical College, Sheth Lallubhai Gordhandas Municipal General Hospital Building, Boys Hostel And Girls Hostel At LG Campus, Maninagar. Dear Sir. With reference to the tender invited by you for the above works, we are pleased to offer our best rates mentioned in the Schedule. We have inspected the site of work, studied the actual site condition, read the Conditions of Contract, and we agree to complete the work to the specifications and satisfaction of the Employer. We enclose herewith Earnest Money Deposit of Rs 7,00,000/- by Demand Draft No: drawn on Dated: in favors of **Chairman AMC MET** payable at Ahmedabad. We hereby agree that this sum shall be forfeited by the AMC MET if we fail to execute the contract when called upon to do so in the event of your accepting our tender. We hereby also agree that you reserve the right to accept or reject any or all tender without assigning any reasons. Your truly, Sing & Stamp of the Bidder

E - TENDER NOTICE

E-TENDER NOTICE							
	(0)	NLINE)					
AHMEDABAD MUNICIPAL CORPORATION MEDICAL EDUCATION TRUST							
Sr. No.	NAME OF E-TENDER	Tender Fees	EMD Amount	Estimated Cost including GST			
1	E-Tender for Renovation Work Of Existing Fire Fighting System And Comprehensive Maintenance Contract Works At Narendra Modi Medical College, Sheth Lallubhai Gordhandas Municipal General Hospital Building, Boys Hostel And Girls Hostel At LG Campus, Maninagar.	Rs. 6,000/-	Rs. 7,00,000./-	Rs. 2,33,00,244/-			
Date	e of Uploading of E-Tender		03.07.2024				
Last Date of Online Submission for E – Tender on website www.nprocure.com		Till Date: 24.07.2024 up to 2:00 pm only					
Last Date of Downloading of E - Tender		Till Date: 24.07.2024 up to 2:00 pm only					
Last Date of Physical submission (Hardcopy Submission of the Bid (Hand to hand/RPAD/Courier/Speed Post)): Submission of EMD, Tender Fee and Technical Bid Documents: Office of the Office Superintendent, Narendra Modi Medical College, L.G. Hospital Campus, Maninagar, Ahmedabad – 380008				024 till 04:00 pm			
Date of Opening of E- Tender			Date: 24.07.2024 till 04:00 pm onwards				
Bidder need to register themselves with (n) procure tender management system of gov. of Gujarat www.nprocure.com to participate in E-Tender. Tender submission through www.nprocure.com is mandatory.							
Inter	rested bidder fulfilling eligibility criteria	are requested to	download the to	ender			
document from www.nprocure.com and price bid submission is through digital mode only							
through <u>www.nprocure.com</u>							
1	submission and other e-tender deta	il, please refei	detail NIT or	n E-Tender portal			
https	s://nprocure.com						

AHMEDABAD MUNICIPAL CORPORATION MEDICAL EDUCATION TRUST

incurring any liability whatsoever.

Client reserves the right to accept or reject any application without assigning any Reason or

NOTICE INVITING E-TENDER AND INSTRUCTIONS TO BIDDERS

1. Ahmedabad Municipal Corporation Medical Education Trust invites E - Tender in the prescribed form for Renovation Work Of Existing Fire Fighting System And Comprehensive Maintenance Contract Works At Narendra Modi Medical College, Sheth Lallubhai Gordhandas Municipal General Hospital Building, Boys Hostel And Girls Hostel At LG Campus, Maninagar. The estimated value of the E - Tender is Approximately Rs. 2,33,00,244/- (Including GST).

2. E - TENDER PROCESSING FEES:

- ❖ The E Tender Bid shall be accompanied by e-Tender Processing Fees of Rs. 6,000/- (Including18 % Goods and Service Tax (GST)) Non Refundable.
- ❖ Demand Draft (DD) shall be drawn from following banks only.
 - 1. All Nationalized Bank Including Public Sector Banks
 - 2. Commercial Bank
 - 1. A U Small Finance Bank 2. Axis Bank 3. City Union Bank 4. DBS Bank India Limited 5. DCB Bank 6. Equitas Small Finance Bank 7. Federal Bank 8. HDFC Bank 9. ICICI Bank 10. IndusInd Bank 11. Kotak Mahindra Bank 12. RBL Bank 13. Standard Chartered Bank 14. Tamilnadu Mercantile Bank 15. Ujjivan Small Finance Bank
 - 3. Co-operative and Rural Banks of Gujarat.
 - 1. The Ahmedabad Mercantile Co-operative Bank Limited 2. Kalupur Commercial Co-operative Bank Limited 3. Nutan Nagarik Sahakari Bank Limited 4. Rajkot Nagarik Sahakari Bank Limited 5. Saraswat Co-operative Bank 6. Saurashtra Gramin Bank 7. The Gujarat State Co-Operative Bank 8. The Mehsana Urban Co-operative Bank Limited 9. The Surat District Co-operative Bank 10. The Surat Peoples Co-operative Bank
- ❖ payable at Ahmedabad, in favour of **Chairman AMC MET**
- ❖ Any physical submission without E Tender Processing Fees is liable to be rejected.
- Bidders are requested to upload Scan Copy of Demand Draft (DD) / Banker's Cheque online on www.nprocure.com in Preliminary Stage - Tender Fees / EMD section.

3. EARNEST MONEY DEPOSIT (EMD):

- ❖ The E Tender Bid shall be accompanied by Earnest Money Deposit 3% of tender estimated value i.e. Rs. 7,00,000/-
- EMD should be in the form of Demand Draft (DD).
- Demand Draft (DD) shall be drawn from following banks only.
 - 1. All Nationalized Bank Including Public Sector Banks
 - 2. Commercial Bank
 - 1. A U Small Finance Bank 2. Axis Bank 3. City Union Bank 4. DBS Bank India Limited

AHMEDABAD MUNICIPAL CORPORATION MEDICAL EDUCATION TRUST

- 5. DCB Bank 6. Equitas Small Finance Bank 7. Federal Bank 8. HDFC Bank 9. ICICI Bank 10. IndusInd Bank 11. Kotak Mahindra Bank 12. RBL Bank 13. Standard Chartered Bank 14. Tamilnadu Mercantile Bank 15. Ujjivan Small Finance Bank
- 3. Co-operative and Rural Banks of Gujarat.
 - 1. The Ahmedabad Mercantile Co-operative Bank Limited 2. Kalupur Commercial Co-operative Bank Limited 3. Nutan Nagarik Sahakari Bank Limited 4. Rajkot NagarikSahakari Bank Limited 5. Saraswat Co-operative Bank 6. Saurashtra Gramin Bank 7. The Gujarat State Co-Operative Bank 8. The Mehsana Urban Co-operative Bank Limited 9. The Surat District Co-operative Bank 10. The Surat Peoples Co-operative Bank
- payable at Ahmedabad, in favour of <u>Chairman AMC MET</u>
- ❖ Any Physical submission not accompanied by the requisite EMD is liable to be rejected. It is understood that EMD will not bear any interest.
- ❖ Bidders are requested to upload Scan Copy of Demand Draft (DD) / Banker's Cheque online on www.nprocure.com in Preliminary Stage Tender Fees / EMD section.
- ❖ All bidders' earnest money (EMD) will be returned to them without any interest, after issuing of the work order to the successful bidder.
- ❖ The EMD will stand forfeited in the event of the bidder whose bid is accepted and fails to execute the contract when called upon to do so. If EMD is returned to the bidder and bidder fails to execute the contract whose bid is accepted, in that event, the institute reserves the right to forfeit Security Deposit & shall have a right to Blacklist / Debar / Deregister / Bann / stop from the services / put on holidays for certain period.
- 4. **Security deposit:** 3% of value of accepted tender cost in form of Bank Guarantee
- 5. **Retention Money:** 2.5% of the value of the work done shall be deducted by the employer from each running bill towards retention money. On the issuing a certificate of the virtual completion of the work the retention money will be released after 12 Months. (Defect Liability Period).

6. PREPARATION OF BID:

Bidder's responsibility:

- 1. The Bidder is solely responsible for the preparation and submission of bid.
- 2. The Bidder is expected to study carefully all the contents of E Tender document as well as terms and conditions and take them fully into account before submitting their bid. Bids, which do not satisfy all the requirements, as detailed in this document, are liable to be rejected as being unresponsive.
- 3. The bidder has to submit the E Tender online well in advance before the prescribed time to avoid any delay or problem during the submission process.
- 4. **Alternative Proposal by Bidders:** The bidders shall submit their offers that strictly comply with the requirements of the E Tender document without any deviations with regard to the specifications, terms and conditions of the bid. Bids with such deviations

will be rejected.

- 5. **Language of Bid:** The Bid and all related correspondence and documents relating to the E Tender shall be in English language only.
- 6. **Currency of Bid:** Bid prices shall be quoted in Indian Rupees only. The amount mentioned elsewhere in the bid document will also deemed to be in Indian Rupees only.
- 7. **Tendering Expense:** The tenderer shall bear all costs and expenditure incurred and/or to be incurred by it in connection with its tender including preparation, mailing and submission of its tender and for subsequent processing the same. The Tender Inviting Authority will, in no case be responsible or liable for any such cost, expenditure etc. regardless of the conduct or outcome of the tendering process.

8. SITE VISIT:

- ❖ Each bidder is expected to get fully acquainted with the local conditions & factors, such as historical, geographical, social, political, legal, and administrative and/or infrastructure etc., which would have any effect on the performance of the contract and/or the cost.
- ❖ The bidder is expected to know all conditions & factors, which may have any effect on the execution of the contract after issue of LOA as describe in bidding documents. The buyer/client shall not entertain any request for clarification from the bidder regarding such local condition.
- ❖ It is bidder's responsibility that such factors have properly been investigated and considered while submitting bid proposals and no claim whatsoever including those for financial adjustment to the contract awarded under the bidding document will be entertain by the buyer/client. Neither any change in the time schedule of the contract nor any financial adjustment arising there of shall be permitted by the buyer/client on account of failure of the bidder to know the local laws/conditions or not visiting the site.
- ❖ The bidder is expected to visit and examine the location and its surrounding and obtain all information that may be necessary for preparing the bid at their own interest and cost.
- ❖ Bidder can visit site between 10:30 am to 04:00 pm after approval from institute.
- ❖ Bidder may visit the site during working hours after taking due permission on contact number mentioned in tender document before quoting price bid

<u>Note:</u> Site visit is responsibility of the bidder, No excuse of not visiting the site will be taken in to account at any cost after opening of tender.

9. **SUBMISSION OF BIDS:**

Bids should be submitted both in hard copy and online as mentioned below

HARDCOPY SUBMISSION OF THE BID

❖ PART A: E - TENDER PROCESSING FEES AND EMD & NAME OF BIDDER.

