NAME OF WORK: DAY TO DAY PETTY REPAIRS TO MISC BR ITEMS IN VARIOUS BLDGS AT DEFENCE COLONY, WED, NSD MANKHURD AND MISC WORKS AT VARIOUS BLDGS IN SPDC AND WED AREA AND REPAIR TO CAGGING OF WATER TANKS AT SPDC, WED, AND DSRV AREA UNDER GE (NW) MANKHURD

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Drawing: (Nil)

Signature of Contractor

AGE (Contracts)
For Accepting Officer

Dated:

^{*} Not enclosed alongwith tender documents, which can be sent in the office of GE (NW) Mankhurd during working hours on any working day.

Tele: 022-25580236

Garrison Engineer (NW)
Mankhurd, Mumbai-400088

8406/ 04 /E8 28 Oct 2024

NAME OF WORK: DAY TO DAY PETTY REPAIRS TO MISC B&R ITEMS IN VARIOUS BLDGS AT DEFENCE COLONY, WED, NSD MANKHURD AND MISC WORKS AT VARIOUS BLDGS IN SPDC AND WED AREA AND REPAIR TO CAGGING OF WATER TANKS AT SPDC, WED, AND DSRV AREA UNDER GE (NW) MANKHURD

Dear Sir(s),

1. Tender documents for the above mentioned work are uploaded herewith. You are invited to participate in this competitive tendering by submitting tender in two covers i.e one is technical

bid/application and the second is price/financial bid

2. All critical dates, downloading dates and bid submission dates shall be referred as per

NIT details mentioned and uploaded in the website "defproc.gov.in".

3. Instructions for submission of bid /tender documents and general instructions for

compliance for submission of bid shall be as mentioned here after.

4. This letter including enclosures shall form part of the tender documents.

Yours faithfully,

AGE (Contracts)
For Accepting Officer

Encls: (Tender documents)

Signature of Contractor

Dated:

INSTRUCTIONS FOR FILLING IN AND SUBMISSION OF TENDER DOCUMENTS TO BE COMPLIED WITH BY THE CONTRACTOR

1. **GENERAL INSTRUCTIONS FOR COMPLIANCE**

- 1.1 The tender will only be accepted in the electronic form. All bids shall be submitted in "defproc.gov.in" portal. Documents should be scanned and forwarded in 'pdf' form or 'xls' form as indicated.
- 1.2 Tenders shall be forwarded online through "defproc.gov.in" portal on or before the bid closing date mentioned in the tender. No physical form of the tender will be accepted.
- 1.3 All bids shall be digitally signed by the Contractor.
- 1.4 The tender shall be accompanied by the **scanned certified true copy** of the power of attorney of the signatory to the tender documents. In case the signatory himself is the Sole Proprietor, an affidavit on stamp paper of appropriate value to this effect stating that he has authority to bind the firm in all matters pertaining to contract including the Arbitration clause, shall be attached in 'pdf' form. The person signing the tender on behalf of another partner (s) or on behalf of the firm or company shall attach with the tender scanned copy of a proper power of Attorney duly executed in his favour by such other person or by the partners(s) or in accordance with constitution of the company in case of company, stating that he has authority to bind such other person or the firm or the company as the case could be, in all matters pertaining to the contract including the Arbitration Clause.
- 1.5 Even in case of firms or companies which have already given power of attorney to an individual authorizing him to sign tender and in pursuance of which tender documents are being signed by such person as a routine, fresh power of attorney duly executed in his favour stating specifically that the said person has authority to bind such partner (s) of the firm, or the company as the case could be, including the condition relating to Arbitration clause **should be submitted with the tender as a scanned copy**.
- 1.6 Power of attorney shall be executed on stamp paper of adequate value as applicable. **Scanned copy of the same shall be forwarded alongwith the bid**.
- 1.6.1 In case of an individual, self-sworn affidavit shall be executed by the contractor himself. **Scanned copy of the same shall be forwarded along with the bid**.
- 1.6.2 In case of partnership concern, power of attorney shall be executed by all partners. **Scanned** copy of the same shall be forwarded along with the bid.
- 1.6.3 In case of a company, power of attorney shall be executed in accordance with the constitution of the company. **Scanned copy of the same shall be forwarded along with the bid**.
- 1.7 Bids shall be submitted online well in time. Bid closes by 19 Nov 2024 upto 1800hrs.
- 1.8. The contractor shall employ only Indian Nationals after verifying their antecedents and loyalty. Attention is also drawn to special condition 3 and also conditions 24 and 25 of IAFW-2249 (General conditions of contracts).
- 1.9 Tenders will be opened by two bid openers.
- 1.10 Tenderer shall quote his rates on the BOQ file only. No alteration to the format will be accepted and otherwise in case any alteration is found made to BOQ FORMAT the bid will be disqualified.
- 1.11 In case the tenderer has to revise/modify the rates quoted in the Schedule 'A' and/or General Summary, he can do so only in the Schedule 'A'/General Summary through "defproc.gov.in" portal only.
- 1.12 In case a tenderer shall intend to revise his offer, he can do so through the defproc.gov.in portal only before the bid closing time and date.
- 1.13 In the event of lowest tender revoking his offer or revising his rates upwards/ offering voluntary reduction, after opening of the tenders, 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, will be notified to the tenderer for depositing the amount through MRO. Issue of tender to such contractors will remain suspended till the aforesaid amount equal to the earnest money is deposited in Govt Treasury. In addition, such tenderer and his related firm will not be issued the tender in second call or subsequent calls. Reduction offered by the tenderer on freak high rates referred to the tenderer for review will not be treated as voluntary reduction.

