

MILITARY ENGINEER SERVICES
GARRISON ENGINEER (I) (CG)
CHENNAI-600 061

NAME OF WORK: PETTY REPAIRS, DAY TO DAY COMPLAINTS/MAINTENANCE,
CERTAIN B/R REPAIRS AND OTHER MAINT WORKS IN VARIOUS BUILDINGS AT AGE
B/R TUTICORIN UNDER GE (I) (CG) CHENNAI.

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| Total number of Pages | | | |
| Total number of Drawings | | NIL | |

SIGNATURE OF CONTRACTOR
DATED:

AGE (CONTRACTS)
FOR ACCEPTING OFFICER

Tele: 044-29997059

Email id : nchni4-mes@nic.in

REGD POST ACK DUE

Military Engineer Service
Garrison Engineer (I) (CG)
P-16, CGRA Meenambakkam
4th Street ,NGO Colony
Nanganallur, Chennai– 600 061

8178/ 05 /E8

15 Oct 2024

M/s. _____

**PETTY REPAIRS, DAY TO DAY COMPLAINTS/MAINTENANCE, CERTAIN B/R REPAIRS
AND OTHER MAINT WORKS IN VARIOUS BUILDINGS AT AGE B/R TUTICORIN
UNDER GE (I) (CG) CHENNAI**

Dear Sir(s),

1. Tender documents in respect of above work are uploaded on defproc portal i.e. www.defproc.gov.in. The tender is based 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)**. 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 line on a due date fixed for opening as per critical dates given in the portal. Cover 1 will be opened first. Tenderers may see the result of the opening of Cover-1 on the tender portal. Date of opening of Cover-2 shall be decided after technical evaluation of Cover-1 keeping in view the various eligibility criteria given in the NIT and the same will be intimated to the tenderers while uploading the technical evaluation on the tender portal.

4. Your attention is drawn to "INSTRUCTIONS FOR COMPLETION OF TENDER DOCUMENTS TO BE COMPLIED WITH BY THE TENDERER(S)" contained in the tender documents and as per the instructions given on the www.defproc.gov.in portal which should be complied with. Non-compliance of these instructions will render the bids submitted by such tenderers invalid and liable for rejection. 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 bid submission start date. You are requested not to write piece meal points and forward your points duly consolidated in one go, before bid submission start date.

5. Unenlisted 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 alongwith EARNEST MONEY DEPOSIT (EMD) and tender fee on defproc portal and submit the physical documents in the office of **Garrison Engineer (I) (CG) Chennai** 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.

TENDER FORWARDING LETTER WITH INSTRUCTION (CONTD...)

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 EMD in the office of tender issuing authority before date & time fixed for this purpose. In case of failure to abide by any these two requirements the finance bid will not be opened.
- (b) The Successful Bidder/Contractor shall be required to lodge with the Accepting Officer **PERFORMANCE SECURITY DEPOSIT** for an amount equal to **5% of the contract sum within 28 days of receipt of Letter of Acceptance in the form of** Bank Guarantee in the prescribed format or Government Securities or FDR or any other Government Instruments stipulated by the Accepting Officer in terms of Condition – 19 of IAFW – 2249, General Conditions of Contracts. Work order will be placed after receipt of the said Performance security from the contractor.
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 defproc portal and submit physical documents in the office of the GE (I) (CG) Chennai before date & time fixed for this purpose
8. The contractor must ensure that the tender/ bid on the proper form is uploaded on the tender portal using the authorized DSC in time as the Accepting Officer will take no cognizance of any quotations/ offer received in any other electronic or physical form like email/fax/by hand/ through post from tenderer/bidder even, if they are received in time.
9. Keeping 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 and errata and amendment thereto, Schedule of minimum fair wages and MES SSR Part-I (Specifications) and Part-II (2020 Rates)) are not enclosed with these documents. These are available for perusal in the Office of GE concerned and this office. which can be seen during working hours on any working day, with prior appointment. Tenderer is also requested to keep the copy of these documents with him as same are available in the market.
11. Court of the place from where tender has been issued shall alone have jurisdiction to decide any dispute out of or in respect of this tender. After acceptance of tender, Condition 72 – Jurisdiction of Courts of IAFW – 2249 shall be applicable.
12. Tenderer's particular attention is also invited to the following instructions for completion of the BOQ (financial bid) of the tender documents: -
- (a). The quoted rates shall be deemed to be inclusive of all GST on work contract, labour welfare cess, duties and levies etc., as payable under the respective statutes promulgated by the central and state authorities. Nothing extra shall be payable on account of taxes, duties and levies of any description.

TENDER FORWARDING LETTER WITH INSTRUCTION (CONTD...)

(b). Any Conditional tenders regarding payment of sales taxes on works contracts and any other duties, levies etc will not be considered and such bids are liable for rejection as non-bonafide.

13. Contractor shall be in possession of GST Registration Number and Provident Fund Code number. It is mandatory for the contractors to upload their GST Registration Number and Provident Fund Code number alongwith '**T bid**'. Contractor, who does not upload the same, shall be disqualified in the 'T' Bid evaluation and his Finance Bid shall not be opened.

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

Yours faithfully,

Encls: (As above)

Signature of contractor

AGE (Contracts)
For Accepting officer

INSTRUCTIONS ON FILING AND SUBMISSION OF TENDER.**1. EARNEST MONEY**

1.1 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 any one of the following forms along with their tender/bid :-

(a) Deposit at call receipt from a Scheduled Bank in favour of Garrison Engineer (I) (CG), Chennai.

(b) Receipted Treasury Challan, the amount being credited to the Revenue Deposit of Garrison Engineer (I) (CG), Chennai.

1.2 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 **Garrison Engineer (I) (CG), Chennai.**

NOTES:-

i) 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 alongwith Technical Bid & hard copy before the date & time fixed for opening of BOQ) will render the bid disqualified for opening of cover-II (finance bid).**

ii) **APPLICABLE TO DGNP ENLISTED CONTRACTORS ONLY** : The tenderers who are enlisted with DGNP Visakhapatnam/Mumbai shall submit Earnest Money Deposit (EMD) for the amount as indicated in Appendix 'A' to Notice Inviting Tenders. Scanned copy of EMD shall be uploaded alongwith 'T' Bid. Hard copy of EMD however be sent by Speed Post / Registered Post alongwith other documents within the time specified in bid documents.

2. CONTRACTORS ENLISTED IN MES FORMATIONS AND SUBMITTED STANDING SECURITY DEPOSIT

2.1 Contractors whose names are on the approved list of any MES formation and who have deposited Standing Security and have executed Standing Security Bond may tender/bid without deposit of Earnest Money. Standing Security Deposit (SSD) given by enlisted contractor shall serve the purpose of exemption from Earnest Money Deposit only.

3. PERFORMANCE SECURITY

3.1 On acceptance of the tender, the successful contractor shall deliver to the Accepting officer Performance Security for an amount equivalent to 5% of the contract sum within 28 days of receipt of the Letter of Acceptance, in any of the forms given below:

INSTRUCTIONS ON FILING AND SUBMISSION OF TENDER (Contd...)

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

3.2 The FDR for the Performance Security shall be valid till the stipulated date of the defects liability period and the BGB for the Performance Security shall be initially valid up to the stipulated date of expiry of defects liability period plus minimum 60 days beyond that. In case the Final Bill is not paid during this defects liability period, the contractor shall get the validity of Performance Guarantee extended to cover such enlarged time required for payment of the Final Bill. Work Order shall be placed only after receipt of the Performance Security of requisite value from the contractor.

3.3 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.

3.4 Failure of the successful contractor to comply with the requirement of sub-clause 3.1 here-in-before 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.

3.5 (i) 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 therefrom 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 of sums which may have been deducted from or realized by the sale of his Performance Security or any part thereof.

(ii) 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 of interest thereon.

3.6 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.

3.7 **REFUND OF PERFORMANCE SECURITY:** The Performance security Deposit mentioned hereinbefore shall be refunded to the contractor after expiry of the defects liability period (vide Condition 46 of IAFW-2249) by the GE provided always that the contractor shall first have been paid the final bill and rendered a No-Demand Certificate (IAFW-451). If any, recovery is outstanding against the contractor, the release of Performance Security Deposit is subject to the compliance of the procedure for effecting recovery / withholding the due amount as stipulated in Condition 67 of IAFW 2249 as amended.

INSTRUCTIONS ON FILING AND SUBMISSION OF TENDER (Contd...)**4. GENERAL INSTRUCTIONS FOR COMPLIANCE**

4.1 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 format and 'xls' form as indicated. 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 email/fax / by hand/ through post will be considered.

4.2 Bid should be DIGITALLY signed using authorised DSC. All pages of tender documents, drawings, corrections/alterations shall be signed / initialed by the lowest bidder after acceptance of tender for making original and CTC of the contract.

4.3 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 Article of Association of the Company) in all the matters pertaining to the contract with Union of India including arbitration clause. A scanned copy of the documents in confirmation of such authority shall be attached with the tender/bid in 'pdf' form in Cover 1. 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.

4.4 Drawings, if issued in physical form, must be returned duly initialed by the tenderer/bidder in separate envelope indicating his name and address.

4.5 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 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.

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

5.1 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. Bids of such contractors/ bidders shall not be opened till the aforesaid amount equal to the Earnest Money is deposited by him in Govt. Treasury. In addition, bids of such tenderer/ bidder and his related firm shall not be opened in second call or subsequent calls. Reduction offered by the tenderer/ bidder on the freak high rates referred for review shall not be treated as voluntary reduction.

6. BOQ :

6.1 The tenderer shall quote his rates on the BOQ EXCEL FILE only as per guide line of e-procure web portal. No alteration to the format will be accepted and such bid will be disqualified.

INSTRUCTIONS ON FILING AND SUBMISSION OF TENDER (Contd...)

- 6.2 In case any tenderer wishes to revise/modify the rates quoted in the BOQ file, he can do so only in the BOQ files before uploading the tender through <https://www.defproc.gov.in> site only before bid closing date & time.
- 6.3 After the uploading of tender, Department may upload the errata/ amendment through corrigendum. The tenderer/bidder should submit their offer considering the errata/amendment carried out through corrigendum issued from time to time. The tenderer is required to read the tender documents in conjunction with the amendments, if any, issued by the department. The bid submitted by the tenderer shall be deemed to have taken into account all the corrigenda issued by the Department before the due date of submission of bids and no claim whatsoever on account of any lapse or misunderstanding shall be entertained.
- 6.4 While uploading the bid, the tenderers/bidders should specifically check whether any **revised BOQ** has been uploaded by department through corrigendum prior to **Bid submission start date**. Tenderers/bidders attention is specifically drawn to the fact that they should submit their offer on revised BOQ only. In case any tenderer/bidder submits offer on pre-revised BOQ in lieu of Revised BOQ, **it will be considered as a willful negligence by the tenderer/bidder and quotation shall be considered non-bonafide**.
7. Tenders/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.
8. Hard copies of all above documents shall be sent by the contractor to the Tender issuing authority well in advance to be received before the date & time fixed for the same.
9. The contractor shall employ only Indian Nationals after verifying their antecedents and loyalty. Attention is also drawn to relevant provisions in Special Condition referred herein-after and also Conditions 24 & 25 of IAFW-2249 (General Conditions of Contracts).
10. These instructions shall form part of the tender documents.
11. The tender shall remain open for acceptance for a period of Sixty (60) days from bid submission end date excluding the end date of bid.

Signature of contractor

AGE (Contracts)
For Accepting officer

MILITARY ENGINEER SERVICES
NOTICE INVITING TENDER (NIT)

1. A tender is invited for the work as mentioned in Appendix 'A' to this NOTICE INVITING TENDER (NIT).
2. The work is estimated to cost as indicated in aforesaid Appendix 'A'. This estimate, however, is not a guarantee and is merely given as a rough guide and if the work cost more or less, a tenderer/bidder will have no claim on that account.
3. The work is to be completed within the period as indicated in aforesaid Appendix 'A' in accordance with the phasing, if any, indicated in the tender from the date of handing over site, which will be on or about two weeks after the date of Acceptance of tender.
4. Contractors whose names are on the MES approved list and within whose financial category the estimated amount would fall and un-enlisted contractors may submit tender/bid subject to other criteria mentioned in Appendix A. However in case of term contracts, enlisted contractors of Class SS to E may submit tender. Not more than one tender shall be submitted/uploaded by one contractor/ firm. Under no circumstances will a father and his son(s) or other close relations who have business dealing with one another be allowed to tender/bid for the same contract as separate competitors. Two firms shall be deemed to have business dealing if any of the partners/proprietor/director is common among both of them. A breach of this condition will render the tenders/bids of both the parties liable for rejection.
5. The office of **Garrison Engineer (I) (CG), Chennai** will be Accepting Officer here in after referred to as such for purpose of the contract.
6. 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 and executed standing security Bond may bid without depositing earnest money alongwith the tender.
7. The Technical Bid and Financial Bid (Cover-1 and Cover-2) shall be uploaded by the contractor on or before the date & time mentioned in **NIT**. A scanned copy of DD with enlistment details and other documents as specified in Appendix A shall be uploaded as Cover-1 (Technical bid) of the tender on e-tendering portal. DD is refundable in case the contractor is not considered eligible in technical evaluation of Cover 1 resulting in non-opening of Cover-2. The applicant contractor shall bear the cost of bank charges for procuring and encashing the DD including revalidation of DDs and shall not have any claim from Government whatsoever on this account.
8. Tender form and conditions of contract and other necessary documents shall be available on website defproc.gov.in site for download and shall form part of contract agreement in case the tender/bid is accepted.
9. In case of MES enlisted contractor who has not executed the Standing Security Bond and un-enlisted contractor, the Cover-I shall be accompanied by Earnest Money for the amount mentioned in Appendix 'A' in the form of deposit at call receipt in favour of **Garrison Engineer (I) (CG), Chennai** by a Scheduled Bank or in received treasury Challan the amount being credited to the revenue deposit of the Garrison Engineer (I) (CG), Chennai. The Garrison Engineer (I) (CG), Chennai will return the Earnest Money, wherever applicable,

NOTICE INVITING TENDER (NIT) (Contd...)

to all unsuccessful tenderers/bidders by endorsing an authority on the deposit at call receipt for its refund, on receipt of intimation of acceptance of tender from Accepting Officer.

10. In case of successful contractor i.e. the lowest contractor having submitted EMD, he shall have the option of converting the EMD instrument into part of the Performance Security to be deposited by him within 28 days from the receipt of intimation of acceptance of tender from Accepting Officer.

11. Sample of materials and stores to be supplied by the contractor will also be available for inspection by the bidder at the office of **Garrison Engineer (I) (CG), Chennai** during working hours. The bidder is advised to visit the site of work by making prior appointment with Garrison Engineer who is the Executing Agency of the work (see Appendix 'A'). The bidder shall be deemed to have full knowledge of all relevant documents, samples, site etc whether he has inspected them or not.

12. Any bid which proposes any alteration to any of the conditions laid down or proposes any other new condition whatsoever, is liable to be rejected.

13. The uploading of bid by a bidder implies that bidder has read this notice and the conditions of contract and has made himself aware of the scope and specification of work to be done and of the conditions and rates at which stores (as applicable) etc will be issued to him and local conditions and other factors having bearing on the execution of the work.

14. The bidder must be in possession of a copy of the MES Schedule (SSR) (Part-I & Part-II of latest edition) including amendments and errata thereto.

15. Accepting Officer does not bind himself to accept the lowest or any tender/bid or to give any reason for not doing so.

16. The Accepting Officer reserves the right to accept a tender submitted by a Public Undertaking/Small & Medium Enterprises (SMEs), giving a price preference/purchase preference over other tender(s)/bids which may be lower, as are admissible under the Government Policy. No claim for any compensation or otherwise shall be admissible for such tenderer/bidder whose tender/bid is rejected.

17. The **Notice Inviting Tender (NIT)** including Appendix 'A' and Annexures thereto, if any, shall form part of the contract agreement.