■ The required E - Tender Processing Fees and EMD as per amount and format mentioned earlier should be submitted in hard copy in separate sealed envelope super-scribed with

❖ PART B: TECHNICAL BID

- The required Technical Bid document as mentioned in Eligibility Criteria and elsewhere in this E Tender document should be submitted in hardcopy in separate sealed envelope super-scribed with Part B: Technical Bid and Name of Bidder.
- Both Part A and Part B should be submitted in separate sealed envelopes and these two sealed envelopes should be placed in one big envelope super-scribed with Name of the Bidder and Name of the Tender should be submitted to following address by Hand to Hand/RPAD/Courier/Speed Post: Office of the Office Superintendent, Narendra Modi Medical College, L.G. Hospital Campus, Maninagar, Ahmedabad 380008

ONLINE SUBMISSION OF THE BID:

- 1. Bidders are requested to upload Scan Copy of Demand Draft (DD) / Banker's Cheque of E-Tender Processing Fees and/or EMD in the prescribed format online on www.nprocure.com in Preliminary Stage Tender Fees / EMD section.
- 2. Price Bid should be submitted online on E Tender portal.
- 3. **NO PRICES SHALL BE MENTIONED / INDICATED** anywhere in physical submission of Part: A (E Tender Processing Fees and Earnest Money Deposit (EMD)) and Part: B (Technical Bid). If mentioned / indicated, E Tender will be summarily rejected and will not be considered for further evaluation.
- 10. **SUBMISSION OF BIDS:** The last date for Online Submission of completed bid is 24.07.2024 up to 2:00 pm hrs. and Physical submission by hand to hand or through RPAD/Courier/Speed Post of completed Bids is 24.07.2024 up to 4:00 hrs. The AMC MET may, at their discretion, extend this date, in which case all rights and obligations of the AMC MET and the Bidder shall thereafter be subjected to the new deadline as extended. If such designated date for submission of Bid is subsequently declared as a public holiday, the next official working day shall be deemed as the last date for submission of E Tender.
- 11. Physical submission shall be submitted by hand to hand or through registered post or courier service or speed post at the address mentioned above. AMC MET shall not take any cognizance and shall not be responsible for delay/loss in transit or non-submission of

said documents in time.

12. It is sole responsibility of bidder for interpretation of GST & HSN code for quoted products. Institute is not liable to pay or give price rise, requested / presented by bidder due to incorrect interpretation of GST and/or HSN code.

13.BID DUE DATE:

- ❖ Bids should be received at the address mentioned in this document, on or before the stipulated/extended date and time as specified earlier.
- ❖ AMC MET may, in exceptional circumstances, and at its sole discretion, extend the lastdate of submission of bids.

14. LATE BIDS:

There is NO PROVISION of uploading late e- tender beyond stipulated date & time in the e-tendering system. Any Physical Bid by hand to hand or through registered post or courier service or speed post at the address received after the deadline prescribed for submission of Bids i.e. 24.07.2024 up to 04:00 pm hrs. Or extended date as the case may be, herein shall be rejected and will be returned unopened to the Bidder. No E - Tender will be accepted after prescribed closing time for submission of the same. The delay will not be condoned for any reason whatsoever including postal/transit delay. However, if the last date of submission of E - Tender is declared as a holiday by the Government, the last date of submission of E - Tender will be extended to the next working day.

- 15. **Modifications/ Substitution:** No modification or substitution of the submitted Bid shall be allowed after last date of submission of bids.
- 16. Bidders who wish to participate in online E Tender will have to procure or should have legally valid **Digital Signature Certificate (appropriate class) from "(n)code Solutions A division of GNFC Ltd., 15th floor, Tower One, Road 5C, Zone 5, GIFT city, Gandhinagar 382355 (Gujarat)"** using which they can submit their electronic bids
- 17. In case bidders need any clarifications or if training is required for participating in etender, they can contact (n) Procure Support team: "(n) code Solutions- (n)Procure Cell, 403, GNFC Info tower, S.G. Road, Bodakdev, Ahmedabad 380054 (Gujarat)." Contact Details: Tel: +91-79-40007300 / E-mail: nprocure@ncode.in / Toll Free Number: 1-800-419-4632
- 18. AMC MET reserves the rights to accept / Reject /Scrap/Cancel the E Tender partially or fullywithout assigning any reasons at any stage of processing. No Bidder shall have any cause of action or claims against the AMC MET for rejection of his/all the E Tender (s).
- 19. Canvassing whether directly or indirectly, in connection with E Tender is strictly prohibited and the E Tender submitted by the Bidders who resort to any type of canvassing will be rejected.

20. DISQUALIFICATION:

- ❖ Even if a Bidder meets the eligibility criteria and if the Bidder has been Blacklisted / Debarred / Deregistered / Banned / stopped from the services/put on holidays by any state / central government department, organization, undertaking in India at its own discretion and at any stage during the selection process or execution of the LOA (Rate Contract), has right to disqualify the Bidder/Terminate the contract even after bids have been opened and/or work order /LOI / LOA (Rate Contract) awarded.
- ❖ Non-Disclosure/ false disclosure of blacklisting / debarment / deregistration / stop from the service / put on holidays will invite forfeiture / recovery of EMD or Security Deposit or Risk Purchase or disqualification for appropriate period or any other penal action at the discretion of Municipal Commissioner without any further reference.
- ❖ It is clarified that the relevant date for considering blacklisting /debarment etc. in terms of above provisions will be as on last date of submission of bid.
- ❖ Institute will forfeit EMD and / or Security Deposit (SD) or will have right to go for Risk Purchase in case of Non-disclosure/ False disclosure of material particulars attracting disqualifications in above terms.
- 21. E Tender will be valid for 180 Days from the date of opening of technical bid. Prior to the expiry of the original Bid Validity Period, AMC MET may, at its discretion, request Biddersto extend the Bid Validity Period for a specified additional period.
- 22. <u>Completion Period</u>: The entire renovation work should be completed by the Contractor within 4 Months from the date of award of the LOA/work order or date of commencement as mentioned in letter of commencement whichever is later. Stipulated date of completion of work of various items should be strictly adhered to. CMC is for 36 months.
- 23. The Rates mentioned in the Work order will be valid till Complete Execution of contract. However, the Municipal Commissioner reserves the right to terminate/cancel the contract in part or whole at any time at any stage and without assigning any reason. Bidder will not be entitled for any compensation whatsoever, in respect of such cancellation.

24. The E - Tender or items of e-tender shall be rejected if:

- ❖ Bidder submits conditional E Tender.
- ❖ E Tender submitted without two bid sealed cover system.
- ❖ E Tender submitted without EMD and / or E Tender Processing Fees.
- ❖ EMD / E Tender Processing Fee is not as per the requested amount and/or format the E Tender document.
- * Required Exemption certificate for E-Tender Processing Fees and/or EMD not submitted in Hardcopy (Physical) Submission of the Bid Part-A.

- ❖ E Tender which is incomplete or not properly sealed or with overwriting without signature & seal.
- ❖ Bidder is not eligible.
- Price is mentioned in technical bid.
- ❖ Failure to abide by the various terms & condition of the E Tender as well as work Order.
- Termination of agency agreement between the Bidder and his principal. (where Applicable)
- Supplies of services to AMC MET at a price higher than that to any other Central or StateGovernment agency, Semi Government organizations, Local bodies, etc.
- ❖ If found guilty of furnishing wrong information.
- Unsatisfactory past performance of the bidder, with the Institute.
- Non-submission of e-Tender within stipulated time.
- Non submission of required documents as shown in General & Special Conditions and Section-II: Eligibility Criteria.
- Items with changes/deviations in the specifications /standard /grade /packing/quality.
- Stamp paper is not as per statutory provisions.
- Submission of misleading / contradictory / false statement or information and fabricated/ invalid documents.
- ❖ E-Tender not filled up properly as mentioned in the e-Tender document.
- Non-submission of authority letter in prescribed format for imported items.
- ❖ Bids are not submitted both in hardcopy as well as online.
- ❖ Bidder has not agreed to give the required Performance Security and/or Security Deposit of required amount in an acceptable form as per terms of e- tender, Read with modification, if any, for due performance of the contract.
- **&** E-tender validity is shorter than required period.
- ❖ Bidder has not agreed to other essential condition(s), specially incorporated in the etender inquiry, like, Delivery Terms, Delivery Schedule, Terms of Payment, Liquidated Damages Clause, Warranty/Guarantee Clause, Dispute Resolution Mechanism, etc.
- 25. **Corrupt or Fraudulent Practices:** It is required by all concerned bidders to observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy.
 - ❖ Tender Inviting authority defines, for the purpose of this provision, the terms set forth below:

"Corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of an employee of the institute in the procurement

process or in contract execution;

Fraudulent practice" means a misrepresentation of facts to influence a procurement process or the execution of a contract to the detriment of the Tender Inviting Authority, and includes collusive practice among Bidders (prior to or after Tender submission) designed to establish Tender prices at artificial non-competitive levels and to deprive the Tender Inviting Authority of the benefits of free and open competition;

- ❖ Tender Inviting Authority will reject a proposal for award if it determines that the bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question.
- ❖ Tender Inviting Authority will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract by the Tender Inviting Authority / purchaser if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing the contract.

ELIGIBILITY CRITERIA

- 1. Average Annual financial turnover during the last 3 years, ending 31st March 2024 should be more than 70 Lakhs. Certificate from Chartered Accountant (Supported by Audited Balance Sheet) shall be submitted for this.
- 2. Bidder must be register in the R&B / State Government / Central Government / Municipal Corporations or should be approved by Ahmedabad Fire & Emergency service.
- 3. The Bidder shall have experience of having successfully completed fire fighting works in hospital during last 07 years ending last day of the month previous to the month in which tender is invited as per below:
- 4. Three similar completed works costing not less than 95 Lakhs of the tender amount,

OR

5. Two similar completed works costing not less than 1.20 Crores of the tender amount.

OR

- 6. One similar completed works costing not less than 1.85 Crores of the tender amount.
- 7. Similar Works means Fire protection system /Firefighting system/Fire suppression system Only for Single Project / Premises.
- 8. Bidder to submit work order copy with work completion certificate & necessary TDS certificate of that work-order with all proof, duly notarized.
- 9. Solvency Certificate: Valid Solvency Certificate of value not less than 47 Lakhs of the Tender Amount from the Nationalized or Scheduled Bank Only to be submit with current financial years.
- 10. Joint Venture not allowed.
- 11. GST Registration PAN Registration, PF Registration, ESIC Registration Certificate to be submitted duly notarized.
- 12. Bidder should have registered office in Gujarat.
- 13. Bidder has not been black listed by any Gov/private or any firm and should submit deceleration on the letter head.
- 14. Power of Attorney of the person signing the tender Documents.

