

MILITARY ENGINEER SERVICES

**NAME OF WORK: ADDN/ ALTN TO CERTAIN BLOCKS AT LIVING IN AIRMEN BILLETTS AND AFNET
AND PROVN OF GREASE TRAP AT VARIOUS MESSES CAFETERIA AT AFA HYDERABAD**

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Total Pages:		

Drawings: (NIL)

AGE (CONTRACTS)
FOR ACCEPTING OFFICER

(SIGNATURE OF CONTRACTOR)

Tele : 23307433/7870
FAX:

Garrison Engineer
Air Force Academy
Hyderabad -500 043

8516/ 05 / E8

15 Oct 2024

M/s

**ADDN/ ALTN TO CERTAIN BLOCKS AT LIVING IN AIRMEN BILLETS AND AFNET AND
PROVN OF GREASE TRAP AT VARIOUS MESSES CAFETERIA AT AFA HYDERABAD**

Dear Sir [s],

1. Tender documents in respect of above work are uploaded on the site www.defproc.gov.in. The tender is on single stage two cover e-tendering system. The contents of Cover I & Cover II are specified in NOTICE OF TENDER.
2. Bids will be received online by ACCEPTING OFFICER upto the date and time mentioned in the NOTICE INVITING TENDER (NIT) i.e., upto **1800 hours on 05 NOV 2024**. No tender/ bid will be received in physical form and any tender/bid received in such manner will be treated as non bonafide tender/bid.
3. Bid will be opened on due date and time fixed for opening in the presence of tenderers/ bidders or their authorised representatives, who have uploaded their quotation bid and who wish to be present at the time of opening the bids.
4. Your attention is also drawn to instruction on filling and submission of tender attached herewith. You may forward your points on tender documents and/or depute your technical representative for discussion on tender/drawings and to clarify doubts, if any, on or before CLARIFICATION END DATE i.e., upto **1700 hours on 28 OCT 2024**. You are requested not to write piece meal points and forward your points duly consolidated before due date i.e., upto **1700 Hours on 28 Oct 2024**.
5. Un-enlisted contractors are required to submit the scanned copies (in 'pdf' file) of documents required as per eligibility criteria mentioned in instructions for filling the tender documents and Appendix 'A' to NIT along with EARNEST MONEY DEPOSIT (EMD) and tender fee on e-procurement portal and submit the physical documents in the office of **THE GARRISON ENGINEER (AIR FORCE ACADEMY), Hyderabad 500 043** within time limit specified in NIT. Inadequacy/ deficiency of documents shall make the bid liable for rejection resulting in disqualification for opening of finance bid.

6. (a) Contractor having not executed standing security bond and standing security deposit in any MES formation shall upload scanned copy of EARNEST MONEY DEPOSIT (EMD) mentioned in Notice of Tender and shall ensure receipt of hard copy of EMD in the office of tender issuing authority before date & time fixed for this purpose. In case of failure to abide by any of these two requirements, the finance bid will not be opened.

(b) Contractor having not executed standing security bond and standing security deposit in any MES formation would be required to deposit individual security deposit on acceptance of tender which will be calculated with reference to the tendered cost as per scales laid down by MES for calculation of "EARNEST MONEY" enhanced by 25% subject to maximum of **Rs.18,75,000/-** (Rupees Eighteen lakh seventy five thousand only).

7. Enlisted contractors of MES shall submit the scanned copies ('pdf' file) of enlistment letter, tender fee and such other documents as mentioned in Appx 'A' to NIT on eprocurement portal and submit physical documents in the office of **THE GARRISON ENGINEER (AIR FORCE ACADEMY), Hyderabad 500 043** before date & time fixed for this purpose.

8. The contractor must ensure that the tender/ bid on the proper form is uploaded in time as the Accepting Officer will take no cognizance of any quotations/ offer received in any other electronic or physical form like e-mail/FAX/by hand/ through post from tenderer/bidder even if they are received in time.

9. In view of delays due to system failure or other communication related failures, it is suggested that the tender/bid be uploaded, if necessary, sufficiently in advance of the last due date and time fixed.

10. General Conditions of Contracts (IAFW-2249)(1989 Print) and errata and amendments thereto, Schedule of minimum fair wages and MES SSR (Part-I and Part-II) and not enclosed with these documents. These are available for perusal in the Office of GE concerned and this office.

11. ANY TENDERER, WHICH PROPOSES ALTERATIONS TO ANY OF THE CONDITION, SPECIFICATIONS LAID DOWN IN THE TENDER DOCUMENTS OR ANY NEW CONDITION, WHATSOEVER, IS LIABLE TO BE REJECTED.

12. (a) Contractor having not executed standing security bond and standing security deposit in any MES formation shall upload scanned copy of EARNEST MONEY DEPOSIT (EMD) mentioned in Notice of Tender and shall ensure receipt of hard copy of EMD in the office of tender issuing authority before date & time fixed for this purpose. In case of failure to abide by any of these two requirements, the finance bid will not be opened.

(b) Contractor having not executed standing security bond and standing security deposit in any MES formation would be required to deposit individual security deposit on acceptance of tender which will be calculated with reference to the tendered cost as per scales laid down by MES for calculation of "EARNEST MONEY" enhanced by 25% subject to maximum of Rs.18,75,000/- (Rupees Eighteen lakh seventy five thousand only).

Yours faithfully,

(G SELVAM)
AE (QS&C)
AGE (C)
FOR ACCEPTING OFFICER

Encl: (As per Para 1 & 4)

(SIGNATURE OF CONTRACTOR)

**INSTRUCTIONS FOR UP-LOADING OF TENDER DOCUMENTS TO
BE COMPLIED WITH BY THE TENDERER(S)**

1. EARNEST MONEY DEPOSIT (EMD)

Contractor(s) who are not enlisted with MES/who are enlisted but have not executed the Standing Security Bond shall submit Earnest Money Deposit as detailed in Notice of Tender in one of the following forms, along with their tender/bid:-

- (a) Deposit at Call Receipt from a Scheduled Bank in favour of **GE (AFA) Hyderabad.**
- (b) Receipted Treasury Challan, the amount being credited to the Revenue Deposit of **GE (AFA) Hyderabad.**
- (c) Scanned copies of Earnest Money shall be uploaded along with the e- bid.

It is advisable that Earnest Money is deposited in the form of deposit call receipt from an approved Schedule Bank for easy refund. In case the tenderer/bidder wants to lodge 'EARNEST MONEY DEPOSIT' in any other form allowed by MES, a confirmation about its acceptability will be obtained from the Accepting Officer well in advance of the bid submission end date and time. Earnest Money Deposit shall be submitted in the name of **GE (AFA) Hyderabad.**

NOTES :Earnest Money Deposit (EMD) in the form of cheque/Bank Guarantee etc will not be accepted. NON SUBMISSION OF EARNEST MONEY DEPOSIT (EMD) (scanned copy along with Technical Bid & hard copy before **1200 hours on 06 Nov 2024**) WILL RENDER THE BID DISQUALIFIED FOR OPENING OF COVER II (FINANCE BID).

2. PERFORMANCE SECURITY DEPOSIT
CONTRACTORS ENLISTED WITH CHIEF ENGINEER SOUTHERN COMMAND AND WHO HAVE EXECUTED STANDING SECURITY BOND AND DEPOSITED STANDING SECURITY DEPOSIT BUT OF LOWER CLASS
CONTRACTORS ENLISTED IN MES FORMATIONS OTHER THAN CHIEF ENGINEER SOUTHERN COMMAND AND UNENLISTED CONTRACTORS

Within 28 days of receipt of the letter of Acceptance, the successful contractor shall deliver to the Accepting Officer a Performance Security in any of the forms given below for an amount equivalent to 5% of the contract sum.

- (a) A Bank Guarantee in the prescribed form
- (b) Government Securities, FDR or any other Government Instruments stipulated by the Accepting Officer.

If the performance security is provided by the successful Contractor in the form of Bank Guarantee, it shall be issued by Nationalized/Scheduled Indian Bank but its confirmation shall be done only from the Head Office of the Bank.

Failure of the successful contractor to comply with the requirement of sub-clause 19.1 of IAFW 2249 shall constitute sufficient grounds for cancellation of the award of work and forfeiture of the Earnest Money. In case of MES enlisted contractor, amount equal to the Earnest Money stipulated in the Notice inviting Tender, shall be notified to the tenderer for depositing the amount through MRO. Issue of tender to such tenderers shall remain suspended till the aforesaid amount equal to the Earnest Money is deposited in Government Treasury.

**INSTRUCTIONS FOR UP-LOADING OF TENDER DOCUMENTS TO
BE COMPILED WITH BY THE TENDERER(S) (Contd...)**

All compensation or other sums of money payable by the contractor to the Government under the terms of this contract or under any other contract with Government may be deducted from, or paid by the sale of a sufficient part of the Performance Security or from the interest arising there from or from any sums which may be due or become due to the contractor by the Government on any account whatsoever and in the event of his Performance Security being reduced by reason of any such deduction, or sale as aforesaid, the contractor shall within ten days thereafter make good in cash or securities, endorsed as aforesaid, any sum or sums which may have been deducted from or realized by the sale of his Performance Security any part thereof.

Government shall not be responsible for any loss of securities or any depreciation in the value of securities while in their charge nor for loss interest thereon.

In the event of contract being cancelled, under Condition 52, 53, & 54 of General Conditions of Contract, the Performance Security shall be forfeited in full and shall be credited into Consolidated Fund of India.”

3. GENERAL INSTRUCTIONS FOR COMPLIANCE

- 3.1 The bids received only in the electronic form will be considered. All bids shall be submitted on defproc.gov.in portal. Documents should be scanned and forwarded in “pdf” form and “xls” form as indicated.
- 3.2 Bids shall be uploaded on defproc.gov.in portal on or before the bid closing date mentioned in the tender. No tender/bid in any other electronic or physical form like e-mail/FAX/by hand/through post will be considered.
- 3.3 Bid should be DIGITALLY signed using valid DIGITAL SIGNATURE CERTIFICATE (DSC). All pages of tender documents, corrections/ alterations shall be signed/ initialed by the lowest bidder after acceptance.
- 3.4 Drawings, if issued in physical form, must be returned duly initialed by the tenderer/ bidder in separate envelope indicating his name and address.
- 3.5 The tender shall be signed, dated and witnessed at all places provided for in the documents after acceptance. All corrections shall be initialed. The contractor shall initial on every page of tender and shall sign all drawings forming part of the tender. Any tender/ bid, which proposes alterations to any of the conditions whatsoever, is liable to be rejected.
- 3.6 In the technical bid, a scanned copy of Power of Attorney in favour of the person uploading the bid using his/her DSC shall be uploaded. In case, the digital signatory himself is the sole proprietor, scanned copy of an affidavit on stamp paper of appropriate value to this effect stating that he has authority to bind the firm in all matters pertaining to contract including the Arbitration Clause, shall be attached in ‘pdf’ form. In case of partnership concern or a limited company, digital signatory of the bid/tender shall ensure that he is competent to bind the contractor (through partnership deed, general power of attorney or Memorandum and Articles of Association of the Company) in all the matters pertaining to the contracts with Union of India including arbitration clause. A scanned copy of the documents confirming of such authority shall be attached with the tender/bid in ‘pdf’ form, if not submitted earlier. The person uploading the bid on behalf of another partner(s) or on behalf of a firm or company using his DSC shall upload with the tender/bid a scanned copy (in ‘pdf’ form) or Power of Attorney duly executed in his favour by such other or all of the Partner(s) or in accordance with constitution of the company in case of company, stating that he has authority to bind such other person of the firm or the Company, as the case may be, in all matter pertaining to the contract including the Arbitration Clause.

**INSTRUCTIONS FOR UP-LOADING OF TENDER DOCUMENTS TO
BE COMPILED WITH BY THE TENDERER(S) (Contd...)**

3.7 Even in case of Firms or Companies which have already given Power of Attorney to an individual authorizing him to sign tender in pursuance of which bids are being uploaded by such person as a routine, fresh Power of Attorney duly executed in his favour stating specifically that the said person has authority to bind such partners of the firm, or the Company as the case may be, including the condition relating to Arbitration Clause, should be uploaded in 'pdf' form with the tender/ bid; unless such authority has already been given to him by the Firm or the Company. It shall be ensured that power of attorney shall be executed in accordance with the constitution of the company as laid down in its Memorandum & Article of Association.

- 3.8 Hard copies of all above documents should be sent by the contractor to the Tender issuing authority well in advance to be received before the date & time fixed for the same.
- 3.9 Bid (Cover 1 & 2) shall be uploaded online will in time.
- 3.10 The contractor shall employ Indian Nationals after verifying their antecedents and loyalty. Attention is also drawn to special condition 3 referred hereinafter and also conditions 24 & 25 of IAFW-2249 (General Conditions of Contract).
- 3.11 Tenderers/ bidders who uploaded their priced tenders/ bids and are desirous of being present at the time of opening of the tenders/ bids, may do so at the appointed time.
- 3.12 The tenderer/ bidder shall quote his rate on the BOQ file only. No alteration to the format will be accepted, else the bid will be disqualified and summarily rejected.
- 3.13 In case the tenderer/ bidder has to revise/ modify the rates quoted in the BOQ (excel sheet) he can do so only in the BOQ, through defproc.gov.in site only before the bid closing time and date.

4. **REVOKATION/ REVISION OF OFFER UPWARD/ OFFERING VOLUNTARY REDUCTION, AFTER OPENING OF FINANCIAL BIDS BY LOWEST BIDDER**

In the event of lowest tenderer/ bidder revoking his offer or revising his rates upward/ offering voluntary reduction, after closing of bid submission date & time, his offer will be treated as revoked and the Earnest Money deposited by him shall be forfeited. In case of MES enlisted Contractors, the amount equal to the Earnest Money stipulated in the Notice of tender, shall be notified to the tenderer/bidder for depositing the amount through MRO. Issue of tender for such Contractors/bidders shall remain suspended till the aforesaid amount equal to the earnest money is deposited by him in Govt Treasury. Reduction offered by the tenderer/bidder on the freak high rates referred for review shall not be treated as voluntary reduction.

5. **CPM (CRITICAL PATH METHOD)**

- 5.1 The project planning for work covered in the scope of tender is based on CPM.
- 5.2 The tenderer / bidder is expected to be fully conversant with the CPM technique and employ technical staff who can use the technique in sufficient details. Sufficient books and other literature on the subject are widely available in the market which the tenderer/ bidder may make use of.

INSTRUCTIONS FOR UP-LOADING OF TENDER DOCUMENTS TO
BE COMPILED WITH BY THE TENDERER(S) (Contd...)

- 5.3 The tenderer's / bidder's attention is drawn to special condition of the tender regarding preparation of the detailed network analysis and time schedule for the work and his liability for employing sufficient resources to adhere to this schedule. An inability on the part of the tenderer / bidder in using the technique will be taken as his technical inefficiency and will affect his class of enlistment and future prospect/ invitation to tenders for future works.
- 5.4 Department may issue amendments/ errata in form of CORRIGENDUM to tender / revised BOQ to the tender documents. The tenderer / bidder is requested to read the tender documents in conjunction with all the errata/ amendments/ corrigendum, if any, issued by the department.
6. These instructions shall form part of the contract documents.

Signature of Contractor

For Accepting Officer

MILITARY ENGINEER SERVICES**NOTICE OF TENDER**

1. A tender is invited for the work as mentioned in Appendix 'A' to this Notice of Tender.
2. The work is estimated to cost as indicated in aforesaid Appendix 'A'. This estimates however not a guarantee is and is merely given as a rough guide and if the work costs more or less, the tenderer will have no claim on that account.
3. The tender shall be based on, as mentioned in the aforesaid Appendix 'A'. The work is to be completed within the period as indicated in the aforesaid Appendix 'A' in accordance with the phasing, if any, indicated in the tender from the date of handing over of the site, which may be on or about two weeks after the date of acceptance of the tender.
4. Normally contractor whose names are borne on the MES approved list for the area in which the work lies and within whose financial category the estimated amount would fall, may tender but in case of term contracts in categories 'S' to 'F' may tender. In case where the tendered amount is in excess of the financial category whether or not the estimated amount was within the financial category of the contractor, the Accepting Officer reserves the right to accept the tender in which event the tenderer would be required to lodge "Additional security deposit" as notified by the Accepting Officer, in terms of conditions of the contract.
5. Contractors whose names are borne on the MES approved list of any MES formations and who have deposited Standing Security and have executed Standing Security Bond may also tender, without furnishing Earnest money alongwith his tender. If the tender submitted by such tenderer is proposed to be accepted, such tenderer would be require to deposit 'Individual Security Deposit', as notified by the Accepting Officer to the Controller of Defence Accounts concerned before acceptance of tender. Not more than one tender shall be submitted by one contractor or one firm of contractors. Under no circumstances will a father and his son(s) or other close relations who have business dealing with one another will be allowed to tender for the same contract as separate competitors. A breach of this condition will render the tenders of both parties liable for rejection.
6. Application alongwith DD for the tender forms must be submitted offline to the GARRISON ENGINEER, AIRFORCE ACADEMY, HYDERABAD-43 so as to reach this office on or well before closing date of submission of bid.
7. Tender forms and conditions of contract and other necessary documents (together with addressed envelope to be used for the return of tender forms and other documents) will be issued on or after the date as mentioned in the aforesaid Appendix "A". The appropriate standing security amount for this work shall be deposited by contractor enlisted in the area in which the work lies for category mentioned in the aforesaid Appendix 'A'.

NOTICE OF TENDER (CONTD.....)