Signature of Contractor
Dated :

AGE (Contracts)
For Accepting Officer

APPENDIX 'A' TO NOTICE INVITING TENDER (NIT)

| | | |
|---|---|--|
| 1 | Name of work | PETTYREPAIRS, DAY TO DAY COMPLAINTS/MAINTENANCE, CERTAIN B/R REPAIRS AND OTHER MAINT WORKS IN VARIOUS BUILDINGS AT AGE B/R TUTICORIN UNDER GE (I) (CG) CHENNAI |
| 2 | Estimated Cost | ₹15.00 Lakhs (At par market) |
| 3 | Period of completion | 09 (Nine) Months |
| 4 | Cost of tender documents | ₹ 500.00 in the form of DD/ Bankers Cheque from any scheduled Bank in favour of Garrison Engineer (I) (CG), Chennai and payable at Chennai . [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 | Item Rate Contract based on Specifications, IAFW –2249 (General Conditions of Contracts) and IAFW – 1779A with Schedule “A” / BOQ [List of Items of work] to be priced by the Tenderer. |
| 7 | Timeline Details : | Ref critical dates on the website. |
| | (a) Bid submission start date | |
| | (b) Bid submission end date | |
| | (c) Date of bid opening | |
| 8 | Eligibility Criteria | |
| | (a) For MES enlisted contractors | Contractor shall be enlisted with MES in Class "E" and above and Category "a [i]" subject to satisfactory remarks w.r.t performance in respect of works in hand 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 "E" Class & "a [i]" category Contractor with regard to satisfactorily completion of requisite value works with Central / State Government / Central / State PSUs / AWHO / AFNHB / CGEWHO / DGMAP, Annual Turnover, Bank Solvency, Working Capital and other requirements given in Para 1.4 & 1.5 of Section – 1 of MES Manual on Contracts – 2020 as available in all MES formations as well as MES website [www.mes.gov.in]. [ii] Not carrying adverse remarks in Work Load Report [WLR] or any other similar report 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 dealing by any Central / State Government Department or any Central / State Government PSU or any Autonomous Body under Central / State |

| | | <p>Government or any Local Body as on the bid submission end date.</p> <p>[iv] Details of works completed and under progress in MES be submitted in the following format:-</p> <table><tr><th>Srl 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></table> <p>[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.</p> | Srl No. | CA No. & Name of Work | Value of CA | Date of Commencement | Date of Completion | Extended Date of Completion |
|---------|--------------------------------------|---|----------------------|-----------------------|-----------------------------|----------------------|--------------------|-----------------------------|
| Srl No. | CA No. & Name of Work | Value of CA | Date of Commencement | Date of Completion | Extended Date of Completion | | | |
| 9 | Tender issuing and Accepting Officer | Garrison Engineer (I) (CG) P-16,CGRA Meenambakkam 4th Street ,NGO Colony Nanganallur, Chennai– 600 061 | | | | | | |
| 10 | Executing agency | Garrison Engineer (I) (CG), Chennai | | | | | | |
| 11 | Earnest Money | ₹ 30,000/- in favour of Garrison Engineer (I) (CG), Chennai in the form of Deposit at call Receipt. FDR not acceptable. | | | | | | |

Notes :

1. In case after opening of Cover 1, the number of MES enlisted contractors of eligible class as well as eligible un-enlisted contractors, if any, fulfilling the other eligibility criteria given in NIT is less than 7 (Seven), applications in respect of MES contractors of one class 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 may also bid for this tender. Such contractors (contractors of one class below the eligible class) shall not be considered in case / their present residual work in hand is more than FIVE TIMES their present tendering limit. However in case such contractors fulfill the criteria /of upgradation to the stipulated eligible class based on past experience of completed works (individual work experience and/or average annual turnover, as applicable) and financial soundness (solvency/financial soundness and working capital), the ceiling of present residual work will not apply and they will be considered for issue of tender. Such bidders shall upload in their Cover-1 bid details related to residual work in hand like details of works in hand showing names of work, names of Accepting Officers, Contract amounts, dates of commencement and completion (stipulated) and progress as on bid submission date. Such contractors, if claim to fulfill the criteria of upgradation shall also upload the requisite information/documents in support of upgradation. 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 upgradation in respect of past experience of completed works (individual work experience and/or average annual turnover as applicable) and financial

APPENDIX 'A' TO NOTICE INVITING TENDER (NIT)(Contd...)

soundness (solveny/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 they meets the criteria. Foreign firms shall not be eligible for this 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 towards 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 be required to upload following documents in Cover-1 for checking eligibility:-

[a] Application for tender on Firm's letterhead.

[b] Scanned copy of DD / Bankers Cheque towards 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 /notarised 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 [b] 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 document 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.

APPENDIX 'A' TO NOTICE INVITING TENDER (NIT)(Contd...)

7. Contractors should ensure that their original physical DDs and Earnest Money [EMD] instruments [as applicable] are reach the office of Accepting Officer within **05 [Five] Days** of bid submission end date, failing which following action shall be taken.

[a] In case of tenders from enlisted contractors of MES, 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 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 shall be banned from bidding for a period of Six Months commencing from the date of opening of Finance Bid [Cover – 2].

[b] In case of tenders from Un-enlisted 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, 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 Finance Bid [Cover – 2].

[c] In case of tenders from enlisted and unenlisted contractors, where scanned copies of instrument 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 Next Higher Engineer Authority [NHEA] i.e. HQ, CE CG, Visakhapatnam – 530 007 on e-mail id. “cgviz2-mes@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.

APPENDIX 'A' TO NOTICE INVITING TENDER (NIT)(Contd...)

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 / she 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.

15. Tenderer should note that Court of the place where tender has been issued/ uploaded, shall be alone jurisdiction to decide any dispute out of or in respect of this tender. After acceptance of tender, condition 72 (Jurisdiction of courts) of IAFW-2249 shall be applicable.

Signature of contractor
Dated:

AGE (Contracts)
For Accepting Officer

File No: 8178/ 04 /E8

Dated : 15 Oct 2024

Garrison Engineer (I) (CG)
CGRA Meenambakkam
Building No P-16
NGO Colony 4th Street
Nanganallur, Chennai– 600 061

Tele: 044-29997059

Email Id: nchni4-mes@nic.in

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

TO BE READ IN CONJUNCTION WITH
GENERAL CONDITIONS OF CONTRACTS [IAFW-2249]

MILITARY ENGINEER SERVICES

Tele: 044-29997059
Email id: nchni4-mes@nic.in

Garrison Engineer (I) (CG)
P-16, CGRA Meenambakkam
4th Street ,NGO Colony
Nanganallur, Chennai– 600 061

8178/ 05 /E8

15 Oct 2024

ITEM RATE TENDER AND CONTRACT FOR WORKS REQUIRED IN THE EXECUTION
OF PETTY REPAIRS, DAY TO DAY COMPLAINTS/MAINTENANCE, CERTAIN B/R
REPAIRS AND OTHER MAINT WORKS IN VARIOUS BUILDINGS AT AGE B/R
TUTICORIN UNDER GE (I) (CG) CHENNAI.

(TENDER ID: 2024_MES_ _1)

Dear Sir(s),

1. M/s _____ is /are hereby authorized to e- tender for the above work.
2. The complete tender is uploaded on MES portal i.e. www.defproc.gov.in. The bid (Technical Bid i.e. Cover-1) will be opened as mentioned in the critical dates in office of Garrison Engineer (I)(CG),Chennai. Date and time of opening of Price Bid i.e. Cover – 2 will be intimated online after completion of evaluation of Technical Bid / Cover – 1. The financial bids of only those tenderers who meet the eligibility criteria as per Notice of tender shall only be opened.
3. All correspondence must be returned to this office whether or not the tender has been online submitted.
4. Any correspondence concerning with this tender shall be addressed as indicated at the top of this sheet, quoting the reference as given.

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

(Signature of contractor)
Dated: 2024

(Signature of Officer issuing the tender documents)
Appointment: AGE (Contracts)
For Accepting officer

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

SCHEDULE 'A' NOTES**NOTES :-**

1. The entire works covered under Sch 'A' (BOQ) shall be completed within **09 (Nine) months** from the date of handing over of site as mentioned in the work order. The scope of work covered under this contract are given in Schedule 'A' (BOQ) in a separate Excel sheet.
2. Description of items given in Schedule 'A' are in brief. These are deemed to be amplified and read in conjunction with latest IS codes, Special Conditions, Particular Specifications, Specification of materials of workmanship and condition given in the relevant sections of the SSR Part I 2009 (Specifications) and SSR Part II 2020 (Rates). It is an express condition of the contract that the Unit rate quoted by the tenderer shall be deemed to include for full and entire completion of the items of work in accordance with provision of this contract, the Government will not entertain any claim whatsoever on account of inaccuracies misunderstanding if any, on this account.
3. The quantities shown in Col 3 against various items of the BOQ are approximate and are inserted as guideline only. These shall however not be varied beyond the limits laid down in Condition 7 of IAFW-2249 (General Conditions of Contract).
4. Tenderers are required to enter unit rates in figures under Col 5 of the BOQ against each item and upload after due validation. The rate quoted for each items under Col 5 of Sch 'A' (BOQ) shall include for all necessary works required for the entire completion all as specified
5. The unit rate quoted by the tenderer under Col 5 of Sch 'A' (BOQ) shall be deemed to inclusive for all incidental and additional labour and materials to cover all the work enumerated and described under the description of items and in the preamble to similar item in SSR Part II 2020. It is an express condition of this contract that the rates quoted in this tender for various items of work shall be deemed to be for the full and entire execution and completion of this contract. The Government will not entertain any claim whatsoever on account of in accuracies misunderstanding, if any, in the aforesaid rates. Unless otherwise specifically mentioned in schedule 'A' the rate quoted for schedule 'A' items shall be deemed to include for the provisions of all materials, labour, tools and plant including requirements as detailed in the particulars specifications.
6. Unit rate quoted by the tenderers against respective items of Schedule 'A' (BOQ) shall interalia, be deemed to include minor details of construction which are obviously any fairly intended but which may not have been specifically stated in tender documents but are essential for execution and completion of work. In case of any difference of opinion between the contractor and the GE as to whether or not any items of work constitutes "minor construction details" which is deemed to have been included in the contractor's quoted prices, the decision of the Accepting Officer shall be final, conclusive and binding.
7. The tenderer shall satisfy himself by visiting the site with prior appointment of GE regarding working conditions, local conditions, nature of site/ground, climatic conditions, nature of work and means to access to site and other issues/circumstances which may affect the execution of work at a later stage. No extra payment with regard to aforesaid reasons shall be admissible under any circumstances.

SCHEDULE 'A' NOTES (Contd...)

8. The contractor shall make all precautionary arrangements not to damage the existing assets to the extent possible. It is becomes inevitable to execute the subject contract including cutting etc, the disturbed/ damaged surfaces /assets shall be made good to the original specifications without any extra cost to the govt.

9. As per Government of India Ministry of Labour and Employment New Delhi Circular No S.35025/02/2014-SS II dated 15 Jul 2015, it is mandatory that, **Contractor shall get themselves registered with the Employees Provident Fund Organisation and deposit the necessary contributions with the EPFO. Further, it is mandatory requirement that all construction workers should be provided Universal Account Number (UAN) by the contractor by appropriately registering them on the EPFO Portal. The contractor has to upload scanned Copy of Permanent or Temporary Provident Fund Code Number issued by Concerned Authority. The contractor shall also ensure compliance of the EPF & MP Act, 1952 by the sub- contractors, if any engaged by the contractor for the subject work.**

10. It is mandatory **on** the part of the Engineer-in-charge that while clearing the bills / payments (RAR) of contractors, a certificate be obtained from the contractor that all workers employed by him directly or indirectly are registered for EPF and the due contributions have been credited into their accounts.

11. **The rate quoted by the tenderer/bidder shall be inclusive of all types of taxes / cess viz GST and any other tax imposed / modified by the Central / State Govt. as applicable on the date of Bid submission end date. Nothing extra shall be admissible on this account. Tenderers are advised to independently ascertain the rate / percentage of Goods & Service Tax, surcharge etc., and shall quote their rates accordingly. No claim whatsoever on account of any kind of misunderstanding on this issue shall be entertained at a later date.**

12. The particular attention of the participants is invited to amendment No.21 applicable to condition 6 A (A) of IAFW 2249. In case the contractor does not quotes the rates against any of the items (s), the quoted rates for such item (s) shall be deemed to read as Rs NIL and prices / cost for provision of such items shall be deemed to be covered against other item (s) of BOQ.

13. In case of the BOQ is revised by the department, the bidder should quote in revised BOQ only, failing which (i.e. if the bidder has quoted in unrevised BOQ), such Bid shall be treated as willful negligence on the part of bidder/contractor and such Bid shall be considered Non-Bonafide. Also necessary action against such bidders/contractor(s) shall be taken by the Accepting Officer. Further it is clarified that in such cases, lowest tender shall be determined by the lowest amount amongst the valid/bonafide bids only.

14. Total amount in Column 6 of BOQ is not firm. A separate schedule of credit has been enclosed along with this tender. The amount of schedule of credit shall be deducted from the total amount of BOQ to arrive at the "Contract Sum" referred to in IAFW-2249.

SCHEDULE 'A' NOTES (Contd...)

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

16. **AADHAR Linked Bank Account**

16.1 The payment shall be made to the employees by the contractor through AADHAR linked bank account. In case any employee insist for payment in cash or by cheque an undertaking be obtained from such employee and shall be produced to the Department for Records and proof of payment shall be produced for each payment made.

17. **DEFECTS LIABILITY PERIOD**

17.1 Refer Condition – 46 of IAFW – 2249, General Conditions of Contracts. The Defects Liability Period for this work shall be **Twelve [12] Calendar Months** from the certified date of final completion of the work.

Signature of contractor
Dated:

AGE (Contracts)
For Accepting Officer

SCHEDULE 'A' – BOQ Pages

21 to 39

SCHEDULE OF CREDIT

**NAME OF WORK: PETTY REPAIRS, DAY TO DAY COMPLAINTS/MAINTENANCE,
CERTAIN B/R REPAIRS AND OTHER MAINT WORKS IN VARIOUS BUILDINGS AT AGE
B/R TUTICORIN UNDER GE (I) (CG) CHENNAI.**

NOTES:-

1. The tenderer shall visit the site with the prior approval of GE to acquaint himself to conditions and availability of the dismantled items/materials and evaluate the cost of materials obtainable from dismantling.
2. The dismantled materials specifically referred under this Schedule shall become the property of the contractor for which necessary recovery will be effected at the rates given in the Schedule, after dismantling each item.
3. The assessed price of materials obtainable from dismantling is inserted under column 5 of Schedule of Credit against each item of Schedule of credit. The assessed value of the materials given in column 5 is firm and fixed by the department and the contractor shall have no claim whatsoever against the department if the actual cost of salvaged materials turns out to be different from the cost given in Col 5.
4. The total amount of credit indicated in this Schedule will be considered as firm and will be deducted from the total amount quoted for Schedule 'A' for the purpose of acceptance.
5. The quantity of materials given in column 4 is approximate.
6. The contractor on acceptance of his tender shall deploy watch and ward staff at site against Loss/theft or damage of materials from the building listed in this Schedule. Nothing extra is payable on this account.
7. The materials obtained from the dismantling other than those materials mentioned in Schedule of credit will have to be returned to the department at the MES Store Yard without any extra cost.
8. The dismantling work shall be carried out as instructed by Engineer-in-Charge. Prior order of Engineer-in-Charge shall be obtained before dismantling etc. The materials shall be removed from the site only on obtaining written permission of Engineer-in-Charge.
9. Dismantling works shall be carried out carefully, so as not to damage to adjoining structure if any damage so caused shall be made good by the tenderer at his own cost.
10. The GE shall deduct the amount of credit offered in this Schedule proportionately from the RAR amount as the work exceeds.
11. The materials listed in this Schedule shall be recorded in the Measurement Book and abstracted and this amount shall be deducted from the value of work done. The contractor shall not be allowed to remove the materials listed in this Schedule till such time the value of work done by him is more than the value of credit.

SCHEDULE OF CREDIT (Contd...)

| SI No | Description of Items | Unit | Qty | Rate (in Rs) | Amount (in Rs) |
|-------|---|------|-------|--------------|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 1 | Old unserviceable wooden shutters n exc 1 sqm | Each | 10.00 | 150.00 | 1500.00 |
| 2 | Old unserviceable wooden shutters exc 1 Sqm and n exc 2Sqm | Each | 30.00 | 200.00 | 6000.00 |
| 3 | Old unserviceable wooden chowkhats with shutters exc 1.50Sqm | Each | 9.00 | 300.00 | 2700.00 |
| 4 | Old unserviceable wooden chowkhats with shutters exc 1.50Sqm and n exc 4Sqm | Each | 3.00 | 400.00 | 1200.00 |
| 5 | Old unserviceablr wooden particle board | Sqm | 20.00 | 30.00 | 600.00 |
| 6 | Old unserviceable door closer | Each | 5.00 | 50.00 | 250.00 |
| 7 | Old unserviceable MS Hinges 125mm | Each | 10.00 | 5.00 | 50.00 |
| 8 | Old unserviceable MS Hinges 75mm | Each | 10.00 | 3.00 | 30.00 |
| 9 | Old unserviceable Aluminium Tower Bolt 200mm | Each | 10.00 | 5.00 | 50.00 |
| 10 | Old unserviceable Aluminium Tower Bolt 75mm | Each | 12.00 | 5.00 | 60.00 |
| 11 | Old unserviceable Aluminium Handle 150mm | Each | 20.00 | 5.00 | 100.00 |
| 12 | Old unserviceable Aluminium Handle 75mm | Each | 10.00 | 5.00 | 50.00 |
| 13 | Old lock of any type/size | Each | 5.00 | 10.00 | 50.00 |
| 14 | Old hook and eye | Each | 10.00 | 5.00 | 50.00 |
| 15 | Old unserviceable PVC Flush Tank | Each | 25.00 | 50.00 | 1250.00 |
| 16 | Old unserviceable SS Sink with drain board | Each | 2.00 | 200.00 | 400.00 |
| 17 | Old unserviceable GI Tubing 25mm dia | RM | 20.00 | 30.00 | 600.00 |
| 18 | Old unserviceable GI Tubing 20mm dia | RM | 10.00 | 25.00 | 250.00 |
| 19 | Old unserviceable GI Tubing 15mm dia | RM | 10.00 | 20.00 | 200.00 |
| 20 | Old unserviceable WC PVC Seat cover | Each | 5.00 | 20.00 | 100.00 |
| 21 | Old unserviceable Wash hand basin | Each | 7.00 | 50.00 | 350.00 |

SCHEDULE OF CREDIT (Contd...)