GENERAL INFORMATION FOR THE BIDDER

- 1. Incomplete and conditional tenders shall not be considered.
- 2. Intending bidders shall submit tenders after studying all tender documents carefully and after visiting the site for satisfying themselves of actual site conditions, location and accessibility of site and nature and extent of the work involved etc. Submission of tenders implies that bidders have obtained all necessary information and other data required for executing the work. No claim for extra charges because of any misunderstanding or otherwise shall be allowed.
- 3. Site cleaning and making the site accessible for execution of the work shall be in the scope of bidders. In case of the bidder requiring removal/breakage of any feature/asset of Ahmedabad Municipal Corporation Medical Education Trust (AMC MET), the same can be one only after getting written clearance from Ahmedabad Municipal Corporation Medical Education Trust (AMC MET). The same may be restored by the bidder at his cost if demanded by Ahmedabad Municipal Corporation Medical Education Trust (AMC MET) at any point of time.
- 4. Bidders will not be allowed to give sub-contract of the works awarded to him for any reasons what so ever without written permission of the Engineer-in-charge.
- 5. After opening of Technical bid, no price revision shall be accepted from any bidders on any grounds.
- 6. Price quoted shall be firm, until overall completion of the work, under contract and there shall not be any price escalation.
- 7. Date of opening of price bid will be intimated later on to those bidders who are qualified in technical bid. Price bid of only qualifying bidders based on evaluation of technical bid shall only be opened. Price bid of bidders who are not technically qualified by Ahmedabad Municipal Corporation Medical Education Trust (AMC MET)shall not be opened.
- 8. The decision of Ahmedabad Municipal Corporation Medical Education Trust (AMC MET)in the matter shall be final and no/any claim will been entertained in this regard.
- 9. All the works shall be carried out as per Technical specifications attached with the tender and relevant Indian Standards issued by the Bureau of Indian Standards. All materials procured should be confirming to relevant Indian Standards issued by Bureau of Indian Standards, wherever not specified in the item. In case of the specifications not found in Indian Standards, they shall follow best market practice, adjudicator of which shall be the Engineer-in-charge of Ahmedabad Municipal Corporation Medical Education Trust (AMC MET).
- 10. Tenders, who do not fulfil all or any of the conditions of the tender or incomplete in any respect, are liable to rejection.
- 11. Ahmedabad Municipal Corporation Medical Education Trust (AMC MET) Ahmedabad reserves the right to reject any or all the tenders without assigning any reason thereof.

- 12. This specification is intended as a general description of quality envisaged for materials &workmanship & of the finished work. It is not intended to cover minute details. The work shall be executed in accordance with the best modern practice & to the complete satisfaction of the Ahmedabad Municipal Corporation Medical Education Trust (AMC MET). Special techniques approved by the Ahmedabad Municipal Corporation Medical Education Trust (AMC MET) shall be used if & where found necessary without any extra claim. The specification provided shall have priority if anything contrary to them is stated elsewhere in the contract documents. In case of a specification not adhering to minimum standards prescribed in the IS code for the relevant item, IS code shall prevail upon the specifications. Execution of any such item shall take place only after bringing the issue to the notice of the Engineer-in-charge/Fire Officer and taking his written permission. Ahmedabad Municipal Corporation Medical Education Trust (AMC MET) decision shall be final & binding to the contractor on any issue arising out of such discrepancies.
- 13. **AGREEMENT**: As per Ahmedabad Municipal Corporation Medical Education Trust (AMC MET) rules, successful bidder shall have to enter in to an agree mention non-judicial stamp paper of Rs.300/-with the Ahmedabad Municipal Corporation Medical Education Trust (AMC MET), Ahmedabad, in the prescribed form on receipt of work order. The cost of the stamp fee shall be borne by successful tender. The tender with specifications, schedules, drawings, the contract booklet and other necessary documents shall be signed by successful bidder. The letter of acceptance, all the bid documents, all the documents accompanying the contract& subsequent correspondence shall be deemed to be a part of the contract agreement.
- 14. Each tender shall contain the name, residence & place of business of person or persons making the tender & shall be signed by the bidder with his usual signature with seal of the company.
- 15. An attested copy of the constitution of the firm with the name of all partners shall be furnished. Whenever, whether in submission of the tender or later in other matters, the signatures are made by one person on behalf of Directors or a firm or a corporation, an attested copy of the resolution of the partners or of law shall be supplied by the bidder authorizing the signatory. Witnesses & sureties shall be persons of status & probity, their names, occupation & address shall be stated below their signatures. All signatures shall be dated.
- 16. Tenders by corporation shall be signed with the legal name of the corporation followed by the name of the state of incorporation & by the signature & designation of the president, secretary or other person authorized to bind it in the matter with rubber seal of the company.

- 17. The tenders received after time and date specified in the tender notice, will not be accepted. Once the offer submitted by the contractor before due date of submission, the contractor will not be allowed to submit revised / additional / modified / other even before due date. However, if the issue and receipt of tender is extended by the Ahmedabad Municipal Corporation Medical Education Trust (AMC MET) due to any reason, the contractor may submit the revised offer before due date of submission, if he wishes to submit.
- 18. Ahmedabad Municipal Corporation Medical Education Trust (AMC MET) reserves the right to delete or add any item of Schedule-B for which contractor shall not have any right to claim on this account.
- 19. No idle charges shall be entertained by Ahmedabad Municipal Corporation Medical Education Trust (AMC MET) Ahmedabad for any site conditions or any circumstances.
- 20. No claims for hindrance shall be entertained in any manner for any natural phenomenon such as rain or water logging.
- 21. The Contractor shall take all requisite & necessary care to observe that no damage is caused to the Existing structures, assets etc. For any damage to the existing structures or assets of Ahmedabad Municipal Corporation Medical Education Trust (AMC MET) that contractor is be held responsible by Engineer-in-charge, same shall be rectified/restored/replaced immediately at the contractor's cost to the satisfaction of Engineering Charge. If found necessary, Engineer-in-charge may employ other agency for the same and recover the cost from the contractor's account.
- 22. **The Bidders shall note:** No price escalation on any account, shall be payable.

23. Recoveries:

- In case of any damage to equipment/machinery or structure/building of Ahmedabad Municipal Corporation Medical Education Trust (AMC MET) Ahmedabad or any public property due to negligence's of contractor or any other reasons attributed to contractor the decision of Engineer in Charge/Fire Officer regarding the amount of recovery shall be final.
- If the contractor fails to execute the work as per direction of Engineer in Charge/Fire Officer within the time frame given by Ahmedabad Municipal Corporation Medical Education Trust (AMC MET) Ahmedabad time to time, action as per clause no. 32 of this chapter and action as per clause no. 4 of condition of contract shall be implemented.
- 24. All royalties, sales tax, toll tax, local tax, development charges, welfare cess and any other taxes including works contract tax etc. and also any statutory variation in future towards abovementioned taxes & any other taxes if levied in future by statutory authority applicable to this contract shall be borne by the contractor and Ahmedabad Municipal Corporation Medical Education Trust (AMC MET) shall not entertain any claim whatsoever in this respect. The rates shall be "Including of GST".
- 25. The contractor shall have to pay the amount of GST to the respective department as early as possible as per prevailing rules.
- 26. The EMD will be returned promptly to the unsuccessful bidder after completion of

tender process. (i.e. Work awarded to the successful bidder)

- 27. R. A. Bill: R. A. bill payment shall be made only at the end of the month. On submission of bill by the contractor in Ahmedabad Municipal Corporation Medical Education Trust (AMC MET) prescribed format. Completion of each activity will be checked by Engineer-in-charge/Fire Officer and after getting approval of each activity contractor will proceed ahead to next stage.
- 28. The work shall be completed within the period stipulated in the contract.
- 29. **Security Deposit:** The successful bidder shall have to pay security deposit as guarantee money for performance of the contract and observance of contract conditions. The detail of break-up of SD is as under.

Security Deposit: Appointed bidder shall have to pay security deposit of 3 % Of Estimated Cost of the work put to tender within 15 Days from the date of issue of letter of intent by way of Bank Guarantee/ FDR shall be of nationalized / scheduled bank only as per Government GR. The security deposit validity shall be up to six months from the completion period specified in the contract and can be release within 30 days of final certification and only after approval of Engineer-in-charge/Fire Officer, Ahmedabad Municipal Corporation Medical Education Trust (AMC MET). Engineer In-charge reserves the right to withhold the same till the period he considers deemed fit.

Retention Money: For further security for the due fulfillment of the contract by the contractor, 2.5% of the value of the work done shall be deducted by the employer from each running bill towards retention money. On the PMC issuing a certificate of the virtual completion of the work the retention money will be released after 12 Months. (Defect Liability Period).

30. **Compensation for the delay:** The time limit allowed for carrying out the work as entered in the tender shall strictly observed by the contractor and shall be reckoned from the date on which the order to commerce the work is given to the contractor. The work throughout the stipulated period of contract proceeds with due diligence (time being deemed to be essence of contract) and for delay. If the contractor fails to complete the work under the contract by the stipulated date, he shall pay compensation (liquidated damages) of rupees 1% of the contract value per week from the date of delaying the said work up to the date of completion and handing over to the Ahmedabad Municipal Corporation Medical Education Trust (AMC MET). The aggregate maximum of compensation shall not exceed 1% of contract value per week and shall be subject to the maximum amount of 20% of the tendered value. Delays requiring payment of 20% liquidate damages of the tendered amount for performance shall be sufficient causes for termination of contract and for forfeiture of security deposit. The penalty will be invariably deducted from the bills of the contractor and no refund will be given unless the competent authority approves the reasons for delay attributable to Ahmedabad Municipal Corporation Medical Education Trust (AMC MET) with the prior approval.

- 31. In case of the item executed as per the actual requirement of the site is less than that of the tendered quantity that results in any saving, Engineer-in-Charge shall have the right to utilize the said saving to his discretion in terms of getting any other works that he finds deemed fit for the cause of the project. Contractor shall have no right to dispute this right of Engineer-in-Charge and/or claim any additional compensation for the same.
- 32. Work carried under this contract shall be completed in all respects within 03 calendar month including monsoon period from the date of issue of letter of order to commence the work. If any inevitable situation arises due to which work can be delayed such can be prior approval by Ahmedabad Municipal Corporation Medical Education Trust (AMC MET) in written that can be only considered as extension of time limit to complete the work. However, interim mile stones of the work will have to be completed asper the priority, sequence, schedule given by Ahmedabad Municipal Corporation Medical Education Trust (AMC MET)time to time.