8. Submission of bids for the tender does not constitute any guarantee for consideration of tender/ bid of the applicant, even of the enlisted contractors of appropriate class. The applicant contractor shall not become automatically entitled for considering the tender/ bid by virtue of enclosing copy of demand draft along with the application. The accepting officer shall reserve the right to deny considering the financial bid of tender to any applicant contractor. Firms to be considered for financial bid will be decided by the Accepting officer based on, interalia experience of similar works executed by the applicant/contractor. The Accepting Officer shall consider tender/ bids received up to date of receipt of applications/extended date of receipt of tender/ bids. The applicant/contractor will be informed regarding rejection of tender/bid with reasons. The applicant contractor, if so desires, can appeal to the next higher Engineer Authority with copy to the Accepting Officer. No appeal/representation shall be entertained in respect of applications for consideration of tenders/bids as received after the due date of receipt of applications/extended date of receipt of applications. The decision of the next higher Engineer Authority should be final. No applicant/contractor shall be entitled for any compensation whatsoever for rejection of his application.
- 8.1 In case of contractor who has not executed the "Standing Security Bond" the tender/bid shall be accompanied by the "Earnest Money" for the amount referred to in the aforesaid Appendix 'A' in the form of deposit at call receipt in favour of GE mentioned in the aforesaid Appendix 'A' by Scheduled Bank or receipted treasury challan, the amount being credited to the revenue deposit of the GE. A contractor who is not enlisted for the area in which the work lies, but whose name is in the MES approved list of any MES formation and who has deposited Standing Security Deposit and executed standing security bond can tender, without depositing earnest money along with the tender, but if the Accepting Officer decides to accept the tender, and such tenderer shall lodge security deposit as notified by the Accepting Officer with the Controller of Defence Accounts, concerned in the prescribed form before acceptance of tender.
- 8.2 The GE (AFA) Hyderabad will be the Accepting Officer here-in- after referred to as such for the purpose of this contract.
- 8.3 A contractor who has executed the Standing Security Bond but not for the appropriate category as mentioned above shall lodge with Accepting Officer, additional security deposit as notified by the Accepting Officer within thirty days of the receipt by him of notification of acceptance of the tender, failing which this sum will be recovered from first RAR payment, or from the first final bill in case of term/running contracts. However, in cases where any payment is made to the contractor within thirty days of receipt by him of notifications of acceptance of tender the amount of additional security deposit shall be recovered from such payment.
- 8.4 GE will return the earnest money wherever applicable to all un-successful tenderers by endorsing an authority to the deposit receipt for its refund, on production by the tenderer of a certificate of the Accepting Officer, that a bonafide tender ([vide condition 14 here in](#) after was received and all documents were returned).
- 8.5 The GE will either return the Earnest Money to the successful tenderer, by endorsing an authority on the deposit receipt for its refund, on receipt of an equal amount of security deposit or will retain the same on account of security deposit, if such transaction is feasible.

NOTICE OF TENDER (CONTD.....)

- 8.6 Copies of the drawings and other documents pertaining to the work (signed for the purpose of identification by the Accepting Officer or his accredited representatives) and samples of materials and stores to be supplied by the contractor will be open for inspection by the tenderers in the office of CWE/GE as mentioned in the aforesaid Appendix 'A' during office working hours.
9. The tenderers are advised to visit site by making prior appointment with the GE by giving sufficient time. A tenderer shall be deemed to have full knowledge of all relevant documents, samples, site etc whether he has inspected them or not.
10. Tenders will be received by the Garrison Engineer (AFA) Hyderabad on the date and time indicated in the aforesaid Appendix 'A'.
11. Any tender which proposes any alterations to any of the conditions laid down or proposes any other condition of any description whatsoever, is liable to be rejected.
12. The submission of tender by a tenderer implies that he has read this notice and the conditions of contract and has made himself aware of the scope and specifications of work to be done and of the conditions and rates at which stores, tools and plants etc, will be issued to him and local conditions and other factors bearing on the execution of the work.
13. Tenderers must be in possession of copy of MES Schedule of Rates-2009 (Part I) and 2020 (Part II) including errata/amendments thereto.
14. Tenderers must be very careful to submit a bonafide tender. A bonafide tender must satisfy each and every condition laid down in this notice. Refer the help for contractors in "eprocuremes.gov.in".
15. The Accepting Officer does not bind himself to accept the lowest or any tender or to give any reason for not doing so.
16. This notice of tender alongwith Appendix 'A' shall form part of the contract.

FOR ACCEPTING OFFICER

(SIGNATURE OF CONTRACTOR)

APPENDIX 'A' TO NOTICE INVITING TENDER (NIT)

1	Name of Work	ADDN/ ALTN TO CERTAIN BLOCKS AT LIVING IN AIRMEN BILLETTS AND AFNET AND PROVN OF GREASE TRAP AT VARIOUS MESSES CAFETERIA AT AFA HYDERABAD															
2	Estimated Cost	Rs.49.99 Lakhs (At Par Market)															
3	Period of Completion	270 days															
4	Cost of Tender documents	Rs.500.00 (in the form of DD/Bankers Cheque from any Schedule Bank in favour of GE (AFA), Hyderabad and payable at Hyderabad (Note : In case of retendering , the contractor who had quoted in the previous call is not required to submit the cost of tender															
5	Website / Portal address	www.defproc.gov.in															
6	Type of Contract	The tender shall be based on drawing and specifications (IAFW-2159)/IAFW 1779A and GCC (IAFW-2249) with Schedule 'A' (list of items of work) to be priced by contractor/pre priced by MES. The contractor is required to quote the lump sum amounts for parts of Schedule 'A' and quote rates against items of other parts of Schedule															
7	Timeline details:																
	(a) Bid Submission start date	29 OCT 2024 at 1400hrs															
	(b) Bid submission End date	05 NOV 2024 at 1800 hrs															
	(c) Date of Bid opening	07 NOV 2024 at 1200 hrs															
8	Eligibility Criteria																
	(a) For MES enlisted Contractors	Contractor shall be enlisted with MES in Class 'D' and above category 'a(i)' subject to satisfactory remarks wrt performance in respect of works in hand as reflected in Work Load return (WLR) or any other report circulated by competent engineer authority.															
	(b) For Contractors not enlisted with MES	(i) Contractor not enlisted with MES should meet the enlistment criteria of category of contractor with regard to satisfactorily completion of requisite value of works with Central/State Government/Central/ State PSUs/ AWHO/ AFNHB/ CGEWHO /DGMAP, annual turnover, bank solvency, working capital and other requirements as given in Para 1.4& 1.5 of Section 1 of MES Manual of Contracts 2020 as available in all MES formations as well as in MES website (www.mes.gov.in). (ii) Not carrying adverse remarks in Work Load Report (WLR) or any other similar report circulated by any competent authority, if already working in MES.															
		(iii) Not suspended/debarred/blacklisted (either permanently or temporarily) from participating in any bid or for business dealings by any Central/State Government Department or any ("Central/State Government Department or any Autonomous Body under Central/State Government or any Local Body as on the bid submission end date. (iv) Details of works completed and under progress in MES be submitted in the following format :-															
		<table border="1"> <thead> <tr> <th>Sl No</th><th>CA No & Name of Work</th><th>Value of CA</th><th>Date of commencement</th><th>Date of completion</th><th>Extended date of completion</th></tr> </thead> <tbody> <tr> <td colspan="6"> </td></tr> </tbody> </table>				Sl No	CA No & Name of Work	Value of CA	Date of commencement	Date of completion	Extended date of completion						
Sl No	CA No & Name of Work	Value of CA	Date of commencement	Date of completion	Extended date of completion												
		(v) Un-enlisted Contractor who have secured two works in MES should get themselves registered in the appropriate designated class with any registering authority, else the firm will not be eligible for participation in the tender unless until the firm is enlisted with the MES															
9	Tender issuing and Accepting Officer	Name:-GARRISON ENGINEER AFA, HYDERABAD Address: AIR FORCE ACADEMY, DUNDIGAL, HYDERABAD – 500043 TELANGANA Contact Details (Phone no. & Email Id) of concerned officer:- Ph No. 040- 29564201, E Mail:- geafahyd@gmail.com															
10	Executing agency	GE: GARRISON ENGINEER AFA, HYDERABAD															
11	Earnest Money	Rs.1,00,000/- (in favour of GARRISON ENGINEER AFA, HYDERABAD in the form of DEPOSIT AT CALL RECEIPT, FDR NOT ACCEPTABLE.															

NOTES:

1. After opening of cover1, if the number of MES enlisted contractors of eligible class as well as un-enlisted contractors if any fulfilling the other eligibility criteria given in NIT are less than 7 (Seven) applications in respect of contractors one class or two classes (in case of remote and difficult areas to be decided as per list circulated by CE commandant/ADG) below the eligible class shall also be considered subject to fulfillment of other eligibility criteria given in the NIT. Therefore MES contractor's one class below (two classes below in case of remote and difficult areas) may also bid for the tender. However contractors of one/two below the eligible class shall not be considered in case their presents residual work in hand is more than twice their present tendering limit. Such bidders shall upload in their cover -1 bid details of works in hand showing name of works, names of Accepting officers, Contract amounts, dates of commencement and completion (stipulated) and progress as on bid submission date. These details shall be verified by the tender issuing Authority from concerned formations in case bids of such contractors are considered for evaluation.
2. In case after opening of Cover 1, the number of MES enlisted contractors of eligible class as well as un-enlisted contractors, if any, fulfilling the other eligibility criteria given in NIT, are 7(Seven) or more, applications of only those one class below the eligible class bidders shall be considered, who have previously completed similar works satisfactorily and are meeting the criteria of up gradation in respect of past experience of completed works (individual work experience and/or average annual turnover as applicable) and financial soundness (solvency/financial soundness and working capital) as per details given in Manual on Contracts. Therefore such contractors shall upload the requisite information/documents in the Cover-1.
3. Unenlisted contractor shall be considered provided he meets the criteria. Foreign firms shall not be eligible for his tender. However Indian Firms having foreign national/Indian nationals staying abroad / Indian national having taken foreign citizenship, as director(s) shall be considered subject to security clearance from the concerned authorities.
4. Contractors enlisted with MES will upload following documents in Cover 1 for checking eligibility:-
 - (a) Application for tender on Firm's letterhead.
 - (b) Enlistment letter issued by the Registering Authority duly renewed for the cycle period in vogue.**
 - (c) Scanned copy of DD/Bankers Cheque toward cost of tender and EMD instrument in case SSD bond is not signed at the time of registration.
 - (d) Any other document required as described in this Appendix
5. Contractors not enlisted with MES will upload following documents in Cover 1 for checking eligibility:-
 - (a) Application for tender on Firm's letterhead.
 - (b) Scanned copy of DD/bankers cheque toward cost of tender and Earnest Money Deposit (EMD) instrument.
 - (c) Copy of Police Verification Report/Police Clearance Certificate/Character Certificate from the Police Authority of the area where the registered office of the firm is located/notarized copy of valid passport of Proprietor/each Partner/each Director.
 - (d) All documents required for enlistment in MES for the class mentioned in Para 8(a) above as per Para 1.5 of Section 1 of MES Manual on Contracts 2020.**
 - (e) Details of works being executed in MES, if any.
 - (f) Any other documents required as described in this Appendix.

6. **Tenders not accompanied by scanned copies of requisite DD/Bankers Cheque towards cost of tender and earnest money (as applicable) in Cover 1 shall not be considered for validation of "T" bid and their financial bids will not be opened.**

7. Contractors should ensure that their original physical DDs and Earnest Money Deposit (EMD) instruments (as applicable) reach the office of Accepting Officer within 7 (Seven) days of bid submission end date (*The number of days to be mentioned shall be as decided by the Accepting Officers. but it shall not be less than 5 days) failing which following action shall be taken.

(a) In case of tenders from an enlisted contractor of MES, where scanned copies of requisite DD/ Bankers Cheque towards cost of tender have been uploaded in Covers 1 but physical copies are not received within the stipulated period, their financial bids (Cover 2) will be opened. However non-submission of physical copies of cost of tender shall be considered as willful negligence of the tenderer with ulterior motives and such tenderer shall be banned from bidding for a period of six months commencing from the date of opening of Financial Bid (Cover 2).

(b) In case of tenders from unenlisted contractors, where scanned copies of requisite DD/ Bankers cheque towards cost of tender have been uploaded in Cover 1 but physical copies are not received within the stipulated period, their financial bids (Cover 2) will not be opened. Name of such contractors along with complete address shall be circulated for not opening of their bids for a period of six months commencing from the date of opening of Financial bid (Cover 2).

(c) In case of tenders from enlisted and unenlisted contractors, where scanned copies of instruments for Earnest Money Deposit (as applicable) have been uploaded in Cover 1 but the same are not received in physical form within stipulated period, such tenders shall not qualify for opening of financial bid (Cover 2).

8. Contractor will not be allowed to execute the work by subletting or through power of attorney to a third party /another firm on his behalf. However, a contractor can execute the work through power of attorney to sons/daughters/ spouse of Proprietor/Partner/Director and firm's own employees. director, project manager **provided they are not having a separate enlisted firm in MES in their name as Proprietor/Partner/Director.**

9. After opening of Cover 1 and during its technical evaluation. In case any deficiency is noticed in the documents required to be uploaded by the tenderers as per NIT , a communication in the form of e-mail/SMS/Speed Post etc shall be sent to the contractor to rectify the deficiency within a period of seven days from date of communication failing which their financial bid (Cover 2) shall not be opened and contractor shall not have any claim on the same.

10. Invitation for e-tender does not constitute any guarantee for validation of Technical bid and subsequent opening of financial bid of any applicant / bidder merely by virtue of enclosing DD. Accepting Officer reserves the right to reject the Technical bid and not to open the financial bid of any applicant/bidder. Technical bid validation shall be decided by the Accepting officer based on eligibility of the firm as per criteria given in this Appendix. Tenderer/ bidder will be informed regarding non –validation of his Technical bid assigning reasons therefore through tender evaluation report which shall be uploaded on the website. Such tenderer, if desires, may appeal to the next higher Engineer Authority (NHEA) viz **CWE (AF), Secunderabad** on email id afsecun3mes@nic.in with copy to the Accepting Officer on email before the scheduled date of opening of Cover 2. NHEA shall decide the matter within a period of seven working days from the date of receipt of appeal. The decision of the NHEA shall be final and binding. The tenderer/bidder shall not be entitled for any compensation whatsoever for rejection of his bid.

11. In case an unenlisted contractor is already executing works in MES, he shall not be considered eligible for the subject tender if the total value of such works is more than twice the tendering limit of the MES Class of contractor for which it is eligible. For this purpose, details of the works being executed by such a contractor shall be uploaded in the Cover 1 of the bid and shall be checked/ verified by the Accepting Officer.

12. In case the BOQ is revised through the corrigendum and the bidder has failed to quote on revised BOQ (i.e. he has quoted on pre revised BOQ), such bid shall be treated as willful negligence by the bidder and his quotation shall be considered non-bonafide. In such cases the lowest tender shall be determined from amongst the valid/bonafide bids only. Accepting Officer may decide whether to re-tender or consider the lowest bonafide tender for acceptance.

13. Revoking the offer or revising the rates upward or offering voluntary reduction by the lowest tenderer after opening of Cover 2 shall be considered as a willful default. For this default a penalty of an amount equal to Earnest Money shall be levied. In case of an unenlisted tenderer, Earnest Money deposited by him shall be forfeited. In case of MES enlisted tenderer having deposited the Standing Security Bond, an amount equal to the earnest money stipulated in the NIT, shall be notified to the tenderer for depositing through MRO and consideration of such tenderer in tender evaluation for future works shall remain suspended till the aforementioned amount is deposited in the Government Treasury. No other disciplinary/ administrative action shall be taken against such tenderers. In such a situation, the next lowest offer shall not be considered for acceptance. Instead, retendering shall be resorted to in a transparent and fair manner and the defaulting tenderer and his related firm if any, shall not be eligible for this tender in second call or subsequent calls.

14. Tender to related firms shall not be issued simultaneously. Firms shall be termed as related if Proprietor/one or more Partners/Directors are common. Decision of Accepting Officer on issue/deny the tender to any one of the related firms shall be final and binding.

Signature of Contractor

File No : 8516/05/E8

For Accepting Officer

Dated: 15 Oct 2024

Address of Accepting Officer

GE (AFA) Hyderabad,
AIR FORCE ACADEMY,
Dundigal PIN-500043

Contact Details of the Concerned Officer

Phone No:- 08418-254207

Mobile No:- 9444256379

Distribution:-

1.	CE(Fy)Hyderabad/Secunderabad - 03	2.	CER&D Secunderabad -03
3.	CWE(AF)Bowenpally, Secunderabad - 11.	4.	CWE(Army)Secunderabad - 03
5.	GE(South)Secunderabad - 03	6.	GE(North)Secunderabad - 78
7.	GE(AF)Hakimpet, Secunderabad - 14	8.	GE(Golconda)Hyderabad - 08
9.	GEE/MSecunderabad-03	10.	GE R&D Kanchanbagh, Hyd-58
11.	GER&D Chandrayangutta, Hyderabad- 05	12.	GE(AF)Bidar- 585401
13.	AGE(I)(Fy)Eddumailaram	14.	AGEB/RI,B/RII,E/M, BSO
15.	Notice Board.	16.	(Int)&E2Sec its enclosures.
17.	SBI (AFA)Hyderabad	18.	E8 Sec – for up loading on website
19.	MES Builders Association of India Hyderabad/Secunderabad(Branch)Plot No.01,1stFloor,HussamComplex,Kakaguda, Near AOC Secunderabad – 15		

**CONDENSED VERSION OF NOTICE OF TENDER TO BE READ
WITH MAIN NOTICE OF TENDER (IAFW-2160 REVISED 1960)**

Others

(a) Constitution of firm on an affidavit on non-stamp paper of Rs. 100/- duly notarised indicating status of firm, i.e. whether it is proprietorship or Limited firm.