| SI No | Description of Items | Unit | Qty | Rate (in Rs) | Amount (in Rs) |
|-------|--|-----------|-------|--------------|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 22 | Old unserviceable shower rose | Each | 20.00 | 30.00 | 600.00 |
| 23 | Old unserviceable Bib tap | Each | 30.00 | 40.00 | 1200.00 |
| 24 | Old unserviceable Pillar tap | Each | 20.00 | 40.00 | 800.00 |
| 25 | Old unserviceable Stop /Angle Valve | Each | 30.00 | 30.00 | 900.00 |
| 26 | Old unserviceable mirror | Each | 20.00 | 50.00 | 1000.00 |
| 27 | Old unserviceable PVC connection | Each | 30.00 | 5.00 | 150.00 |
| 28 | Old unserviceable Towel Rail | Each | 10.00 | 30.00 | 300.00 |
| 29 | Old unserviceable Toilet paper holder | Each | 5.00 | 15.00 | 75.00 |
| 30 | Old unserviceable Health Faucet | Each | 20.00 | 30.00 | 600.00 |
| 31 | Old unserviceable aluminium wire mesh | Sqm | 50.00 | 5.00 | 250.00 |
| 32 | Old Unserviceable curtain rod | RM | 50.00 | 20.00 | 1000.00 |
| 33 | Old unserviceable knobs | Each Pair | 30.00 | 10.00 | 300.00 |
| 34 | Old unserviceable PVC water tank 500litres capacity | Each | 2.00 | 500.00 | 1000.00 |
| 35 | Old unserviceable PVC water tank 1000litres capacity | Each | 2.00 | 600.00 | 1200.00 |
| 36 | Old unserviceable waste pipe | Each | 20.00 | 5.00 | 100.00 |
| 47 | Old PVC water tank cover | Each | 5.00 | 5.00 | 25.00 |
| 38 | Old waste coupling | Each | 25.00 | 10.00 | 250.00 |
| 29 | Old unserviceable Water closet(Orissa/EWC) | Each | 5.00 | 100.00 | 500.00 |
| 40 | Old unserviceable gratings | Each | 20.00 | 5.00 | 100.00 |
| 41 | Old Brick bat | Cum | 1.00 | 300.00 | 300.00 |
| 42 | Old PVC SWR Pipe 110 mm dia | RM | 10.00 | 20.00 | 200.00 |
| 43 | Old PVC SWR Pipe 75mm dia | RM | 10.00 | 15.00 | 150.00 |
| 44 | Old PVC Floor Trap | EACH | 5.00 | 20.00 | 100.00 |
| 45 | Old PVC Gully Trap | EACH | 5.00 | 20.00 | 100.00 |
| 46 | Old Stainless steel sink/plate rack | EACH | 4.00 | 150.00 | 600.00 |
| 47 | Old Floor Spring | EACH | 2.00 | 200.00 | 400.00 |

SCHEDULE OF CREDIT (Contd...)

| SI No | Description of Items | Unit | Qty | Rate (in Rs) | Amount (in Rs) |
|---------------------|-------------------------|------|-------|--------------|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 48 | Iron Scrap | KG | 20.00 | 20.00 | 400.00 |
| 49 | Aluminum Scrap | KG | 10.00 | 100.00 | 1000.00 |
| 50 | Old Telescopic Channel | Each | 5.00 | 30.00 | 150.00 |
| 51 | Old soft closing hinges | Each | 5.00 | 20.00 | 100.00 |
| 52 | Old corrugated pipe | Each | 20.00 | 10.00 | 200.00 |
| TOTAL AMOUNT in Rs. | | | | | 29,890.00 |

- **Note:** The Amount of Schedule of Credit shall be deducted from the total of BOQ Quoted by the bidder to arrive at the Contract Sum.

Signature of Contractor
Dated :

AGE (Contracts)
for Accepting officer

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

| SI No | Particulars | Rate at which materials will be issued to the Contractor | | Places of issue by name | Remarks |
|-----------------|-------------|--|------|-------------------------|---------|
| | | Unit | Rate | | |
| 1 | 2 | 3 | 4 | 5 | 6 |
| ----- NIL ----- | | | | | |

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

| Sr. No. | Quantity | Particulars | Details of MES Crew supplied | Hire charges per unit per working day | Stand by charges per unit per day | Place of Issue | Remarks |
|-----------------|----------|-------------|------------------------------|---------------------------------------|-----------------------------------|----------------|---------|
| 1 | 2 | 3 | 4 | 4 | 6 | 7 | 8 |
| ----- NIL ----- | | | | | | | |

SCHEDULE 'D'**TRANSPORT TO BE HIRED TO THE CONTRACTOR**
(SEE CONDITION 16 AND 35 OF IAFW – 2249)

| SI 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
Dated:AGE(Contracts)
for Accepting officer

[In lieu of IAFW-1779A (Revised –1955)]

TENDER

To

The President of India

Having examined and perused the following documents:-

1. Specifications signed by AGE (Contracts).
2. Drawings detailed in specifications.
3. Schedule "A" (BOQ), "B", "C" & "D" attached hereto.
4. MES Standard Schedule of Rates 2009, Part I (Specification) and MES Stand Schedule of Rates 2020, Part II (Rates) hereinafter referred to as the MES Schedule together with Errata/amendments Nos.1 to 3 for Part-I and 1 to 122 for Part-II as applicable.
5. General Conditions of Contracts: IAFW – 2249 (1989 Print) together with amendment Nos.1 to 49 and errata Nos. 1 to 20.
6. Refer Condition 31 of IAFW-2249, General Conditions of Contracts, **Water will be supplied by the MES and shall be charged at the rate of Rs. 3.75 for per Rs. 1000/- worth of work done priced at contract rates.**
7. Should this tender be accepted * I/We agree

***(a)** That the sum of **Rs.30,000/- (Rupees Thirty Thousand Only)** forwarded as Earnest Money shall either be retained by the Government on account of the Performance Security or shall be repaid by the Government on receipt of the full amount of Performance Security within the time specified in Condition-19 of IAFW-2249.

(b) The execute all the works, referred to in the said documents upon the terms and conditions contained or referred to therein and as detailed in the General Summary 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 to all disputes as required by Condition-70 of IAFW-2249 to the sole arbitrator of the serving officer having degree in engineering of equivalent of having passed final/direct final examination of Sub division II of Institution of Surveyor (India) recognized by the Govt. of India to be appointed by Chief Engineer (CG), Visakhapatnam-530 007 or in his absence the officer officiating as whose decision shall be final conclusive and binding.

*** To be deleted where not applicable**

[In lieu of IAFW-1779-A (Revised –1955)]

TENDER (Contd....)

Signature..... Namein the capacity
of duly authorised to sign the tender for and on behalf of
M/S. (IN BLOCK LETTERS)

.....

Dated:-

Witness**Postal Address**

Signature

.....

Address

.....

.....

.....

.....

Telephone No.

.....

Telegraphic Address

.....

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. AGE (Contracts).

The said officer(s) is/are hereby authorised to sign and initial on my behalf 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 schedule 'A' for the contract sum / amended contract sum of
Rs. (Rupees
..... Only) on the
..... day of 2024

Signature.....

Dated: this ____ day of ____ 2024

Appointment: Garrison Engineer (I) (CG)
Military Engineer Services
Chennai-600 061
(for and on behalf of the President of India)

GENERAL CONDITIONS OF CONTRACTS (IAFW- 2249 –1989 PRINT)
FOR MEASUREMENT CONTRACTS (IAFW-1779 & 1779 A)

A Copy of 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 on my /our possession. I/We* have read and understood the provisions contained in the aforesaid General Conditions of Contract 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 Contract (IAFW-2249, 1989 Print) including Condition 70 thereof pertaining to settlement of dispute by Arbitration with Errata 1 to 20 and Amendments No. **1 to 49** shall form part of this tender documents.

- Delete whichever is NOT APPLICABLE

Signature of Contractor
Dated :

AGE (Contracts)
For Accepting Officer

SCHEDULE OF MINIMUM FAIR WAGES**(See Condition-58 of IAFW-2249)**

1. It is hereby agreed that the "Schedule of Minimum Fair Wages" [SMFW] as Published vide Govt of India Notification dated 10 March 1992 and as amended Subsequently from time to time by the orders of the Competent Central/State Government/local authorities till the last date of submission of T-Bids, form part of these tender documents.
2. My/Our signature hereunder amounts to my/our having read and understood the provisions contained therein and I/we agree that I/we shall abide by the same and that aforesaid documents form part of this tender.
3. It is also agreed by me/us that although latest notification, as available with the Accepting Officer, has been formed part of the contract, in case the Government has further revised the wages, the latest revised wages for labour shall only be applicable.
4. Schedule of Minimum Fair Wages is not enclosed along with tender but the contractor is deemed to have full knowledge regarding the minimum wages payable to labourers as legally effective on the last date of submission of T – Bids and his tendered rates shall be deemed to have been based on the same. For the purpose of reimbursement of Price Variation [PV] clause for wage escalation of labour, the minimum wages legally effective on the last date of submission of T – Bids shall be the basis.
5. The minimum wages legally effective referred to above are the minimum wages notified in gazette/Governed by any local regulations or by Central Government, whichever is higher.

Notes:

- (a). The documents mentioned above can also be seen in the office of the **Garrison Engineer (I) (CG), Chennai-600 061** or in any other MES office during working hours.
- (b). In case of difference in interpretation due to wordings of English and Hindi versions, the English version will prevail as per Article 348 of Constitution of India.

Signature of Contractor
Dated :

AGE (Contracts)
For Accepting Officer

SPECIAL CONDITIONS**1. GENERAL**

- 1.1 The following Special Conditions shall be read in conjunction with General Conditions of Contract IAFW – 2249 (1989 Print) including amendments and errata thereto. If any provisions in these Special Conditions are at variance with the provisions in the aforesaid documents, the provisions in these Special Conditions shall be deemed to take precedence there over.
- 1.2 The work under this Contract shall be carried out in accordance with Schedule “A”, the particular specifications, drawings and other provisions in MES Schedule.
- 1.3 The term General specifications referred to here as well as referred to in IAFW – 2249 (General Conditions of Contract) shall mean the specifications contained in MES Schedule.
- 1.4 General Rules, Specifications, Special Conditions and all preambles in the MES schedule shall be deemed to apply to the work under this contract in case of any discrepancy, the provisions in these documents shall take precedence over the aforesaid provisions in the MES schedule.

2. INSPECTION OF SITE BY THE TENDERER TO ASCERTAIN HIS OWN INFORMATION

- 2.1 The tenderers shall contact the Garrison Engineer for the purpose of inspection of site(s) and relevant documents other than those sent herewith who will give reasonable facilities for this purpose. The Tenderers shall also make themselves familiar with working conditions, accessibility of site(s), availability of materials and other cogent condition etc., which may affect the entire completion of work under this contract.
- 2.2 The tenderer shall be deemed to have inspected and examined the site and its surrounding and to have satisfied himself before submitting his tender as to the nature of ground and sub-soil (so far as is practicable), the climatic conditions, the form and nature of the site, nature of work and materials necessary for the completion of the work and the means of access to the site, the accommodation he may require and in general shall be deemed to have himself obtained all necessary information on inspection of site as to risks, contingencies and other circumstances which may influence or affect, his tender. No extra payment consequent to any mistake or misunderstanding or otherwise on this account will be allowed.

3. SECURITY AND PASSES

- 3.1 Contractor's attention is invited to Condition 25 of IAFW-2249. Contractor shall employ only Indian Nationals after verifying their antecedents and loyalty. He shall ensure that no person of doubtful antecedents and Nationality is in any way, associated with work. All expenses in connection with verification of antecedents by Police authority/Security agency shall be borne by the Contractor. If for reasons of technical collaboration or other consideration the employment of any foreign national is unavoidable, the contractor shall furnish full particulars to this effect to the Accepting Officer at the time of submission of his tender.

SPECIAL CONDITIONS (Contd...)

- 3.2 GE shall have full powers and without giving any reason to order the contractor to cease to employ, in connection with this contract, any representative agents, servant and workmen or employee, whose continued employment in his opinion is undesirable. The contractor shall not be allowed any compensation on this account. The contractor shall on demand by the Engineer-in-Charge, submit a list of his agents, employees and work people concerned and shall satisfy the Engineer-in-Charge as to the bonafide of such people.
- 3.3 The Engineer-in-Charge shall at his discretion have the right to issue passes as per rules and regulations of the installations/area in force, to control the admission of the contractor, his agents, 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 works.
- 3.4 The contractor and his agents, employees and work people shall observe all the rules promulgated by the authority controlling the installation/are in which work is to be carried out e.g., prohibition of smoking and lighting, fire precautions, search of persons at entry and exit, keeping to specific routes, observing specified timings etc., Nothing extra shall be admissible for any man-hour etc., lost on this account.

4. CONDITIONS OF WORKING

- 4.1. All works lie in **Unrestricted Area**. The restrictions for entry to work site and conditions of working in restricted area shall be as under:-
- (a) The contractor, his agents, servants, workmen and vehicles may pass through the unit lines, in which case, the Engineer-in-charge at his discretion has the right to issue the passes, control their admission to the site of work or any part thereof. The contractor shall on demand by the Engineer-in-charge submit a list of personnel etc. concerned and any other information called for by the Engineer-in-charge and shall satisfy the Engineer-in-charge as the bonafide of such people. Passes shall be returned at any time on demand by the Engineer-in-charge and in any case on completion of work.
- (b) The Contractor and his work people shall observe all the rules promulgated from time to time by authority controlling the area where the work is to be carried out e.g. prohibition of smoking etc., Any person found violating the security rules laid down by the authority shall be immediately expelled from the area without assigning any reasons whatsoever and the contractor shall have no claim on this account. Nothing shall be admissible for any man hours lost on this account.
- (c) **FEMALE SEARCHER**: If the contractor desires to employ female labour for works to be carried out inside the area of factory, depot, park etc and a female searcher is not borne on the authorised strength of the factory, depot, park etc. at the time of submission of tender, he shall be deemed to have allowed in his tender for pay and allowances etc. for a female searcher (Group D employee) calculated for the period female labour is employed by him inside that area. If more than one contractor employs female labour during any month and female searcher (s) has/have to be employed in addition to the authorised strength of the factory, depot, park etc, the salary and allowances paid to the

SPECIAL CONDITIONS (Contd...)

-additional female searcher(s) shall be distributed on equitable basis among the contractors employing female labour taking into consideration the values and periods of completion of their contracts. The GE's decision in regard to the amount payable on this account by any contractor shall be final and binding.

(d) **FIRE PRECAUTIONS:** The contractor, his agents, representatives, workmen, etc., shall strictly observe the orders pertaining to fire precautions prevailing within the restricted area. Motor transport vehicles, if any, allowed by authorities to enter the restricted area must be fitted with serviceable fire extinguishers.

(e) **ACCESS TO WORK SITE AFTER COMPLETION OF WORKS:** After the works are completed and surplus stores etc., to be removed, the contractor, his agents, representatives or workman etc., may not be allowed to have access to the area except for attending any rectification of defects pointed out to him by the Garrison Engineer.

5. **TRANSPORT:** Animal transport will not be permitted.

6. **MINIMUM WAGES PAYABLE**

6.1 Refer Condition 58 of IAFW - 2249 General Conditions of Contract. The Schedule of "Minimum Fair Wages" as published vide Government of India Notification dated 14 Oct 88 and 10 Mar 92 forms part of the tender documents. The contractor shall not pay wages lower than minimum wages for labour including special allowances as fixed by the Government of India/State Government/Union Territory under Minimum Wages Act or Contract Labour Abolition and Regulation Act, whichever is higher.

6.2 The fair wages referred to in Condition 58 of General Conditions of Contract IAFW - 2249 shall be deemed to be the same as the minimum wages payable as referred to above.

6.3 The contractor shall have no claim whatsoever, if on account of local factors and/or regulations, he is required to pay the wages in excess of minimum wages as described above during the execution of work.

7. **ROYALTIES**

7.1 Reference Condition 14 of General Conditions of contract (IAFW -2249). No quarries on Defence land are available.

8. **LAND FOR TEMPORARY WORKSHOP, STORES ETC.**

8.1 Delete the following from lines 5 to 9 of sub para 1 of Condition 24 of IAFW - 2249, reading "in the event of area of land.....land allotted to him" and insert as under:-

"The contractor shall be allotted free of charge the area as marked on the layout plan for the purpose of erection of temporary workshop, stores etc. 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 expense.

SPECIAL CONDITIONS (Contd...)**9. WATER**

- 9.1 Refer Condition 31 of General Conditions of contract IAFW-2249 and clause No 1.13 of MES schedule. **Water will be supplied by MES and shall be charged @ 3.75 per Rs. 1000/- worth of work done priced at contract rates.** As the water supply by MES is likely to be intermittent short supply, the contractor shall make his own arrangement for storing the water required for the work, labour and workmen etc., at his own expense. In the event of breakdown of MES supply of water in the said supply of water becoming intermittent, the contractor shall make his own arrangement of supplement the requisite quantity of water.
- 9.2 If the contractor does not desire to take supply of water from MES he shall specifically mention while submitting his tender and shall make his own arrangements for water required for the entire completion of work, failing which the contractor shall be deemed to have agreed to take water supply from MES.

10. CO-OPERATION WITH OTHER AGENCIES

- 10.1 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 the work, if any under separate arrangements. The contractor will not be allowed any extra payment on this account and no compensation shall be admissible to the contractor on this account.

11. ELECTRIC SUPPLY

- 11.1 Electricity will be supplied by MES if required. The contractor will charge for electric energy consumed at the following rates:
- (a) At **Rs 26.21** per unit for lighting
 - (b) At **Rs 26.21** per unit for power
- 11.2 Electric supply shall be made available by MES at the point marked on the layout plan. The exact locations of the Electric points will be shown by the GE. The main switch and KWH meter to register the power supply will be provided and installed by MES. The contractor shall provide all necessary cables, connections pole, fittings etc.. from the main switch in order to ensure proper and suitable supply of electricity for execution of work. The installations/items provided by the contractor shall conform to and strictly in accordance with Indian Electricity Rules. Moreover the layout of cables etc., as proposed by him shall be as per plan approved by the Engineer-in-charge. The contractor shall obtain the prior written permission of concerned authorities for availing the power.
- 11.3 MES do not guarantee continuity of supply and no compensation shall be allowed for supply becoming intermittent or for break down or any reasons what so ever. The type of supply will be AC. However, for testing purposes electricity will be issued at free of cost.