33. Payment terms:-

- No payment shall be made in advance
- Schedule B (Installation & Repairs) amount shall be paid after Testing, Commissioning, and Getting Fire N.O.C from Fire department of Municipal Corporation Or government of Gujarat.
- Annual Maintenance Contract (AMC): Payment shall be made on monthly basis All payments shall be made as per prevailing rules/regulations of AMC MET

CONDITIONS OF CONTRACT

1. **DEFINITIONS**:

- The "Contract" means documents forming the tender, all the documents therein
 and acceptance thereof, together with the letter of intent, work order, schedule
 of terms and conditions, specifications, drawings, communications, instructions
 and any other directives issued by the competent authority to the appointed
 contractor.
- The "Tender Document" means the form of tender, the applicable schedules and/or additional conditions and the specifications and/or drawings as issued to the contractors for the purpose of bidding.
- The expression "works" or "work" when used in the conditions of contract shall, unless there be something in the subject or context repugnant to such construction means, the works or the work contracted to be executed under or in virtue of the contract whether original or altered.
- The "Contractor" means the individual or firm or company, whether incorporated or not, undertaking the works and shall include his or its legal personal representative, successors and permitted assignees.
- "Ahmedabad Municipal Corporation Medical Education Trust (AMC MET)" means the National institute of design, Ahmedabad. and the "Accepting Officer "means the officer who is authorized to sign and signs the contract on behalf of the "Ahmedabad Municipal Corporation Medical Education Trust (AMC MET)"
- "V.C." means Vice Chancellor who administers and in the case of the term contracts directs the contract.
- The "Engineer-in-charge/Fire Officer" means all officers of the Ahmedabad Municipal Corporation Medical Education Trust (AMC MET) appointed by the VC to supervise the works or part of the works.
- The "Consultant" means designing, supervision agency appointed by Ahmedabad Municipal Corporation Medical Education Trust (AMC MET).
- "B.S." means the "British Standard" as issued by the British Standards institution.
 "A.S." means the "American Standards" as issued by the American Standard Institutions and "I.S." means the "Indian Standards" as issued by the Indian Standards Institutions. Wherever the above mentioned abbreviations are preferred to, in the specifications and / or work orders, they mean the addition with all amendments current at the date of issue of tender documents of work orders. In the case of measurement and terms of contracts "Specifications" means those contained in Ahmedabad Municipal Corporation Medical Education Trust (AMC MET) schedule together with any amendments etc. embodied in the tender documents, "Technical Specification" refer to those accompanying the tender documents and/or any work orders referred therein.
- The "Contract Sum" means the sum accepted or the sum calculated in accordance with the prices accepted in the tender and/or the contract rate as payable to the contractor for the full and entire executing and completion of works.
- "The date of completion" is the date or dates of completion of the work or any part of the works set out or ascertained in accordance with the individual work orders and the tender documents or any subsequent agreed amendments thereto.

- **2. Notice for unsatisfactory progress:** If the progress or a particular portion of the work is unsatisfactory the Engineer-in-charge/Fire Officer whose decision shall be final, shall notwithstanding that the general progress of work is satisfactory; be entitled to take action under Clause 3 after giving the contractor 10 days' notice in writing and the contractor will have no claim for compensation for any loss sustained by him owing to such actions.
- 3. Action in the case of Default by Contractor: if the contractor shall negate or fail to proceed with the work with due diligence or if he violates any of the provision of the contract, the engineer in- charge shall give the contractor a notice, identifying deficiencies in performance and demanding corrective action. Such notice shall clearly states that it is given under the provision of this clause. After service of such notice, the contractor shall not remove any plant, equipment and material from site. University shall have a lien on all such plant, equipment and material from the date of such notice till the said deficiencies have been corrected as mention in the said notice.

If the contractor fails to take satisfactory corrective actions within 10 days after receipt of such notice, the engineer in-charge on behalf of institute shall terminates the contract in whole. In case, the entire contract is terminated, the amount of SD and bank guarantee together with the value of the work done but not paid for shall stand forfeited to the university. The plants, equipment and materials, held under this clause shall than be at the disposal of the university to recover the amount equivalent to the liquidated damages and registration of the contractor shall be kept in abeyance for three years from the date as fixed in all such cases.

The engineer in-charge if necessary shall direct that a part or the whole of such plants, equipment and material be removed from the site within a stipulated period. If the contractor fails to do so, the engineer in-charge shall cause them or any part of them to be sold holding the net precede of such sale to the credit of the contractor. After settlement of accounts, the lien by the AMC MET of the Contractor's remaining plant, equipment and balances of material shall be released.

Termination of the contract in whole shall be an adequate authority for the engineer-in-charge to demand discharge of the obligations from the guarantors of the security for the performance.

- **4. Extension of Time Limit:** If the contractor shall desire an extension of the time limit for completion of the work on the ground of his having been unavoidably hinder in its execution or on any other ground, he shall apply in writing to the Engineer-in-charge and the Engineer-in-charge may, if in his opinion there are reasonable grounds for granting extension, recommend such extension as he may think necessary or proper. The decision of the competent authority in this regard shall be final and binding to the contractor. Any delay attributed to Ahmedabad Municipal Corporation Medical Education Trust (AMC MET) shall be compensated only by way of extending the limit.
- **5. Completion Certificate:** On completion of the work the Contractor shall be furnished with Completion Certificate by the Engineer-in-charge & PMC of such

completion but no such certificate shall be given nor shall be the work considered to be complete until works are taken over and/or duly tested and put to operative as the case may be, nor until the work shall have been measured by the Engineer-In-Charge or where the measurement have been taken by his subordinated until they have received the approval of the Engineer-in-charge the said measurement being binding and conclusive against the contractor.

- **6.** Bills shall be submitted by the contractor end of the work/ month on or before the date fixed by the Engineer-in-charge in two original copies.
- 7. Works to be executed in accordance with specifications, orders etc. The contractor shall execute in whole and every part of work in the most substantial and workmanlike manner and both as regarding materials and in every other respect in strict accordance with the specification. The Contractor also shall confirm exactly, fully and faithfully to the 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 in the site of the work, during office hours and the contractor shall, also if he so requires, be entitled at his own expenses to make or cause to be made copies of the specification, and of all such designs.
- **8. No Claim for Compensation for Delay in staring work:** No compensation shall be allowed for any delay caused into starting of work on account of acquisition of land and in the case of clearance for works or any delay in according sanction to estimates.
- **9. Entering upon or commencing any portion of work:** The contractor shall not enter upon or commence any portion of work except with the written authority or instructions of the Engineer-in-charge or his subordinate in charge of the work, failing such the contractor shall have no claim to ask for measurement or payment for work.
- <u>10.</u>Acceptance of conditions on tendering for work: Submission to tender or acceptance of work order shall imply acceptance of these conditions of tender by contractor.

11. Obligation and duties of Service Provider:

• The bidder shall have the following registrations and details of the same be provided in the Technical Bid: Agency should furnish the copies of the following documents. (1)Registration Certificate under:

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i. Contract labour (R&A) Act 1970
ii. ESI
iii. EPF
iv. Income Tax
v. G.S.T.
vi. Profession Tax (EC & RC)
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- Deploy the personnel of required numbers at the locations as specified by the Authority as and when required at the cost of the Service Provider. Authority shall not provide any logistic/transportation cost.
- The Service Provider shall protect the premises and assets of Authority at the location where they work, The Service Provider will be responsible for unlawful activities carried out by their employee and will attract penal action.
- The Service Provider shall not claim any amount more than the amount fixed by way of contract by the Authority.

- The Service Provider shall be responsible to adhere with the conditions of the Minimum Wages Act for making the payment of salary/ wages to the staff deployed.
- The Service Provider shall ensure that during situations of natural calamities, riots, disturbances or any other Force Majeure events, all personnel deployed by the Service Provider shall perform the allocated duties in full strength and continue to protect the property / staff of Authority.
- The Service Provider shall have to ensure satisfactory standards of its competency, conduct, cleanliness, uniforms and integrity of the personnel deployed.
- The Service Provider shall have to supervise and monitor the acts and duties of the personnel deployed on regular basis and ensure effective discharge of their duties.
- In case Authority or supervisor of Authority observed neglect of duty, undesirable act, act against the interest of Authority, misbehavior and consumption of alcohol while on duty, the Authority shall direct the Service Provider for replacement of such personnel on immediate effect (within one hour of intimation from Authority).
 - The Service Provider is required to act proactively and replace all such persons with competent persons.
- Such acts of personnel of the Service Provider shall attract penalties/damages as specified in the Damage/Penalty clause.
- Agency shall not transfer or assign contract to any other party in whole or in part. The subcontracting is not allowed. Such instance would lead to Termination and forfeiture of Performance Security.
- The Service Provider shall indemnify and hold harmless Authority & its employees, for any losses that it might suffer while performing its duties/scope/ services. The Authority shall not defend the Service Provider or any its employee in courts by any person who has commenced court proceeding while performing its duties. The expense on all such account shall be borne by the Service Provider only.
- The personnel deployed by the Service Provider shall be deemed to be employee of the Service Provider and shall not be considered or deemed to be the employees and of the Authority.
- The Service Provider shall be required to inform the Authority three days prior to execution of contract the names and other required details of the persons to be deployed. Such person shall be issued a laminated I.D. card affixing latest photograph giving details of Name, Age, Name of the Agency, date of appointment and any other details, duly signed by responsible officer of the Agency. The identity card should be worn by each staff on their uniform which shall in turn give details regarding their full name, age identity marks, signatures of the bearer and of the issuing authority and seal.
- The Service Provider and/or its staff shall ensure that the Personnel deployed wears only approved uniform by the Authority.
- The Service Provider shall be required to provide uniform to Personnel deployed. Authority shall not be liable to supply uniform dress or any other materials.
- In case the person so deployed is found to be "not alert" or "not in proper uniform dress" or commits any breach of any of the terms and conditions of the contract, the Authority shall have the right to impose any punishment or fine/damages as specified in the Damage/Penalty clause.
- The agency shall not deploy or shall discontinue deploying the person(s), if so desired by the authorized person of Authority at any time without assigning any reason whatsoever.

- The Service Provider shall be solely liable for all payment / dues of the personnel employed and deployed by it.
- The Service Provider shall fully indemnify Authority against all the payments, claims, and liabilities whatsoever incidental or directly arising out of or for compliance with or Enforcement of the provisions of any of the labour or other laws to the extent they are Applicable.
- The Service Provider shall be absolutely responsible and liable for any and all personal injuries or death and / or property damage or losses suffered due to negligence of the Service Provider's personnel in their performance of the services required under the contract or any other reasons.
- Authority shall not be liable to offer legal services for the offence, if any, committed any staff of the Service Provider.
- The Service Provider shall only be liable for any illegal action or omission made by the personnel employed by it.
- The Service Provider shall be liable take appropriate insurance cover of all personnel employed and third party insurance and provide documentary evidence to Authority from time to time. The insurance cover shall be valid till contract period. Proceed of the insurance shall be applied to cover the claim from the third party, Authority staff and service provider's employee.
- The Service Provider is required to comply with all legal and statutory requirements such as valid license, labor laws including wages, maintenance of registration under the various acts during the Contract Period. Authority may ask for providing evidence of all such legal requirements. Non compliance of such legal requirements shall be considered as breach and default by the Service Provider and Authority may withheld payments and impose penalties or damages for such breach.
- The Service Provider shall ensure that all relevant licenses pertaining to provision of applicable act have been obtained from relevant Government Authorities for respective sites / premises.
- The Service Provider shall be required to abide by instructions issued by the Authority time to time. Ensure alertness and attentiveness of the personnel deployed through surprise checks (during day and night).
- Submit a monthly report of compliance clearly stating complaint received, action taken and happenings in the sites / premises of the Authority where it has been directed to provide services.
- A local representative of the Service Provider shall be in-charge of the project and shall be responsible for the efficient rendering of the service under the contract. While working at the sites/ premises, they shall work under directives and guidance of the Authority and will be answerable to the Authority for acts. This will, however, not diminish in any way, the agency's responsibility under contract to Authority.
- The Service Provider shall ensure that the personnel deployed by it are disciplined and do not Participate in any prejudicial activity to the interest of the AMC MET Medical Education Trust / Govt. of India / any state / or any union territory.
- AMC MET/ Hospital/college will be entitled to issue oral orders to the Bidder for any work required by reason of such emergency. AMC MET/ Hospitals/college shall ensure that such oral orders shall be followed up with written communication.
- In the event of any personnel being on leave / absent, the agency shall ensure suitable alternative arrangement to make up for such absence.