Note: - Please enclose notarised copy of partnership deed of partnership firm, and notarized Memorandum of Articles of constitution in case of limited firm.

(b) Certified copy of certificate of registration of firm with Registrar of firms.

(c) Certified copy of PAN No/TIN No. of proprietor /partners/firm.

(d) Certified copies of enlistment letters with various Govt Departments /PSUs

(e) Certified copy of general power of attorney in case any person(s) have been authorized to represent the firm including signatory of the application.

(f) Postal address and Police Station Area of Proprietor /partners/Directors of the firm. Department will carry out Police Verification of Proprietor/ Partners/Directors as applicable. Contractor has to pay for fees if the rules of police Deptt have the provision of the same.

(g) Indemnity Bond on non judicial stamp paper of value of Rs. 100/- duly attested by Notary (on format given below)

INDEMNITY BOND

This bond of indemnity is executed on this _____ day _____ by M/s S'Shri _____ having registered office at _____ to indemnify the Government of India of the following:-

1. We undertake to pay the Government of India any damages that may be found to be recoverable on order of our contracts.
2. We undertake that in case Government is put to pay any loss or disadvantage in monetary of contract by the firm which shall indemnify the government for each loss or disadvantage.
3. This bond of indemnity is executed by M/s _____ and have signed before me. Whatever stated above is true and correct to the best of my knowledge and belief.

Signature of Contractor

Notary

(h) Certified copy of Sales tax Certificate /GST

(In lieu of IAFW-1779 A Revised 1955)

TO BE READ IN CONJUNCTION WITH GENERAL CONDITIONS OF CONTRACT IAFW-2249

MILITARY ENGINEER SERVICES

Tele : 23307013/7870
FAX:

Garrison Engineer
Air Force Academy
Hyderabad-43

8516/ 05 / E8

15 Oct 2024

ITEM RATE CONTRACT OF WORK REQUIRED IN THE EXECUTION OF

ADDN/ ALTN TO CERTAIN BLOCKS AT LIVING IN AIRMEN BILLETTS AND AFNET AND PROVN OF GREASE TRAP AT VARIOUS MESSES CAFETERIA AT AFA HYDERABAD

S'Shri/Shri _____ is/are
hereby authorized to tender for the above work. **The tender is to be uploaded in the eprocuremes.gov.in site before 1800 hours on 05 NOV 2024.**

Any correspondence concerning this tender should be addressed quoting the id reference as **Indicated in the web site.**

THE PRESIDENT OF INDIA DOES NOT BIND HIMSELF TO ACCEPT THE LOWEST OR ANY OTHER TENDER

(SIGNATURE OF OFFICER ISSUING THE DOCUMENTS)

APPOINTMENT: GARRISON ENGINEER

DATED : **2024**

SCHEDULE 'A'

NAME OF WORK:- ADDN/ ALTN TO CERTAIN BLOCKS AT LIVING IN AIRMEN BILLETTS AND AFNET AND PROVN OF GREASE TRAP AT VARIOUS MESSES CAFETERIA AT AFA HYDERABAD

NOTES:-

1. The entire work under this contract shall be completed within **09 (Nine) Months** from the date of WORKORDER . The work involves maintenance / repairs of various buildings which are occupied and the site / buildings works will be handed over in phase as per availability and the same shall be completed and handed over before the next set of building is handed over for repair / maintenance . The site / building to be handed over in phases will be decided by Engineer-in- charge in consultation with users, contractor shall take this aspect into consideration before quoting his tender and no claim whatsoever on this account will be admissible at a later stage.
2. For schedule of items refer BOQ sheet in Excel format. Tenderer shall carefully go through the BOQ pages of tender for quoting the rates of each item of the schedules. An amount of **Rs.18,734.00** has been catered towards Sch of credit for which details have been made in a separate schedule and tenderer may be study the same before quoting. The amount of schedule of credit shall be deducted from the Total amount of BOQ. Contract sum shall be arrived accordingly for finding out L-1
3. The quantities shown in schedule (BOQ sheet) in column 3 of Schedule 'A' are approximate and are inserted as a guide only. They do not constitute any guarantee of the ultimate quantities which will be ordered on the contractor. They shall not however be varied beyond the limit laid down in condition 7 of IAFW- 2249 (General conditions of contract).
4. The contractor shall enter the unit rate in column 5 of BOQ. The unit rates in figure shall be entered only.
5. Total amount in column 7 is not firm but will be treated as the contract sum referred to IAFW-2249. Tenderer has to visit the BOQ pages of the tender for quoting the rate of each items of the schedules.
6. Unless otherwise specifically stated in the description of the items, the unit rates quoted in Col 5 shall be deemed to include for all labour and materials complete required for executing the respective items of works.
7. (a) The unit rate quoted by the tenderer against respective items of schedule 'A' shall be deemed to include minor details of construction of work, not specifically mentioned in description of schedule 'A' items and/or in the particular specifications/ drawing and which are fairly and obviously intended/essential to the execution of work in a workmen like manner and sound constructions.

(b) In case of difference of opinion between the contractor and the GE as to, whether or not certain items of work constitute "Minor constructions details" which is deemed to have been included in the contractor's quoted rates, the decision of the Accepting Officer shall be final, conclusive and binding.
8. The description of Schedule 'A' items in BOQ Sheet (Excel format) are in brief. The unit rate quoted shall be deemed to include inter alia the description given in particular specification read together with schedule of works.

SCHEDULE 'A' (Contd...)

9 **“TAXES, DUTIES & LEVIES ETC (REFER SPECIAL CONDITION FOR REIMBURSEMENT / REFUND ON VARIATION IN TAXES DIRECTLY RELATED TO CONTRACT VALUE”.**

9.1 The contractor's quoted rates shall be deemed to be inclusive of all Taxes / cesses viz **GST** duties , royalties octroi and their levies payable under respective statutes as applicable on the date of receipt of Tender it may be noted that any tender imposing any condition in this regard or an any other account shall be treated as a conditional Tender and the same shall be treated as conditional Tender and the same shall be liable to be rejected.

10. REVISION OF BOQ

10.1 In case, if the BOQ is revised by the department and if the bidder fails to quote in revised BOQ (i.e., quoted in previous BOQ), such bid shall be treated as willful negligence by the bidder and their quotation shall be considered non- bonafide. In such a case, the lowest tender shall be determined by the lowest amount amongst the valid/bonafide bids only. The decision of the accepting officer shall be final and binding whether to re-tender or otherwise and no-claim shall be entertained in this regard.

11. PAYMENT OF WAGES

11.1 The Tenderer's shall note that disbursing of payment for all employers / labours has to be paid through on line Aadhar Linked Bank Account / RTGS / NEFT etc and no physical payment is entertained / accepted.

12. DEFECTS LIABILITY PERIOD

12.1 Defects Liability Period for the subject work shall be **Twenty Four Calendar** Months after the work have been handed over to the Department / Government

SIGNATURE OF CONTRACTOR

FOR ACCEPTING OFFICER

SCHDULE OF CREDIT**NAMEOFWORK: - ADDN/ ALTN TO CERTAIN BLOCKS AT LIVING IN AIRMEN BILLETs AND AFNET AND
PROVN OF GREASE TRAP AT VARIOUS MESSES CAFETERIA AT AFA HYDERABAD**

The tenderer may note that old dismantled materials obtained from dismantling of items mentioned in Schedule 'A' shall become his property (unless otherwise specifically stated) for which credit will be recovered at the rates given in column 5.

1. All quantities shown in Col 4 are provisional. The contractor shall have no claim whatsoever if the quantity of dismantled materials varies.
2. The contractor shall remove the dismantled materials, which becomes his property only after the credit amount is recovered from the RAR/FB.
3. Dismantled/demolished materials which are not included in Sch of credit become Govt property and shall be removed to MES store yard/stacked at places as directed within a lead of 1 km, by the contractor without any extra cost to Govt.
4. Old dismantled materials (item shown under Sch of credit) becoming contractor's property shall not be reused in the work.

SL	Description of Item	A/U	Qty	Rate	Amount
1	Old unserviceable PP-R pipe of any size	RM	210	10	2100.00
2	Old unserviceable iron of any size	Kg	400	15	6000.00
3	US point wiring obtained	Point	113	20	2260.00
4	US Switch obtained	Each	113	5	565.00
5	US Ceiling rose obtained	Each	113	5	565.00
6	US lights obtained	Each	107	10	1070.00
7	US MCB DBs obtained	Each	6	5	30.00
8	US MCB obtained	Each	24	2	48.00
9	US point wiring obtained	Point	54	30	1620.00
10	US sub-main wiring of different sizes	Rm	200	20	4000.00
11	US socket 15/5A obtained	Each	42	8	336.00
12	US Switch obtained vide item	Each	16	5	80.00
13	US Ceiling rose obtained	Each	12	5	60.00
Total amount of Schedule of Credit C/o to Summary on Page No.					Rs.18,734.00

GENERAL SUMMARY

TOTAL AMOUNT B/F BOQ = Rs _

DEDUCT SCH OF CREDIT = (-) Rs. 18,734.00

NET CONTRACT SUM = Rs

(Rupees: _

-----Only)

SIGNATURE OF CONTRACTOR

FOR ACCEPTING OFFICER

SCHEDULE 'B'**ISSUE OF MATERIALS TO THE CONTRACTOR**
SEE CONDITION 10 OF IAFW -2249

Sl No	Particulars	Rate at which materials will be issued to contractor Unit Rate	Place of issue	Remarks
-NIL-				

SCHEDULE 'C'**LIST OF TOOLS AND PLANTS (OTHER THAN TRANSPORT) WHICH WILL BE
HIRED TO THE CONTRACTOR (SEE CONDITION 15, 34 & 35 OF IAFW-2249**

Sl No	Quantity	Particulars	Details of MES crew Supplied	Hire Charges per unit per working Day	Stand by charges per unit per off day	Place of issue by name
1	2	3	4	5	6	7

- NIL -

SCHEDULE 'D'**TRANSPORT TO BE HIRED TO THE CONTRACTOR**
(SEE CONDITIONS 16 & 35 OF IAFW-2249)

Sl No	Quantity	Particulars	Rate per unit per working Day	Place of issue by name	Remarks
1	2	3	4	5	6

- NIL -

SIGNATURE OF CONTRACTOR

FOR ACCEPTING OFFICER

(Inlieu of IAFW-1779-A (Revised-1955)**TENDER**

To

THE PRESIDENT OF INDIA

Having examined and perused the following documents:-

1. Specifications signed by GE (AFA) HYDERABAD-500 043
2. Drawings detailed in the specifications.
3. Schedule 'A', 'B', 'C' and 'D' attached hereto.
4. MES Standard Schedule of Rates 2009 (Part-I specifications) with and Part-II (2020) (here- in-after referred to as the MES Schedule) together with amendment/errata Nos 1 to 3 for Part I (2009) and amendments 1 to 122 for part II as applicable to the above said schedule.
5. General conditions of contracts, IAFW-2249 (1989 Print) together with amendments **1 to 49** and errata **1 to 20**.
6. WATER:CONDITION31OFIAFW2249GENERALCONDITIONSOFCONTRACT
Water will be supplied by MES@ Rs. 3.75 per Rs.1000 worth of Work Done.
7. SHOULDTHIS TENDER BE ACCEPTED

* I / We agree

(a) That the sum of Rs. **1,00,000** /- (**Rupees One Lakh Only**) forwarded as earnest money shall either be retained as a part of Security Deposit or refunded by the Government on receipt of the appropriate amount of Security Deposit all as per condition 22 of IAFW-2249.

(b) To execute all the work referred to in the said documents upon the terms and conditions contained or referred to therein at the item rates contained in the aforesaid Sch 'A' or at such other rates as may be fixed under the provision of conditions 62 and to carry out such deviations as may be ordered vide condition 7 of IAFW – 2249 up to a maximum of 10 (TEN) percent and further agree to refer all disputes, as required by condition 70 of IAFW 2249 to the Sole Arbitration of a serving Officer having degree in Engineering or equivalent or having passed final/direct final examination of Sub division II of Institution of Surveyor's (India) recognized by the Government of India to be appointed by Chief Engineer Southern Command, Pune or in his absence the Officer Officiating as Chief Engineer, Southern Command whose decision shall be final, conclusive and binding.

* Delete whichever is not applicable.

(In lieu of IAFW- 1779-A (Revised 1955))

SIGNATURE_____ in the capacity of _____

Duly authorized to sign the tender for and on behalf of M/s_____

(IN BLOCK LETTERS)

Date:

Postal address _

WITNESS

Signature _

Address _

Telegraphic

Telephone

FAX No. _

Address _

No._

ACCEPTANCE

_ alterations have been made in this documents and as evidence that these alterations were made before the execution of the Contract Agreement, they have been initialed by the Contractor and **Shri G Selvam, AGE(C) of** GE (AFA) HYDERABAD.

The said Officer (s) is/are hereby authorized to Sign and initial on my behalf on the documents forming part of this contract.

The above tender was accepted by me on behalf of the President of India at the item rates contained in the Schedule 'A' for the contract sum of Rs ----- (Rupees -----
----- Only)

on Day of 2024.

Appointment: GARRISONENGINEER, AIRFORCEACADEMY, HYDERABAD-43.

(For and on behalf of the PRESIDENT OF INDIA)

Dated ----- day of -----2024

GENERAL CONDITIONS OF CONTRACTS (IAFW-2249-1989 PRINT) @ LUMP SUM CONTRACT (IAFW-2159) & ITEM RATE4CONTRACT (IAFW-1779-A)

A copy of the GENERAL CONDITIONS OF CONTRACTS (IAFW-2249-1989 Print) with errata **1 to 20** and amendments No. **1 to 49** has been supplied to me/us* and is in my/our* possession. I/We have read and understood the provisions contained in the aforesaid GENERAL CONDITIONS OF CONTRACTS before submission of this tender and I/We* agree that I/We* shall abide by the terms and conditions thereof, as modified, if any elsewhere in these tender documents.

It is hereby further agreed and declared by me/us* that the GENERAL CONDITIONS OF CONTRACTS (IAFW-2249-1989 PRINT) including condition 70 thereof pertaining to settlement of disputes by Arbitration containing 33 pages (Serial page Nos. to) With errata **1 to 20** and amendments Nos. **1 to 49** (Serial page Nos to) form part of these tender documents.

* My/Our signature(s) here under is deemed to *My/Our* having signed the aforesaid General Conditions of Contract together with errata and amendments (IAFW-2249, 1989 Print) forming part of this tender..

NOTE:- DISPUTE IN INTERPRETATION DUE TO WORDINGS OF ENGLISH AND HINDI VERSIONS

It is clarified that in case of difference in interpretation due to wording of English and Hindi versions, the English version will prevail as per Article 348 of the Constitution of India as clarified vide GS/MT-17 letter No.9601/GS/MT-17 dated 13 Oct 1989.

(SIGNATURE OF CONTRACTOR)

FOR ACCEPTING OFFICER

SCHEDULE OF MINIMUM FAIR WAGES

(PAYABLE BY THE CONTRACTOR UNDER MINIMUM FAIR WAGES ACT)
(SEE CONDITION 58 OF IAFW-2249)

1. It is here by agreed by me/us* that the "Schedule of Minimum Fair Wages"(SMFW) as published vide Government of India which specifies the minimum rates of wages for various categories of workmen as applicable on the last due date of receipt of this tender shall form part of the tender documents and is in my/out* possession. I/We* have read and understood the provisions contained in the aforesaid Schedule of Minimum fair Wages before submission of tender.

2. My/Our* signature(s) here amounts to my/our* having signed the aforesaid Schedule of Minimum Fair Wages forming part of this tender.

(*Delete whichever is not applicable)

(SIGNATUREOFCONTRACTOR)

FOR ACCEPTINGOFFICER

Note : Schedule of Minimum Fair Wages referred to above is available for reference , in the office of Garrison Engineer, Air Force Academy, Hyderabad".

SPECIAL CONDITIONS**1. GENERAL.**

The following special conditions shall be read in conjunction with the General conditions of contract IAFW-2249, and IAFW-1779-A including Errata/Amendments thereto. If any provision in these special conditions is at variance with that of the aforesaid documents, the former shall be deemed to take precedence there over.

2. INSPECTION OF SITE.

For the purpose of inspection of site, the tenderer is advised to contact the GE who will give reasonable facilities thereof. The tenderer shall also make himself familiar with the working conditions, accessibility to site of work, availability of labour and materials and such other relevant conditions which effect the execution and the entire completion of the works. The tenderer shall be deemed to have inspected the site and made himself familiar with various factors which may affect his quotation whether he actually inspects the site or not.

3. SECURITY AND PASSES.

- 3.1 Contractor's attention is invited to condition 25 of IAFW-2249. He shall employ only Indian Nationals after verifying their antecedent and loyalty. The contractor shall, on demand by the Engineer-in-Charge submit list of his agents, employees and work people concerned and shall satisfy the Engineer-in-Charge as to the bonafides of such people.
- 3.2 The Engineer-in-Charge shall at his discretion have the right to issue passes as per rules and regulations of the installation, area in force to control the admission of the contractor, his agent's employees and work people to the site of the work or any part thereof. Passes should be returned at any time on demand by the Engineer-in-Charge or the authorities concerned and, in any case on completion of work.
- 3.3 The contractor and his agents, employees and work people shall observe all the Rules promulgated by the authority controlling the installation/ area in which the work is to be carried out eg., prohibition of smoking and lighting, fire precautions, search of persons on entry and exit, keeping to specific route, observing specified timing etc., Nothing extra shall be admissible for any man-hours, etc., lost on this account.