SPECIAL CONDITIONS (Contd...)

- 11.4 GE or his representative shall be free to inspect all the power consuming devices or any electric lines provided by the contractor. Any device or electric line provided by the contractor, which is not to the satisfaction of GE shall be disconnected from supply if so directed by him.

12. SAMPLE OF MATERIALS

- 12.1 Refer Condition 10 of IAFW-2249 and Clause 1.6 & 1.7 of MES Schedule Part-I. Add following at the end of Clause 1.7.3 of MES Schedule :-

“unless otherwise mentioned in the contract documents.”

- 12.2 The materials and articles, which have been specified from certain makers/manufacturers, shall be of makes/manufactures as specified. If the manufacturers specified in tender documents make both ISI marked and conforming to ISI, the materials/articles shall be ISI marked.
- 12.3 The materials and articles, which have not been specified in tender documents by makes/manufacturers, shall be as under:
- (a) If ISI marked materials are being manufactured, the same shall be ISI marked. For a list of ISI marked manufacturers refer to the website of BIS i.e. www.bis.org.in.
- (b) If ISI marked materials are not being manufactured, the same shall be conforming to IS Specifications.
- 12.4 Materials of local origin shall be as specified and conforming to samples kept in GE's office. The tenderer is advised to inspect samples of materials which are displayed in the office of GE before submitting his tender. The tenderer shall be deemed to have inspected the samples and satisfy himself as to the nature and quality of materials he is required to incorporate in the work irrespective of whether he has actually inspected them or not.
- 12.5 The contractor shall not procure materials and articles unless the samples are first got approved by the Garrison Engineer.

13. RECORD OF MATERIALS AND PURCHASE VOUCHERS

- 13.1 The quantity of materials such as cement, steel, paints, water proofing compound, chemicals for anti-termite treatment and the like, as directed by the Engineer-in-Charge (the quantity of which cannot be checked after incorporation in works) shall be recorded in measurement books 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.
- 13.2 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.

SPECIAL CONDITIONS (Contd...)

- 13.3 Vouchers in respect of cement, steel, major E/M equipment like transformers, DG Sets, pumps, motors, AC and lift equipment will be submitted invariably. If the subject tender is for original works Contractor shall produce original purchase voucher on demand by GE in respect of material as decided by GE.
- 13.4 Original purchase vouchers shall be defaced by the Engineer-in- Charge indicating contract number, name of work under his dated signature and photocopies shall be kept in record. Genuineness of purchase voucher shall be verified by the Engineer in Charge before considering the same for making payment. Initially JE may verify the vouchers after taking confirmation on phone or through email. The contractor shall ensure that the materials are brought to site in original sealed containers/ packing, bearing manufacturer's marking except in the cases of the requirement of materials being less than smallest packing.
- 13.5 Contractor shall produce voucher / invoices from the manufacturers and/or their authorized agents for the full quantity of all items for which payment in RAR for material lying at site has been claimed by the contractor as a pre-requisite before submitting claims for payment of advances on account the work done and/or materials collected in accordance with Condition 64 of IAFW-2249, (General Conditions of Contracts).

14. TESTING OF MATERIALS

- 14.1 Testing of materials shall be carried out from Indian Institute of Technology, Chennai or any Govt. approved laboratory. Concrete cubes, TMT bars etc., shall be tested with the prior approval of GE. The cost of all such tests including cost of materials and transportation shall however be borne by the contractor unless otherwise specified hereinafter.

15. SECURITY OF CLASSIFIED DOCUMENTS

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

16. PERIOD FOR KEEPING THE TENDER OPEN

- 16.1 The tender shall remain open for acceptance for a period of **60 (Sixty)** days from the next day subsequent to bid submission end date.

17. OFFICIAL SECRET ACT

- 17.1 The contractor shall bound by the Official Secret Act-1923.

SPECIAL CONDITIONS (Contd...)**18. REIMBURSEMENT /REFUND ON VARIATION IN “TAXES DIRECTLY RELATED TO CONTRACT VALUE” :**

- 18.1 The rates quoted by the Contractor shall be deemed to be inclusive of all taxes (including GST on materials, GST on Works Contracts, turnover tax, Labour welfare cess/tax etc.) duties, Royalties, Octroi & other levies payable under the respective statutes. No reimbursement/ refund for variation in rates of taxes of taxes, duties. Royalties, Octroi & other levies, and /or imposition/ abolition of any new /existing taxes, duties, Royalties, Octroi & other levies shall be made except as provided in sub para (b) here-in-below.
- 18.2 (a) The taxes which are levied by Government at certain percentage rates Contract Sum/Amount shall be termed as “taxes directly related to Contract value” such as GST on works contracts, turnover tax, Labour welfare cess/tax and like but excluding Income tax. The tendered raters 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 of receipt of tenders shall be refunded by the Contractor to the Govt./deducted by the Government 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 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 Government from the payments due to the Contractor.
- (b) The contractors 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 thereto which he may be in a position to supply. The Contractors shall also submit the other documentary proof/ information as the GE may require.
- (c) The contractor shall, for the purpose of this connection keep such books of account and other documents as are necessary and shall allow inspection of the same by a duly authorized representative of Government, and shall further at the request of the GE furnish, verified in such a manner as the GE may require, any documents so kept and such other information’s as the GE may require.
- (d) Reimbursement for increase in percentage rates/ imposition of “taxes directly related to Contract value” shall be made only if Contractors necessarily and properly pays additional “taxes directly related to Contract value” to the Government, without getting the same adjusted against any other tax liability or without getting the same refunded from the concerned Government Authority and submits documentary proof for the same as the GE may require”.

SPECIAL CONDITIONS (Contd...)**19. DAMAGE TO EXISTING STRUCTURE/BUILDING**

- 19.1 Any, damage done to the existing structure, any existing road etc., during the execution of work shall be made good by the contractor at his own expenses. Rectification/ replacement/ making good and touching up etc., shall be carried out, conforming to the materials and workmanship originally provided and to the satisfaction of the Engineer-in-charge. In case of any dispute on this account decision of the GE shall be final, binding and conclusive.

20. APPROACHES.

- 20.1 The contractor shall make arrangements for and provide at his own cost all temporary approaches, if required to the site(s), after obtaining approval in writing of the GE to the layout of such approaches.

21. LOCATION OF BUILDINGS AND WORKS.

- 21.1 There may be some changes in location/siting of buildings shown in the site (layout) plan(s) to suit local conditions and/or departmental requirements. The contractor shall have no claim what-so-ever consequent to such changes in the location/siting of works.

22. COORDINATION WITH OTHER AGENCIES.

- 22.1 The contractor shall permit free access and afford normal facilities and usual convenience to other agencies or Departmental workmen to carry out connected works or services under separate arrangements. The contractor will not be allowed any extra payment on this account.

23. WATCH/LIGHTING.

- 23.1 The contractor shall, at his own cost, take all possible precautions to ensure safety of life and property by providing necessary fencing, barrier, light, watchmen etc. during the progress of work and as directed by the Engineer-in-Charge.

24. CLEANING DOWN

- 24.1 Refer Condition 49 of IAFW-2249. The contractor shall remove from the site all unused stores and huts and the like belonging to the contractor provided for the execution of work under this contract and the site of works shall be cleared off all rubbish and waste materials by the contractor and the site of works delivered in clean and tidy manner to the satisfaction of the Engineer-in-Charge on or before the date of completion. Nothing extra whatsoever will be paid to the contractor for such clearance of site.
- 24.2 The contractor shall clean all floors, remove cement, lime or paint drops, clean joinery, glass panels etc., touch up all paint work and carry out all necessary items of work in connection therewith and have the whole premises clean and tidy to the entire satisfaction of Engineer-in-Charge before handing over the buildings. No extra payment shall be admissible to the contractor for his operation.

SPECIAL CONDITIONS (Contd...)**25. COVERAGE OF BUILDING AND CONSTRUCTION WORKERS (BACW) IN THE SCHEME FRAMED UNDER EMPLOYEES PROVIDENT FUNDS & MISCELLANEOUS PROVISIONS (EPF & MP) ACT**

- 25.1 Tenderer's attention is invited to employee's provident fund and miscellaneous provision Act 1952. As per this Act, the contractor shall have provident fund code number. The contractor who is not in possession of provident fund code number shall be disqualified in „T“ bid evaluation and his financial bid shall not be opened. It is mandatory to upload copy of EPF registration certificate along with application for tender. 26.2 It is the responsibility of the contractor to ensure that all the workers engaged by him/ them are having universal account number (UAN) duly allotted by Provident fund dept and their contributions are properly credited into their account. A certificate to this effect shall be furnished by the contractor while claiming Final bill. **The contractor shall also ensure compliance of the EPF & MP Act, 1952 by the sub-contractors, if any engaged by the contractor for the subject work.**

26. RETENTION MONEY/ COMPENSATION FOR DELAY

- 26.1 Refer conditions 64 and 50 of IAFW-2249. For the purpose of calculating retention money under condition 64 of IAFW-2249, and compensation for delay under condition 50 of IAFW-2249, the value of contract as revised by price variation shall be taken into account.

27. CONSTRUCTION WORKER WELFARE TAX

- 27.1 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 quoted rates shall be deemed to be inclusive of this element and no extra payment shall be admissible to the contractor .

28. BUILDING AND OTHER CONSTRUCTION WORKERS WELFARE CESS ACT

- 28.1 The quoted rates shall deem to be inclusive of the building and other construction workers welfare cess. The cess at the rate as prescribed by the state Govt/Building and other construction workers welfare Board shall be deducted at source and no extra payment shall be admissible to the contractor on this account.

29. ACTION WHERE NO SPECIFICATIONS EXIST

- 29.1 In case of any class of work for which there are no specifications in the tender documents including SSR, such work shall be carried out in accordance with Indian Standard Specifications and where Indian Standard Specifications do not cover the same, the work shall be carried out as per standard engineering practice subject to the approval of the GE.
- 29.2 No claim what-so-ever will be tenable for any misunderstanding or for not having ascertained requisite information/knowledge to muster the resources required in satisfactory completion of the entire work to requirements as per contract agreement.

SPECIAL CONDITIONS (Contd...)

30. SIGNING OF TENDER

- 30.1 The person signing the tender on behalf of another partner or on behalf of a firm shall attach with the tender a proper power of attorney duly executed in his favour by such other person or by all the partners, stating that he has authority to bind such other person(s) or the firm as the case may be in all matters pertaining to the contract including arbitration clause.

Signature of Contractor

**AGE (Contracts)
For Accepting Officer**

PARTICULAR SPECIFICATIONS**PETTY REPAIRS, DAY TO DAY COMPLAINTS/MAINTENANCE, CERTAIN B/R REPAIRS
AND OTHER MAINT WORKS IN VARIOUS BUILDINGS AT AGE B/R TUTICORIN
UNDER GE (I) (CG) CHENNAI.****1. GENERAL**

- 1.1 Work under the contract shall be carried out in accordance with Schedule 'A', particular specifications, and general specifications read in conjunction with each other.
- 1.2 Term "General Specification" referred to hereinbefore as well as referred to in IAFW-2249 (General Conditions of Contracts) shall mean the specifications contained in the MES Schedule Part I.
- 1.3 General Rules, specifications, special conditions and all preambles in the MES Schedule shall be deemed to be applicable to the work under this contract, unless specifically stated otherwise in these documents in which case the provisions in these documents shall take precedence over the aforesaid provisions in the MES Schedule. The terms "as specified" wherever appears in tenders documents and drawings, relates to relevant particular specifications and in its absence general specifications.
- 1.4 Where specifications for any item of work are not given in MES Schedule or in these particular specifications, specifications as given in relevant Indian Standard or Code of Practice shall be followed.
- 1.5 Rate quoted for a particular item shall be deemed to include for any minor details /items of work and /or constructions which are obviously and fairly intended and which may not have been included in these documents but which are essential for the execution and entire completion of the work in a workman like manner. Decision of the Accepting Officer as to whether any minor details of work and/or constructions is obviously and fairly intended to be included in the contract or not, shall be final, conclusive and binding.

2. SCOPE OF WORK.

- 2.1 The scope of work under this term contract comprises artificers work i.e. Provisions, Additions/ Alterations, repairs etc. as described in condition 4(A) of IAFW-2249, Duration of period and zone of operation for artificers work shall be as stipulated elsewhere in these tender documents.
- 2.2 The approximate quantum of work (in relation to total work) likely to be ordered during the currency of the contract will be as under:
 - (a) Approx 85% : Repair works
 - (b) Approx 15% : New/Original works
- 2.3 The approximate percentage of work with reference to SSR trade section likely to be ordered during the currency of the contract given in Schedule 'A' to particular specifications.

PARTICULAR SPECIFICATIONS (Contd...)

- 2.4 The above said percentage break down given in 2.2 & 2.3 above is only approximate and purely given for guidance of the tenderers. These are likely to vary depending upon the requirement of the jobs and services from time to time during the currency of the contract. It is express conditions of this contract that such variation will not entitled either the contractor or the Government to any claim for reimbursement for loss or compensation which either party may suffer on this account.

3. EXCAVATION AND EARTH WORK

- 3.1 Excavation in trenches shall be done all as described in MES Schedule. The levels and grading of bottom of trenches shall be directed by the Engineer-in-Charge. Excavation in post holes shall comply the requirements of clause No. 3.3.5 of SSR Part I, 2009, as applicable.
- 3.2 Back filling of trenches shall be done with approved soil obtained excavated trenches.
- 3.3 Water in Excavation. All water which accumulated in excavation during the progress of work due to rains, storms, seepage, sub soil water or other cause is to be bailed/pumped out or otherwise removed to keep the trenches clean and dry off. Care should be taken to ensure that water is not discharged into places where it will cause inconvenience to the traffic. No additional payment will be allowed to the contractor for bailing/pumping out water and the cost of the same shall be deemed to have been included in the rates offered by the tenderer.
- 3.4 Disposal of Soil. Soil obtained from surplus soil from excavation shall be removing, spread and levelled at places not exceeding 50 meters as directed by Engineer-in-Charge.

4. DEMOLITION / DISMANTALING/ TAKING DOWN

- 4.1 Demolition/ Dismantling / Taking down shall be down all as directed by GE .All necessary precaution shall be taken while carrying out the demolition/ dismantling / taking down to avoid any damage or losses. If any damage / loss occur the same shall be rectified by the contractor on his own cost and arrangements. The retrieved materials shall be material shall be offered to the contractor through schedule of credit and those material offered schedule of credit shall be removed by the contractors from the site after accounting of the same in payment/ advances. The contractor shall not have any claim whatsoever for the removal of those materials offered to him through schedule of credit.

5. CEMENT.

- 5.1 Cement required for the work under the contract shall be procured, supplied and incorporated in the works by the contractor under his own arrangement. Cement shall be of tested quality and shall comply with the requirements mentioned in the drawings, SSR, IS specifications as amended and particular specifications given herein after. Type of cement for the subject work shall be Ordinary Portland cement Grade 43 (forty three) in accordance with IS 8112-1989 or Portland Pozzolana cement (PPC) as per IS-1489-1991 (subject to conditions mentioned here-in-after).

PARTICULAR SPECIFICATIONS (Contd...)**5.2 SOURCES OF PROCUREMENT**

(a) Cement shall be procured by the contractor from any of the following dealers from main producers of OPC& PPC:-

- | | |
|---|----------------------------|
| (i) The Associated Cement Companies Ltd | (xi) Mangalam Cement |
| (ii) Grasim Industries Ltd | (xii) Birla Cement |
| (iii) Ultra Tech Cement | (xiii) Orient Cement |
| (iv) The India Cement | (xiv) Lafarge Cement |
| (v) Dalmia Cement | (xv) Shree Cement |
| (vi) Andhra Cement Ltd | (xvi) J K Cement |
| (vii) Century Cement | (xvii) Lakshmi Cement |
| (viii) Saurashtra Cement | (xviii) Jaypee Rewa Cement |
| (ix) Binani Cement | (xix) Gujrat Ambuja Cement |
| (x) Madras Cement | |

(b) Besides the above, only OPC can be procured from the following producers:-

- (i) J&K Cement Corporation Kathua, J&K
- (ii) Shiva Industries Kathua, J&K
- (iii) Star Cement Meghalaya

5.3 SOURCE OF PROCUREMENT LESS THAN 1200 BAGS.

5.3.1 For contracts, where estimated requirements of cement is less than 1200 bags and all terms contracts, contractor can procure cement from the authorised distributors / dealer of the approved firms. However contractor will have to submit test certificate for the batch issued by the firm.

5.3.2 The contractor shall submit original purchase vouchers for the total quantity of cement supplied under each consignment to be incorporated in the work. All consignments received at the work site shall be inspected by the GE along with the relevant documents to ensure the requirements as mentioned hereinbefore, before acceptance. The original purchase vouchers and the test certificates shall be verified for subject contract & defaced by the Engineer-in-Charge and kept on record in the office of the Garrison Engineer duly authenticated and with cross reference to the consignment/ control number recorded in the cement Acceptance Register. The cement Acceptance Register shall be signed by the Junior Engineer (Civil), Engineer-in-Charge, GE and the Contractor. The contractor shall maintain schedule of supply of cement for each consignment.