Contd...

INSTRUCTIONS FOR FILLING IN AND SUBMISSION OF TENDER DOCUMENTS TO BE COMPLIED WITH BY THE CONTRACTOR (Contd/....)

1.14 Un-enlisted Contractors:- All contractors shall submit their bids of tenders which will have clear stipulation/ condition that their priced bids will be opened only after eligibility criteria is fulfilled. Tenderer shall upload copy of police verification certificate from police authority of the area where the registered office is located. For proprietor/ each partner/ each Director a notorised copy of valid passport shall be acceptable in lieu of police verification. All documents as asked for in NIT i.e, immovable/ movable property details, works executed as applicable for enlistment of eligible class/ category shall be uploaded. if the tenderer is found to be lowest then independent police verification shall be carried out after opening of price bid.

1.15 The department can issue amendments/errata's to the tender documents before due date of submission of tenders. The tenderer is required to read the tender documents in conjunction with amendments, if any, issued by the department. The tenderer is not supposed to incorporate the amendments/errata's in the body of the tender documents issued either in ink or pencil. In case the amendment/errata issued are incorporated by the tenderer in the body of the tender, they shall not be considered and the amendments/errata's to tender documents as issued by the department shall only hold good.

2. EARNEST MONEY

- (a) Contractors who are not enlisted in MES/who are enlisted but have not deposited standing security deposit and not executed standing security bond with Chief Engineer Southern Command will be required to furnish earnest money as detailed in Para 11 of Notice of Tender in one of the following forms along with their tender. Tenderers shall note that no other form of earnest money is acceptable.
- (b) Earnest money shall be submitted alongwith the tender in one of the following norms:-
 - (i) Deposit at call Receipt from a Nationalised scheduled bank drawn in favourof GARRISON ENGINEER (NW) MANKHURD.
 - (ii) Receipt of treasury challan, the amount being credited to the Revenue deposit of GARRISON ENGINEER (NW) MANKHURD.
 - (iii) Scanned copies of Earnest Money shall be uploaded alongwith the ebid.

Note: Tender submitted by an **un-enlisted contractor** not accompanied by acceptable form of earnest money shall be treated as non-bonafide and shall berejected.