4. CONDITIONS OF WORKING IN RESTRICTED AREA.

Work under this contract lies in restricted area.

4.1 VISIT TO SITE WITH IN THE RESTRICTED AREA.

Permission to enter the restricted areas at the time of submission of tenders can be obtained through the Garrison Engineer. Tenderers are advised to send prior intimation of their agents, representatives etc., if any, dates and time of their proposed visit so that necessary arrangements may be made by GE to secure admission. Whether a tenderer visits the site or not he shall be deemed to have full knowledge of the restriction of entering into/exit from and working within the restricted area.

SPECIAL CONDITIONS(Contd.....)**4.2 ENTRY/EXIT.**

The contractor his agents/representatives, workmen etc., and his materials, carts, trucks or other means of transport etc., will be allowed to enter through and leave from only such gate or gates and such times as the GE or authorities in charge of the restricted areas may at their sole discretion permit to be used. The contractor's authorized representatives are required to be present at the place of entry and exit for the purpose of identifying his carts, trucks etc., to the personnel in charge of the security of restricted areas.

4.3 IDENTITY CARDS OR PASSES.

The contractor, his agents and representatives are required individually to be in possession of an Identity Card or Pass duly verified by the Garrison Engineer. The identity card or pass will be examined by the Security Staff at the time of entry into or exit from the Restricted Area and also at any time or number of times inside the Restricted Area.

4.4 IDENTITY OF WORKMEN.

4.4.1 Every workman shall be in possession of an identity card/token issued by the authority. The Identity Card will be issued after thorough investigation of the antecedents of the labourers by the contractors and attested by Officer-in-Charge of the unit concerned in accordance with the Standing Rules and Regulations of the units.

4.4.2 Contractor shall be responsible for the conduct and action of his workmen, agents or representatives.

4.5 SEARCH.

Thorough search of all persons and transport shall be carried out at each gate and for as many times as the gate is used for entry or exit and may also be carried out at any time or any number of times at the work site within the Restricted area.

4.6 FEMALE SEARCHER.

If the contractor desires to employ female labour on works to be carried out inside the area of a Factory, Depot, Park etc., and a female searcher is not borne on the authorized strength of the Factory, Depot, Parks etc., at the time of submission of the tender. He shall be deemed to have allowed in his tender for pay and allowances etc., for a Female searcher (Class IV) Servant/Group 'D' Servant) calculated for the period, female labour is employed by him inside that area. If more than one contractor employ female labour any month and female searcher(s) has/have to be employed in addition to the authorised strength of the Factory, Depot, Parks etc., The salary and allowances paid to the additional female searcher's shall be distributed on an equitable basis between the contractor's employing female labour taking into consideration the value and period of completion of their contracts. The GE's decision in regard to the amount recoverable on this account from any contractor shall be final and binding.

4.7 WORKING HOURS.

4.7.1 The units controlling restricted area, usually, work during six days in the week and remain closed on the 7th day. The working hours available to contractor's labour & staff are however, appreciably reduced because of the time taken in security checks observed at the time of entry/exit and during working hours.

SPECIAL CONDITIONS(Contd.....)**4.7 WORK ING HOURS(CONTD...).**

4.7.2 he exact working hours, days and non working days observed for the restricted area, where works are to be carried out shall be deemed to have been ascertained by the contractor before submitting his tender. The tenderer's attention is, invited to the fact that the total number of working hours for a unit are prescribed in Regulations and they cannot be increased by the Garrison Engineer.

4.7.3 Contractor's materials, transport etc., shall normally be permitted to go out of the area between 8 AM to 6 PM only.

4.7.4 Contractor may also be allowed to carry out the work beyond 6 PM and upto 6 AM (Day & Night) but however, no movements of materials and transport out of site of work shall be permitted during night unless special permission is obtained from the factory/unit authorities

4.8 WORK ON HOLIDAYS.

The contractor shall not carry out any work on Gazetted Holidays/Weekly holidays and other non-working days except when he is specially authorized in writing to do so by the GE. The GE may at his sole discretion, declare any day as holiday or non-working day without assigning any reasons for such declaration.

4.9 ACCESS TO RESTRICTED AREA AFTER COMPLETION OF WORKS:-

After the works are completed and surplus stores etc., removed, the contractor, his agents, representatives or workmen etc., may not be allowed to have access to the restricted area except for attending any rectification of defects pointed out to him by the GE.

4.10 FIRE PRECAUTIONS.

4.10.1 The contractor, his agents, representative, workmen etc., shall strictly observe the orders pertaining to fire precautions prevailing within the restricted area.

4.10.2 Motor transport vehicles, if any allowed by authorities to enter the restricted area, must be fitted with serviceable fire extinguishers.

5.1 NET WORK ANALYSIS.

5.2 The time and progress chart to be prepared as per condition 11 of General conditions of contract (IAFW-2249) shall consists of detailed net work analysis and time schedule. The critical path net work will be drawn jointly by the GE and the contractor soon after acceptance of tender. The time scheduling of the activities will be done by the contractor so as to finish the work within the stipulated time. On completion of the time schedule a firm calendar date schedule will be prepared and submitted by the contractor to the GE who will approve it after scrutiny. The schedule will be submitted in four copies within two weeks from the date of handing over the site.

SPECIAL CONDITIONS(Contd.....)**5.0 NET WORK ANALYSIS (CONTD.....).**

- 5.2 During the currency of work, the contractor is expected to adhere to the time schedule and this adherence will be a part of the contractor's performance under the contract. During the execution of the work, the contractor is expected to participate in the review and updating of the network undertaken by the GE. These reviews may be undertaken at the discretion of the GE either as a periodical appraisal measure or when the quantum of work ordered on the contractor is substantially changed through deviation orders or amendments. Any revision of the time Schedule as a result of the review will be submitted by the contractor to the GE within a week for the approval after due scrutiny.
- 5.3 The contractor shall adhere to the reviewed time schedule thereafter. In case of contractor disagreeing with the revised schedule, the same will be referred to the Accepting Officer, whose decision shall be final, conclusive and binding. GE's approval to the revised schedule resulting in completion date beyond the stipulated date of completion shall not automatically amount to grant of extension of time. Extension of time shall be considered and decided by the appropriate authority mentioned in condition 11 of IAFW-2249 and separately regulated.
- 5.4 Contractor shall mobilize and employ sufficient resources to achieve the detailed schedule within the broad frame work of the accepted methods of working and safety. No additional payment will be made to contractor for any multiple shift work or other incentive methods contemplated by him in his schedule, even though the time schedule is approved by the department.

6.0 SECURITY OF CLASSIFIED DOCUMENTS.

Contractor's special attention is drawn to condition 2 A and 3 of General conditions of contract IAFW-2249. The contractor shall not communicate any classified information regarding work either to sub-contractors or others without prior approval of Engineer-in-Charge. The contractor shall also not make copies of the design/drgs and other documents furnished to him in respect of works and he shall return all documents after completion of works or on earlier determination of contract. The contractor shall along with final bill attach a receipt from the Engineer-in-Charge in respect of his having returned the classified documents as per condition of General Conditions of Contract.

7.0 CONTRACTORS REPRESENTATIVES, AGENTS AND WORKMEN.

The contractor shall employ only Indian Nationals as his representative, Servants and workmen after verifying their antecedents and loyalty before employing them for the work. He shall ensure that no person of doubtful antecedents and Nationality is, in any way, associated with the works. If for any reasons of Technical collaboration or consideration, the employment of any foreign National is unavoidable, the contractor shall furnish particular to this effect to the Accepting Officer at the time of submission of his tender. GE shall order the Contractor to cease to employ in connection with this contract any representatives, agents, servants and workmen or employees whose continued employment in his opinion is undesirable. The contractor shall not be allowed any compensation on this account.

SPECIAL CONDITIONS(Contd...)**8.0 MINIMUM FAIR WAGES.**

Refer condition 58 of General Conditions of Contract (IAFW-2249). The contractor shall have no claim whatsoever, if for reasons other than those mentioned in condition 63 of IAFW-2249 he is required to pay wages in excess of the Minimum Fair Wages shown in Schedule of minimum fair wages under condition 58 of IAFW-2249.

9.0 ROYALTIES.

Delete the existing condition 14 of General Conditions of Contract (IAFW-2249) and insert the following:-
No quarries on Defence land are available.

10.0 LAND FOR TEMPORARY WORK SHOPS, STORES ETC.

Refer Condition 24 of General Conditions of Contract IAFW-2249. The contractor shall be allotted land in the area/areas as marked on the layout plan(s) or as directed by the Engineer-in-Charge for the purpose of erection of temporary workshops, Stores etc only at a nominal rent of Rs 1/- per year or part thereof in respect of each and every separate areas of land allotted to him. Plot of land so allotted shall not be used for accommodation of labour and canteen, for which the contractor shall make his own arrangements at his own expenses.

11.1 WATER.

11.2 Water will be supplied by MES @ Rs. 3.75 per Rs. 1000/- worth of work done.

12.0 CO-OPERATION WITH OTHER AGENCIES.

The contractor shall permit free access and generally afford reasonable facilities to other agencies or departmental workmen engaged by the Government to carry out their part of work, if any, under separate arrangements.

13.1 ELECTRIC SUPPLY

Electricity will be supplied by MES. The contractor will be charged for electric energy consumed at the following rates:-

(i) At Rs 19.75 per Unit for lighting.

(ii) At Rs 19.75 per Unit for power.

Electric supply required for works will be made available by the MES at the incoming terminal of the main switch marked on the layout plan. The main switch and KWH meter to register the electric energy supplied will be provided and installed by MES. The contractor shall provide all necessary connections cable, fittings etc., from the main switch in order to ensure proper and suitable supply of electricity for the execution of work. MES do not guarantee continuity of supply and no compensation whatsoever shall be allowed for supply becoming intermittent or for break down in the system.

14.0 CLEANING DOWN.

Refer condition 49 of IAFW-2249, General Conditions of Contract:-

The contractor shall clean all floors, walls, remove cement/lime/paint drops etc., clean the joinery, glass panels etc., touch up all painters work and carry out all other necessary items of work in connection therewith and leave the whole premises clean and tidy before handing over the buildings.

SPECIAL CONDITIONS(Contd...)**15.0 RECORDS OF MATERIALS AND PURCHASE VOUCHERS**

- 15.1 The quantity of materials such as cement steel, paints, water proofing compound, chemicals for anti-termite as directed by the Engineer-in-Charge (the quantity of which cannot be checked after incorporation in the works) shall be recorded in the measurement book and signed by the contractor and the Engineer-in-Charge as a check to ensure that the required quantity has been brought to site for incorporation in the work.
- 15.2 Materials brought to site shall be stored as directed by the Engineer-in-Charge and those already recorded in Measurement Book shall be suitably marked for identification.
- 15.3 Contractor shall produce vouchers/invoices from the manufacturers and/or their authorised agents for the full quantity of the materials being claimed as materials lying at site as applicable as a pre-requisite before submitting claims for advances on account of work done and/or materials collected in accordance with Conditions 64 of General conditions of Contracts IAFW – 2249.
- 15.4 However Contractor shall also produce vouchers/invoices from the manufacturers and/or their authorised agents for the full quantity of the following materials incorporated in the work.
- (a) Feeder Pillar Box including all Accessories (b) LT XLPE UG Cables (c) MCB / MCCB / DB's / ACB's (d) LT Panel Boards (e) All Electrical Fittings (f) Cable Jointing Kits / Cable Junction Boxes (g) LED Fittings

16.1 GOODS AND SERVICE TAX.

The contractor's quoted rates shall be deemed to be inclusive of all taxes / cesses viz GST, duties, royalties Octroi and other levies payable under respective statutes as applicable on the date of receipt of tender. It may be noted that any tender imposing any condition in this regard or on any other account shall be treated as a conditional tender and the same shall be liable to be rejected.

17.1 PERIOD FOR KEEPING THE TENDER OPEN.

- 17.2 The tender shall remain open for acceptance for period of 60 (SIXTY) days from the date on which the tenders are due to be submitted.

18.0 CONSTRUCTION LABOUR WELFARE TAX.

Consequent upon promulgation of ordinance by the president of India, contractor shall be liable to pay an element for construction labour welfare tax if any and the quoted rates/amounts shall be deemed to be inclusive of this element and no extra payment shall be admissible to the contractor on this account irrespective of actual payment.

19.0 OFFICIAL SECRETACT.

The Contractor shall be bound by the official secrets Act – 1923.

20.0 DAMAGE TO EXISTING STRUCTURES.

Any damage done to the existing pavement and structure etc, during the execution of the work shall be made good by the contractor at his own expenses and site of works left clean and tidy on completion. Rectification, reinstatement, replacement, making good and touching up etc, shall be carried out to conform to the materials and workmanship originally as provided and to the satisfaction of the Engineer-in-Charge. In case of any dispute on this account, decision of the CWE shall be final and binding.

20A. RELEASE OF ADDITIONAL SECURITY DEPOSIT

- 20A.1 Refer Condition 22 and 68 of IAFW-2249 General Conditions of contracts.

- 20A.2 The contractor, in case he has to deposit additional security for the contract, is advised to deposit the additional security in two equal parts so as to its release in accordance with condition 68 of IAFW-2249.

SPECIAL CONDITIONS(Contd...)**21.0 RE-IMBURSEMENT/REFUND ON VARIATION IN "TAXES DIRECTLY RELATED TO CONTRACT VALUE" (CONTD.....)**

- (a) The rates quoted by the Contractor shall be deemed to be Inclusive all taxes / Cesses Viz GST, duties, Royalties, Octroi & other levies payable under the respective Statutes. No reimbursement/refund for variation in rates of taxes / cesses , duties, Royalties, Octroi & other levies, and/or imposition/abolition of any new/existing taxes, duties, Royalties, Octroi & other levies shall be made except as provide in sub Para (b) here-in-below.
- (b) (i) The taxes / cesses which are levied by Govt at certain percentage rates of Contract Sum/Amount shall be termed as "taxes directly related to Contract Value" Such as GST, Labour welfare cess as applicable but excluding Income Tax. The tendered rates shall be deemed to be inclusive of all "taxes directly related to Contract value" with existing percentage rates as prevailing on last due date for receipt of tenders. Any increase in percentage rates of "taxes directly related to Contract value" with reference to prevailing rates on last due date for receipt of tenders shall be reimbursed to the Contractor and any decrease in percentage rates of "taxes directly related to Contract value" with reference to prevailing rates on last due date for receipt of tenders shall be refunded by the Contractor to the Govt/deducted by the Govt from any payments due to the Contractor. Similarly imposition of any new "taxes directly related to Contract value" after the last due date for receipt of tenders shall be reimbursed to the Contractor and abolition of any "taxes directly related to Contract value" prevailing on last due date for receipt of tenders shall be refunded by the Contractor to the Govt/deducted by the Govt from the payments due to the Contractor.
- (ii) The contractor shall, within a reasonable time of his becoming aware of variation in percentage rates and/or imposition of any further "taxes directly related to Contract value", give written notice thereof to the GE stating that the same is given pursuant to this Special Condition, together with all information relating there to which he may be in a position to supply. The Contractors shall submit the other documentary proof/information's as the GE may require.
- (iii) The Contractor shall, for the purpose of this condition keep such books of account and other documents as are necessary and shall allow inspection of the same by a duly authorized representative of Govt, and shall further, at the request of the GE furnish, verified in such a manner as the GE may required.
- (iv) Reimbursement for increase in percentage rates/imposition of "taxes directly related to Contract value" shall be made only if the Contractor necessarily & properly pays additional "taxes directly related to Contract value" to the Govt, without getting the same adjusted against any other tax liability or without getting the same refunded from the concerned Govt Authority and submits documentary proof for the same as the GE may require"

Note: Please note that unit rates quoted by contractor shall be deemed to be inclusive taxes / cess viz, GST, duties, royalties, Octroi and other levies payable under respective rates as applicable on the dates of receipt of tender. It may be noted that any tender imposing any condition in this regard or on any other account shall be treated as a conditional tender and the same shall be liable to be rejected

(SIGNATURE OF CONTRACTOR)

FOR ACCEPTING OFFICER

SPECIAL CONDITIONS(Contd...)

22. BANK GUARANTEE BOND AGAINST PERFORMANCE SECURITY

22.1 Condition 19.1 of IAFW-2249 and condition 14A.1 of IAFW-1815Z provides for submission of performance security by the successful contractor in the form of Bank Guarantee Bonds or Govt Securities, FDR or any other form of deposit stipulated by the Accepting Officer.

22.2 The Performance Security shall be in favour of Accepting Officer and shall be in any of the forms mentioned above. Work Order No 1 shall be placed only after submission of Performance Security of adequate value by the contractor. In case a fixed deposit receipt of any Bank is furnished by the contractor to the Government as part of the Performance Guarantee and the Bank is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the Government to make good the deficit.

22.3 If the performance security is provided by the successful contractor in the form of a Bank Guarantee, it shall be issued by Nationalized/Scheduled Indian Bank but its confirmation shall be done only from the head office of the Bank

22.4 Form for Bank Guarantee Bond against performance security deposit shall be same as Appendix 2.1 on MES Manual of Contracts 2007 (Reprint 2012) with "security deposit" in para 1 line 4 replaced by "Performance security Deposit".