- Staff requirement mentioned in tender is tentative. It may very time to time.
- Provide additional staff as and when required by the Authority as specified in the scope. If any point of time AMCMET authority inform service provider to start work at other place not defined in tender than service provider may provide staff at rate quoted in tender and as per same tender condition
- No complaint will be entertained after opening of Financial Bid from any Tenderer or others.
- No complaint will be entertained from third party who has not participated in tender after opening of Technical Bid.
- PF, ESIC & Other Statutory norms to be followed.
- In case of death/injury of agency's employee, contractor will have to bear expenses.
- Whenever minimum wages will be increased above rate given in tender will be revised as per minimum wage rate.
- Agency should provide the bank details of all staff before deploying to the locations and produce the monthly statement of payment along with last month's ECR proof of EPF Payment and ESIC payment of these staff with issuing bills for the next month.
- The contractor should ensure to maintain adequate manpower as per order given. If manpower is less than required number of manpower as per order given then penalty @Rs.500/- per worker per day/shift will be deducted from the bill.

ANNEXURE-I

• INFORMATION REGARDING THE APPLICANT / CONTRACTOR:
A. Name of the applicant / contractor:
B. Address of the applicant / contractor:
C. Phone nos.
D. Mobile no.
E. Fax no.
F. E-mail
G. P.F. Registration Certificates:
H. PAN no:
I. GST no:

ANNEXURE-II CONTRACT AGREEMENT

This agreement is made on the day ofmonth,year between the registrars Ahmedabad Municipal Corporation Medical Education Trust (AMC MET) Ahmedabad (Here in after called "the employer")
And,
M/s,
(Here after called "the contract or "on the other part")
PAN Card No:
Address:
Hence forth to be referred to as "
The said agreement is put in place for the specific and limited purpose of construction/renovation of
It is a non-transferable agreement. This contract is part of the agreement for the construction/renovation of
Whereas the Employer is desirous that contractor execute(Here in after called "the Works".) And the employer has accepted the bid by the contractorfor the execution and completion of such work at a cost of Rs. (in Figure), (In Words)

NOW THIS AGREEMENT WITHLESS AS FOLLOWS

- 1. In this agreement words and expression shall have the same meaning as are respectively assigned to them in the condition of contract hereinafter referred to, and they shall be deemed to form and to be read and confused as part of this agreement.
- 2. In consideration of the payments to be made by the employers to the contractor as hereinafter mentioned the contractor hereby covenants with the employer to execute and complete the works and remedy any defects there in conformity in all aspects with the provision of the contract.
- 3. The employers hereby covenants to pay the contractor in consideration of the execution and completion of the works and the remedy the defects wherein contract price or such other sum as may become payable under the provision of the contract at the times and in the manners prescribed by the contract.

Read, understood, agreed to and signed by

1/1/0

Authorized representative of Ahmedabad Municipal Corporation Medical Education Trust (Narendra Modi Medical College)

IVI/S
Authorized representative of
M/s
DATE:
DI ACE.

ANNEXURE-III

ON STAMP PAPER OF Rs.300/-

FORM OF BANKER'S UNDERTAKING

[For Performance Guarantee (PG) for Contract period as per Terms and Conditions
of Tender]
We, Bank of hereby agree unequivocally and
unconditionally to pay immediately on demand in writing from Ahmedabad Municipal
Corporation Medical Education Trust (AMC MET) or any Officer authorized by it in
thisbehalf
any amount up to and not exceeding Rs(in words) Rupeesto the
said Ahmedabad Municipal Corporation Medical Education Trust (Narendra Modi
Medical College)on behalf of M/s
who have entered into a contract for the supply/works specified below:
L.O.A. Nodated
This agreement shall be valid and binding on this Bank upto and inclusive of
and shall not be terminable by notice or by change in the constitution of the Bank or the firm of Contractors / Suppliers or by any other reasons whatsoever and our liability hereunder shall not be impaired or discharged by any extension of time or variations or alterations made, given conceded or agreed, with or without our knowledge or consent, by
or between parties to the said within written contract.
Notwithstanding anything contrary contained in any law for the time being in force or
banking practice, this Guarantee shall not be assignable, transferable by the beneficiary
(i.e. Ahmedabad Municipal Corporation Medical Education Trust (AMC MET)) Notice or
invocation by any person such as assignee, transferee or agent of beneficiary shall not
be entertained by the Bank. Any invocation of the Guarantee can be made only by the
beneficiary directly.
"NOTWITHSTANDING" anything contained herein before, our liability under this
guarantee is restricted to Rs(Rupeesonly). Our guarantee shall remain in force until(Date of validity of the
Guarantee).
Unless demands or claims under this Bank Guarantee are made to us in writing on or
before (Date of validity of the Guarantee), all rights of Beneficiary under this Bank
Guarantee shall be forfeited and we shall be released and discharged from all liabilities
there under:
Place:
Date:
Address of the Bank with Branch Code, Telephone
and Fax Nos.
Signature of the
Bank's Authorized Signatory with Official Round Seal.
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ANNEXURE-IV DECLARATION FORM

- I / We, hereby, declare the information furnished in our bid is true and accurate to the best of my knowledge.
- (b) That, in case of being pre-qualified, we acknowledge that the Employer may invite us to participate in due time for the opening of Price bid of the Tender on the basis of provisions made in the Tender Documents to follow.
- (c) When the call for Tenders is issued, if the legal, technical or financial conditions, or the contractual capacity of the firm changes, we commit ourselves to inform you and acknowledge your sole right to review the pre-qualification made.
- (d) We enclose all the required pre-qualification data format and all other documents and supplementary information required for the pre-qualification evaluation.
- (e) We also state that no changes have been made by us in the downloaded tender formats and understand that in the event of any discrepancies observed, the tender hoisted on website of (n) procure is full and final for all legal/contractual obligations.
- (f) We also declare that, our firm has not been banned / de-listed by any government or PSUs.

Date:	
Place:	
Name of Applicant:	
Represented by (Name & capacity)	

VOLUME-II

TECHNICAL SPECIFICATION FOR SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF FIRE FIGHTING SYSTEM.

1. SCOPE OF WORK:-

The scope of work for Renovation of existing Fire Fighting System including Design, Detail Engineering with necessary design calculations, Fit – up details, Supporting details, Manufacture / Fabrication, supply, Storing. Installation / erection, testing, commissioning the Fire hydrant system, Hose Reel system, Sprinkler system, fire extinguishers, emergency exit Signage, civil works i.e., excavation, back filling for the buried pipes wherever applicable & with all necessary accessories as per Specifications. Further it is vendor's responsibility to take necessary approvals from local fire authority.

Fire Hydrant system has been provided for the entire premises (L.G. Hospital & College, Girls Hostel and UG Boys Hostel. Hydrant points are provided at the strategic location around the periphery of the building. These shall be accompanied with a hose box and accessories as per norms.

In addition to this Hydrant Points with Hose Reel connection provided for internal area of each Building. The entire network of the hydrant system should be kept pressurized.

Fire Brigade inlet connections are connected to the fire water tank and to hydrant riser through the ring main. In case of emergency if any additional water requirement is felt, fire brigade in let connection to the fire water tank shall feed it. Due to any reason if the pumps do not operate and water is required at upper levels it shall be feed through fire brigade inlet connection connected to the riser by fire tenders.

Sprinkler system has provided in Basement Parking area and 13th& 14th Floor of UG Hostel Building and Basement Parking area of L.G. Hospital and Girls Hostel building. During visit vendor shall check other facilities like pump house, pumping set, Jockey pump and others.

2. PROJECT EXECUTION ACTIVITY AFTER WORK AWARDED:-

- ➤ General arrangement of systems, sub systems, equipment, components and assemblies.
- > Supporting arrangements to include hangers, and steel structure support.
- Foundation details sectional elevations of Fire Pump.
- > Typical details
- Equipment's details containing key engineering performance parameters and equipment tagging.
- System schematic drawings.
- ➤ Electrical single line diagram, control wiring, GA drawings and termination diagrams for all electrical systems and panels.

AHMEDABAD MUNICIPAL CORPORATION MEDICAL EDUCATION TRUST

- Symbols and Legends sprinklers and other ceiling terminal devices.
- ➤ Product data sheets incorporating the physical, mechanical, electrical, hydraulic, chemical properties substantiated by OEM's catalogue, equipment computerized selection, performance curves, characteristics curves and relevant standards.
- ➤ Prepare detailed design & drawings for approval from client / consultant as well as statutory agencies / local fire authority to getting PRE NOC.
- ➤ Product /Material certifications from relevant authorities, manufacturers, testing labs etc as and where required as per the tender specifications.
- ➤ Revised Bill of Quantities based on the shop drawings and statement of variation to be preapproved before execution or commencement of any work beyond the tender quantities and rates.
- ➤ Lifting, access and maintenance strategy for all equipments.
- Sample board at site to include all the materials for which data sheets can't be approved or can't be submitted. Physical sample of all materials required for aesthetic and visual approvals.
- ➤ The Contractor shall submit detailed schedules showing the program and the sequence in which the contractor proposes to carry out the work with dates and estimated completion times for various parts of the work. Such schedules shall be approved by the client before starting the work and shall be binding on the Contractor. If so required by the client, the Contractor shall furnish weekly progress reports.
- ➤ Installation procedures with site QAP indicating material handling, storage, installation methodology, inspection stages, pre commissioning checks, commissioning, testing and validation procedure for each system, subsystem and equipment.
- ➤ Routine, type and specific test reports for the equipments and materials wherever required.
- ➤ AS BUILT DRAWINGS in all the format of shop drawings including coordinated drawings.
- > Internal Installation check and completion certificates.
- Pre commissioning procedures
- > Pre Commissioning results.
- > Certification of punch list attendance.
- ➤ Commissioning and testing Procedures
- Commissioning and testing results.
- Operation and maintenance manuals.

3.0 REFERENCE CODES AND STANDARDS:-

The work shall be carried out in accordance with the regulations of local bodies and the following codes which may govern the requirement of the system

Standards for life safety: - NBC – 2016
IS-Standard
GDCR
Gujarat Fire Act
Local Fire Authority CFO.