3. <u>PERFORMANCE SECURITY (Refer condition No 19 of IAFW-2249 of General</u> Condition of Contract)

- 3.1 The performance security for an amount equivalent to 5% of the contract sum <u>shall be in favour of Accepting Officer</u> and shall be in any of the forms mentioned below. Work order No 01 shall be placed only after submission of Performance Security of adequate value by the contractor. In case a fixed deposit receipt of any Bank is furnished by the contractor to the Government as part of the Performance Guarantee and the Bank is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnished additional security to the Government to make good the deficit:
 - (a) A Bank Guarantee in the prescribed form.
 - (b) Government securities, FDR or any other Government instruments stipulated by the Accepting Officer i.e in favour of GE (NW) Mankhurd.
- 3.2 If the Performance Security provided by the successful Contractor in the form of Bank Guarantee, it shall be issued by Nationalized / Scheduled Indian bank but its confirmation shall be done only from the Head Office of the Bank.
- 3.3 Failure of the successful Contractor to comply with the requirements of sub clause 3.1 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.

Contd...

INSTRUCTIONS FOR FILLING IN AND SUBMISSION OF TENDER DOCUMENTS TO BE COMPLIED WITH BY THE CONTRACTOR (Contd/....)

- 4. Facilities for execution of bank guarantee for following purposes are available for the contractors as details below:-
 - (a) Performance security for individual work as applicable covering contract period and defects liability period thereafter.
 - (b) Retention money for payment of running accounts.
- 5. (a) Tenderer is expected to be fully conversant with the CPM technique and employ technical staff who can use the technique in sufficient details. Sufficient books and other literatures on the subject are widely available which the tenderer may make use of.
 - (b) The tenderers attention is drawn to special condition of the tender documents regarding preparation of the detailed network and time schedule for the work and his liability for employing sufficient resources to adhere to this schedule. Any inability on thepart of the tenderer in using the technique will be taken as his technical inefficiency and will effect his class of enlistment and future prospects of receiving in invitations of tender for work.
- 6. Conditional tender shall be treated as non-bonafide and is liable to be rejected.
- 7. The contractor shall employ only Indian Nationals after verifying their antecedents and loyalty. Attention of contractor is also drawn to condition 24 and 25 of IAFW-2249 (General condition of contract)
- 8. Information / documents (Forming part of this contract) mentioned here in below are notenclosed with these documents. These are available for perusal during working hours on working day in the office of the GARRISON ENGINEER (NW) MANKHURD, MUMBAI-88

(a) IAFW-2249(1989 Print) - General condition of contracts including errata and amendments.

(b) Schedule of Minimum Fair - As per latest Government of India wages Notification Wages

Whether the documents mentioned in Para 8 above are actually seen or not, the contractor is deemed to have made himself acquainted with the contents of the above mentioned documents not enclosed herewith before submission of the tender and no claim whatsoever on this account shall be entertained.

- 9. Refer to special condition of the tender documents in connection with taxes, levies, duties etc.
- 10. These instructions shall form part of the contract documents and shall be signed and returned along with the tender documents on acceptance of the bid. Accepted firm to submit hard copies of all documents duly signed by the authorized person.
- 11. No out of pocket expenditure incurred by tenderer for quoting the tender will be reimbursed.

Signature of contractor

Dated:

AGE (Contracts) for Garrison Engineer

CA No: GE (NW) MKD- of 2024-2025 Ser Page No : 06 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. The tender shall be based on as mentioned in aforesaid Appendix 'A'.
- 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. Normally contractors whose names are on the MES approved list for the area in which the work lies, and within whose financial category the estimated amount would fall, may tender/bid but in case of term contracts, contractors of categories SS to E may tender/bid. Not more than one tender/bid shall be submitted/uploaded by one contractor or one firm of contractors. Under no circumstances will a father and his son(s) or other close relations who have business dealing with one another be allowed to tender/bid for the same contract as separate competitors. A breach of this condition will render the tenders/bids of both the parties liable for rejection.