22.5 The period of validity of the Bank Guarantee Bond against Performance Security shall be initially valid upto the stipulated date of expiry of Defects Liability Period plus minimum 60 days beyond that. In case final bill is not paid during this period, the contractor shall get the Validity of Performance Guarantee extended to cover such enlarged time required for payment of final bill.

22.6 The original Bank guarantee Bond against performance security along with necessary certified copies shall be sent to the PCDA/CDA by the Accepting Officer for verification and then returning the original to the Accepting Officer and the certified true copies to the CWE/GE(I), GE/AGE(I) & AAO. The original BGB shall be kept in the custody of the Accepting Officer.

22.7 The Accepting officer shall evolve a procedure to ensure that timely action is initiated to have the validity date of the Bond extended by the contractor, or to have it encashed before the same expires. For this purpose, a suitable register shall be maintained by the Accepting Officer. The register shall also be maintained by the Contract Section with details of Performance Securities and dates of Validity of these instruments and the same shall be an auditable document. Performance Security shall be in possession of the official who is head of the Contract Section of the Office of concerned Accepting Officer.

SPECIAL CONDITIONS(Contd...)

22.8 In case at a later stage, on account of delay in completion of work or due to any other reason, it is considered that the validity date stipulated in the Bank Guarantee against Performance security should be extended, then the contractor shall be directed by the Accepting Officer of the contract to have the validity extended before the date of validity expires. If the contract fails to do so, the Bank Guarantee shall be encashed before expiry. The encashment notice shall be similar to the format given in Appendix 18.5 MES manual on contract 2007 (reprint 2012) with "in lieu retention money" in para 1, line 2 replaced by "against Performance Security". Accepting Officer shall ensure to issue notice to the concerned contractor to get the validity of Performance Security instrument extended suitably two months before the expiry of the validity. In case extension is not received four weeks before the expiry of validity of financial instrument, necessary encashment notice shall be served by Accepting Officer.

22.9 In case the BGB is not encashed by the concerned Bank, the matter shall be referred to the central Office of RBI in Delhi and Mumbai at the following address or any latest address which can be found from internet:-

- | | |
|---|--|
| (a) Jt Chief Officer
Deptt of Baking & operations
Reserve bank of India
Parliament Street,
New Delhi – 110011 | (b) Reserve Bank of India
Central office
Department of banking Operations &
Development Centre -1
World Trade Centre
Cuffe Parade, Colaba,
Mumbai – 400 0005 |
|---|--|

22.10 Bank Guarantee Bond in lieu of Performance Security is due for discharge on expiry of Defect Liability period provided always that the contractor has been paid the final bill and contractor has rendered the No Demand Certificate (IAFW-451) Immediately after expiry of Defects Liability period, GE concerned shall check and ascertain the position of final bill.

22.10.1 In case final bill has been paid, contractor shall be asked to submit the No Demand Certificate (IAFW-451), if not already submitted by him. After submission of No Demand Certificate (IAFW-451), GE will intimate this fact to the Accepting Officer within a week who shall release the Bond duly discharged to the contractor. Accepting Officer will ensure that no delay occurs in releasing the Bank Guarantee Bond.

22.10.2 In case final bill has not been paid, the status thereof shall be ascertained by Accepting Officer and efforts will be made to get it cleared within one month of expiry of Defects Liability period. After clearance and payment of final bill contractor shall be asked to submit the No Demand Certificate (IAFW-451), if not already submitted by him. After submission of No Demand Certificate (IAFW-451) to GE and on receipt of the same, Accepting Officer shall release the Bond duly discharged to the contractor without any delay.

22.11 Contractor shall produce performance security @ 5% within 28 days of Acceptance of tender as intimated by the Accepting Officer.

If any recovery is outstanding against the contractor, release of Bank Guarantee will be subject to compliance of the procedure for effecting the recovery / with holding the due amount as stipulated in Condition 67 (as amended) of GCC(IAFW-2249) or Condition 34 (as amended) of GCC (IAFW-1815 Z), as applicable.

(SIGNATURE OF CONTRACTOR)

FOR ACCEPTING OFFICER

PARTICULAR SPECIFICATIONS**1. GENERAL**

- 1.1 The work under this contract shall be carried be carried in accordance with the description in Schedule `A` Special conditions, Particular Specifications, Drawing, General Specifications, and other provisions in the MES Schedule Part I (2009) and MES Schedule Part – II Rates (2020) read in conjunction with each other.
- 1.2 The term General specifications referred to in Clause 1.1 above and in IAFW – 2249 shall mean the specifications contained in the MES standard Schedule of rates (2009) Part I and part – II (Rates) 2020 including errata and amendments thereto as applicable
- 1.3 Where specifications/ provisions given in these particular specifications are at variance with the provisions/specifications given in MES Schedule specifications/provisions given in these particular specifications shall be followed.

2. SCOPE OF WORK:

- 2.1 This contract includes supply of material and efficient labour required for entire completion of works as listed in Schedule "A" and as specified hereinafter and as directed by Engineer-in-Charge..

3. DEMOLITION / DISMANTLING / TAKING DOWN ETC

- 3.1 The debris dust etc collected out of dismantling/ demotion shall be removed immediately to the places where directed by Engineer – in –Charge. Necessary precautions like watering shall also be taken by the contractor to prevent the flow of dust etc, arising out of dismantling

4 EXCAVATION AND EARTH WORK

- 4.1 Earth work shall be in hard/dense soil as described in Schedule 'A'. The work shall be carried out in accordance with provision of MES Schedule Part I- Specifications (2009).

5. REMOVING EXCAVATED SOIL

- 5.1 Removing excavated soil shall be in hard/dense soil as described in Schedule 'A'. The work shall be carried out in accordance with provision of MES Schedule.

6 STORES AND MAERIALS:-

- 6.1 Contractor shall submit samples of all materials before incorporation in work and got approved by GE in writing. Samples are not however required in respect of major items provided that approval of the Garrison Engineer is obtained in respect of make and type and IS specifications. Letters conveying approval of samples/materials by GE shall interalia mention source of supply/name of manufacture/trade/name/brand (if applicable) and reference to clause of materials. The contractor and the executive shall ensure that the materials incorporated in work conform to approved samples.
- 6.1.1 Cement concrete shall be of the specified grade of volumetric mix as indicated. Mixing, placing compaction and curing of cement concrete shall be carried out as per MES SSR Part-I (2009) clause No 4.11.5 to 4.11.5.1, 4.11.10 to 4.11.10.3, 4.11.11.11 to 11.11.1 and 4.11.13 respectively .Quantity of water used in the concrete mix of RCC work shall be sufficient to produce a dense concrete of adequate workability for its purpose, which will surround and properly grip all the reinforcement. Workability of concrete shall be control by maintaining a water cement ratio that is found to give a concrete, which is just sufficiently wet to by placed and compacted without difficulty with the means available.

PARTICULAR SPECIFICATIONS (CONTD)

6.1.2 Water used for mixing and curing shall be clean and free from injurious amounts of oils, acid alkalis, salt sugar, and other substances those are deleterious to concrete or steel.

7.0 **CEMENT CONCRETE:-**

7.1 **PLAIN AND REINFORCED CEMENT CONCRETE:-**

7.2 **CEMENT:-**

7.2.1 Cement required for the works under this contract shall be procured, supplied and incorporated in the works by the contractor under his own arrangements. Cement shall be of tested quality and shall comply with the requirements mentioned in the SSR, IS Specifications as amended.

7.2.2 Cement shall be ordinary Portland cement grade 43 in accordance with IS -8112-1989. Contractor may be permitted to use ordinary Portland cement grade 53 with out any extra cost to the Govt.

7.2.3 **PROCUREMENT** : Cement shall be procured from the following manufacturers/main producers:-

- (i) M/s The Associated Cement Companies Ltd (Brand : ACC)
- (ii) M/s Ultra Tech cement Ltd (Brand : ULTRATECH)
- (iii) M/s The India Cement
- (iv) M/s Dalmia Cement (Bharat) Ltd (Brand: "DALMIA" " KONARK")
- (v) M/s Century Cements (Brand : CENTURY)
- (vi) M/s Saurashtra Cement (Brand : SAURASHTRA)
- (vii) M/s The Ramco Cements Ltd (BRAND "RAMCO")
- (viii) M/s Mangalam Cement Ltd (Brand : MANGALAM)
- (ix) M/s Birla Corporation Ltd (Brand : BIRLA)
- (x) M/s Orient Cement (Brand : ORIENT)
- (xi) M/s Nuvuco Vistas Corporation Ltd (BRAND "NUVUCO")
- (xii) M/s Shree Cement (Brand : SHREE)
- (xiii) M/s JK Cement (Brand : JK)
- (xiv) M/s JK Lakshmi Cement (Brand : JK LAKSHMI)
- (xv) M/s Jaypee Rewa cement (Brand : JAYPEE)
- (xvi) M/s Ambuja Cement Ltd (Brand : AMBUJA)
- (xvii) M/s Shree Guru Kripa Cement (Pvt) Ltd (Brand : SARTAJ)
- (xviii) M/s Parasakti Cements Ltd (Brand : PARASAKTI)
- (xix) M/s My Home Industries Ltd (Brand : "MAHA CEMENT")
- (xx) M/s Chettinad Cement Corporation Ltd (Brand : CHETTINAD)
- (xxi) M/s Sanghi Industries Ltd (Brand : "Sanghi")
- (xxii) M/s Wonder Cement Ltd (Brand : "WONDER Cement")
- (xxiii) M/s Kesoram Industries Ltd Ltd (Brand : "Birla Shakti")
- (xxiv) M/s JSW Cement Ltd AP (Brand "JSW PSC" (Portland Slag Cement)

7.2.4 Contractor shall furnish paid vouchers and test certificates in respect of the entire quantity of the cement procured by him to the entire satisfaction of the GE.

NOTE: Any other make of cement approved by E-in-C's Branch, New Delhi can also be used with the approval of GE. If any of above manufacturer is banned/ removed by E-in-C's branch, New Delhi (even after acceptance of tender) same shall not be allowed to be used in the work.

PARTICULAR SPECIFICATIONS (CONTD)

8.0 AGGREGATE:-

8.1 Aggregates brought to the site by the contractor shall be hard, strong, dense, durable, clean and free from injurious or disintegrated places and it shall pass the field tests as carried out by the Engineer –in-Charge

8.2 Coarse aggregate for cement concrete shall be crushed/broken hard grant stone conforming to ISI 383 obtained from approved quarries and shall be free from deleterious materials as mentioned in MES SSR Part – I (2009) Clause No 4.4.2.

8.3 Fine aggregate (sand)

8.3.1. Contractor may use crushed stone sand produced from hard stone from granite/basalt/black trap having cubical shaped particles with grounded edges of ground gradation for concrete and masonry work without any price adjustment in lieu of natural sand/river sand.

Crushed stone sand for concrete work shall confirm to materials specifications and grading within the limits of grading zones II to III all as specified in Clause 4.4 to 4.4.7.3 of MES Schedule Part-I.

Crushed stone sand can be used for plastering with river sand in the ratio of 1:1 without any price adjustment and confirming to IS 1542-1992 and SSR clause of plastering

9. CONCRETE

9.1 All plain and reinforced cement concrete shall be as per IS-456 (2000) as amended upto date.

9.2 AGGREGATE

Coarse aggregate for all cement concrete work, unless otherwise specified shall be crushed and graded hard stone. Coarse aggregate and fine aggregate (sand) shall be from the source as mentioned in Appendix 'A' and approved by the GE and shall conform to IS-383 and to the sample kept in GE's office.

9.3 WATER

Quality of water to be used for mixing and curing of concrete work shall conform to the requirement of clause No 5.4 of IS-456 (2000). GE and contractor will ensure that testing of water is carried out at three months intervals to comply with the requirement. Cost of testing of water will be borne by the contractor. The CWE will monitor the quality of water through test results to ensure that the water used for making concrete or mortar and for curing confirm to IS-456.

10. STEEL AND IRON WORK

10.1 Steel required for the work shall be of Contractors supply and confirmed to

(a) High strength deformed steel bars produced by Thermo Mechanical Treatment Process (TMT Steel Bars) shall be of grade Fe-500/550

(b) All other steel items: Fe-410-0.

10.2 Steel and ironwork in various situations shall be carried out as specified in MES Schedule Part-I, Section 10 and as shown in drawings. However, TMT bars shall be used in lieu of CTD bars.

10.3 TYPES OF STEEL

10.3.1 Steel supplied by the contractor shall conform to the following grades and quality:-

PARTICULAR SPECIFICATIONS (CONTD)10.4 (a) **TMT STEEL REINFORCEMENT BARS**

(i) TMT steel bars of all sizes shall be procured directly from the following primary manufacturers:

SOURCES OF PROCUREMENT (Contd...)

Sl. No.	Company Name	Address	Type of Steel
1	2	3	4
1.	Rashtriyaspat Nigam Limited (RINL)	Visakhapatnam Steel Plant, Visakhapatnam – 530031 Ph:0891-518226,518376, Fax:0891-518316 email:cmdvsp@itpvis.ap.nic.in	All Sections
2.	Tata Iron & Steel Company (TISCO or Tata Steel)	Bombay House, 2,4 Homi Modi Street, Mumbai – 400001 Ph:022-2049131 Fax:022-2049522, 2870840 email:corpcomm@jsr.tatasteel.com (Br. Office for North: Jeevan Tara Building, Patel Chowk, New Delhi)	All Sections
3.	Steel Authority of India Limited (SAIL)	Central Marketing Organisation, Northern region, 17 th floor, Scope Minar, Laxmi Nagar, Dist. Centre, Delhi – 110092	All Sections
4.	M/s Jai Balaji Industries Ltd.	5 BenteK street, Kolkata – 700001 <u>Delhi office:</u> 510 Block-B, Navraung House 21, Kasturba Gandhi Marg, New Delhi – 110001 Ph:011-43620219,43620220 Mob:7838272772/9958936103 email:infor@jaibalajigroup.com	TMT bars of Grade Fe 500, Fe 500D
5.	M/s Shyam Steel Industries Ltd.	Shyam Towers, EN-32, Sector-V, Salt Lake, Kolkata-700091 Ph:033-40074007 Fax:033-40074010 email:marketing@shyamsteel.com	TMT bars of Grade Fe 500, Fe 500D CRS
6.	M/s Steel Exchange India Ltd.	My Home Laxminivas Apartments, Ameerpet, Hyderabad – 500016 TS Ph:040-23403725 Fax:040-23413267 email:infor@seil.co.in	TMT bars of Grade Fe 500, Fe 500D

PARTICULAR SPECIFICATIONS (CONTD)

7.	M/s Jindal Steels and Power Ltd.	OP Jindal Road, Hissar, Haryana PIN-125005 Ph:01662-222471-84 Fax:01662-220476	TMT bars of Grade Fe 500/Fe 500D Fe 550 / Fe550D
8.	M/s SRMB Srijan Ltd	SRMB House, 7 Khetra das lane, Kolkata-700012 Ph:033-66006600 Fax:033-22110483	TMT bars of Grade Fe 500/Fe 500D Fe 550 / Fe550D (Size 8-32mm)
9.	M/s Concast Steel & Power Ltd.	21 Hemant Basu Sarani, Suit Nos – 511 & 512, 5th floor, Kolkata – 700001 Ph:033-22130481-87, 033-22130488 email:info@concastgroup.com	TMT bars of Grade Fe 500 (Size 8-32mm)
10.	M/s Shri Bajrang Power & Ispat Ltd	Vill-Borjhara, Urla Industrial Area, Raipur-493221 Chattisgarh Ph:0771-4288019/29/39	TMT bars of Grade Fe 500/Fe 500D (Size 8-32mm)
11.	M/s JSW Steel Ltd.	Jindal Mansion, 5A Dr. G Deshmukh Marg, Mumbai – 400026 Ph:022-23513000, 022-23526400	TMT bars of Grade Fe 500/Fe 500D CRS (Size 8-40mm)
12.	M/s Shyam Metalics & Energy Ltd. Brand : SEL	Viswakarma, 1 st floor, 86C, Topsia Road, Kolkata – 700046 Ph:033-22852212 www.shyamgroup.com	TMT bars of Grade Fe 500 (Size 8-32mm)
13.	M/s Kamachi Industries Ltd Ltd.	ABC Trade Centre 3 rd floor, New No 39 Annasalai, Chennai 600 002	TMT bars of Grade Fe 500, Fe 500 D, Fe 550, Fe 550 DHCRM Size 8 mm -40 mm (Size 8-32mm)
14.	M/s Electro steel Steels Ltd.	GK Tower, 2 nd & 3 rd floor, 19 Camac Street, Kolkata, WB-700017 Board No. 033-22839990, 033-71034400 Fax:033-22902882 www.electrosteel.com	TMT bars of Grade Fe 500D (Size 8-36mm)

PARTICULAR SPECIFICATIONS (CONTD)

15.	M/s Real Ispat & Power Ltd. Brand "G K TMT "	Vrindavan, Near IDBI Bank Civil Lines, Raipur-492001, C.G Tel: + 91-771-4224000 Fax: + 91-771-4224010 E Mail:real@realispat.com Website: www. realispat.com	TMT Bars of Gde Fe 500 Fe500D (Size8-36mm)
16.	M/s Super Smelters Ltd, Kolkata Brand "SUPER SHAKTI "	Premlata 39, Shakespeare Sarani, .3 rd Floor, Kolkata – 700017 Tel: + 91-33-2289-2737/36 Fax: + 91-33-2289-274/36 E Mail:info@supershakti.in Website: www. supershakti.in	TMT Bars of Gde Fe 500 Fe500D, Fe550 (Size8-32mm)
17	M/s Electrotherm (India) Ltd. Brand" ET TMT"	Survey No.72, Palodia, Via-Thaltej, Ahmedabad Gujarat - 382115 Tel: + 91-2717-660649/660550 Fax: + 91-2717-234866 E Mail: Website:www.electrotherm.com	TMT Bars of Gde Fe 500 Fe500D & CRS (Size8-32mm)
18	M/s Rashmi Metaliks Ltd , WB Brand "RASHMI TMT"	Premlata Building , 39 , Shakespeare , 6 th Floor , Kolkata – 700 017 , Tele 033 – 22894255 / 56 , Fax 033- 22894254 Plant : At – Gokulpur , PO – Shyamraipur , Sist West Medinapore , Kolkata Ph 03222-234533 Website:www.rashmigroup.com	TMT Bars of Gde Fe 500 (Size 8 mm -32 mm) TMT Bars of Gde Fe 500D (Size 8 mm -25 mm)

10.5 **SOURCES OF PROCUREMENT (Contd...)**

NOTE:- (i) Contractor shall submit manufactures test certificate alongwith test sheet for the steel procured.