6. CONCRETE

6.1 CEMENT- Cement required shall be all as described hereinbefore.

6.2 FINE AGGREGATE- Fine aggregate for concrete work shall conform to materials specifications and grading within the limits of grading zones II and III all as specified in Clause 4.4 to 4.4.7.3 of MES Schedule Part-I. Contractor may without any extra cost in lieu of river sand use manufacture sand (crushed stone sand) produced from hard granite /basalt/black trap stone, having cubical shaped particles with ground edges of

PARTICULAR SPECIFICATIONS (Contd...)

ground gradation zone II as per IS 383-1970 as applicable. In the market it is known as M-sand /Robo sand/I-sand etc. For pricing deviations, SSR rates shall only be applicable without any price adjustment for manufactured sand. However manufactured sand shall be used only in concrete and masonry works. For plastering, river sand shall only be used.

- 6.3 **COARSE AGGREGATE-** Coarse aggregates for all cement concrete work shall be graded crushed / broken hard granite stone obtained from approved quarries all as specified in Clause 4.4 of MES Schedule. Mixture of two types shall however not be used.
- 6.4 **WATER-** Water shall conform to the requirement stipulated in IS-456-2000 and as per clause 4.9 of MES Schedule Part-I.
- 6.5 **MIX OF CONCRETE-** The mix of cement concrete in various situations shall be as described in Sch "A". All materials, workmanship and testing for the cement concrete shall be as per requirement given in IS 456-2000.
- 6.6 **MIXING, DEPOSITING AND RAMMING OF CONCRETE**
- 6.6.1 All cement concrete, both plain and reinforced shall be mixed in mechanical mixer as specified in Para 4.11.5 and 4.11.5.1 of MES Schedule part-I. However, for small quantity of concreting (other than RCC works) i.e., the quantity of concrete required being less than one batch of mix, the contractor may after obtaining written approval of Engineer in charge which shall be exceptional, adopt hand mix subject to addition of 10% extra cement without price adjustment. Where hand mixing permitted, it shall be carried out on a concrete platform and care shall be taken to ensure that mixing is continued until the concrete is uniform in colour and consistency.
- 6.6.2 The mixing shall be done for at least 2 minutes and until a uniform colour and consistency is achieved.
- 6.6.3 Quantity of concrete mixed in any one batch shall not exceed the rated capacity of the mixer. The whole of the mixed batch shall be removed before materials for fresh batch enter the drum. Concrete mix as approved shall not be modified by addition of water or otherwise in order to facilitate handling for any other purpose. On ceasing of work and other stoppage exceeding 20 minutes, the mixer and other plants used for handling wet mix shall be thoroughly washed with clean water. Pick up and throw over blades in the drum of the mixer which are worn down 20mm or more in depth shall be replaced with new blades.
- 6.6.4 All cement concrete both plain and reinforced concrete, shall be deposited and compacted all as specified in clause 4.11.10 and 4.11.11 of MES Schedule Part-I. However, RCC work in columns, foundation, beams walls, chajjas and slabs etc. shall be compacted using mechanical vibrator, compaction of lean concrete shall be carried out by ramming and consolidated by tamping and rodding as specified. In the event of breakdown of mechanical mixer and vibrator, the contractor must have arrangements for standby mechanical mixer and vibrator.

PARTICULAR SPECIFICATIONS (Contd...)**6.7 FINISHING TO EXPOSED SURFACES OF CONCRETE**

6.7.1 Exposed surfaces of concrete such as soffits of slabs, sides and soffits of beams shall be treated as per clause 4.11.16.2 (b) of MES Schedule Part I. The rest of concrete surfaces shall be treated according to Para 4.11.16.2 (c) to (e) of MES Schedule Part I as applicable.

6.8 **CURING** - Curing shall be done as specified in clause No. 4.11.13 of MES Schedule Part-I.

7. FLY ASH BRICK WORK

7.1 Fly ash brick (Pulverised) shall be best quality brick, as approved by GE.

7.2 Fly ash blocks (Solid) will be of size 400x200x200mm/ 400x200x100mm/ 400x200x150mm/ 230x110x70mm as approved by GE with 28 days average wet compressive strength not less than 50 kg/cm² when tested as per procedure laid down in IS-3495-1992 (Part-I) and water absorption not more than 15% by mass when tested as per procedure laid down in IS-3495 (Part-II) after immersion in cold water for 24 hours. Average drying shrinkage of the blocks will not be more than 0.15% when tested as per IS-4139. However, the contractor will be allowed to use fly ash brick of smaller size as per site condition with prior approval of GE without any extra cost on plus side. The fly ash used in the process of making blocks should confirm to grade II of IS-3812-1981. The tolerance on dimension of the blocks will be taken as per clause 5.2 of IS-12894: 2002. The fly ash brick/block shall conform to IS-12894-2002. Fly ash brick shall be machine made, manufactured by hydraulic or vibratory press. Visually the bricks shall be sound, compact and uniform in shape free from visible crack, warpage, flaws and organic matters. The bricks shall be with or without frog on one of its flat side. Bricks shall be built in English bond.

7.3 200/230/300/400 mm thick (as applicable), brick wall shall be built in CM 1:6 and 110 mm thick brick wall shall be built in CM 1:4.

7.4 The entire workmanship shall conform to relevant clauses as applicable for brick work in section 5 of MES schedule Part-I. The thickness of joint in Fly Ash brick work shall not be more than 6mm.

7.5 The brick shall be procured from any one of the manufacturers enlisted as a member of FLY ASH BUILDING MATERIALS MANUFACTURERS ASSOCIATION (FABMAS) and as approved by the GE (Approved list of manufacturers available with GE). In case contractors using the fly ash bricks manufacturing by the manufacturers who are not member(s) (FABMAS), the bricks procured from such sources shall be subject to satisfactory results of all necessary tests and prior approval of GE before incorporated in the work.

7.6 Fly ash bricks should be adequately cured and stored for six weeks before incorporating in the masonry works in both load bearing and partition walls.

7.7 The record of above action shall be maintained meticulously at site of work.

PARTICULAR SPECIFICATIONS (Contd...)

7.8 **CEMENT**- Cement required shall be all as described hereinbefore.

7.9 **SAND**- Sand for mortar shall be as specified in hereinbefore for fine aggregate of concrete.

8. **INTEGRAL / LIQUID WATER PROOFING COMPOUND**

8.1 Integral water proofing compound shall be as per IS-2645-2003. Integral waterproofing shall be added as per manufacturers' instructions and shall not exceed 3% by weight of cement.

9. **FORM WORK**

9.1 Formwork shall be of properly designed steel formwork for both verticals props and soffits and sides of slabs, beams & column surfaces all as per the directions of GE. However, deformed steel sheet shall not be permitted for use as formwork. In case of any deviation involving formwork to surfaces exposed to view, the pricing shall be done at the rates of timber formwork for fair finish.

10. **STEEL AND IRON WORK**

10.1 **GENERAL**

10.1.1 All steel required for the work under the contract shall be procured, supplied and incorporated in the works by the contractor under his own arrangements. The reinforcement steel as well as the structural steel like angles, I sections, channels etc., shall be of tested quality and shall comply with the requirement mentioned in the drawings, SSR and particular specifications here-in-after. The specifications mentioned in the tender documents shall be read in conjunction with the provisions laid down in MES Schedule Part-I, Section 10 – Steel and Iron work. The contractor shall submit test certificate from the manufacturers.

10.2 **TYPES OF STEEL**

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

(a) **STEEL FOR CONCRETE REINFORCEMENT**

(i) High strength deformed steel bars produced by Thermo Mechanical Treatment process (TMT Steel bars of grade Fe-500 / Fe500D/Fe550 / Fe550D) meeting all requirements of IS-1786. In case drawings indicate steel of grade Fe-415, the same shall be provided with Fe-500 without any price adjustment on plus side. Please note Fe-415 grade stands discontinued for use in all works except for static water tanks. TMT HCR / CRS steel bars shall be used for Static Water Tanks.

(ii) Mild steel bars shall conform to IS-432 (Part-I) and Grade I.

(iii) Fabric reinforcement for concrete shall conform to IS: 1566.

PARTICULAR SPECIFICATIONS (Contd...)**10.3 STRUCTURAL STEEL**

- 10.3.1 Definition of structural steel as given in clause 10.4 of SSR Part-I shall be applicable. Standard quality steel of grade E-250 (Fe-410 W quality A) conforming to IS-2062 for all types of steel structures including those subject to dynamic loading shall be used.
- 10.3.2 Ordinary quality structural steel wherever mentioned shall be conforming to IS-1977 of grade E-165 (Fe-290) and shall be used for doors, windows, guard bars, grills, steel gates, hand railing, fencing posts etc.

10.4 SOURCE OF PROCUREMENT

(a) TMT HCR / CRS STEEL / TMT: TMT HCR / CRS / TMT Steel bars of all sizes supplied by the contractor shall be procured directly from the main producers of steel i.e. SAIL / RINL / TISCO / M/s Shyam Steel Industries / M/s Jai Balaji Industries / M/s SPS Steel Rolling Mills Ltd. / M/s Kamachi Industries Ltd. / JSW Steel Ltd.(Neo Steel)

Note: Reinforcement Steel, Structural Steel and Galvanised Steel and Fabric Reinforcement for concrete may be procured from authorised dealers of main producers in case of small contracts of quantities not exceeding 5.0 MT.

10.5 STRUCTURAL STEEL

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

- (i) M/s. K L Steel Pvt Ltd, Post Box No. 61, LalKuan, Bulandshahar Road, Ghaziabad (UP).
Tele : 0120-2867911, 2867915 Fax : 0120-2867917
- (ii) SRMB Udyog Ltd, 46, BB Ganguli Street, Kolkata – 700 012,
Tele 2236 9999.
- (iii) M/s Shri Badrinarain Alloys & Steels Ltd, 95, Stephen house, 4 B B D Bag, Kolkata 700 001
Tele : 033 22205381/22481601 Fax : 033 2248 8664
- (iv) M/s Shree Parashanth Re-rolling Mills Ltd.14C, Maharshi Devendre Road, 3rd Floor Kolkata – 700 007,
Phone – 033-22740045 / 4475 Fax – 033-22740039
- (v) M/s Pushpak Steel Industries Pvt Ltd, Gate No.119, Alandi Markal Road, Dhanore, Tah Khed Pune, Tele – Fax 020-26444700/070

PARTICULAR SPECIFICATIONS (Contd...)

(vi) M/s Tata Steel Structural, Tata Steel – Tube Division,
Jeevan Tara Building, 1st floor, 5 Sansad Marg, New Delhi – 110 001
Tele – 991112334, 264601734, 309983, 309986

(vii) M/s Amba Shakti Ispat Ltd, Plot No.6, Phase II Industrial Area,
Kala Amb, Dist Sirmour, 173030(HP)
Tele 01734-309983, 309986 Fax 01702-238927

10.6 **BINDING WIRE-** Binding wire for reinforcement shall be mild steel annealed not less than 0.90mm dia.

11. PLASTERING

11.1 Plaster and / or skirting / dado shall be returned to jambs, soffits or lintels and window cills etc.

11.2 All corners, angle, junctions and edges shall be truly vertical or horizontal as the case may be and shall be carefully finished. Corners around jambs of openings and junction of walls shall be rounded to minimum radius of 5mm. 12mm wide groove at the junctions of all walls and RCC slabs to the entire thickness of wall plaster shall be provided. Also trowel groove shall be provided at junction of walls and RCC columns or any other dissimilar material e.g. Wooden / steel chowkats etc. This provision is deemed to be included in the rates quoted.

11.3 Particular attention of the contractor is invited to take note of local practices and local availability of materials like bricks, stones, form work etc. for any extra quantity of mortar required for rendering smooth, extra dubbing required, touching up properly and achieving smooth and even surfaces. This shall be deemed to have been included in the rates quoted.

11.4 Cement mortar in all situations shall be machine mixed or hand mixed at the discretion of the contractor.

11.5 PREPARATORY OF BACKGROUND FOR APPLICATION OF PLASTER

11.5.1 All dirt, dust and foreign matter on surfaces of masonry and laitance on the concrete surfaces shall be removed by watering or brushing as required. In case, background contains soluble salts particularly sulphates, only after efflorescence of the salts is complete, plastering shall be done.

11.5.2 Joints in masonry shall be raked to a depth of 10mm as the work proceeds. Local projections beyond the general wall surface shall be trimmed off to avoid variance in thickness of plaster.

11.5.3 For smooth surface of concrete it shall be roughened by wire brushing or hacking or bush hammering if surface is hard. All projecting burrs shall be removed. The surface shall be scrubbed by wire brushes. Further pock marks 3mm deep at spacing of 50mm shall be done.

PARTICULAR SPECIFICATIONS (Contd...)

- 11.5.4 Adequate drying intervals shall be allowed between erections and plastering to bring the surface suitable for suction adjustment. The wall surface shall be dampened evenly before plastering and spots dry shall be moistened. Excess water will lead to failure of bond between plaster and background.
- 11.5.5 Dubbing coat and rendering coat shall be same type and mix and dubbing coat shall be executed along with rendering coat.
- 11.5.6 Plastering shall not be done till door frames are firmly fixed. Provide protection to fittings fixed against splash of plaster. However, if any splash of mortar is noticed it shall be cleaned off immediately.
- 11.5.7 Plastering shall be done from top to bottom continuously without joints.
- 11.5.8 The finished work of plastering shall not show more than 4mm deviation where checked by straight edge of 2m length placed over it.
- 11.5.9 In one coat plaster, the mortar shall be firmly applied to the masonry walls and well pressed into the joints and forcing it into the surface depressions for obtaining permanent bond. The plaster shall be laid little more than the required thickness and leveled with wooden float. On concrete walls rendering shall be dashed on roughened surface to ensure adequate bond using strong whipping motion at right angle to face of wall.
- 11.6 **BACKING COAT-** Provide backing coat shall be all as per schedule "A"
- 11.7 **CURING-** Each coat of rendering shall be kept damp continuously for at least two days. Moistening shall commence after plaster is sufficiently hardened.

12. WOOD WORK AND JOINERY**9.1 TIMBER**

- 9.1.1 Timber for all wood work and joinery shall conform to specifications given in clause 7.3 of the MES schedule and shall be within the permissible limits of defects defined in clauses 7.4 and 7.5 of the MES schedule. Species of timber shall be as under: -
- (b) First class hardwood - Indian teakwood (TectonaGrandis)
 - (c) Second class hardwood - (a) Padauk category-I (b) Mohwa (c) Phinma
 - (d) Black chuglam (e) Thingam (f) Badam (g) Kokko (h) White chuglam (i) Benteak
 - (j) Deodar (k) Sal
- 9.1.2 Timber shall be well seasoned kiln dried. Maximum permissible moisture content of timber for various purpose shall be as stipulated in clause 7.7 of MES schedule part I. Adequate number of tests shall be carried out by the Engineer-in-Charge to determine the moisture content in the timber used in the work and contractor shall provide necessary facilities for the test as required by Engineer-in-Charge without any extra cost to Government.

PARTICULAR SPECIFICATIONS (Contd...)**9.2 TOLERANCE**

- 9.2.1 Tolerance for the wrought faces of woodwork (carpenter's work) shall be allowed all as specified in MES Schedule.

9.3 PRESERVATION OF TIMBER

- 12.1.1 Preservative treatment shall be carried out to all wood work and joinery, fabricated by the contractor at site. However, factory made joinery /wood work are deemed to be provided with preservative treatment, under vacuum pressure.
- 12.1.2 Chemical used for preservative treatment to wood work and Joinery shall be organic solvent type 2 as specified in clause 5.1 of IS. 401, applied in any one of the manners specified in ibid IS.
- 12.1.3 All wood and joinery and wood work for eaves board etc except timber for form work shall be given treatment with Chloropyriphos 20 EC/ Lindane 20 EC. The quantity of chemical shall be used as approved by GE and methods as specified in relevant IS and as specified hereinafter shall be followed. The unit rate for relevant items of Schedule 'A' Part I include the cost of wood treatment.
- 12.1.4 After the joinery wood work is assembled as required and planning/sand papering is done, a cost of solution as mentioned above shall be applied.

9.4 JOINERY

- 9.4.1 Timber for all joinery work shall be 2nd class hard wood unless otherwise specially mentioned,
- 9.4.2 Tolerance in the thickness of joinery shall be + 2 mm.
- 9.4.3 SURFACE FINISH- The surface of timber in contact with or buried in masonry / concrete / plaster she clean sawn. All other surfaces shall be wrought.

9.5 FACTORY MADE PANELLED AND GAUZED WOODEN DOOR SHUTTERS

- 9.5.1 Panelled shutters shall be factory made conforming to IS-1003 (Part I) made of kiln seasoned ASCU treated as per IS with second class hard wood for styles and rails. Panels shall be of 12-mm thick particle board exterior grade with solid core, general purpose bonded with phenol formaldehyde resin, with commercial veneered faces both sides conforming to IS-3097. Plywood panel wherever shown on drawings for joinery shall be deemed to have been amended as 12 mm thick particle board as specified above. Panelled shutters shall be provided with beading all-round the panel insertion on both sides of shutter. Size of beading shall be 20 mm in width and tapered thickness from 10 mm to 5 mm. Fly proof door panels shall be with aluminium wire cloth as specified hereinafter with second class hard wood styles and rails all as shown on drawings. Thickness of shutters where not shown on drawings shall be 35 mm. Factory made shutters shall be procured from any one of the manufacturer listed in list of manufacturers as approved by GE. However, contractor may procure factory made panelled shutters and skeleton shutters of any of other manufacturer (not necessary those listed hereinafter) provided the same are conforming to IS-1003 in all respects and approval of the accepting officer is obtained in writing.