5 PERFORMANCE SECURITY (Refer condition No 19 of IAFW-2249 General Condition of Contracts)

- 5.1 The performance security for an amount equivalent to 5% of the contract sum shall be in favour of Accepting Officer and shall be in any of the forms mentioned below. Work order No 01 shall be placed only after submission of Performance Security of adequate value by the contractor. In case a fixed deposit receipt of any Bank is furnished by the contractor to the Government as part of the Performance Guarantee and the Bank is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnished additional security to the Government to make good the deficit:-:
 - (a) A Bank Guarantee in the prescribed form.
 - (b) Government securities, FDR or any other Government instruments stipulated by the Accepting Officer i.e in favour of GE (NW) Mankhurd.
- 5.2 If the Performance Security provided by the successful Contractor in the form of Bank Guarantee, it shall be issued by Nationalized / Scheduled Indian bank but its confirmation shall be done only from the Head Office of the Bank.
- 5.3 Failure of the successful Contractor to comply with the requirements of sub clause 5.1 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.
- 5.4 Enlistment in adjoining command facility is not applicable. The Contractor will be recognized by the Index proof only his Parent Command and there will be no reference to his enlistment under any Adjoining Command Facility/Parallel Enlistment Facility.
- 5.5 The GE/GE(I) will return the earnest money wherever applicable to all unsuccessful tenderer/bidder by endorsing an authority on the deposit-at-call receipt for its refund on production by the tenderer/ bidder, a certificate of the accepting officer that a bonafide tender/bid was received and all documents were returned.
- 5.6 The GE/GE(I) will either return the earnest money to the successful tenderer/bidder by endorsing an authority on the deposit-at-call receipt for it is refund on receipt of an appropriate amount of Performance Security if such a transaction is feasible.
- 6. Garrison Engineer (NW) Mankhurd will be the Accepting Officer here in after referred to as such for purpose of the contract.
- 7. The Technical Bid and Financial Bid (Cover-1 and Cover-2) shall be uploaded by the tenderer/bidder on or before the date & time mentioned in NIT. A scanned copy of DD with enlistment details/documents shall be uploaded as packet 1/cover-1 ('T' bid) of the tender/bid on e-tendering portal. DD is refundable in case T bid is not accepted resulting in non-opening of 'Q' bid. The applicant contractor shall bear the cost of bank charges for procuring and encashing the DD and shall not have any claim from Government whatsoever on this account.
- 7.1. Tender form and conditions of contract and other necessary documents shall be available on http://defproc.gov.in for download and shall form part of contract agreement in case the tender/bid is accepted.
- 7.2. In Case of contractor who has not executed the Standing Security Bond, the Cover-I shall be accompanied with by Earnest Money of amount as mentioned in Appendix 'A' in the form of deposit at call receipt in favour of concerned GE(see Appendix 'A') by a scheduled Bank or in receipted treasury Challan the amount being credited to the revenue deposit of the concerned GE (see Appendix 'A').
- 7.3. The GE will return the Earnest Money wherever applicable to all unsuccessful tenderers/bidders by endorsing an authority on the deposit-at-call receipt for its refund, on production by the tenderer, bidder a certificate of the Accepting Officer that a bonafide tender/bid was received and all documents were returned.

NOTICE INVITING TENDER (NIT)

7.4. The GE will either return the Earnest Money to the successful tenderer/bidder by endorsing an authority on the deposit-at-call Receipt for its refund on receipt of an appropriate amount of Security Deposit or will retain the same in part or full on account of performance security deposit if such a transaction is feasible.