(ii) Steel sections for grills, gratings, railings , guard bars , fencing posts etc which do not constitute structural members can be procured from above main/primary producers as approved by E-in-C's Branch/ BIS marked manufacturers or their authorized dealers at the option of the Contractor without any price adjustment. Tests will not be insisted upon for such steel sections.

(iii) Galvanised sheets and fabric reinforcement for concrete shall be procured directly from the above main/primary producers or other as approved by E-in-C's Branch/ BIS marked manufacturers or their authorized dealers at the option of the Contractor without any price adjustment. Tests will not be insisted upon for such steel sections.

(iv) **Any other manufacturer approved by E-in-C's branch, New Delhi can also be used with the approval of GE. If any of the above manufacturer is banned / removed by E-in-C's branch, New Delhi (even after acceptance of tender), the same shall not allowed to be used in the work.**

(v) In no case TMT Steel bars of any size shall be procured from other than the above mentioned main producers / primary producers.

PARTICULAR SPECIFICATIONS (CONTD)

- 10.6 **STRUCTURAL STEEL:** The contractor shall procure Structural steel sections directly from SAIL/RINL/TISCO./ JINDAL Steels and Power Ltd In case non availability of structural steel with SAIL/ RINL/TISCO / JINDAL Steels and Power Ltd the same can be procured from approved secondary producers given below with a reduction of 5% (five percent) of the accepted rates of structural steel with prior approval of the Accepting Officer. In case the desired section of structural steel is not rolled/manufactured by SAIL/RINL/TISCO / JINDAL Steels and Power Ltd, there shall be no price adjustment in case of structural steel procured from approved secondary producers given below:-

1	M/s KL Steel Pvt Ltd., Post Box No 61, Lal Kuan, Bulandshahar Road, Ghaziabad (UP)Tele : 0120 – 2867911, 2867915Fax : 0120 – 2867917	2.	SRMB Udyog Ltd., 46, BB Ganguli Street, Kolkata – 700 012 Tele : 2236 99994
3.	M/s Shri Badrinarain Alloys & Steels Ltd.,95, Stephen House, 4 BB D Bag, Kolkata – 700 001 Tele : 033 2220 5381 / 2248 1601 Fax : 033 2248 8664	4.	M/s Shree Parashnath Re-Rolling Mills Ltd 14C MaharshiDevendre Road 3 rd Floor, Kolkata – 700 007, Phone : 033 – 22740045/4475Fax : 033 22740039
5	M/s Pushpak Steel Industries Pvt. Ltd, Gate No 119, Alandimarkal Road, Dhanore, Tah Khed Pune Tele – Fax : 020-26444700/070	6	M/s Tata Steel Structural, Tata Steel – Tube Division, Jeevan Tara Building, 1 st Floor, 5, Sansad Marg, New Delhi – 110 001 Tele : 991112334, 264601734, 309983, 309986
7	M/s Amba Shakti Ispat Ltd., Plot No 6, Phase-II Industrial Area, Kala Amb, DistSirmour, 173030 (H.P.) Tele : 01734-309983, 309986, Fax : 01702-238927		

Note : Any other manufacturer approved by E-in-C's branch , New Delhi can also be used with the approval of GE. If any of above manufacturer is banned/ removed by E-in-C's branch , New Delhi (even after acceptance of tender) same shall not be allowed to be used in the work.

- 10.7 (c) Galvanized sheets and Fabric Reinforcement for concrete shall be procured directly from SAIL/ RINL/ TISCO/ JINDAL or other BIS marked manufacturers at the option of contractor without any price adjustment.
- 10.8 All finished steel shall be well and clearly rolled to the dimensions, sections and weights specified. The finished material shall be reasonably free from cracks, surface flaws, laminations, rough jagged and imperfect edges and any other harmful defects and shall be finished in a proper manner. Tolerance on size and weight of reinforcement bars shall not be more than as specified in Clause 10.17.4 and 10.17.5 of SSR Part I and as specified in IS-1786 and IS-2062 and as per relevant IS codes.

PARTICULAR SPECIFICATIONS (CONTD)

10.9 Contractor shall submit to GE manufacturer's test certificate (IN ORIGINAL) alongwith the test sheet giving result of each mechanical test and the chemical composition of steel (as per IS 1786-1985) for reinforcement steel or authenticated copy thereof duly signed by manufacturer with each consignment. The documents such as original purchase vouchers and test certificates in support of the purchases of steel shall be produced by the contractor to the site staff & GE for verification and record.

10.10 **APPROVAL OF STEEL BROUGHT BY THE CONTRACTOR**

Following action shall be taken by GE before incorporating steel procured by the contractor for the work :-

- (a) Physical verification of steel received to confirm the actual quantity of steel as well as to verify aspects brought out in foregoing.
- (b) GE will obtain original machine numbered purchase vouchers of manufacturer from contractor.
- (c) Verify the documents listed in Ser (b) & foregoing submitted by the contractor from the manufacturer.
- (d) No consignment or part thereof will be allowed to be incorporated in the work until and unless the test results of independent testing are obtained and the consignment is passed by GE. Schedule of procurement will be prepared keeping in view the time lost for testing etc.

(e) Three samples of pieces (3.00m long) of each section of each consignment will be retained at the project site till completion of the work. These samples will be suitably marked and properly preserved.

11 **PRECAST PCC SOLID BLOCK WALLING:-**

- (a) 20 cm thick PCC solid block walling of grade 'C' shall be built in cement mortar (1:4).
- (b) **LAYING:-** The block shall be slightly wetted before & during laying in the wall. The block shall be laid with mortar joints completely filled without any void left in the masonry. The thickness of the horizontal and vertical joints shall not exceed 1cm. The 1/2, 1/3 and 2/3 block shall be used for breaking the joints. The face joints shall be raked to a depth of 1cm by raking tool during the progress of the work, when the mortar is still green so as to provide proper key for plaster to be done later.
- (c) **CURING OF WALLING:-** Masonry work shall be kept constantly moist on all the faces for a minimum period of 7 days.
- (d) **SCAFFOLDING FOR WALLING:-** Only double scaffolding shall be used. The scaffolding shall be strong and sound. No holes in the masonry for supporting scaffolding will be allowed.

11.1 **PRECAST CEMENT CONCRETE SOLID BLOCK MASONRY**

11.2 PCC solid block masonry walls used in masonry shall comply with the requirements of IS:2185 (Part I)

PARTICULAR SPECIFICATIONS (CONTD)

11.3 PRECAST CEMENT CONCRETE BLOCKS

- 11.3.1 The solid PCC blocks shall be of nominal size 300 x 200 x 200mm (for 200mm thick walls) or 300 x 100 x 200 mm (for 100 mm thick walls). Half blocks, if required, shall be manufactured on half lengths of 200 mm. The tolerance on length of individual block shall be ± 5 mm, and tolerance on height and width of block shall be ± 3 mm. The faces of the block shall be flat and rectangular, opposite faces shall be parallel and all arises shall be square. The bedding surface shall be at right angles to the faces of blocks. All blocks shall be sound and free of cracks or other defects which interfere with the proper placing of blocks.
- 11.4 Solid concrete block shall have solid material not less than 75% of the total volume of the block calculated from the overall dimensions.
- 11.5 The blocks may be manufactured at site by the contractor or purchased from a manufacturer. Identification mark of manufacturer and the grade of unit on the blocks is not necessary. If the blocks are purchased from a manufacturer, contractor shall submit a certificate from manufacturer that the blocks conform to the requirement of IS: 2185 (Part-I). However the contractor shall be fully responsible to remove the blocks from the site without any extra expenditure if on independent testing they are found not conforming to IS. No claim shall be entertained on this account. Independent testing of blocks as described here-in-after shall be carried out by GE. If the blocks are manufactured at site, then the cement used for manufacturing shall be from any one manufactured from the list given here-in-before. Aggregates used shall conform to the requirements of IS:383. The grading of combined aggregates (coarse and fine) shall conform as nearly as possible to the requirements indicated in IS:383 Fineness modulus of the combined aggregates shall be preferably be between 3.6 and 4.0 Water for mixing and curing shall conform to the requirements of IS:456.
- 11.6 Concrete mix used for manufacture of blocks shall not be richer than one part of cement to six parts of combined aggregates by volume before mixing. Concrete shall be prepared in a mechanical mixer and blocks shall be compacted mechanically. Hand mixing and compacting shall not be allowed.
- 11.7 After de-moulding, the blocks shall be protected until they are sufficiently hardened to permit handling without damage and then shall be cured in a curing water tank or in a curing yard and kept continuously moist for at least 14- days . If cured in an immersion tank, the water of the tank shall be changed at least every four days. The blocks may alternately be steam cured in accordance with requirement of pressure or non pressure steam curing without any price adjustment. After curing the blocks shall be dried for a period of four weeks (with voids horizontal to facilitate through passage air) to complete their initial shrinkage before being used in the work.

12. PLASTERING:

- 12.1 Sand for plastering shall be fine river sand as approve.
- 12.2 Cement plaster shall. be finished even and smooth without using extra cement.
- 12.3 Thickness of plaster specified in Sch `A' is exclusive of dubbing out coat. Dubbing out of surfaces as read shall be carried out in separate coat before application of plaster. The mix of mortar for dubbing out coat shall be the same as for plaster.
- 12.4 Cement mortar in all situations shall be machine mixed or hand mixed at the discretion of the Contractor.

13 WHITE WASH

- 13.1 Lime used for white washing shall be freshly burnt fat lime (Class 'C') white in colour, conforming to IS-712-1984. White washing shall be carried out all as specified in clause 15.12 of MES Schedule Part I. Preparation of surface shall be carried out as per clause 15.12 of SSR - 2009 Part-I.

PARTICULAR SPECIFICATIONS (CONTD)

14 COLOUR WASH

- 14.1** The preparation and application shall be carried out all as specified in clauses 15.12.4 and 15.12.6 of SSR Part-I (1991) respectively. The ochres for making colour wash shall conform to IS-44-1969, Specification for ochre for paints. The solid lump shall be crushed to powder.

15 CEMENT BASE PAINT

15.1 Cement based paint shall conform to IS- 5410-1969. Prepare plastered surface of walls to be treated with cement based paint as specified in clause 15.15.2 of MES Schedule Part I. Cement based paint shall be provided all as specified in relevant clauses as applicable in section 15 of MES Schedule Part-I. Cement based paint shall be of any of the following make as approved by the Accepting Officer

16. PAINTING

16.1 MATERIALS

- 16.1.1. All materials required in connection with this work shall be strictly in conformity with the samples kept in the office of the GE. The contractor shall submit the samples of all materials for approval of the GE before bulk deliveries are made. The quantity of paint required for execution of painting shall be obtained direct from manufacturer or their authorised agents brought to the site and stored properly and conform or superior to ISS (Latest condition). Paints required in the whole work shall be obtained from reputed firms.

16.2 WORKMANSHIP

- 16.2.1 Workmanship shall be all as specified in Clause 17.3 of MES Schedule Part –I Preparation of old painted surfaces shall be carried out as per Clause 17.10.1 and 17.10.2 of MES Schedule Part – I 2009 specifications.

17 NON SKID / GLAZED CERAMIC TILE FLOORING

- 17.1 Non skid/glazed ceramic tiles shall be of size as indicated in Schedule 'A' and shall be fixed as per the procedure given in SR Part –I and as directed by Engineer-in-Charge. The tiles shall be of approved colour and of first quality conforming to IS

17.2 COLOURED GLAZED CERAMIC TILE DADO / SKIRTING

- 17.2.1 Glazed ceramic tiles shall be of size as indicated in Schedule 'A' item and as approved by GE. The tiles shall be of approved colour and of first quality conforming to IS-13753 all as specified in clause 13.15 of MESs Schedule. They shall be fixed as specified in Schedule 'A'.

18.0 VITRIFIED PORCELAIN TILES

- 18.1 Vitrified polished porcelain floor tiles shall be of Ist quality. These vitrified tiles are classified under group B1a of the International Standard for ceramic tiles ISO: 13006. Tiles shall be hard, dense, impervious and frost resistant. Water absorption of tiles shall be less than 0.5% and flexural strength (Modulus of Rupture) shall be more than 35 N/Sqmm. Vitrified polished porcelain floor tiles shall be provided of sizes, colour, shades, texture and designs as indicated and if size not indicated it shall be 600mm x 600 mm/ 605 x 605 mm. The thickness shall be as specified by the manufacturer but not less than 10 mm.

PARTICULAR SPECIFICATIONS (CONTD)

18.2 Heavy duty vitrified unpolished porcelain floor tiles for exterior use shall be of 1st quality. Heavy duty vitrified tiles shall be acid and alkali resistant, weather proof, anti skid and abrasion resistant as per International Standard for ceramic tiles ISO :13006 and EN 176 requirement.

These tiles shall comply with the following requirements:-

- (a) Water absorption <2%
- (b) Flexural Strength >35 N/Sqmm
- (c) Moh's Hardness >6
- (d) Abrasion resistance <204mm.

Heavy duty vitrified tiles shall be of sizes, colour, texture and designs as indicated but size if not indicated it shall be of 300mm x 300 mm . The thickness shall be as specified by the manufacturer.

19.0 KOTA STONE FLOORING**19.1 STONE SLABS**

The slab shall be of selected quality, hard, sound, dense and homogeneous in texture, free from cracks, decay, weathering and flaws. They shall be hand or machine cut to the requisite thickness as indicated and they shall be of uniform colour. The slabs shall have the top (exposed) face polished before being brought to site. Before starting the work, Contractor shall get the sample of slabs approved by the Engineer-in-Charge.

19.2 DRESSING OF SLABS

Every slab shall be cut to the required size and shape and fine chisel dressed on the sides to the full depth so that a straight edge laid along the side of the stone shall be in full contact with it. The sides (edges) shall be table rubbed with coarse sand or machine rubbed before paving. All angles and edges of the slabs shall be true, square and free from chippings and the surface shall be true and plane. For staircase treads, single piece slab to full length and width of treads shall be provided. The nosing shall be rounded off and two parallel grooves ten by ten (10mm x 10mm) immediately behind the nosing edge shall be provided to avoid skidding. Square or circular holes shall be made carefully to accommodate M.S. Baluster in pos

20. ANODISED ALUMINIUM DOORS, WINDOWS, VENTILATORS, PARTITIONS, COMPOSITE UNITS ETC.

- (a) Sizes and types of aluminium sections given in IS 1948-1961 are rarely available in market, therefore sections manufactured by reputed firms shall be used for fabrication as indicated. Chemical and mechanical properties of sections shall comply with requirements given in IS 733-1983, Specification for wrought aluminium and aluminium alloys bars, rods and sections, IS 737-1986, Specification for wrought aluminium and aluminium alloys sheet and strip for general engineering purposes and IS 1285-2002, Specification for wrought aluminium and aluminium alloys extruded round tube and hollow sections for general engineering purposes.
- (b) Aluminium sections and fittings shall be anodized and minimum average thickness of anodizing (coating of anodizing) on all aluminum section and fitting shall be 15 micron and shall conform to IS: 1868- 1996, Testing of anodizing coating shall be in accordance with IS:5523-1983

PARTICULAR SPECIFICATIONS (CONTD)

(c) Joining of sections, providing fittings, lugs, method of fixing etc shall be as per IS 1948-1961.

(d) Aluminium Doors, Windows, Ventilators, Partitions, Composite units etc. shall have matt, scratch-brush or polished finish as indicated.

(e) Glazing:- Glass panes shall be as indicated. Unless otherwise indicated, fixing of glass panes shall be done with aluminium beading with CP brass or stainless steel screws spaced not more than 10 cm from each corner and intermediate not more than 20 cm apart. When glass panes are fixed with aluminium beading having mitred joints, epoxy resin or silicon sealant shall be applied between glass panes and sash bars and also between glass panes and beading. Aluminium beading shall also be from firm of sections used for fabrication of aluminium Doors, Windows, Ventilators, Partitions, Composite units etc. Joints shall be filled with PVC/neoprene felt, cleats etc as indicated.

(f) Paneling:- Panels shall be of decorative plywood, prelaminated particle board, aluminium etc as indicated. The panels shall be cut to correct size with minimum 12 mm portion being inserted in the frame and shall be fixed firmly with CP brass or stainless steel screws. The joints between panels and members shall be sealed with epoxy resin or silicon sealant. Joints shall be filled with PVC/neoprene felt, cleats etc as indicated. (g) PVC protected sheeting shall be used while fixing the frame of doors, windows, ventilators etc to avoid damages, scratches etc.