PARTICULAR SPECIFICATIONS (Contd...)**9.6 FACTORY MADE WOODEN FLUSH DOOR SHUTTERS**

- 9.6.1 Wooden flush door shutters shall be solid core type with particle board core and shall conform to IS 2202 (Part-I) and shall be as specified in clause 8.25 of MES Schedule Part I. Face panels shall be decorative veneered type plywood on both sides. Shutters shall be factory made and shall be obtained from any one approved manufacturers listed in approved manufacturers given hereinafter. Factory made wooden flush shutters shall be procured by the contractor from approved factory after getting sample approved by the Garrison Engineer. However, contractor may procure factory made flush shutters of any of other manufacturer (not necessary those listed hereinafter) provided the same are conforming to IS-2202 (Part-I) in all respects and approval of the accepting officer is obtained in writing. Thickness of shutters where not shown on drawings shall be 35 mm.
- 9.6.2 Separate teak wood lipping shall be provided all around the door shutters. The thickness of teak wood lipping where hinges are to be fixed to the shutter shall be 25mm thick and for the other sides of the shutter the thickness shall be 12mm. The lipping shall match with the face veneers. Irrespective what is given in schedule of finishes drawing flush doors shall be finished with French polish with glossy finish as specified herein after.

9.7 PLY WOOD

- 9.7.1 All ply wood shall comply with IS-303. It shall be BWP grade bonded with phenol formaldehyde resin and shall be of thickness shown on drawing. Plywood of 4mm thick shall be 3 Ply, 6mm and 9mm thick shall be 5 Ply and 12mm thick shall be of 7 Ply.

9.8 VENEERED PARTICLE BOARD

- 9.8.1 Veneered Particle board wherever specified in this contract shall be conforming to IS-3097BWP bonded with phenol formaldehyde resin solid core exterior grade with commercial/decorative face all as mentioned on drawing. Where no facing is mentioned on drawing, Contractor's quotation shall be deemed for provision with commercial facing.

9.9 PRELAMINATED PARTICLE BOARD

- 9.9.1 Where Prelaminated particle board is mentioned in sch 'A', it shall be melamine faced Prelaminated particle board (MFPB) exterior grade bonded with phenol formaldehyde resin conforming to IS 12823 with one face choice decorative lamination and other face balancing white lamination or both faces with choice decorative lamination.

9.10 WOODEN DOOR/WINDOW FRAMES

- 9.10.1 Wherever wooden frames are mentioned in sch 'A' for doors and windows, same shall be of 2nd class hardwood.

PARTICULAR SPECIFICATIONS (Contd...)**9.11 PVC DOOR FRAME/DOOR SHUTTERS (FOR WC/BATH/TOILET)**

- 9.11.1 Wherever door D8S is shown, provide factory made solid PVC moulded door shutter with factory made PVC solid PVC door frame shall be provided. The size of the door opening shall be 800 mm X 2100 mm / 800 mm X 2000 mm.
- 9.11.2 The chowkats shall be of solid PVC of size 50mmx47mm made out of 5mm thick plain coloured PVC sheet reinforced with MS square tube, edges shall be painted to match with PVC sheet. The details of the door frame shall be all as given at Sl. Page No. 150 of SSR Part-II-2004 and as specified in clause 8B.3.1 of SSR Part-II-2004.
- 9.11.3 12The shutter shall be factory made 30mm thick (stiles) with 2 panels all as specified in Item No 879 of MES Schedule Part-II of 2004. Irrespective of what is shown on drawing, the details of the door shutter shall be all as shown on drawing given on Sl. Page No. 146 of MES SchedulePart-II-2004 and as specified in clause 88.2.1 of SSR Part-II2004.
- 9.11.4 Irrespective of what is shown on drawing, the door frame shall be fixed to the wall by 6 Nos. Expandable fastener bolts of 100mm long. The shutter shall be fixed with 03 Nos. stainless steel butt hinges of 100mm long. The door shutter shall be fitted with 02 Nos. aluminium anodized handles 100mm long and 02 Nos. aluminium anodized tower bolts100mm long.

13. BUILDERS HARDWARE

- 10.1 All items of builder's hardware excluding butt hinges, mortice locks and ball catches shall be aluminium anodised. Anodising shall be not less than 10 microns. All fittings shall bear ISI marks.
- 10.2 Butt hinges shall be of stainless steel (with mild steel Pin) and shall be bright finished with smooth surface.
- 10.3 Aluminium hinges shall conform to IS-205 and all as specified in clause 9.7.3 of MES Schedule Part-I.
- 10.4 Barrel bolt shall be as per clause 9.3.3 of MES Schedule Part-I and of as per clause 9.3.3.1(d) of MES Schedule Part-I. The dia of bolt shall be 12mm for size 150mm and above and 10mm for size up to 150mm. Fixing shall be of all as directed by Engineer-in-Charge.
- 10.5 Aldrop bolts (i.e. sliding Door bolts) shall be as per clause 9.5.2(b) and 9.5.2.1 of MES Schedule Part-I and shall be sliding door bolts with hasp, staple and fixing clips of sheet casting or extruded section and fixing and sliding bolts of extruded section.
- 10.6 Aluminium handles shall be D-type, aluminium alloy fabricated handles with continuous base plate and shall be as per clause 9.11 and 9.11.1 of MES Schedule Part-I.
- 10.7 Provide floor door stopper and chokes all as directed by Engineer-in-Charge. The rubber for floor door stopper / choke shall be hard rubber as per manufacturer's instructions and as specified in Clause 9.15 of MES Schedule Part I. The floor door stopper shall conform to IS - 1823 - 1980 and shall be aluminium alloy.
- 10.8 **SINGLE ACTION DOOR SPRINGS:** Provide single action door springs of approved make to all wire gauzed shutters.

PARTICULAR SPECIFICATIONS (Contd...)

- 10.9 **DECORATIVE TYPE CURTAIN RODS:** Decorative curtain rods shall be powder coated MS pipes 25mm dia 18 SWG thick, with decorative type fancy brass end caps as approved of suitable size with 12 Nos curtain rings with hooks. Curtain rods shall be fixed with metal brackets all as per manufacturer's instructions. Sample and make of curtain rods shall be got approved and verified by GE before incorporation in the work. The material shall conform to the samples kept in GE's office.
- 10.10 **HASP AND STAPLES:** Shutters of all cupboards and built in furniture shall be provided with hasp and staples safety type made of aluminium alloy all as specified in clause 9.10 of MES Schedules Part I.
- 10.11 **BALL CATCH SPRING:** Shutters of all built in cup boards having wooden frame shall be provided with ball catches made of brass and polished bright all as specified in clause 9.14 of MES Schedule Part I.
- 10.12 **FLUSH BOLTS:** Where double shutters have been provided for cup boards one of the shutters shall be provided with a flush bolts of aluminium all as specified in clause 9.4 of MES Schedule Part I.
- 10.13 Stainless steel fittings & aluminium anodised fitting shall bear ISI marked.
- 10.14 **SAFETY CHAIN:** Provide safety chain to main entrance doors of all quarters. Safety chain shall be of door chain of steel chromium plated with self locking device of standard length as manufactured by M/S Fixit Hardware, Mumbai, M/s Godrej or equivalent make as approved by GE.
- 10.15 **MAGIC EYE:** Provide magic eye to entrance door of all quarters. Magic eye shall be of size 10mm, brass chromium plated of reputed make as approved by GE.
- 10.16 **MORTICE LOCK:** Mortice lock shall be vertical type of size 75 mm, 4 levers, brass chromium plated body. Mortice lock shall be without self-lock and of make as approved by GE.
- 10.17 **GODREJ NIGHT LATCH:** All entrance doors type IV and Type V quarters shall be provided with Godrej night latch with seven brass levers and mechanism that of dead locks.
- 10.18 HYDRAULIC DOOR CLOSER**
- 10.18.1 Aluminium doors shall be provided with aluminium (Die-cast) body door closers hydraulically regulated, designation No. 2, universal type conforming to IS-3564 and shall be as specified in Clause No. 9.16 & 9.16.1 of SSR Part-I.
- 10.18.2 Screws for all fittings shall match the respective fittings, both in materials and finish except for anodised aluminium fittings which shall be steel cadmium plated screws.

PARTICULAR SPECIFICATIONS (Contd...)**14. CORRUGATED AND SEMI CORRUGATED ASBESTOS CEMENT SHEETS**

- 14.1 AC SHEETS- AC sheets work shall be executed as mentioned in relevant items of Schedule A and shall be confirming to IS 459-1970 and all as specified in section 11.3 of SSR Part-I.

15. PAINTING**15.1 GENERAL**

- 15.1.1 Materials and workmanship shall be all as specified in section 17 of MES Sch. Part I.
- 15.1.2 Surfaces, which are inaccessible for painting after erection, shall be painted before erection.
- 15.1.3 Before application of under coat, the primer coat shall be redone if more than 6 months have elapsed after it was applied at no extra cost to the Government
- 15.1.4 Unless otherwise specified or shown on drawings all timber works shall be painted with two coats of synthetic enamel paint over a coat of pink primer, except the surfaces in contact with or buried in brick work/concrete/ plaster which shall be treated as specified hereinafter.
- 15.1.5 Particle board surfaces (except Pre-laminated surfaces) shall be treated with filler coat all as specified in clause 17.6.3 of MES Schedule (Part I) before painting.
- 15.2 All paints e.g. synthetic enamel paint, Exterior emulsion paint, Distemper Oil Emulsion etc. shall be of superior quality manufactured by the standard firms of make as listed in list of manufacturers here-in-after.
- 15.3 The contractor shall inform the GE, within four weeks of the acceptance of the tender, the brand names of manufacturer of paint proposed to be used in the works and submit samples thereof well in time and obtain prior written approval of the GE before their use in work.
- 15.4 The contractor shall, when so required by the GE, produce certificate from the manufacturer or their representative to establish that the brands of paints purchased by the contractor from them satisfy the requirements of the relevant Indian Standard.
- 15.5 Paints for priming coat, under coat and finishing coat shall be of same manufacturer. Paint shall be procured in bulk in reasonable quantities as approved by GE.
- 15.6 Tint of paint, will be as approved by the GE.
- 15.7 **WHITE CEMENT BASED PUTTY**
- 15.7.1 White cement based putty shall be procured from the manufacturers as given here in after and shall be applied all as specified in SSR part I clause No 15.19.1 to 15.19.6.4

PARTICULAR SPECIFICATIONS (Contd...)**15.8 WHITE WASH /CEMENT BASE PAINT**

- 15.8.1 Apply three coats of white (lime) wash where white wash is indicated on drawings / Schedule of finishes. The lime for white wash shall be Luckycem / Suryacem as approved by GE. Application of white wash shall be as specified in clause 15.12.5 of MES Sch Part I.
- 15.8.2 Apply two coats of cement based paint where shown on Schedule of finishes all as specified in clause 15.15 of MES Sch part-I. Cement paint shall conform to IS-5410. The colour/tint shall be as approved by Accepting officer before application of paint.

15.9 OIL BOUND DISTEMPER/ OIL EMULSION

- 15.9.1 Distemper, oil emulsion shall conform to IS 428-1969. Preparation of surfaces, application of primer and distemper shall be in accordance with clauses specified MES schedule Part-I. Oil emulsion distemper shall be of any of the makes mentioned hereinafter. Primer shall be alkali resistant.

15.10 EXTERIOR EMULSION

- 15.10.1 Where exterior emulsion is indicated on drawings/Schedule of finishes, apply two coats of exterior emulsion over one coat of priming paint as per manufacturer's instructions. Preparation of surfaces and application of shall be all as per MES Schedule Part-I clauses 15.13.1 to 15.14.5.
- 15.11 **TARRING:** Two coats of tar shall be applied to wood and steel articles which are embedded or in contact with masonry / concrete surfaces.

15.12 SCAFFOLDING

- 15.12.1 The exterior painting work shall be carried out by using scaffolding. No zoola is permitted for the work under any circumstances. Suitable scaffolds shall be provided for work men.
- 15.12.2 Scaffolding or staging more than 3.5 meters above the ground or floor, smung or suspended from any overhead support or erected with stationary support shall have a guard rail properly attached, braced and otherwise secured at least 1 meter high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends therefor with only such opening as may be necessary for the delivery of materials. Suh scaffolding or staging shall be so fastened as to pervert it from swaying from the building or structure.
- 15.12.3 Every opening in the floor of a building or in working platform be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be 1 meter.
- 15.12.4 Safe means of access shall be provided to all working platform and other working places.

PARTICULAR SPECIFICATIONS (Contd...)

15.12.5 The rate quoted are deemed to include the above provision of scaffolding and nothing extra will be payable to contractor on this account. The scaffoldings shall be removed only after obtaining clearance of Engineer-in-Charge/Garrison Engineer after considering the quality of the work undertaken on completion of the planning. Contractor shall provide all safety precautions for the labour engaged for this work. All the labour shall be provided with safety belts, helmets, Nose screens etc and the contractor shall adhere to all safety precautions as per Labour Welfare Act.

16. GLAZING

16.1 Glazing to windows / doors shall be all as described in relevant items of Schedule "A" and conforming to IS and as specified in MES SSR part-I

17. FLOORING**16.1 GENERAL**

16.1.1 Workmanship shall be all as specified in clause 13.25 of MES schedule Par-I unless otherwise specified hereinafter.

16.1.2 Floors shall be laid to levels and or/to slopes as directed by the GE. Floors shall be sunk where directed to the required depth. The floors shall be carried through all opening in walls at floor level. In case of doors/openings with different floor finishes on two sides, the meeting line of the finish shall be as described in subsequent paras.

16.1.3 In case of openings without door shutters, the floor finish of main room shall be extended for the full width of the openings. 16.1.4 In case of openings with door shutters, the floor finish of main room shall be extended upto outside of door shutter when shutter is closed.

16.1.4 Where floor finish is to be done the top surface of slab shall be cleaned with hard wire brush and applied a coat of cement slurry at 3 kg cement/SM just before laying the floor.

16.1.5 Unless otherwise mentioned, glass dividing strips 3mm thick shall be provided to from joints in PCC floors, (except wc, toilet and both). The width of glass strips shall be equal to thickness of the floor concrete. The top of glass dividing strips shall be grounded smooth. Glass dividing strips need not be provided in sub base.

18. PLAIN CEMENT CONCRETE FLOORS.

17.1 Provide PCC floors and thickness over sub base RCC slab all as specified and as directed.

17.2 PCC floors (except floors in sub base) shall be laid in bays adopting panel dimension of 1200mmx1200mm. The bays shall be so arranged that the end of bays shall be of equal width not exceeding 1200mm. Top of PCC floors shall be steel towelled to a smooth and even finish using extra cement. The floor shall be laid in alternative bays.

PARTICULAR SPECIFICATIONS (Contd...)**19. GLAZED TILES /SKIRTING/DADO.**

- 18.1 Glazed tiles Skirting/Dado shall be laid in the manner as specified in relevant clause of MES Schedule Part-I and as directed. Height of dado/skirting shall be as indicated as directed GE. White /Colour glazed tiles shall be of size and thickness as mentioned in Sch 'A' items. These shall be laid over backing coat of cement mortar as mentioned in relevant item Sch 'A'. and set and jointed in neat cement slurry and pointed in white/coloured cement to match.

20. NON SKID CERAMIC TILES FLOORING

- 19.1 Non skid ceramic tiles flooring shall conform to IS-777-1970 and shall be laid in the manner as specified in relevant clause of MES Schedule Part-I and as directed. White /Colour Non skid ceramic tiles shall be of size and thickness as mentioned in Sch 'A' items. These shall be laid over backing coat of cement mortar as mentioned in relevant item Sch 'A'. and set and jointed in neat cement slurry and pointed in white/coloured cement to match.

21. SANITARY FITTINGS.**20.1 GENERAL**

- 20.1.1 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 list given in Appx 'B'.
- 20.1.2 All waste pipes and fittings up to floor/Nāhani trap from wash hand basin shall be of galvanised steel tubing medium grade conforming to IS 1239 (Part II 1969).
- 20.1.3 The sizes, given hereinafter are approximate sizes. The size of sanitary fittings to be provided shall be the nearest size as per manufacturers catalogue as approved by GE.

20.2 WASH HAND BASIN

- 20.2.1 Wash hand basin shall be vitreous China white, flat back of size 550x400mm or oval shape of standard size conforming to IS 2556 (part IV) with built in over flow and single tap hole, waste fittings, rubber plug and chain, a pair of standard CI brackets for fixing to walls with 32mm dia PVC flexible acid resistant waste pipe of working pressure rating 4 kgs/Sqcm. WHB shall be provided and connected to 50mm dia PVC waste pipe with PVC reducer all as shown in drawings, wash hand basin shall be all as specified in clause 18.32.5 of MES Sch part I. The cast iron brackets shall be painted with two coats of aluminium paint all as specified in MES Sch part I. One number cast copper alloy chromium plated brass pillar tap, 15mm dia conforming to IS-1795 shall be provided. 15mm dia PVC flexible pipe with brass union and check nut for connecting WHB to GI supply pipe shall also be provided.

PARTICULAR SPECIFICATIONS (Contd...)**20.3 WATER CLOSET****20.3.1 WATER CLOSET (INDIAN TYPE SQUAT PATTERN)**

(a). Squat pattern water closet shall be Orissa pattern WC and shall consist the following:

(i). Vitreous China white WC, Orissa pattern of size 580mm x 440mm with integral footrests and P or S trap with inspection vent.