- 7.5. Copies of the drawings and other document pertaining to the work signed for the purpose of identification by the Accepting Officer or his accredited representative, sample of materials and stores to be supplied by the contractor will also be available for inspection by the tenderer/bidder at the office of concerned GE during working hours.
- 8. The tenderers/bidders are advised to visit the site of work by making prior appointment with GE who is also the Executing Agency of the work (see appendix 'A'). The tenderers/bidders are deemed to have full knowledge of all relevant documents, samples, site etc., whether they have inspected them or not
- 9. Any tender/bid which proposes any alteration to any of the conditions laid down or which proposes any other condition or prescription whatsoever, is liable to be rejected.
- 10. The uploading of bid 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, tools and plants etc. will be issued to him and local conditions and other factors having bearing on the execution of the work.
- 11. Tenderers/bidders must be in possession of a copy of the MES Standard Schedule of Rates (see appendix 'A') including amendments and errata thereto.
- 12. Invitation for e- tender does not constitute any guarantee for validation of 'T' bid and subsequent opening of finance bid of any applicant/bidder, even of enlisted contractors of appropriate class, merely by virtue of enclosing DD. Accepting Officer reserves the right to reject the 'T' bid and not open the finance bid of any applicant/bidder. 'T' bid validation shall be decided by the Accepting Officer based on, interalia, capability of the firm as per criteria given in Appx 'A' to this NIT. The applicant contractor/bidder will be informed regarding non- validation of his 'T' bid assigning reasons thereof through the www.defproc.gov.in website. The applicant contractor/bidder if he so desires may appeal to the next Higher Engineer Authority viz. CWE (Subs) Bhandup on email id on email id sbmb3-mes@nic.in with copy to the Accepting Officer on email.id nwmnkd4-mes@nic.inbefore the scheduled date of opening of Finance Bid. The decision of the Next Higher Engineer Authority (NHEA) shall be final and binding. The contractor/bidder shall not be entitled for any compensation whatsoever for rejection of his bid.
- 13. The Accepting Officer reserves the right to accept a tender submitted by a Public Undertaking, giving a price 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 from such tenderer/bidder whose tender/bid is rejected.
- 14. Accepting Officer does not bind himself to accept the lowest or any tender/bid or to give any reason for not doing so.
- 15. This Notice Inviting Tender (NIT) including Appendix 'A' shall form part of the contract.
- 16. 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.

Signature of Contractor Date:

AGE (Contracts) for Accepting Officer

CA No: GE (NW) MKD- of 2024-2025

APPENDIX `A' TO NOTICE OF E-TENDER INVITING APPLICATION

Ser Page No: 08

1.	Name of Work	:	DAY TO DAY PETTY REPAIRS TO MISC B&R ITEMS IN VARIOUS BLDGS AT DEFENCE COLONY, WED, NSD MANKHURD AND MISC WORKS AT VARIOUS BLDGS IN SPDC AND WED AREA AND REPAIR TO CAGGING OF WATER TANKS AT SPDC, WED, AND DSRV AREA UNDER GE (NW) MANKHURD		
2.	Estimated cost	:	Rs 45.00 Lakhs (Approx) at par market rates.		
3.	Period of completion	:	300 days		
4.	Cost of tender documents	:	Rs 500/- in the form of DD/Bankers Cheque from any scheduled Bank in favour of GE (NW) Mankhurd payable at Mankhurd, Mumbai		
5.	Website/portal address	:	http://defproc.gov.in and www.mes.gov.in		
6.	Type of contract	:	The tender shall be item rate contract based on IAFW-1779-A & IAFW-2249 (GCC) with Schedule 'A' (list of items of works) to be priced by the tenderer.		
7.	Timeline details Bid submission start date	:	Refer critical dates on the web site		
		Ŀ	Trefer Childal dates on the web site		
	Bid submission end date	<u> </u>			
8.	Date of bid opening Eligibility Criteria	·			
0.	(a) For MES enlisted		Contractors shall be enlisted with MES in Class 'D' and above		
	contractors	•	and category 'a (i)' subject to the remarks wrt performance in respect of works in hand reflected in Work Load Return (WLR) or any other report circulated by competent engineer authority.		
	(b) For other contractors not enlisted with MES	:	(i) Contractor not enlisted with MES shall meet the enlistment criteria of 'D' class MES contractors & category 'a (i)' i.e. with regard to having 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 of 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 circulated by any competent authority, if already working in MES.		
			(iii) Not suspended/debarred/blacklisted (either permanently or temporarily) from participating in any bid or for business dealing by any central/state government department or any central/state government PSU or any autonomous body under central/state government or any local body as on the bid submission end date.		
9.	Tender Issuing and Accepting Officer	:	Garrison Engineer (NW) Mankhurd Mankhurd, Mumbai – 400088 Email ID: nwmnkd4-mes@nic.in Tele No: 022-25580236/25550714		
10.	Executing agency		Garrison Engineer (NW) Mankhurd		
11.	Earnest Money		Rs 90,000.00 in favour of GE (NW) Mankhurd in the form of Deposit at call receipt from any Scheduled / Nationalized Bank in favour of GE (NW) Mankhurd or Receipted Treasury Challan, the amount being credited to the revenue deposit of GE. MES enlisted contractors are exempted from submission of EMD. Copy of EMD to be uploaded online and original EMD to be forwarded off line to the office of Accepting Officer so that the same are received within 5 days of bid submission end date. FDR not acceptable.		