21.0 PLYWOOD

21.1 Plywood shall be of grade as detailed in Sch "A" shall conform to IS: 303.

21.1 PARTICLE BOARD

21.1.2 Particle board shall be commercial veneered on both sides bonded with BWR grade synthetic resin adhesive and shall conform to exterior grade conforming to IS :3097

22.0 BUILDERS HARDWARE

22.1 GENERAL

22.1.1 ITEM AND QUANTITIES. Hardware fittings shall be provided according to the scales indicated on the schedule of iron mongery on the relevant drawing and in conformity with any note that may be appearing on particular drawings.

22.2 SIZES

22.2.1 In case the size of particular fittings is not given in the Schedule 'A' it shall be of size as directed by the GE.

22.2.2 All articles of builder's hardware shall bear ISI marking. In case any item/fitting with ISI mark is not manufactured, it shall conform to the relevant IS specifications and the specifications given in the MES Schedule for the relevant item.

22.2.3 Screws used for fixing items of builder's hardware shall be as specified in Clause 9.2.6 of MES Schedule Part - I.

22.3 ARTICLES. All the builders' hardware except butt hinges shall be of aluminium anodised unless otherwise specified.

PARTICULAR SPECIFICATIONS (CONTD)

22.3.1 **BUTT HINGES**

22.3.1.1 Butt hinges shall be of cold rolled mild steel of medium weight all as specified in Clause 9.7.1 & 9.7.2 of MES Schedule Part - I.

22.3.2 **KNOBS**

22.3.2.1 Shutters and drawers of small sized, built-in cabinets and switch boxes etc., as shown on drawings and shall be provided with aluminium anodized knobs of 40mm dia.

22.3.3 **TOWER BOLTS**

22.3.3.1 Tower bolts shall conform to specifications given in clauses 9.3.1 to 9.3.3 of MES Schedule Part - I. The dia of shoot shall be 10 mm for length upto 125mm and 12mm dia for length 150 mm and above.

22.3.4 **HASP AND STAPLE**

22.3.4.1 Provide hasp and staple safety type all as specified in clause 9.10 to. 9.10.2 of MES Schedule Part - I.

22.3.5 **SLIDING DOOR BOLTS**

22.3.5.1 Sliding door bolts shall be all as specified in Clause 9.5.2 to 9.5.2.1 of MES Schedule Part – I. Size shall be as indicated in drawings. In case it is not indicated, the size shall be 300 mm long with 16 mm dia bolt.

22.3.6 **HANDLES**

22.3.6.1 Handles shall be of aluminium alloy fabricated all as specified in Clause 9.11 & 9.11.1 of MES Schedule Part -I.

22.3.7 **RUBBER STOPPER AND CHOKE**

22.3.7.1 Standard rubber stopper and choke shall be provided all as shown in drawing and as approved by GE.

22.4 **PIANO HINGES**

22.4.1 Piano hinges shall be aluminium anodized and all as specified in Clause 9.7.6 of MES Schedule.

22.5 **HYDRAULIC DOOR CLOSER:**

22.5.1 Door closer (hydraulically regulated) shall comply with IS-3564. It shall be of designation 2/3 as specified, suitable for doors weighing 36 to 60 kg/61 to 80kg as specified. Door closer shall be of aluminum body, universal type suitable for both anticlockwise and clockwise doors, without any change in parts of closers all as specified in clause 9.16 of MES schedule Part - I.

PARTICULAR SPECIFICATIONS (CONTD)

23 GI TUBING

- 23.1 The Contractor shall employ licensed skilled plumbers for all internal water supply work.
- 23.2 The requirement pertaining to materials conform to with National Building Code workmanship, testing recording of installations shall be all as specified in MES Schedule Part –I (2009) Clauses 18.40 and 18.41. Laying and jointing of GI Pipes shall be in accordance with Clause 18.50 and 18.51 of MES Schedule Part –I (2009)
- 23.3 All Pipe work shall be laid for fixed to be completely airtight and water tight as specified
- 23.4 Testing of pipe shall be carried out as specified in clause 18.50.4 of MES Schedule. Record of testing shall be maintained separately for each block

23.5 MATERIALS

- 23.5.1 Unless otherwise specified all water tubing shall be galvanised medium grade conforming to IS-1239 Part – I 1979 and fittings shall be comply with the requirement of relevant IS. The tubing of GI and GI fittings shall bear ISI marking. The pipes for supply of water to all fittings shall run on the walls except where otherwise specified/shown on drawings. Where GI Pipes crosses the wall, GI sleeve pieces of suitable dia/length shall be provided to accommodate the pipe to allow freedom to expansion and contraction and other movements and the cost of same shall be deemed to be included in the unit rate. The holes in the walls and in floors shall be made good to match with the adjoining surfaces al as specified in clause 18.51.4 of MES Schedule. The contractor shall use proper bends, elbows tee etc at turning corners. Contractor shall provide screwed plugs to all open ends of pipe of completion of days work

23.6. LAYING AND FIXING OF PIPES

- 23.6.1 The pipes for supply of water shall run on the outside of the walls and connections to various fittings shall be brought in to the rooms as directed by Engineer – in – Charge.
- 23.6.2 All pipes and fittings shall be fixed truly vertical and horizontal pipes and fittings shall be fixed on walls, ceilings etc. With approved pattern holder to bat clamps of required shape and size so as to fit tightly on the pipes, when tightened and screwed to wall. The clamps shall be embedded in brick/stone work in cement mortar 1:3 or with countersunk nails and spaced at regular intervals as specified in clause No 18.51.2 and 18.51.3 of MES Schedule and as directed.
- 23.6.3 Cutting, threading and jointing of pipes/fittings shall be carried out all as specified all as specified in clause No 18.50.2 and 18.50.3 of MES Schedule.

24. SANITARY AND TOILET FITINGS

- 24.1 General: All sanitary appliances shall be of vitreous china (white) first quality and shall conform to IS – 2556 for General requirements and the specific requirements as mentioned in relevant clause of MES schedule. These shall be of an approved make from the liste given.
- 24.2 All waste pipes, and fittings up to floor / Nahni traps from wash hand basin shall be of galvanised steel tubing medium grade conforming to IS – 1239 (Part II 19699).
- 24.3 Flush pipe and socket of flushing rim of WC shall be jointed with white and red lead cement (white and red lead in equal portion by weight) and linseed oil added to form paste.
- 24.4 “P” and or ‘S’ trap shall be of cast iron and jointed to WC pan with cement joints as specified in clause 18.48.5 of MES Schedule.
- 24.5 The sizes, given herein after are approximate sizes. The size of sanitary fittings to be provided shall be the nearest size as per manufacturer’s catalogue and as approved by GE.

PARTICULAR SPECIFICATIONS (CONTD)

25. BIB TAPS AND STOP VALVES: Bib taps and stop valves be cast copper alloy screwed down and comply with IS: 781-1985. Stop valves shall be internally/externally threaded. The minimum finished mass of bib taps and stop valves shall be as specified in clause 18.14.1 of SSR Part –I
26. FLOAT VALVES: Float valves shall be brass high pressure type and shall comply with IS:1703-1977. Ball valves excluding floats shall be of brass. The float shall be of polythene. The minimum finished mass of ball valves exclusive of floats and wall thickness of floats shall be as specified in clause No 18.19 of MES schedule.
27. POLYTHYLENE PIPE CONNECTIONS : Refer 18.5 of MES schedule Part -I (2009) Specifications.
- 27.1 Weight of chromium plated adopter for connection of polyethylene pipe/GI pipe shall be not less than 40 gram each
28. BALL VALVE FOR OVERHEAD SERVICE TANK PTMT float valve of 20 mm dia / 25 mm dia manufactured by PRAYAG POLYMER Ltd/Polytuf as approved by E-in-C's Branch.
29. SHOWER ROSE: Shower rose shall be of brass chromium plated swivel type 80mm dia rim suitable for 15mm bore inlet. The make of shower rose shall be as approved by the GE.
30. TOWEL RAILS
- These shall be of the following hollow tube types, as indicated; size, thickness shall be as indicated:-
- (a) Brass towel rails, chromium plated.
- (b) Aluminium alloy towel rails, anodised.
- 30.1 Towel rails shall be D Type with flanged ends for fixing to the background. Alternatively brackets with sockets suitable for a fixing to the background shall be provided.
- 31.0 PVC SOIL, WASTE AND RAINWATER (SWR) DRAINAGE PIPES.
- 31.1 Laying and Jointing of Pipes.
- 31.2 The pipes shall be cleaned from outside spigot end and inside of the sealing groove of the fitting. Lubricant supplied by the manufacturer shall be applied uniformly to the spigot end and sealing ring. Spigot end shall be passed into the socket containing sealing ring until fully home as per manufacturers instructions.
- 31.2 The method of installation and fixing to wall shall be as per manufacturers instructions.
- 31.3 All PVC (SWR) Pipes and fittings shall be tested with water to detect any leakage as per manufacturer's instructions.
- 32.0 FLOOR TRAPS
- 32.1 Cast iron floor traps shall conform to IS 3989-1984 and shall have outlet of diameter 50 mm, 75 mm and 100 mm. Weight of floor traps shall be not less than 2.50 Kg, 4.8 Kg and 7.5 Kg for traps with outlet dia of 50 mm, 75 mm and 100 mm respectively. Floor trap shall be provided with cast iron grating.
- 32.2 STAINLESS STEEL SINK AND DRAINAGE BOARD
- It shall be manufactured from Salem Stainless Steel Sheets grade A1 S1 305. Thickness of Sheet shall be 1 mm. Size of sink shall be as indicated. The surface of the sink shall be plastic coated to make it safe and scratch free installation.

PARTICULAR SPECIFICATIONS (CONTD)

33.0 GALVALUME SHEET ROOFING

33.1 Galvalume sheet shall be 0.50mm thick (total coated thickness), 550 Mpa minimum, yield strength. It shall be coated with hot dip alloy of 55% Aluminium 43.5% Zinc 1.5% Silicon and finished with resin coat on both surfaces @ 150 gm/sqm of coating (total both surfaces) having overall width and laid width as specified and shall be fixed using hot dip galvanized, self drilling and self tapping screws neoprene and EPDM washers. Penetrations and laps in sheet shall be sealed by using proper sealant profile. HDPE fillers shall be provided wherever required to close voids between sheets, sheet & fasteners etc.

33.2 Fixing system shall be as per manufacturers instructions and shall be safe against effects of Wind velocity..

33.3 GALVALUME SHEET WALL CLADDING

Galvalume Sheet for wall cladding shall be same as for roof and shall be fixed with 8mm and 30mm deep trapezoidal profile sheeting fixed with self trapping fasteners.

33.4 ROOFING ACCESSORIES

Roofing accessories ie. Corner piece apron, eaves/valley gutters, hoopers, ridges, sheet floor connectors etc shall be of galvalume sheet and of size shape as specified.

34. WATER PROOFING TREATMENT WITH APP TORCH MEMBRANE

34.1. The material shall be procured from the following manufacturers:-

- (a) M/s. M/s Pidilite Industries Ltd
- (b) M/s. STP Ltd, Mumbai
- (c) M/s. IWL India Ltd, Chennai.
- (d) M/s. Texas India Ltd, Mathura
- (e) M/s. Shivam Tar Products, Mathura
- (f) M/s. HYDRO TECH Ltd. Shiv Bagh, Ameerpet, Hyderabad – 500 016
- (g) M/S Bostic India Pvt Ltd
- (h) M/S Sika India Pvt Ltd
- (j) M/S Tikkitar Danosa (India) Pvt Ltd

34.2. TESTING OF MEMBRANE

The following tests shall be carried out in approved Government Laboratories and necessary test reports shall be submitted to Garrison Engineer for the materials before incorporation in the work:-

- (a) Thickness of membrane.
- (b) Weight of membrane.
- (c) Tensile strength (longitudinal/Crosswise)
- (d) Tear resistance.
- (e) Softening point.
- (f) Weight of carrier (Polyester)

Apart from above tests contractor shall also produce manufacturers test certificate. Test certificate shall be produced with every consignment of material brought at site by the contractor.

PARTICULAR SPECIFICATIONS (CONTD)**34.3 LAYING OF APP TORCH MEMBRANE**

- (a) Clean the plastered roof surfaces thoroughly by washing to remove dust, loose particles and any foreign matter.
- (b) Apply oil bound bitumen primer @ 0.20Kg/Sqm manufactured by the same agency as that of APP with a density of 0.87-0.89Kg/Litre at 25⁰ C on the prepared dry roof surface.
- (c) Provide and APP modified water proofing membrane reinforced with non woven polyester matt one layer weighing 4.00 Kg/Sqm. APP membrane shall be laid using butane torch by torch-on application with minimum 10 cm side overlap and 15 cm end lap. The laying of membrane shall be got done through an authorised applicator of manufacturer of membrane.
- (d) Apply a coat of blown grade hot bitumen 90/15 over the membrane @ 1.20 Kg/Sqm.
- (e) Apply a coat of solar reflective bituminous aluminium paint @ 0.1Kg/Sqm as prescribed by manufacturer of membrane.

34.4. WATER PROOFING TREATMENT

The contractor shall carry out water proofing work over roof to ensure the entire roof water tightness during the guarantee period of 10 years and he will be responsible to keep the entire surface of roof water tight for a period of 10 years from certified date of completion of work. **For this particular contract guarantee amount calculated as applicable to individual security deposit on the amount of water proofing treatment work at contract rates is 2% of amount of Schedule 'A' / BOQ items enhanced by 25% or Minimum Rs 10,000/- whichever is more.** The guarantee for water proofing treatment shall be retained from the RAR / final bill amount. This amount shall be calculated as per the scales laid down by MES for calculating individual security deposit the final work done amount of water proofing at contract rate. The amount shall be released to the contractor after the satisfactory completion of **TEN YEARS** guarantee period. During the guarantee period if any leakage is found out same shall be got rectified by the contractor without any extra cost to the Government. In any case during the guarantee period the contractor who executed the WPT works should inspect and examine the treatment once in every year and make good any defects observed. Defects liability period of one year as laid down under condition 46 of IAFW-2249 is not applicable for water proofing work covered under this contract and shall deemed to be amended to the extent mentioned above for WPT works. Garrison Engineer may accept Bank Guarantee Bond from Schedule Bank or fixed deposit receipt (pledged in favour of GE) from any approved Bank for the above said amount for a period of 10 years in which case no further amount will be recovered from the final bill on this account.

34.4.1 Tenderer shall submit 10 years guarantee certificate (as per proforma enclosed at Appendix 'A') duly undertaking and accepting the reasonability to carryout all required rectifications at his own risk and cost. In case of contractor's failure to carryout the rectifications, the Govt shall be at liberty to get all such rectifications carried out at his risk and cost from security amount. Tenderer is required to visit the building in which the water proofing treatment is to be done in order to ascertain the exact nature and extent of work involved. His unit rate quoted in the Schedule 'A' against the respective items shall be deemed to include for the following aspects for effective water proofing treatment and no extra claim on whatever account will be entertained from the contractor.

PARTICULAR SPECIFICATIONS (CONTD)**34.5 CERTIFICATE BY SPECIALISED AGENCY**

A certificate by the specialised AGENCY who has executed the water proofing treatment under this contract will be rendered that they have executed the said work.

34.6 TEMPLATE (LABEL)

Template (Label) made of 15mm thick plaster in CM (1:3) of size 60 x 60cm showing the following particulars shall be provided on each building before the final completion of work without any extra cost to the Department:-

- | | |
|------------------------|------------------------|
| (a) Name of Contractor | (c) Date of completion |
| (b) CA Number | (d) Guarantee period |

34.7 The above information shall be written with white paint with 5cm size letters and numbers. The entire quantity of materials such as water proofing membrane bitumen primer, bitumen and bituminous aluminum paint etc required for the while work shall be brought at site in sealed position and shall be entered in the MB as 'NOT TO BE ABSTRACTED' showing the date, total quantity brought. Each seal shall be opened in front of Engineer-in-Charge only. Paid vouchers from authorised dealer shall be submitted to the Engineer-in-charge immediately after every consignment and copy of such paid voucher shall be forwarded to Garrison Engineer by Engineer- in-charge duly endorsed.

35. UPVC (SWR) PIPES AND FITTINGS

35.1 The pipes shall be type 'B' pipe's with rubber ring joints as specified in Clause 18.27 A and 18.67A of MES Schedule Part I. The size of pipe shall be of 110mm bore as specified in Schedule 'A'. All pipes including bends etc., shall be tested as specified in Clause 18.79 and 18.93 of SSR Part I, on completion of work to the entire satisfaction of Engineer-in-Charge.

36. PAID VOUCHER / TEST CERTIFICATE:

36.1 Manufacturers test certificates paid vouchers and furnished by the tenderer in respect of equipment as demanded by the department. If deemed, necessary initial test may be conducted at the manufacturers work site in presence of GE's representative. All tests shall be carried out in accordance with relevant Indian Standards (or British standards where Indian standard do not exist).

37 ELECTRICAL WORKS**37.1 GENERAL REQUIREMENTS:-**

37.1.1 The requirements pertaining to materials, conformity with Indian Electricity Act Rules workmanship testing record of installations, safety procedures and practices and fire safety shall be all as specified in MES schedule clause 19.2. The particulars specifications shall be supplementary to the specifications contained in the aforesaid MES schedules. Where at variance these particular specifications shall take precedence over the provisions with MES Schedule. Wherever any material is specified to be obtained from particular source/make the same shall be obtained from sources makes specified.