(ii). The WC pan/trap shall be set in lime concrete 1:2 at least 15 cms around and finished just below the rim to receive adjoining floor finish.

(iii). 10 litres discharge capacity low level flushing cistern made of hard durable plastic(HDPE/PP) finger touch operated bearing IS-7231 diaphragm bearing IS 13049 and valve float bearing IS 9762 fixed with standard cast iron brackets, 32mm dia polythene flushing pipe of required length with suitable plastic coupling, nuts and other accessories all as specified in paras 18.32.2, 18.35 and 18.36 of MES Sch part 1. Fixing shall be done as specified in para 18.87 of MES Sch part I.

20.3.2 WATER CLOSET PEDASTAL TYPE (EWC)

(a). Pedestal pattern (wash down) water closet shall consist of following: -

(i). Vitreous China White pedestal pan (EWC) of size not less than 400x400x340mm as approved by GE with and including concealed 'P' or 'S' trap.

(ii). White seat cover with solid flat bottom made of thermosetting material and mild steel chromium plated hinging device and rubber washers.

(iii). Low level flushing cistern shall be all as specified for Indian type water closet hereinbefore.

(iv). 32 mm dia polythene flushing pipe of required length with suitable plastic coupling, nuts and other accessories.

(v). Box type vitreous china white toilet paper holder of size 150mm x 150mm x150mm fixed with chromium plated brass screws and wooden plugs.

20.4 TOWEL RAIL- Towel rail shall be 600mm long.

20.5 MIRROR- The mirror shall be provided of size 600 x 1200mm with selected approved sheet glass 5.5 mm thick nominal thickness with design glass beading. It shall be free from all flaws, specks or bubbles. The glass shall be uniformly silver plated on the back, free from silvering defects. The silvering shall have uniform protective coating of red lead paint. 6mm plywood backing BWR grade and bonded with phenol formaldehyde synthetic resin adhesive suitable for general purpose.

20.6 URINAL- Urinal shall be flat bowl type back half stall of size 465 x 355 X 265 mm of vitreous china conforming to IS, with one 5 litres capacity vitreous china automatic flushing cistern for two urinals. Urinal and flushing cistern shall be fixed to the wall all as specified in MES Schedule. Flushing pipe shall be 15 mm dia. Chromium plated mild steel pipe for stall type urinal.

PARTICULAR SPECIFICATIONS (Contd...)**22. PLUMBING WORK****21.1 GENERAL**

21.2 PVC (SWR) pipes and fittings shall be of PVC to with stand continuous internal hydraulic pressure of 4 kgf/Sq.cm conforming to IS-4985, of size as indicated on drawings. Pipes and fittings shall be secured to wall just below all joints with MS clamps embedded in cement concrete blocks 100 x 100 x 100mm (1:2:4) type B1 mix. MS clamps shall be made from 1.6mm thick sheeting of 30mm width. Pipes and fittings shall be jointed with epoxy resin or compound as recommended by manufacturer. The grating shall be CI, round type, weighing not less than 0.5 kg each, provided and fixed at the inlet of rainwater pipes.

21.3 SHORTER LENGTHS. Except for WC connections, the contractor may use pipe pieces without sockets in shorter lengths (less than one pipe length) if approved by the GE and connect these to pipes fitting with double sockets/collars, including additional joints as specified above without extra cost to the Government.

21.4 WATER TUBING. All water tubing shall be galvanised conforming to IS 1239 and fittings shall comply with the requirement of relevant IS. Laying of GI pipe shall be in accordance with clause 18.51 of MES Schedule.

23. PAINTING ON STEEL SURFACES

22.1 Paints and primer shall be procured from one of the manufacturer's listed in Appendix 'A' to particular specifications. 23.2 Red oxide zinc chromate primer for steel surfaces shall conforming to IS-104. 23.3 Synthetic enamel paint for both wooden and steel surface shall conform to IS-2932.

22.2 GENERAL

22.2.1 All painting as far as possible shall be carried out in dry weather and neatly cut at edges. Other surfaces shall be protected and cleaned off as necessary.

22.2.2 All paint shall be of first quality not inferior to that specified in the relevant Indian Standard Specifications and one out of the manufacturers brands/makes listed in Appendix 'A'.

22.2.3 Paint for primer coat under coat and finishing coat shall be from the same manufacturers.

22.2.4 All iron and steel work specified shall be scrapped free from dust, scale etc., with a steel brush and will dusted before painting. Wood and wood based materials shall be prepared as specified in MES Schedule. 23.4.5 Workmanship and application of paints shall be as specified in section 17 of MES Schedule Part-I as applicable for relevant items of painting.

22.2.5 All exposed surfaces of steel and iron work shall be treated with two coats of synthetic enamel paint over a coat of Red Oxide zinc chrome primer.

PARTICULAR SPECIFICATIONS (Contd...)

22.2.6 Note: Steel reinforcement, stainless steel surfaces and aluminium surfaces shall not be painted.

22.3 **TARRING:** Two coats of tar shall be applied to wood and steel articles which are embedded or in contact with masonry / concrete surfaces.

24. PVC WATER TANK

23.1 PVC water tank shall be HDPE double layer type ISI Marked and fixed in the location as directed by Engineer-in-Charge. The tank shall be placed on slab over PCC 1:2:4 Type B1 raised platform with a minimum height of 100 mm and of size 15 cm more than external dia of tank. Each tank shall be provided with 25 mm dia ball brass valve.

25. GI TUBE AND FITTINGS

24.1 GI tube and fittings shall be of mild steel galvanized medium grade conforming to IS-1239 and ISI marked. Fittings conforming to IS-1239 if not available ready may alternatively comply with the requirement of IS-1879 for malleable cast iron fittings. GI tube and fittings shall be ISI marked.

26. BIB TAPS AND STOP VALVES

26.1 They shall be screw down type and shall conform to IS-8931 and ISI marked as given in Sch 'A'. Spindles, glands, crutches etc. shall be of extruded brass.

27. GUN METAL GATE VALVES

27.1 Gate valves shall be class-I and shall conform to IS-778 and shall be ISI marked.

28. EARTH WORK AND LAYING OF PIPES

28.1 The minimum authorized width of excavated trenches shall be as per clause 18.50.1. GI pipe shall be laid as specified in clause 18.51 of MES Schedule Part I. CI and DI pipes shall be laid all as specified in clause 18.42 to 18.48 of MES Schedule Part-I as applicable.

29. SUN CONTROL FILM

29.1 Glass panes of windows of AC rooms shall be provided with non-reflective type Sun Control film of 50 microns thick. Sun control film shall be pasted to glass panes as per manufacturer's instructions and as directed by GE. The film shall be of approved quality and shall be of standard and reputed make. The work shall be carried out all as per Clause 16.17 & 16.19 of MES schedule Part-I. Sample and make of sun control film shall be got approved by GE before incorporation in the work.

PARTICULAR SPECIFICATIONS (Contd...)**30. SOIL/WASTE/ VENTPIPE / FITTINGS ACCESSORIES.**

- 30.1 Soil/waste and vent pipes and fittings/accessories shall be Cast Iron (Sand cast) conforming to IS-1729-2002, specifications for Cast iron sand cast spigot and socket pipes, fittings and accessories etc. Unless otherwise shown on drawings, the dia of soil pipe shall be 100 mm and dia of waste/vent pipe shall be 75 mm. All the pipes and fittings shall bear ISI certification mark. All exposed surfaces of CI pipes and fittings shall be painted two coats of black bituminous paint.

31. JOINTING

- 31.1 All CI pipes and fittings embedded in walls/floors and joint with floor trap shall be jointed with run lead joints as specified in clause 18.48 and 18.71 of MES Schedule Part-I. However CI pipe joints in exposed situations and vent pipes shall be cement joints all as specified in MES Schedule. No joints shall be embedded in wall.

32. FIXING OF PIPES TO WALLS

- 32.1 CI pipes and fittings shall be fixed to wall all as specified in Clause 18.67.4 to 18.67.6 of MES Schedule (Part I). The pipes and fittings shall be fixed with MS holder bat clamps according to size and shape conforming to IS 3989."

33. GULLY TRAP

- 33.1 Gully trap shall be salt glazed stone ware gully trap, with rebated top (strong make) square body with 150mm x150mm CI grating of 10mm thick and suitable to 100mm dia outlet and kerb in PCC (1:2:4) type B1 and shall be set in PCC (1:4:8) type D2 foundation all as directed by the Engineer-in-Charge.

34. NAHANI/FLOOR TRAP

- 34.1 Provides CI Nahani trap/floor trap of 'P' or 'S' type with hinged grating and 75mm outlet including setting, fixing in lime concrete and jointing to waste pipe using 100mm to 75mm CI reducer with run lead joint. Stainless steel perforated grating of suitable size shall be provided to floor trap/Nahani trap.

35. WATER PROOFING TREATMENT WITH APP TORCH MEMBRANE

- 35.1 Clean the plastered roof surface free from dust, loose particles and any foreign matter. Apply a coat of bituminous primer @ 0.2 kg per Sqm as per IS -3384-65. Allow drying time of 24 hours. Lay APP modified waterproofing membrane weighing not less than 3kg/sqm reinforced with non woven polyester matt weighing not less than 160 gm/sqm by torch bonding using a suitable gas torch. The flame should be directed between the lower part of the roll and substrate and applied until the surface of the felts start sweating. Overlaps of 100 mm for side laps and 150 mm for end laps must be torched. Contractor shall furnish the test certificate of APP torch on membrane mineral

PARTICULAR SPECIFICATIONS (Contd...)

finish. GUARANTEE FOR ADVANCED APP TORCH ON MEMBRANE MINERAL FINISH WATER PROOFING TREATMENT. Water proofing treatment shall be got done through any one of following specialist firms as approved by the Garrison Engineer. Purchase vouchers and test certificates for the materials shall be produced before the GE for verification and defacement against this contract.

35.2 TESTING OF MEMBRANE

35.2.1 The following tests shall be carried out in approved Government laboratories and necessary test reports shall be submitted to GE 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)

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

35.3 GUARANTEE FOR WPT:

35.3.1 The defects liability period of water proofing treatment shall be **10 years** and the contractor shall be responsible to keep the entire buildings free from leakage/seepage for a period of 10 years after the date of taking over the completed buildings from the contractor. The contractor may obtain a similar guarantee from the specialist firm engaged by him for the purpose. A sum equal to the amount shall be calculated on the amount of water proofing treatment at the contract rates as per the scales laid down for calculations of individual security deposit and shall be held back out of the contractor's bill as security deposit during the Guarantee period of 10 years which shall be refunded to him after expiry of this period. of the building. The plate shall be 10mm thick in cement mortar (1:4) to indicate the CA No., Name of the contractor, the date of completion of the work and the probable date of expiry of 10 years guarantee by engraving and painting (black). The cost of plaster plates is deemed to be included in the unit rates of the buildings.

35.3.2 Alternatively, the contractor may give a separate interest bearing security deposit pledged in favour of GE valid for 10 years for amount equal to 3%. should the GE at any time during the construction or prior to the expiration of said Guarantee period of 10 years find the defects in water proofing treatment to buildings, the contractor, on demand in writing from the GE, specifying the buildings complained of, notwithstanding the same may have been inadvertently passed, certified and paid for, forthwith undertake to carryout rectification of defects which may be necessary to render the buildings free from leakage/ seepage at his own expense till expiry of the Defects liability period of 10 years. In the event of his failing to do so within a period to be specified by the GE in his

PARTICULAR SPECIFICATIONS (Contd...)

demand aforesaid, the GE may undertake such treatment at the risk and expense in all respects of the contractor. The liability of the contractor under this condition shall not however extend beyond the period of the 10 years from the certified date of completion, unless the notice was served on the contractor previously to rectify such defects. The contractor shall provide a plaster plate of requisite size in situation as decided by the Engineer-in-Charge on the wall of each.

36. CLEANING WATER TANK

- 36.1 Cleaning Of water tank as mentioned in BOQ shall be done with sufficient number of man power and provide material required viz: sufficient quantity of bleaching Powder , steel scrubber, wire brush and broom stick etc. The inner surfaces shall be washed with clean water until all the dirt clay and other foreign particles removed.
- 36.2 The waste water shall be removed and disposed off safely to the nearest low lying area as directed By Engineer-in-charge.
- 36.3 The debris, sludge, clay and other inert material removed from the bottom surface of UG Sump shall be removed to a distance of 50m away from the site and deposited where directed.

37. STEEL ROLLING SHUTTERS

- 37.1 Steel rolling shutters shall be of approved make and shall conform to the requirement of IS 6248-1979 Specification for metal rolling shutters and rolling grills. The size of the rolling shutters (denoted by clear width and clear height) shall be as indicated. The position of fixing of the rolling shutter shall be as indicated viz inside or outside or within jambs; with projecting or embedded guide channels and above or below the soffits.
- 37.2 Rolling shutters shall be self-coiling type with or without ball bearings or gear operated type with bevel gear box and crank handle or operated by a chain wheel and a hand chain as indicated. These types are :

(a) Self-Coiling Type Shutters (Push Pull Type or Manual type) are used up to a maximum of about 8 sq.m clear area without ball bearings and up to a clear area of about 12 sq.m with ball bearings. SECTION 10 Steel, Iron And Aluminium Work 207

(b) Gear-Operated Type Shutters (Mechanical Type) shall be fitted with ball bearings. These are used up to a maximum of about 25 sq.m clear area, if operated by a bevel gear box and crank handle and upto a maximum of about 35sq.m clear area, if operated by chain mounted directly on the worm shaft.

37.3 CURTAIN

- 37.3.1 The curtain shall be built up of inter-locking lath sections formed from cold rolled steel strips 0.9 mm thick for shutters upto 3.5 m width and 1.20 mm thick for shutters 3.5 m and above in width unless otherwise specified. The lath section shall be rolled so as to have interlocking curls at both edges and a deep corrugation at the centre with a bridge

PARTICULAR SPECIFICATIONS (Contd...)

depth of not less than 12mm. Each lath section shall be continuous single piece without any welded joint. When interlocked, the lath sections shall have a distance of 75mm between rolling centres, unless otherwise specified. Each alternate lath section shall be fitted with malleable cast iron or mild steel clips securely riveted at either ends.

37.4 LOCK PLATE

- 37.4.1 A fabricated lock plate of riveted construction made of mild steel sheet of not less than 3.15 mm thickness, reinforced with mild steel angle section of not less than 35x35x5mm size at the bottom, shall be interlocked with bottom most lath section of curtain so as to provide contact against the cill, when closed. The lock plate shall be fitted with sliding bolts with arrangement for locking with pad locks and also pulling handles of mild steel, one handle for widths upto 2.5m, and two handles for widths of above 2.5m. Pulling handle shall be fixed on both the interior and exterior side of the lock plate.

37.5 GUIDE CHANNELS

- 37.5.1 The guide channels shall be of mild steel deep channel section and of rolled, pressed or built up construction. Thickness of sheet shall not be less than 3.15 mm. The curtain shall project into the guide channel at least 40 mm upto 3.5m width and 60 mm for greater widths. There shall be a clearance of 10mm minimum between the guide wall and the end clips of the curtain. Minimum depth of the guide channels shall be as under:

Clear width of shutter**Depth of guide Channels**

Upto 3.5 m

65mm

3.5 m and upto 8 m

75mm

8 m and above

100mm

- 37.5.2 Width of guide channel shall be 25mm for the lath section with bridge depth about 12mm and 32 mm for the lath section with bridge depth about 16 mm.
- 37.5.3 Each guide channel shall be provided unless otherwise specified, with a minimum of three fixing cleats or a support for attachment to the walls or column by means of bolts or screws. The spacing of cleats shall not exceed 0.75 m. Alternatively, the guide channels may also be provided with suitable dowels, hooks or pin for embedding in the walls.
- 37.5.4 The guide channels shall be attached to the jambs, plumb and true, either in the overlapping fashion projecting fashion or embedded in grooves, depending on the method of fixing. The guide channels shall have a box welded on at the bottom to conceal the end of the sliding bolt, when fixed on side.

37.6 BRACKET PLATE

- 37.6.1 It shall be fabricated out of mild steel sheet of 3.15 mm minimum thickness in case of manually operated shutters, and 6mm minimum thickness in case of mechanically operated rolling shutters. The minimum size of bracket plate for different heights of rolling shutters shall be as per IS. The bracket plate may be of hexagonal square or circular contour. In the case of manually operated shutter, extra tying of the bracket

PARTICULAR SPECIFICATIONS (Contd...)

plate to the guide channel shall be provided by means of a square bar not less than 20mm size. An angle iron 40x40x6mm split at one end shall be firmly riveted or welded at the top line of the bracket. The angle shall extend at least 20 cm from the edge of the bracket plate. This angle shall be grouted firmly into the wall with the split end of the angle well buried in concrete.

- 37.6.2 A stopper made out 40x6mm M.S. flat is bolted on to the square bar so that the lock plate may be arrested from going beyond the limit.

37.7 ROLLER

- 37.7.1 Recommended sizes of pipes for suspension shafts for various width of rolling shutter are as follows :

| Width | Size of Pipe (Nominal bore) |
|---------|-----------------------------|
| Upto 2m | 32 mm |
| Upto 3m | 40 mm |
| Upto 6m | 50 mm |

- 37.7.2 The suspension shaft shall be provided with steel or preferably cast iron pulleys and helical wire spring or flat spiral springs for counter balancing the weight of the shutter adequately. When the width of shutter is greater than 3.5 m the pulleys shall be interconnected with a cage formed out of MS flats of at least 32x6mm and MS dummy ring made of similar flats so that the torque is distributed uniformly. In such cases self aligning two row-ball bearings shall be provided with special cast iron casting at the extreme pulleys at either ends, where indicated. The caging ring shall have a minimum spacing of 15 cm and there shall be at least 4 nos. flats running throughout the length of the roller.