4.0 TECHNICAL SPECIFICATION: -

4.1 PIPES AND FITTINGS:-

- > Pipes and fittings shall be fixed truly vertical, horizontal or in slopes as required.
- ➤ Pipes shall be fixed in a manner as to provide easy accessibility for repair and maintenance and shall not cause obstruction in shafts, passages, etc.
- ➤ Pipes shall be secured properly to walls and ceilings by suitable clamps at intervals specified. Only approved type of anchor fasteners shall be used for RCC ceilings and walls.
- ➤ Proper care shall be taken that drilling not to be done in the RCC ceiling of PT slab wherever marking done by civil agency.
- ➤ All pipes within the building in exposed locations and shafts including connections buried under floor shall be GI C class tubes conforming to IS-1239 up to 150 mm dia / IS-3589 for 200 mm dia and above with welded joints.
- ➤ Surface of over ground pipes shall be thoroughly cleaned of mill scale, rust etc. by wire brushing
- ➤ Over ground GI C Class shall be painted with one coat of Yellow zinc primmer for GI Pipe & two coat of Synthetic Enamel PO red paint of approved shade.

4.2 JOINTING:-

All joints between Pipe to pipe and Pipe to Fittings shall be welded which would ensure better performance and eliminate leakage possibilities from joints. Welded joints shall be than hydraulically tested at 1.5 times the working pressure of Fire Fighting System for maximum 4 hours.

4.3 PIPE PROTECTION:-

All Hydrant and Sprinkler exposed pipes shall be painted with one coat of red oxide primer and two coats of synthetic enamel paint of approved shade after completion of hydraulic testing of piping network and approval of EIC. Paint used for this work shall be lead free quality. The cost of painting shall be inclusive in the respective items. All M.S. pipes shall first be cleaned thoroughly before application of primer coat. After application of primer coat, paint shall be applied. Wherever required, all pipe headers shall be worded indicating the direction of the pipe and its purpose etc.

Painting shall be expertly applied; the paint shall not over run on surfaces not requiring painting such as walls, surfaces etc.

Pipes buried in soil shall be treated by applying one coat of pypkote primer and covered with 4 mm pypkote anticorrosive tape after successful completion of hydraulic testing of piping network.

Surface Preparation - the pipe surface shall be cleaned by a wire brush.

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Application of Primer - primer is to be applied on pipes immediately after cleaning. This is to prevent any further accumulation of rust on the pipe. This is a cold applied primer and is applied by brush. Application of 4 mm Tape - after the primer is applied on the pipe, it is allowed to dry for about 30 min. till it becomes touch dry. Before adhering the tape to the pipe, gently heat the primer coated pipe by a run of LPG torch. Remove the bottom polyethylene from the tape & then heat bottom surface of the tape by LPG torch or any heat source & start wrapping the tape to the pipe by heating the primer coated pipe & by removing the bottom polyethylene from the tape before wrapping better adhesion between the tape & pipe is obtained. Overlaps are maintained with a minimum of 12.5 mm. Tape coating of weld joints - The tape is applied over the weld joints after the necessary welding & testing methods of the joints is completed. The procedure for application of tape shall be the same as bare pipe procedure. Overlaps on each side of the weld joints shall be 50 mm.

4.4 BUTTERFLY VALVES OF PN: 16

All the isolation valve 50mm and above on the equipment and water lines, where specified or shown on drawings shall be wafer type butterfly valves. They shall be designed to fit without gaskets, the water tight seal being obtained by Nitrile seat projection at the faces compressed between the flanges. The valves shall be supplied inclusive of M.S. pipe flanges and high tensile steel bolts of dimensions recommended by suppliers of valves. The valves shall comply with following specification. It is provided as per following specifications:-

Butterfly valve, CI Body, CF8 Disc, PN - 16 with ISI Mark (IS 13095), Extended stem with ISO Pad., Technical Spec. :Body-C.I Is 210 Gr Fg 200, Disc- CF8, Seat: EPDM, Shaft-AISI 410., Manufacturing Std -BS 5155 with ISI Marked, INSP & TEST STD -BS 6755, Operation :Flow control Lever, End Connection : wafer type to suit ANSI B 16.5, Test Pressure: Body-24kg/cmsq, Seat -16 kg/cmsq.

4.5 NON - RETURN VALVES OF PN 16:-

Wafer Type Spring Loaded Non Return valve shall normally be used in all water services. Non return valves shall be provided as required or as shown in the drawings and conform to the following specifications:

Cast Iron Dual Plate Check Valve PN.16, body - is 210 gr. fg 200, closure plate (disc): ss 304, hinge pin: aisi 316, stop pin :aisi 316, spring: stainless steel, seat: nitrile, mfg std: api 6d, insp & amp; test std: api, 6d, ends: wafer type to suite ansi 16.1 (150 #), wafer type to suite din 2532(pn 10)/din 2533 (pn 16), hyd-test press.: body: 21kg/cmsq, seat: 16 kg/cmsq,temperature rating: upto 90 deg^c nitrile.

4.6 AIR RELEASE VALVES

Provide 25mm diameter screwed inlet ball type S.S. metal air valve on all high points in the system for venting. Valve shall be of the single acting type, vulcanite balls, rubber

seating etc

4.7 Y Type strainer:-

Cast Iron Y-Type strainer Flanged End, Body-C.I IS 210 Gr FG 200, Screen: SS 304, MFG STD: 014, INSP & TEST STD: 014, Ends: Flange Drilling as per BS 10 Table E, HYD-TEST PRESS.: BODY: 15kg/cmsq. With drain Plug.

4.8 SPRINKLER ALARM VALVES:-

Each installation shall be provided with a set of installation control valves comprising:- a. An Alarm Valve.

- b. A Water Motor Alarm & Gong.
- c. Installation valves shall be installed on the sprinkler circuits.
- d. Installation valve shall comprise of a cast iron body with gunmetal trim, and double seated clapper check valves, pressure gauges, test valve and orifice assembly and drain valve with pressure gauges, turbine water gong including all accessories necessary and required and as supplied by original equipment manufacturer and required for full and satisfactory performance of the system. A cast iron isolation valve with lock and chain at the inlet of the installation valve shall be provided.

The Installation valve shall be UL / FM approved.

4.9 INSPECTION AND TEST VALVE ASSEMBLY:-

Inspection and testing of the automatic starting of the sprinkler system shall be done by providing

an assembly consisting of gunmetal valves, gunmetal sight glass, bye-pass valve as per approved drawing.

4.10 PRESSURE GAUGE:-

Pressure gauge shall be constructed of die cast aluminum and shall be stove enameled. They shall be weather proof with an IP-55 enclosure. They shall be stainless steel bourden type pressure gauges with a scale range from 0 to 15 Kg/cm2 and shall be constructed as per IS-3624. Pressure gauges shall be 100 mm dia size.

4.11 PRESSURE SWITCH:-

The pressure switches shall be employed for starting and shutting down operation of pumps

Automatically, dictated by line pressure. The Pressure Switch shall be diaphragm type. The housing shall be die cast aluminum, with SS 316 movement, pressure element and socket. The set pressure shall be adjustable.

The Switch shall be suitable for consistent and repeated operations without change in values. It shall be provided with IP: 55 water and environment protection.

4.12 HYDRANT VALVE:-

The Hydrant outlet shall comprise "Single Headed Single Outlet Stainless steel Landing Valve" conforming to IS: 5290.The Contractor shall provide S.S. Fire Hydrant valve, as specified in Schedule of Quantities and as shown in drawings.

The hydrant system in the yard shall be furnished with external hydrants consisting of landing valve (positioned approx. one meter above ground level) fitted on M.S. standpipes installed on underground hydrant headers distributed 45 M apart approximately.

4.13 FIRE HOSE PIPE;-

Fire hoses shall be Reinforced Rubber Lined (RRL) Type A as per IS: 636 & 63 mm dia and 15mts. long.

Hoses shall be bounded by G.I wire to heavy-duty instantaneous SS couplings as per IS 903.

4.14 HOSE REEL:-

Wall mounting Fix type mounting base plate confirming to IS 884. Hose reel shall consist with 25 mm dia high-pressure rubber braided hose of 36mts length with gunmetal/SS nozzles. Hose reel water shall be tapped off from the wet riser with Ball valve. The hose reel shall be installed internal plant area.

4.15 BRANCH PIPE:-

Branch pipe shall be SS, 63 mm dia with Nozzle of 20 mm dia made as per IS: 903 and suitable

Fitted with hoses.

4.16 HOSE CABINET:-

Hose cabinet shall be fabricated by M.S. sheet of 18 swg and size shall be $750 \text{mm} \times 600 \text{mm} \times 250 \text{mm}$. Hose cabinet shall have glass fronted double door fitted with 4 mm thick clear glass & powder coated finish of red outside & white inside. Cabinet shall be suitable for stand mounting and shall have built in breakable glass type feature to keep

key with locking arrangement and bear the words "Fire Hose Cabinet" in prominent position.

4.17 FIRE BRIGADE INLET CONNECTIONS (FBIC):-

Providing, fixing, testing and commissioning of CI Four way Fire Brigade Inlet as per IS: 904 having 63 mm dia inlet with 150 mm dia Butterfly valve blank cap and chain with necessary fittings, flanges, nutbolts etc. (For System filling & Tank Filling).

4.18 SPRINKLER HEADS:-

4.18.1 Pendant Type Sprinkler:-

K 5.6 Pendent type Standard response Sprinkler rating of 68 deg. C. with required accessories.

4.18.2 Up-Right Type Sprinkler:-

K 5.6 Up-Right Type Sprinkler rating of 68 deg.C with required accessories.

Sprinkler shall be UL (Underwriter's Laboratory) approved, thermo-sensitive quartzoid liquid glass bulb burst actuated type and be standard products from an established firm of repute and standing and approved by an appropriate authority for firefighting duty. All Sprinklers shall be brass castings polished / chrome OR white (polyester) unless stated otherwise and rated for 7.0 Kg/CM² WG and factory tested for 15.0 Kg/CM².

4.19 AIR VESSEL

The air vessel shall be provided to compensate slight loss of pressure in the system and to provide an air cushion for counter acting pressure, surges, whenever the pumping sets come into operation. Air vessel shall be fabricated with minimum of 10 mm thick M.S. plate with dished ends having minimum 12 mm Thk. and suitable supporting legs. It shall be provided with one 25 mm dia connection from pump delivery, one 25 mm drain with valve. The air vessel shall be tested to 1.5 times of working pressure. The size of the Air Vessel shall be 350 mm dia x 1500 mm height.

4.20 TECHNICAL SPECIFICATION OF FIRE EXTINGUISHER:-

The scope of work under this part of the specification covers supply and installation of internal appliances with ISI marked as per requirements specified in schedule and instructions of engineer-in-charge / Client.

Makes of all the appliances supplied and installed shall be as per the "List of Approved Make "or as approved by Client and shall be of identical design for the entire premises.

Mounting accessories, indicator boards etc. are part of the scope of supply of internal appliances

Fire extinguishers shall be worked out in such a way that the Occupants shall not travel more than 10m and 15m to reach a Fire extinguisher as per IS 2190:2010

Operating instruction shall be pasted on the extinguisher body

Portable fire extinguishers shall be BIS approved and valid ISI certificates to be furnished at the time of delivery to site.