37.1.2 This installation shall strictly comply with the provisions contained in the latest edition of the Indian Electricity Rules and amended IS – 732 – 1963. Code of practice for Electrical wiring and fittings in buildings as applicable to these works except where such regulations and rules are modified by these specifications.

PARTICULAR SPECIFICATIONS (CONTD)

- 37.1.3 All electrical work shall be executed properly by skilled licensed electricians under the supervision of suitable qualified electrical supervisors. The contractor on demand by Engineer – in – Charge shall produce such evidence of qualification of his workmen, Supervisors(s) either at the time of commencement of the work or at any time thereafter during the contract period.
- 37.1.4 The position of various electrical fittings and fixtures wherever shown on the drawings may be changed by the Engineer – in – Charge at the time of execution if found necessary.
- 37.1.5 The run of conduits shall be marked on the walls and soffits of roof floors slabs for the wiring. Approval by the Engineer – in – Charge shall be obtained in writing before starting the works.
- 37.1.6 Looping back system of wiring shall invariably be used throughout the installation.
- 37.1.7 All electrical fittings and wiring shall be clear of door, windows/ventilators and other openings.
- 37.1.8 The remain switches and controls should have the voltage of supply clearly painted on them.
- 37.1.9 The phase indication (RYB) should be provided at the main incoming switches and controls.
- 37.1.10 The details of functions of each distribution board shall be clearly and neatly painted on the distribution boards.
- 37.1.11 The contractor is deemed to have included in rates, cost of making holes/chases where required through masonry or concrete work for taking in cables/ conduits and conductors etc and making good the same to match with existing work.

38 MATERIALS AND SAMPLE BOARD

- 38.1 All materials unless otherwise specified shall possess ISI mark or conform to relevant IS specifications or to BIS if IS is not available.
- 38.2 Before starting the work the contractor shall produce samples of all materials including accessories for approval by GE. The contractor shall ensure that the materials used in the work are identical with approved samples and uniform throughout.

39 DISTRIBUTION BOARDS / MCB's / MCCB's

- 39.1 Provide distribution board and MCB's as indicated in Schedule 'A'. Miniature circuit breaker shall comply to the requirement of IS-8828-1996. The MCB's shall have rupturing capacity of not less than 9 KA. The terminals of MCB's should be brought out sufficiently to connect cable lugs directly. No adapter should be used for terminating the cables. The MCB's should have quick-break –trip free mechanism to ensure that contact cannot be closed against persistent fault. Bus bars shall be electroplated copper tin plated and rated 200 Amps. Exposed faces of sheet steel enclosures shall be painted with epoxy polyester powder coating at factory. Neutral has same number of outgoing holds as the number of MCB's. Unit rate in schedule 'A' shall also be deemed to include for all internal connections in the distribution board and bus bar system is completely insulated and fitted in PVC channel to avoid accidental toner, Bus colour coated suitable for both the flush and surfaces mounting MCB's shall be any one of the make specified here-in-after and shall be approved by GE.

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40. EARTHING

- 40.1 The earthing shall be in accordance with section 19 clause 19.137 of MES Schedule and as per electrical plate No 3 on page No 497 of SSR Part 1, earthing with mild steel plate and the work shall be executed in the presence of MES representative. Excavation for earth pit may be any type of soil, excavation shall be passed by Engineer-in-Charge before fitting in exceeding 50 metres and the site left clean and tidy, concreted in earth pit shall be 1:3:6 type C-1 using 20 mm graded store aggregate.
- 40.2 The maximum continuity resistance from any point of the installation including the earth continuity conductor and earth lead to the earth pit shall not exceed 1 ohm.
- 40.3 All metal works associated with wiring system other than current carrying parts including the cable sheathed and armored conduits, ducts and box shall be connected to the continuity conductor as required under Indian earth terminal of socket outlet etc shall be connected earth continuity shall be as specified in respective Schedule 'A' items. Testing of earthen shall be carried out as per clause No 19.146 of MES Schedule Part I.
- 40.4 Chemical Earthing shall be carried out as per manufacturer's instructions

41 POINT WIRING

- 41.1 The type of wiring shall be as indicated in respective Schedule 'A' / BOQ item and shall be carried out as specified in relevant clauses of schedule and as directed by Engineer – in – Charge.
- 41.2 Point wiring for light/fan point shall include the work of drawing, cables in PVC conduits, GI earth continuity wire, MS pressed steel terminal box covered with laminated sheet to accommodate requisite switches, fan regulators, sockets etc as indicated in schedule 'A' item.

41.3 TUBE LIGHT FITTINGS / LED FITTINGS ETC

- 41.3.1 Tube light fittings shall be fixed at locations all as directed by Engineer – in – Charge. They shall be of standard make and the rate quoted shall be deemed to include for fixing the fittings and connecting up complete with all necessary connected cables / accessories etc, all as directed by Engineer – in – Charge .

41.4 PIANO KEY TYPE SWITCHES

- 41.4.1 These shall be of indigenous make and bear ISI mark. The fittings shall be approved by the GE before incorporation in the work.

41.5 CONDUITS, CONDUIT ACCESSORIES AND CONDUIT WIRING

- 41.5.1 All conduit, conduit fittings and accessories shall be of rigid steel conduit. These shall comply with IS – 3837 – 1976 for accessories, IS – 2667 – 1976 for fittings and IS 9537, 1981 (Part – II) for rigid steel conduits with amendment No 1. Rigid conduit shall be solid drawn or seamed by wording and with stove enameled black or galvanized finished as indicated. The wiring shall be carried out all as specified in Schedule 'A' SSR Part – I and as directed by Engineer – in – Charge

PARTICULAR SPECIFICATIONS (CONTD)

42 SWITCH SOCKET OUT LET

- 42.1 Switch socket outlet shall be approved and of best indigenous make and provided with piano type control switch and shall be ISI marked.

43. CABLE:-

- 43.1 Cables for wiring shall be PVC insulated single core multi stranded / Copper conductor unsheathed cable 1100 volts grade conforming to IS-694. Cable shall be any one of the specified make here-in – after.

44. CONDUITS AND CONDUIT FITTINGS:-

- 44.1 Rigid non metallic PVC conduits, conduit fittings and fixing accessories shall be all as specified in clause 19.29 on Ser page No 439 of MES Schedule (2009) Part I. Conduits shall be any one of the specified makes duly ISI marked

- 44.2 The work shall be carried out all as specified in MES Schedule as applicable.

45 SWITCHES.

- 45.1 These shall be provided all as indicated in Schedule 'A' and fixed at locations as directed by Engineer –in-Charge. These shall be any one of the specified make duly ISI marked.

46 CABLES

- 46.1 Cables shall be of size as indicated in Schedule 'A'.

- 46.2 Cable shall be laid in trenches all as specified in clause 19.74 to 19.76 of SSR Part – I of 2009.

47 CABLE LAYING AND RECORDS

- 47.1 All joints of cables in joint boxes etc and filling in of the compound shall be done strictly as per instructions furnished by manufacturer of cables and joint boxes. The joint shall be suitable and permanent type as laid down in ISS. Each jointing will be inspected and passed by Engineer – in – Charge, Random checks shall be exercised by GE also and record the findings in writing. The number of joints shall kept to the barest minimum considering a standard deliver length manufactured at the factory/issued and shall be as approved by GE.

- 47.2 The following essential data shall be furnished by the contractor as cable record of all the buried cable installations:-

- (a) Size type and make of cable.
- (b) Location of cable in relation to the bench marks of any other permanent structure.
- © Cross sections, showing where cables are laid in pipes or trenches giving their sizes type and depth.
- (d) Position and depth of all pipes, ducts etc, which are not and obstructions to the cable route.
- (e) Record of accurate lengths from joints to joint and phase sequence between joint to joint of each cable run for all underground cables routes, LT cables route indicators shall be provided with marking as shown on drawing including inscription as shown therein. Route markers should be grouted in ground with cement concrete pedestal as directed by Engineer – in – Charge.
- (f) Manufacturers test certificate of cables supplied shall be produced.

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- 47.3 Cable markers should be installed at an interval not exceeding 100 metre along with straight routes of cable with the arrow marked on the cable marked plate indicating the location of cable straight through joints. Cable marker should also be used to identify change in the direction of cable routes and for location of every joint in underground cable. The jointing of cable shall be inspected by Engineer – in – Charge and approved by GE after testing including high voltage tests.

48. **CEILING ROSE**

48.1 Ceiling rose shall be surface type and shall comply with IS :371-1979, Specification for ceiling roses having two or three terminal plates and of outside diameter not less than 63.5. mm. Ceiling roses shall be provided, with means for gripping flexible cord which shall not damage the insulation and/or sheath of the cord and shall be such that the load on the cord is not transmitted to the terminals.

49. **These are the work to be carried out:-**

- a) Addn/Altn to AFNET Equipment rooms at AFA Hyd .
- b) Addn/Altn to certain blocks at Living-in-Airmen billets at AFA Hyderabad.
- c) Provision of Grease Trap at various messes and cafeteria at AFA Hyderabad.

PARTICULAR SPECIFICATIONS (CONTD)**50 LIST OF MANUFACTURERS:-**

- 50.1. The made of various items of materials are as under. The contractor shall ensure that the items of these makes only are incorporated in the work which conforms to the relevant specifications/requirement/stipulations in the contract.
- 50.2. Other products which are equivalent in the specification having IS certificate shall be permitted in the work if approved by GE.

Ser No	Description of item	Makes
1.	Lime	Suryacem /Royal white/Floracem/ Birla White (All 1 st quality).
2	Cement based paint	Super snowcem / Duracem / Aquacem / Shalimar / Berger / Asian
3	Oil Bound Distemper	M/s Asian Paints /M/s Shalimar Paints/ M /s Berger Paints / M/s Nerolac (All 1st quality).
4.	Synthetic Enamel Paint	Shalimar Super Lac/ Asian Paints (Apolite)/ Berger/Nerolac/Jenson & Nicholson
5.	Vitrified Tiles	Johnson Marbonite /Orient/Somany/Kajaria/ Euro Tiles
6.	Glazed Ceramic Tiles	Johnson Tiles / Kajaria / Somay / Nitco / Orient
7.	Non-Skid ceramic tiles	Johnson Tiles / Orient / Somany / Kajaria / Nitco
8.	GI Tubing	JINDAL / TATA / ZENITH / Swastik / Prakash
9.	Sanitary Fittings	Parry ware India Ltd / Hindustan Sanitary ware / NEYSER / CERA
10.	Bib Taps/Stop Cocks/Pillar Taps & other CP Sanitary fittings	SEICO / ANCHOR / Leader / Jaquar / Soma
11.	UPVC / PVC (SWR) Pipes & Fittings	Supreme / Prince / Finolex / Kisan / Infra
12.	Kitchen Sinks	NIRALI / Parryware / Prayag / Blue star / Jayno /Diamond
13.	Vitreous china WC / WHB / Urinal	Cera / Parryware / Neycer / Jaguar / Hindware / M/s Hindustan sanitary ware
14.	Builders Hardware	M/s Mowjee & Co Pvt Ltd/Bright Hardware Industries/Ajantha Steel Works
15.	Builders Hardware (Aluminium)	Classic
16.	Ply Wood	Anchor / Kitply / Green Ply / Archid Ply / Mysore Chip Board , Mysore
17.	Aluminium Sections For Doors / Windows	INDAL (Indian Al Coy) /HINDALCO / JINDAL
18.	Hydraulic Door Closer	M/s Everest / M/s Universal / M/s Prabhat Door King / M/s Perfect Hydraulic / M/s Dyana

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19.	Laminated Sheet	Sunglass / Formica / Sunmica / Backlyte Hylum ECO Board
20.	Galvalume Sheets	M/s Kirby Building systems India Ltd, Andhra Pradesh M/s Lloyd insulation (India) Ltd, Bangalore M/s JSW Steel/ M/S Multi Colour Steels (I) Pvt Ltd M/s Tata Blue scope steel Ltd, Gurgaon
21.	Liquid Water Proofing Compound	ACCO Proof / Aqua Proof / Impermo / CICO/ Fosroc /Dr. Fixit
22	APP Membrane	M/S STP Ltd / M/s Pidilite Industries Ltd/ M/s IWC India Ltd / M/s Texas India Ltd , Mathura / Shivam Tar Products , Mathura / M/s Hydro Tech Ltd , Shiv Bagh , Ameerpet , Hyderabad/ M/S Bostic India Pvt Ltd /M/S Sika India Pvt Ltd / M/S Tikkitar Danosa (India) Pvt Ltd
23	Gun Metal Globe/Gate Valve/ Ball Valve	ZOLOTO / Kartar / Kirloskar / Bir / Leader
24	PVC Ball valve for service water tank	Prayag/ Polytuf/ Watertec
25	PVC Water Storage Tanks	SINTEX /POLYCON, / Rotex / Infra / Ashish Plast
26	Glass/ Mirror	Saint Gobin/ Asahi Works/ Atul Glass Industries/ Gold Fish/ Trupti/ Modiguard/ Hindustan Pilkington Glass Works/ Modi Float
27	SWICHES / SWITCH SOCKETS / CEILING ROSES	Anchor, Leader, Crabtree , Legrand , Havells, Indo Asian, Kay, SSK, Cona, Klinjal,C&S, GM/ Goldmedals
28	MCCB's / MCB' s / DB' s / ISOLATORS	Havells, ABB, Siemens, Schneider , Legrand , L&T , Indo Asian
29	LED LIGHT FITTINGS	Philips / Crompton / Wipro / Havells / Bajaj / Luker/ Shakti Fixtures Pvt Ltd/ Goldmedal
30	Copper Cables	Plaza , Finolex , Anchor, Havells , Paragon, Polycab, RPG,KEI, Kalinga, GM,V GUARD, Asian Galaxy Pvt Ltd
31	Fan Regulator	Anchor / Havells / Bajaj / Khaitan / Orient / Legrand / Crompton
32	PVC Casing / Capping	Precision / Modi / Presto Plast / Supreme / Polycab/ Plaza/Asian/ National/ Prince
33	PVC Conduits & Accessories	Finolex / Supreme / Prince / Tirupati / Dutron/Anchor/ Modi/ Pressfit/ Pression/ Astral/Asian/ Polycab/ Avon/ Kalinga/ Plaza/ AKG
34	Laminated Sheet	Hylam, Formica, Sungloss, Veekay, Sunmica
35	GI Tubing	Tata/ Jindal / Swastik / Prakash / Zenith
36	Modular Sockets /Switches/ Regulators etc	Roma Anchor, Leader, Crabtree , Legrand , Havells, C&S /Goldmedals
37	Choke / Ballast	Philips / Crompton / Wipro / Havells / Bajaj/ Luker

SIGNATURE OF CONTRACTOR

FOR ACCEPTING OFFICER

PARTICULAR SPECIFICATIONS (CONTD)

APPENDIX 'A'

GUARANTEE TO BE EXECUTED BY CONTRACTOR FOR REMOVAL OF
DEFECTS AFTER COMPLETION IN RESPECT OF WATER PROOFING WORKS:

This agreement made this _____ day of _____ Two thousand _____ between _____ of _____ (son of _____ of _____) (herein after called guarantor on the one Part) and PRESIDENT OF INDIA (hereinafter called the Government on other Part).

WHEREAS THIS agreement is supplementary to a contract hereinafter called the (Contract) dated _____ and made between the GUARANTOR of the one part and the GOVERNMENT on the other part where by the contractor inter alia, undertaken render the buildings/ structures in the said contract rectified completely water and leak proof.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to effect that the said structures will remain water leak proof for ten years from the certified date of completion.

NOW THE GUARANTOR hereby guarantees that water proofing treatment given by him will render the structures completely leak proof and the minimum life of such water proofing treatment shall be Ten years to be reckoned from the certified date of completion.

Provided that the guarantor will not be responsible for leakages caused by earthquakes or structural defects or misuse of roof or alterations and for such purpose.

(a) Misuse of slabs shall mean by operation which will damage roofing treatment, like chopping of firewood and things of the same nature which might cause damage to the roof.

(b) Alteration shall mean construction of any additional storey or any part of roof or construction adjoining to existing roof, where by roofing treatment is removed in parts.

(c) The decision of the Garrison Engineer with regard to cause of leakage shall be final and binding.

During this period of guarantee the guarantor shall make good all defects and in case of any defects being found, render the building water proof and finish the disturbed surfaces as existed to the satisfaction of Garrison Engineer at his cost and shall commence the work for such rectification within seven days from the date of issue of the notice from the Garrison Engineer calling upon him to rectify the defects, failing which the work shall be got done by the department by some other contractor at the GUARANTOR'S risk and cost. The decision of the Garrison Engineer as to the cost, payable by the Guarantor shall be final and binding.

That if the Guarantor fails to execute the water proofing or commit breach there under then the Guarantor will indemnify the Principal and his successors against all loss, damage, cost expense or otherwise which may be incurred by him by reason of any default on the part of GUARANTOR in performance and observing of this supplementary agreement. As to the amount of loss and/or damage and/or cost incurred by the Government, the decision of the Garrison Engineer will be final and binding on the parties.

IN WITNESS WHEREOF these presents have been executed by the obligator

On behalf of the PRESIDENT OF INDIA on the day month and year first above written. SIGNED sealed and delivered by OBLIGATOR in the presence of:-

- 1.
- 2.

SIGNED ON BEHALF OF THE PRESIDENT OF INDIA BY _____
in the presence of:-

- 1.
- 2.

SIGNATURE OF CONTRACTOR

For Accepting Officer