37.8 HOOD COVERS

- 37.8.1 Hood covers shall be made of mild steel sheet 1.0mm thick. They shall be hexagonal square or circular contour depending on the conotur of the bracket plate. The cover shall be properly stiffened with angle/flat stiffeners at top and bottom edges. The hood covers shall be fixed to the bracket plate.

37.9 SAFETY DEVICES

- 37.9.1 For width upto 2.5m a properly fabricated and reinforced bottom lock plate shall be provided to give protection. For width above 2.5 m in addition, both anchoring rods and central hasp and staples shall be provided. The pipes for the anchoring rods shall be embedded in the cill so as not to project above the cill surface. Anchoring rods shall be provided at the rate of one per extra 2.5 m width or a part thereof above a clear width of 2.5 m. The hasp shall be grouted on the ground so as to be level with the cill.

PARTICULAR SPECIFICATIONS (Contd...)**37.10 GEARS, WORMS ETC.**

37.10.1 All gears, worms etc, used in the assembly of the rolling shutters shall be machine cut. Worm gear wheel shall be of high grade cast iron or mild steel. The worms shall be of mild steel.

37.11 WICKET DOORS

37.11.1 Where indicated, wicket door of 600 x 1200mm size for ordinary use and 900x1800 mm size for large installations shall be provided in the rolling shutters. The wicket door shall be of robust construction and shall be fitted with a good lever lock operated by key, lockable both from in side and outside. The wicket doors shall be erected in such a way as not to foul with the main rolling shutters when opening or closing. The wicket door shall be swing clear of the opening before the rolling shutter is raised or lowered. SECTION 10 Steel, Iron And Aluminium Work 209 10.23.11 Safety Lever Locks Where indicated one pair of safety lever locks may be fitted on either ends of the bottom lock plate.

37.12 SAFETY LEVER LOCKS

37.12.1 Where indicated one pair of safety lever locks may be fitted on either ends of the bottom lock plate.

37.13 ROLLING GRILL

37.13.1 In situation where certain amount of ventilation combined with safety is required, for example transformer room, substation etc, the rolling shutter may have a small rolling grill portion either at top or at bottom or at both places as indicated. The height of grill portion shall be maximum of 0.5 m. Rolling grill shall be built of cold rolled steel sheet links of 0.9 mm thickness assembled on tubes or rods. Grill may also be manufactured out of 8 mm dia MS round bars. Design of grill shall be as indicated.

38. MAKING GOOD

38.1 The contractor is deemed to have included in his rate, cost of cutting holes/making chases where required through roads/bricks or concrete work for taking in cables, conduits and conductors etc. and making good the same to match with the existing work.

39. PENAL RECOVERY.

39.1 The contractor shall use materials of first quality/make specified in contract agreement. If, the materials found sub-standard in spite of the instruction given by the Engineer-in-Charge/Accepting Officer, a penal recovery at double the market rate for such materials shall be effected. The contractor shall have no claim on this account.

PARTICULAR SPECIFICATIONS (Contd...)**40. DEFECT RECTIFICATION**

- 40.1 The defect rectification shall be properly done in a reasonable time given by the Accepting Officer and if the same is not rectified in spite of instructions further issue of tenders for the period of 06 months shall be suspended or as deemed fit by the Accepting Officer, and the defects will be got rectified at the risk and cost of the contractor. If the defect rectification is not done in a reasonable time the performance of the contractor shall be affected.

41. LIST OF MANUFACTURERS

- 22.1 The make of various items of materials are enclosed as **Appx 'B'**. Wherever makes are given under respective item of Sch "A" the same shall supersede the makes given below. The contractor shall ensure that the items of these makes only are to be incorporated in the works. Make of items applicable only considered and balance shall be treated as cancelled.

Signature of Contractor
Dated:

AGE (Contracts)
for Accepting Officer

LIST OF MANUFACTURERS

| SI No | DESCRIPTION OF ITEM | NAME OF MANUFACTURER |
|-------|--|---|
| 1. | Cement | As specified herein before |
| 2 | Fine/coarse aggregate | Locally best available |
| 3 | Fly ash brick | As specified herein before |
| 4 | TMT bars/ Rolled steel Sections/ Structural steel sections | As specified herein before |
| 5 | GI Pipes and Fittings | Tata / Jindal / Zenith / Prakash / Swastik / APL Apollo Tubes Ltd. |
| | | BST / Surya |
| 6 | Water Proofing Compound | CICO/IMPERMO/ ROFF |
| 7 | Pre-Painted Galvalume / Galvanized Corrugated Steel Sheets | JSW Colouron+ / Tata Bluscope Steel/ Lloyd Insulation/ Tata Steel BSL / Kirby Building Solutions (I) Ltd |
| | | Metco Roof Pvt Ltd / Indian Steel Corporation Ltd / National Steel and Agro Ltd. |
| 8 | Premier Acrylic Emulsion Exterior Paint | Asian Paints (Apex Ultima) / Berger Paints (Wheathercoat All Guard) / Dulux (Wheathershield Max) / Kansai Nerolac (Excel Top Guard) |
| 9 | Synthetic Enamel Paint | Asian Paints (Apiolite Premium Gloss)/ Nerolac (Synthetic Enamel Hi-Gloss)/ Berger Paints (Luxol) / Akzo Nobel Dulux (Super Gloss)/ Jenson and Nicholson Paints / MYK Arment / Nippon 'Bodelac' |
| | | JSW Paints |
| 10 | Primer/ Red oxide primer | Asian Paints/ Berger Paints/ Jenson and Nicholson (1 st Quality) |

LIST OF MANUFACTURERS (Contd...)

| SI No | DESCRIPTION OF ITEM | NAME OF MANUFACTURER |
|-------|---|---|
| 11 | Acrylic Washable Distemper and Primer | Kansai Nerolac (Beauty) / Berger Paints (Jadoo) / Asian Paints (Tractor Uno) / Jenson and Nicholson / MYK Arment / Nippon Paint / JK Maxx |
| | | Shalimar Paints / ICI India / Jotun / Garware |
| 12 | Cement Putty | Snowcem Paints / MYK Arment / Asian Paints / Ultratech Cement Ltd 'Birla wall care putty' / JK Maxx / Nippon 'Silky wall Putty' / Reynobond India Brand 'Reynocon wall putty' |
| | | Shalimar / Jenson & Nicolson |
| 13 | Sheet Glass Plain / Frosted | Saint Gobain / Modiguard / Gold Plus Glass Industries Ltd / Atul Glass Industries |
| | | Gold Fish / Trupti |
| 14 | Mirror | Saint Gobain / Modiguard / Atul / Asahi (ASI) Glass / Kohinoor / Swastik |
| | | Gold Fish / Hindustan Glass Kolkata |
| 15 | Aluminium Tower Bolt / Aldrop / Door handle / Butt hinges / Towel Rails | Jindal / ESSESS / Aluminium Udyog (Brand-GLOBAL) |
| | | Swastik / KICH |
| 16 | Hydraulic Door Closer | Godrej Hafele / Ozone Door Set / Spider / IPSA door Closer |
| | | Hardwin / Ranjan / Dyana |
| 17 | Mortice Lock | Harrison / Godrej & Boyce Co Ltd / Dorset India Ltd / Spider Metal Products Ltd / ENOX / Jainson |
| | | KICH |
| 18 | Panel Doors / Skeleton door Shutters | A1 Teak product Pvt Ltd. / Goyal Industries / Indian Timber Products |
| | | MP Wood Products |
| 19 | Factory Made Wooden Shutter / Flush Doors / Frames | Century Doors / Greenlam (Brand: Mikasa Door Frames) / Jain Doors / A1 Teak product Pvt Ltd. |
| | | MP Wood Products / ITP Doors / Plywood Industries |

LIST OF MANUFACTURERS (Contd...)

| SI No | DESCRIPTION OF ITEM | NAME OF MANUFACTURER |
|-------|---|--|
| 20 | Factory made PVC FRP Shutters and Frames | Qute Extrusion Pvt Ltd (Brand: Qute) / OM Industries / Duroplast Extrusion / Sintex Industries Ltd / Fenesta / Durian / Sarvesh Multi Plast India Ltd. |
| | | Accura Polytech / Navaratna Speciality Chemicals LLP (Giza) / Deco Mica Ltd (Heritage) |
| 21 | Flush Doors | Archid Ply / Duro Doors / Bhutton Tuf / Durian |
| 22 | AC Sheets 6mm Cement Corrugated | Everest Industries Ltd (EVEREST) / Charminar / Ramco |
| 23 | Cold Rolled Cold Annealed (CRCA) Steel Sheets | JSW MI / JSW Steel / Tata Steel / Nezone |
| | | Indian Steel Corporation Ltd / Thakkar Group |
| 24 | Aluminium Sections of Shutters / Frames for Door / Windows / Ventilators | Hindalco / Jindal / Associated Groupn(Elesar Focci-Nivrav Commercials Ltd) / Maan Aluminium / Century Extrusions Ltd / Banco Aluminium Ltd. |
| 25 | Glazed / Non Skid Ceramic Tiles | Johnson Tiles / Kajaria / Somany / Nitco / AGL Tiles / Aparna Enterprises Ltd 'Vitero' / Simero Industries Pvt Ltd. |
| | | Regency / Orient Bell Ltd / Oasis Tiles / Hindware Ltd. |
| 26 | Vitrified Tiles | Johnson / Kajaria / Somany / Euro Tiles / AGL Tiles / Aparna Enterprises Ltd 'Vitero' / Simero Industries Pvt Ltd. |
| | | Nitco / Orient Bell Ltd / Oasis Tiles / Vitero Tiles / Hindware Ltd. |
| 27 | Cement Concrete Interlocking Paver Blocks / Tiles / Precast Chequered Tiles | M/s. Ultra Tiles / NITCO / Topaz Tiles / Godrej Boyce Mfg Co Ltd. |
| | | Astra Tiles and Pavers / Basant Betons / CEME / Tiles / Methra Industries India Ltd |
| 28 | Plywood / Black Boards | Century Plywood / Mysore Chip Board, Mysore / Green Ply / Anchor / Archid Ply / Bhutan Tuff India |
| | | Kitply / Swastik / Indian Plywood |

LIST OF MANUFACTURERS (Contd...)

| SI No | DESCRIPTION OF ITEM | NAME OF MANUFACTURER |
|-------|---|---|
| 29 | Prelaminated Particle Board | Kitlam / Century Plywood (Sharon) / Greenply (Greenlam MFC Board) / Anchorlam |
| | | Archid Ply / Associates Laminates / Eco board Industries, Pune / Deco Mica Ltd (Heritage) |
| 30 | Veenered Particle Board | Greenply / Kitply / Century / Sharon / Associates Particle Board |
| | | Swastik Plywood / Jain Wood Industries(JAYNA) / Deco Mica Ltd |
| 31 | Galvanized Iron (GI) Pipes & Fitting | Tata / Jindal / Zenith / Prakash / Swastik / APL Apollo Tubes Ltd. |
| | | BST / Surya |
| 32 | Mild Steel (MS) Pipes & Fittings | Tata / Jindal / Zenith |
| | | Swastik / BST / Surya Prakash |
| 33 | HDPE Pipes & Fittings | Finolex / Prince / Astral Limited / Supreme Industries Ltd / Jain Irrigation System / APL Apollo Tubes Ltd |
| 34 | PVC –Soil Waste, Rainwater (SWR) & Drainage Pipes | Prince / Kisan / Finolex / Infra / Astral Ltd / Jain Irrigation System |
| | | Amogh Plast / Astron Plastic |
| 35 | PPR Pipes & Fittings | Prince / Finolex / Supreme Industries Ltd / APL Apollo Tubes Ltd / Fushion Industries Ltd / SMFCS |
| | | KPT / Vectus / Kanha Plastics Pvt Ltd (KPT) |
| 36 | AC – Soilwaste rainwater (SWR) & Drainage pipes | M/s. Everest Asbestos Hyderabad / Visakha Ind Ltd / M/s. Hyderabad Asbestos Cement (Charminar) / M/s. Ramco |
| | | Rajasthan Asbestos / M/s. Asbestos Cement Ltd / Sarbamangala Mfg Co Kolkata / Rohtas Industries, Dalmia Nagar Bihar / Swastik |
| 37 | RCC Pipe , drain Pipe | Indian Hume Pipe / Everest / Himalaya / Thuluvaranikal Pipes |
| | | Aswathy Spun Pipes / Dhere Concrete Pipe |

LIST OF MANUFACTURERS (Contd...)

| SI No | DESCRIPTION OF ITEM | NAME OF MANUFACTURER |
|-------|---|---|
| 38 | PVC Water Tanks / Polyethylene | Sintex / Polycon, Jaipur / Rolex / Infra / Astral Ltd / Supreme Industries Ltd |
| | | Plasto, Nagpur / Polywell M/s Okey Polymers Pvt Ltd / JS Polyplast / Ergen Plastic Industries, Jodhpur / Vectus Industries Ltd / Ashish Plast / Piyush Plasto Pvt Ltd / Sintex BABL |
| 39 | PTMT Bathroom and Hardware Fitting | Vectos / Flora Steel Pvt Ltd / Prayag Polymers |
| | | R.S Industries Pvt Ltd (POLYTUF) / RC Plasto / Shakti Enterprises / Bluestar Sanitary Industries Pvt Ltd / Jain Enterprises |
| 40 | Chromium Plated (CP)/Copper / Brass-Alloy, Piller Tap, Bib Tap, Wall Mixer, Shower, Divertors, Waste Coupling, Bottle Trap, Health Faucet, Angle Cock, Concealed Stop Cock, Stop Cock and other related accessories | Somany / Kohler / Grohe / Hindware Ltd / Jaquar & Co Pvt Ltd / Flora Steel Pvt Ltd |
| | | Prayag Polymers / Marc / Leader / Ergen Plastic Industries, Jodhpur / Gem Sanitary / SEICO / Metal Industries |
| 41 | PVC float Valve and accessories | GMP / Neta / Zoloto / Jaquar(Bathing) / Symet / Prayag Polymers |
| | | Hansa Kingstone / SEICO / Ajanta Polymers (Millennium) / Shakti Enterprises / Precision Products |
| 42 | Gun-Metal Globe /Gate Valves / Angle Valves | Leader / Zoloto / Kirloskar / Bir |
| | | Balaji / Shakti / Dashmesh / Chambala / Metal Industries / Kartar |
| 43 | Shower Rose | Jaquar(Bathing)/ Kohler / ESS-SSS / Soma / Crabtree |
| | | Kingstone / Meera / Marc / Parko |
| 44 | Water Closet- Vitreous China (European/ Indian) /Squatting Pan Orissa Pattern | CERA / Parryware / Jaquar(Bathing) / Hindware / Johnson / Kohler |
| | | Shakti / Neyveli Ceramics(Neycer) / Simpolo Vitrified Pvt Ltd / GLINT Faucets Inc (GLINT) / Somany Ceramics Ltd (SOMANY) / Prayag Polymers |

LIST OF MANUFACTURERS (Contd...)

| SI No | DESCRIPTION OF ITEM | NAME OF MANUFACTURER |
|-------|---|--|
| 45 | Flushing Cistern- PVC Low Level Incl Flush Valves and fittings for WC and Urinals | Parryware / Commander / CERA / Jaquar(Bathing) / Hindware Ltd / Johnson / Kohler / Shakti / Prayag Polymers |
| | | Speed Flo / Ajanta Polymers / Precision Products / Jain Enterprises / Bluestar Sanitary Industries Pvt Ltd |
| 46 | Plastic Seat Cover for EWC / Bathroom Cabinets | Parryware / Commander / CERA / Jaquar(Bathing) / Hindware Ltd / Neycer / Kohler / Prayag Polymers |
| | | Duralite / Champion / Speed Flo / Ajanta Polymers / Jain Enterprises / Bluestar Sanitary Industries Pvt Ltd |
| 47 | Urinals- Vitreous China | CERA / Parryware / Jaquar(Bathing) / Johnson / Kohler / Hindware Ltd / Neycer |
| | | Shakti Enterprise / Simpolo Vitrified Pvt Ltd / Somany |
| 48 | Wash Basin- Vitreous China | CERA / Parryware / Jaquar / Johnson / Kohler / Hindware Ltd / Neycer |
| | | Shakti Enterprise / Prayag Polymers / Simpolo Vitrified Pvt Ltd / Somany |
| 49 | Stainless Steel Sinks / Plate Rack (SS) | Parryware / Shakti / Prayag Polymers / Phoenix / Jayna / Nirali / Jaquar(Bathing) / Flora Steel Pvt Ltd / |
| | | Bluestar Sanitary Industries Pvt Ltd. (Silvershine) / Neelkant / Jain Enterprises |
| 50 | Towel Rails / Brackets and Toilet Paper holder | CERA / Parryware / Jaquar / Johnson / Kohler / Hindware |
| | | Prayag Polymers / Neyveli Ceramics(Neycer) / Simpolo Vitrified Pvt Ltd / Somany Ceramics Ltd. |
| 51 | Steel Rolling Shutters/ Grills& Collapsible Gates | Welroll / Gandhi Automation Pvt. Ltd / Metal King / Indian Rolling Shutter Bangalore / New Dynamic Rolling Shutters Chennai / Decogrille / New Karnataka Roling Shutters |

Signature of Contractor
Date:

AGE (Contracts)
for Accepting Officer