Codes and Standards

The following shall be followed

- Bureau of Indian Standards
- ➤ NBC 2016
- Local Fire Authority requirement

(A). ABC Type Dry Powder Extinguisher:-

ABC Type Fire Extinguisher Cap. 6 kg Filled with Mono Ammonium Phosphate Powder 50% confirms to IS 4308, Stored Pressure Type, UGTS Pressure Gauge, Gross Weight 8.9 Kg, Empty Weight 2.9 Kg, Can Height 530 mm, Diameter 150 ± 10mm, Discharge Time 24 Sec, Controllable discharge mechanism, Jet Range 5 Meters, Average Discharge is 92%, applicable on Class A,B & C and electrically started Fire, Fire Rating 4A:144B, Can Construction: Deep drawn & CO2 Mig welded, EPDM Rubber Hose with both end Aluminum clamped, Internal Coating – Epoxy Powder coating, External Coating - Pure Polyester Powder coating (UV Resistant), Brass forged valves with safety Pin is of SS material, Made up from 2mm thick sheet, ISI Approved IS 15683:2018.

(B). CO2 Type Fire Extinguisher:-

CO2 High Pressure Portable 4.5 kg Fire Extinguisher, filled with Co2 Gas as per IS 15222 Gross Weight 16.4, empty weight 11.9 Kg, Control discharge mechanism fitted with 1 Meter Wire

Braided Hose & Flat Horn with Diffuser Nozzle for dispersed discharge of CO2, Discharge Time 12

Sec, Average Discharge is 95%, Applicable on Class B, C and electrically started Fire, Fire Rating

55B, Internal coating is not applicable & External coating is of enamel spray painting, Powder

Coated Handle, Squeeze Grip type Valve Confirm to IS 3224 ISI Marked, CO2 Cylinder construction: hot spinning by seamless pipes & bearing ISI mark, Body confirms to IS 7285 and PESO APPROVED, Extinguishers confirmed to IS 15683:2018 and ISI marked.

(C). Mechanical Foam Type Fire Extinguisher:-

Mechanical Foam 9 Ltrs. Stored Pressure Type Controllable discharge mechanism applicable on Class A& B Fire Rating 2A & 21 B.

4.21 BUTTERFLY VALVE CHAMBERS:

A masonry pit of internal dimension of 1.2 m x 1.2 m x 1.5 m depth or more as per site condition shall be built to accommodate each of the valves placed externally. The walls shall be of 230 mm thick brick work with a base of 100 mm thick PCC (1-cement:3-sand:6-coarse aggregate). The walls shall be plastered from both the sides with a coat of cement mortar and finished with a coating of cement slurry. Valve chamber shall be provided with heavy duty G.I. Plate covers and frames with angle Valve chambers shall also have RCC top slabs with reinforcement as required. The structure shall be cured for 7 days. One of the walls shall be provided with MS iron rungs of 20 mm dia, painted with one coat of primer and two coats of paint. The rungs shall be spaced at 300 mm intervals. The gap between the finished bottom of valve chamber and bottom of the flanges of butterfly valve should be minimum 150 mm.

4.22. SS FLEXIBLE DROP FOR SPRINKLER:-

SS Flexible drops 1200mm Long. Unbraided, Maximum Service pressure 175PSI, Sprinkler Flexible Drop system is a ready to use assembly to fit sprinkler heads in desired location in a suspended ceiling. It easily positions the sprinkler in center of the ceiling tile at a correct height

4.24 AUTOGLOW SIGNAGES:-

AUTO GLOW is in essence a photo luminescent material which emits a clear and visible glow when there is power failure. This material requires no battery power on any other triggering source for emission of glow. In view of this, it is totally safe and does not involve any heat, flame, electric shocks or pollution. It should not required external or internal wiring supply. It should be waterproof, Explosion – Proof, Corrosion proof, Mold Proof, Vapor Proof.

5.0. FIRE PUMPS AND ANCILLIARY EQUIPMENTS

5.1 SCOPE OF WORK:-

Work under this section shall consist of furnishing all labor, materials, equipment and appliances necessary and required to completely install electrically operated pumps and as required by drawings and specified hereinafter or given in the schedule of rates.

- a. Electrically operated pumps with motors common base plates, coupling guard and accessories.
- b. Vibration eliminator pads and foundation bolts.
- c Leak-off drain shall be led to the nearest floor drain.

5.2 GENERAL REQUIREMENTS

➤ Pumps shall be installed true to levels on suitable concrete foundations. Base plate shall be firmly fixed by properly grouted foundation bolts.

- ➤ Pumps and motors shall be truly aligned by suitably instruments. Record of such alignment shall be furnished to the Project Manager.
- ➤ All pump connections shall be standard flanged type with number of bolts as per relevant standard requirement for the working pressure. Companion flanges shall be provided with the pumps.
- Manufacturer's instructions regarding installation, connections and commissioning shall be strictly followed.
- ➤ Contractor shall provide necessary test certificates, type test certificates, performance curves and NPSH curves of the pumps from the manufacturer when called for. The contractor shall provide facilities to the Project Manager & Consultant for inspection of equipment during manufacturing and also to witness various tests at the manufacturer's works without any cost to the Project Manager or Consultant.

5.3 ELECTRIC DRIVEN FIRE PUMP:-

The electric fire pump shall be suitable for automatic operation complete with necessary electric motor and automatic starting gear, suitable for operation on 415 volts, 3 phase, 50 Hz. A.C. system. Both the motor and the pump shall be assembled on a common base plate, fabricated M.S. channel. Drive The pump shall be direct driven by means of a flexible coupling. Coupling guard shall also be provided.

The fire pump shall be horizontally mounted centrifugal type. It shall have a capacity to deliver **137m3/hour@88Mtr Head** as specified, and developing adequate head so as to ensure a minimum pressure of 3.5 Kg/Sq.cm at the farthest outlet.

The pump shall be capable of giving a discharge of not less than 150 per cent of the rated discharge, at a head of not less than 65 per cent of the rated head. The shut off head shall be within 120 per cent of the rated head.

Provision of Jockey Pump shall be made. The pump shall be vertical type and of detail as in schedule of quantity. The Jockey pump shall be of **10.8m3/hour@88Mtr Head**.

5.4 Motor

The motor shall be squirrel cage A.C. induction type suitable for operation on 415 volts 3 phase 50 Hz. system. The motor shall be totally enclosed fan cooled type conforming to protection clause IP 55. The class of insulation shall be F. The synchronous speed shall be 1500/2900 RPM as specified.

The motor shall be rated for continuous duty and shall have a horse power rating necessary to drive the pump at 150 per cent of its rated discharge with at least 65 per cent rated head. The motor shall conform to I.S.325-1978.

Technical Parameters and MOC for the Pump Sets are:

5.5. ELECTRICAL DRIVEN PUMP SET:

- a. Type of Pump: Horizontal Centrifugal end suction
- b. Flow Rate: 2280 LPM (137M3/Hour)
- c. Head: 88 M.
- d. Efficiency: Minimum 70%
- e. Motor Rating: 55KW.
- f. Speed of Motor: 2900 RPM
- g. Motor Type: AC 3 Phase Induction.
- h. Enclosure: TEFC IP 55.
- i. Insulation: Class 'F'

MOC OF PUMP:

- a. Casing: C.I.
- b. Impeller: Bronze.
- c. Wear Ring: Bronze.
- d. Shaft: SS/CS
- e. Shaft Sleeve: SS/CS

5.6. JOCKEY PUMP SET:

- a. Type of Pump: Horizontal Centrifugal.
- b. Flow Rate: 180 LPM (10.8M3/Hour)
- c. Head: 88 Mtrs
- d. Efficiency: Minimum 48%
- e. Motor Rating: 11KW.
- f. Speed of Motor: 2900 RPM
- g. Motor Type: AC 3 Phase Induction.
- h. Enclosure: TEFC IP 55.

MOC OF PUMP:

- i. Casing: C.I.
- i. Impeller: Bronze.
- k. Wear Ring: Bronze.
- l. St. Box Sealing: Gland Packing.
- m. Shaft: SS-410/CS
- n. Shaft Sleeve: SS-410/CS

5.7 DIESEL ENGINE DRIVEN PUMP SET:-

- a. Type of Pump: Horizontal Centrifugal.
- b. Flow Rate: 2280 LPM (137M3/Hour)
- c. Head: 88 M.
- d. Efficiency: Minimum 75%
- e. Speed of Engine: 2300 RPM

MOC OF PUMP:

- a. Casing: C.I.
- b. Impeller: Bronze.
- c. Wear Ring: Bronze.
- d. Shaft: SS/CS

e. Shaft Sleeve: SS/CS

GENERAL REQUIREMENTS:

Pumps shall be installed true to level on suitable concrete foundations; Base plate shall be firmly fixed by foundation bolts grouted in the concrete foundations. Foundations shall be casted on the reinforcement steel of the floor.

Pumps and motors shall be truly aligned by suitable instruments.

All pump connections shall be standard installation; connections and commissioning shall be followed with respect to all pumps and accessories.

Manufacturer's instructions regarding installation, connections and commissioning shall be followed with respect to all pumps and accessories.

6.0. FIRE PUMP CONTROL PANEL:-

The main switch board cubicle panel shall be of floor mounted type, totally enclosed, dust and vermin proof made from 18 SWG M.S. sheet of suitable size duly painted with one coat of anti-corrosive paint and two coats of synthetic

Enamel paint of approved make and shade with stove enameled finish.

The cubical shall comprise of the followings:-

- ➤ Incoming main M.C.C.B unit of required capacity.
- Outgoing M.C.C.Bs one for each motor.
- ➤ Aluminum bus bar of suitable capacity.
- Fully Automatic "DOL / Star Delta" starter suitable for the motor H.P. with Push Buttons and ON/OFF indicating light one for each motor for all pumps.
- > Single phasing preventers one for each motor.
- > 96 mm2 panel type Ampere meters one for each motor complete with CTs.
- ➤ 96mm2 mm voltmeter on incoming main with rotary selector switches to read voltage between phase to neutral and phase to phase.
- > Three neon phase indicating lamps.
- > Rotary switch for manual/auto operation.
- ➤ All color coded internal and inter-connecting wiring from incoming main to bus bar, switch board panel and power/control cables from switch board cubicle to motors, engine and batteries etc. complete in all respect.
- All switchgears and accessories shall be approved make to relevant IS codes and to the satisfaction of Client's Representative/Consultant and rating of all 115 equipment must match the KW of motors included and as per TAC rules.
- ➤ All electrical work to be carried out as per TAC specifications.

6.1 EARTHING:-

Aluminum earth bus of 25 X 3 mm or as per mention in SLD shall be provided in the Panels for the entire length of the panel. The frame work of the Panels shall be connected to this earth bar. Provisions shall be made for connection from this earth bar on both sides of the panels to the main earthling bar coming from the earth pit. Door earthing shall be provided for all the compartments.

The earth continuity conductor of each incoming and outgoing feeder shall be connected to this earth

bar. The armored shall be properly connected with earthling clamp, and the clamp shall be made for

connection from this earth pit on both sides of the Panels.

6.2 LABELS:-

Engraved metal labels shall be provided on all incoming and outgoing feeders. Single line circuit diagram showing the arrangements of circuit inside the distribution board shall be pasted on inside of the panel door and covered with transparent laminated plastic sheet.

6.3 NAME PLATE:-

A name plate with the Panel's designation in bold letters shall be fixed at top of the central panel. A separate name plate giving feeder details shall be provided for each feeder module door.

Inside the feeder compartments, the electrical components, equipments, accessories like switchgear, control gear, lamps, relays etc. shall suitably be identified by providing stickers.

6.4 CABLING:-

All cables from switch board panel to the motors shall be PVC insulated and PVC sheathed armoured aluminum onductor power cables of 650/1100 V grade conforming to IS:1553. The cables of required size shall be suitable for laying on surface of wall or in flooring with suitable clamps. Necessary cable trays shall deemed to be included in this item as per site requirements.

The termination shall be with brass compression glands suitable for PVC sheathed armored aluminium conductor cable of 1.1 KV "A' grade of the required size

7.0 OPERATING SEQUENCE FOR FIRE AND SPRINKLER PUMPS

Sr. No	Pumps	Start at KG/CM2	Stop KG/CM2	Remarks.
1	Jockey Pump	7	8	
2	Main hydrant Pump	6	Manually	
3	Sprinkler Pump	5	Manually	

3	Diesel	Engine	4	Manually	
	Pump.		4	Manually	

NOTES

- a. Jockey pump shall start and stop through pressure switch automatically.
- b. Jockey pump shall stop when main starts.
- c. Main pump and stand by pump shall start automatically on fail of pressure but stopping shall be manual.

8.0. Mode of measurement shall be as given below:-

- ➤ All types of Sprinklers shall be paid for per unit. Rossettes cost for sprinklers to be considered in the rates of sprinklers.
- ➤ M.S. pipes shall be measured per linear meter of the finished length and shall include all fittings, clamps for fixing to walls or hangers.
- No additional payment shall be admissible for cutting holes or chases in the wall or floors.
- ➤ Making connections to pumps, equipment and appliances.
- ➤ Painting / wrapping of pipes shall be included in the rates for pipes and no extra payment shall be made.
- Pump sets shall be measured as sets.
- ➤ Hydrant valves, Hose reels with accessories, Branch Pipes, Hose Boxes, Hose Pipes, shall be counted in Numbers. Butterfly valves, Non return valves, Strainers with flanges, and flow switches with accessories shall be counted in numbers. Hardware, gaskets, required for jointing in the valves shall be included in the flanges of the valves. Installation control valve with all accessories shall be counted as 1 Set. Cable shall be measured in Running meters.
- No additional payment for arranging scaffolding tools tackles etc. for work.

9. TESTING OF THE SYSTEM:-

- 1. All piping shall be tested to hydrostatic test pressure of 14 Kg/Cm² or 1.5 times the design pressure whichever is higher for a period of not less than 4 hours. All leaks and defects in joints revealed during the testing shall be rectified to the satisfaction of the Client's Representative.
- 2. Piping required subsequent to the above pressure test shall be re-tested in the same manner.
- 3. System may be tested in sections and such sections shall be securely capped.
- 4. The Client's Representative shall be notified well in advance by the Contractor of his intention to test a section of piping and all testing shall be witnessed by the Client's Representative.
- 5. The Contractor shall make sure that proper noiseless circulation of fluid is achieved through the system concerned. If proper circulation is not achieved due to air bound

connections, the Contractor shall rectify the defective connections. He shall bear all the expenses for carrying out the above rectification including the tarring-up and refinishing of floors, walls etc. as required.

- 6. The Contractor shall provide all materials, tools, equipment, instruments, services and labor required to perform the test, and shall ensure that the plant room and other areas are cleaned up and spill over water is removed.
- 7. The Contractor shall give the pressure test of head for hydrant at ground level and also for hydrant at terrace level.
- 8. All air shall be trapped from the pipeline through hydrants, Hose Reel& air valves. Each section of the pipe shall be slowly filled with the water & allow to stand the water for few hours with the ends closed.
- 9. Flushing of underground connections: Underground mains and lead-in connections to system risers shall be flushed before connections made to piping in order remove foreign materials which may have entered the underground during the course of installation. For hydrant system the flushing operation shall be continued until water is clear.

10. COMMISSIONING OF SYSTEM:-

- 1. Before commissioning, the entire system shall be flushed to ensure that any earth / foreign matters which might have entered during installation are taken out. For this, pump may be operated and valves opened at different locations.
- 2. As soon as the work is complete, the system shall be commissioned and made available for use. Requirement of firefighting installations is equally important during occupation of the building. If the building is to be occupied in part, firefighting system of building completed shall Commissioned by isolating the system of under construction portion of the building.
- 3. The firefighting system shall be maintained and manned from the very first day of its Commissioning.
- 4. Any defects noticed during the warranty period shall be promptly attended by the Contractor and availability of the system at all time is to be ensured

11. HANDING OVER:-

All commissioning and testing shall be done by the contractor to the complete satisfaction of the Engineer-in-Charge, and the job handed over to the client.

Contractor shall also hand over to the client all maintenance and operation manuals & as built drawings of entire firefighting system.

11.0 COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT

Daily Check-up:-

- ➤ Running of Fire pumps daily for 5 minutes.
- ➤ Checking of pressure gauges, pressure switches, NRV's strainers, flow meters, air cock valves, sluice valves, sprinkler heads, drains valves, alarm gauges, isolation valves, alarm valves and all components parts incorporated with system and any discrepancies / faults to be attended within specific time.
- ➤ Check the pressure in common header line on fixed fire protection system and if drop is significant check for the leakages, identify & rectify the leakages.
- ➤ All function checks of addressable fire alarm cum detection system and rectification of observed faults.
- ➤ To run the pumps to fill under underground water tank & overhead water tank on daily basis.

Weekly Check-up:-

- > Starter contacts, cleaning of pumps, insulation resistance, test of pump motor circuit etc.
- ➤ Testing of Hydrant line, Sprinkler line etc.
- Circuit test/ Panel test for fault and fire condition.
- ➤ Battery voltage for Diesel engine / Fire Alarm Panel

Monthly Check-up:-

- Visual check of each fire detectors (external check only) with Fire Detection with Alarm Panel.
- Actuation of smoke detectors by turn at least one detector in each zone to be subjected to test.
- > Test of Manual Call Point / Hooter.
- > Testing of all Hydrant sources.
- Run the pump on discharge basis and check its noise, vibration and temperature to rectify any deformity.
- Check all the terminal connection in electric panel, battery charging terminal, self-starter etc.
- Cleaning of all fire hoses, fire hose boxes, fire service inlet, fire hydrant valve, branch pipe, air release valve tank, hose reel drum, and hydrant pipe line.
- ➤ Replacing of gasket and washer if leakage is noticed.
- Greasing of all landing valve, sluice valve, hydrant valve, hose reel drum and hose Pipe Lugs.
- Physically checking of all Hydrant equipment / Sprinklers.
- > Physically checking of all Detector / MCP / Hooter.

Quarterly Check-up:-

> Training of fire hydrant system to our concern staff

- Cleaning / Testing of Smoke / Heat detectors/MCP / Hooter
- Cleaning & testing of all Electrical panels & Risers.
- ➤ Testing of all Fire extinguishers.
- Cleaning, Greasing, Oiling, Brass of all Hydrant Points /Hose reel / Two way / Four Way/Ball Valve/Shut of nozzle.
- Servicing of all Motors & Pumps
- Polishing and Coloring of gun metals parts like branch pipe, hose coupling and hydrant outlet.
- Check of all delivery hose pipe on discharge basis.
- > Greasing of pump shaft, diesel engine etc.
- Cleaning of fuel tank and fuel line of diesel pump. Check fan belt & Gravity of battery of diesel pump.

Half Yearly Check-up:-

- Full running test of all pumps (minimum 15 minute run.)
- Recalibration of all measuring instrument like pressure gauge, pressure switch etc.

Yearly Check-up:-

- Cleaning of foot valve and strainer.
- ➤ Change engine oil and filter aliment.
- ➤ Mock drill of Entire Fire Fighting System.

ANNEXURE-V MAN POWER SUPPLY - SCHEDULE OF QUANTITY & PRICE

Details of Man Power to be Depute

Sr. No	Designation of Person	Education	Total Number of person on Duty
1	Fire Engineer	Degree Holder in	
		Fire/Electrical in	1
		Fire Services	
2	Fire Man	I.T.I holder in	
		Fire Man in Fire	8
		Services	

Schedule of Otv and Price

Sr. No.	Description	Salary per Month	Qty/Month	Amount/Mont h	Month
1	Fire Engineer (First Year)	30,000.00	1	30,000.00	12
2	Fire Man (First Year)	18,000.00	8	1,44,000.00	12
3	Fire Engineer (Second Year)	33,000.00	1	33,000.00	12
4	Fire Man (Second Year)	20,000.00	8	1,60,000.00	12
5	Fire Engineer (Third Year)	36,000.00	1	36,000.00	12
6	Fire Man (Third Year)	22,000.00	8	1,76 ,000.00	12

LIST OF MAKEOF FIRE FIGHTING SYSTEM:-

LIST OF MAKES					
S.No	NAME OF MATERIAL	MAKES			
1	Fire Fighting Pumps.	Kirloskar/Lubi/Wilo			
2	Pump Panel	Swift Electrical/Swati Switch Gear/Hitech			
3	M.S Black C Class Heavyduty pipes	Surya/Jindal/Tata			
4	CI Butterfly valves	Lehry/Kirloskar/HD			
5	CI Non Return Valve	Lehry/Kirloskar/HD			
6	Hydrant Valve	AAAG/Swati/Newage			
7	Fire Hose.	AAAG/Swati/Newage			
8	Hose Cabinet	AAAG/Swati/Newage			
9	Hose Reel Drum	AAAG/Swati/Newage			
10	Two / Four way fire bridge inlet	AAAG/Swati/Newage			
11	Branch Pipe & Nozzle	AAAG/Swati/Newage			
12	Foot Valve and Strainer	Lehry/Kirloskar/HD			
13	Pressure switch	Danfos/Indfoss			
14	Pressure Guage	H.Guru/Fiebig			
15	Ball Valve	Lehry/Kirloskar/HD			
16	Fire Extinguishers	Kanex/Minimax/Ceasefire			
17	Cables	Polycab/Caliplast			
18	Conventional Zone Panel/ Annunciation Panel, MCP, Hooter	Agni/Jainist/Ravel			
19	On- Off Switch	Agni/Jainist/Ravel			
20	MS Pipe Fittings	C Class Heavy duty			
21	Paint	Asian/Nerolac,/Burger			
22	Wrapping & Coating	IWL-Pypokote/STP			