APPENDIX 'A' TO NOTICE INVITING TENDER(CONTD...)

NOTES:-

- 1. After opening of Cover 1, if the number of MES enlisted contractors of eligible class as well as unenlisted contractors, if any, fulfilling the other eligibility criteria give in NIT are less than 7 (seven). Applications in respect of contractors one class or two classes (in case or remote and difficult areas to be decided as per list circulated by CE Command/ADG below eligible class shall also to be considered subject to fulfillment of other eligibility criteria given in the NIT. Therefore MES contractors one class below (two class below in case of remote and difficult areas) may also bid for this tender. However contractors of one/two classes below the eligible class shall not be considered in case their present residual work in hand is more than five times of their present tendering limit. Such bidders shall upload in their Cover-1 bid details of works in hand showing names of work, names of Accepting Officers, Contract amount, dates of commencement and completion (stipulated) and progress as on bid submission date. These details shall be verified by the Tender Issuing Authority from concerned formations in case bids of such contractors are considered for evaluation.
- 2. In case after opening of Cover 1, the number of MES enlisted contractors of eligible class as well as un-enlisted contractor. 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 soundness (solvency/financial soundness and working capital) as per details given in Manual on Contracts. Therefore such contractors shall upload the requisite information/documents in the Cover-1.
- 3. Un-enlisted contractor shall be considered provided he 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 toward cost of tender and EMS 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 toward cost of tender and Earnest Money Deposit (EMD) instrument.
 - (c) Copy of Police Verification Report/Police Clearance Certificate/ Character Certificate from the Police Authority of the area where the registered office of the firm is located/notarized copy of valid passport of Proprietor/each Partner/each Director.
 - (d) All documents required for enlistment in MES for the class mentioned in Para 8(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.
- 7. Contractors should ensure that their original physical DDs and Earnest Money Deposit (EMD) instruments (as applicable) reach the office of Accepting Officer within 07 (Seven) days or bid submission end date (* The number of days to be mentioned shall be as decided by the Accepting Officers. but it shall not be less than 5 days) tailing which following action shall be taken.
 - (a) In case of tenders from an enlisted contractor of MES, where scanned copies of requisite DD/Bankers Cheque towards cost of tender have been uploaded in 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 tenderer shall be banned from bidding for a period of six months commencing from the date of opening of Financial Bid (Cover 2).
 - (b) In case of tenders from un-enlisted contractor, where scanned copies of requisite DD/Bankers Cheque towards cost of tender have been uploaded in Cover 1 but physical copies are not received within the stipulated period, their financial bids (Cover 2) will not be opened. Name of such contractors along with complete address shall be circulated for not opening of their bids for a period or six months commencing from the date of opening of Financial bid ((Cover 2).

APPENDIX 'A' TO NOTICE INVITING TENDER(CONTD...)

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

- 8. Contractor will not be allowed to execute the work by submitting 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 I 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 docs 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 give in this Appendix. Tenderer/bidder will be informed regarding non-validation of his Technical bid assigning reasons therefore through tender evaluation report which shall be uploaded on the website. Such tenderer, if desires may appeal to the next higher Engineer Authority (NHEA) viz CWE (Subs) Bhandup on email id sbmb3-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 receipt of appeal. The decision of the NHEA small be Final and binding. The Tenderer/bidder shall not be entitled for any compensation whatsoever for rejection of his bid.
- 11. In case an un-enlisted 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 rendering limit of the MES Class of contractor for which it is eligible. For this purpose details of the works being executed by such a contractor shall be uploaded in the (Cover -1 of the bid and shall be checked. verified by the Accepting Officer.
- 12. In case the BOQ is revised through the corrigendum and the bidder has failed to quote on revised BOQ (i.e he has quoted on pre revised BOQ), such bid shall be treated as willful negligence by the bidder and his quotation shall be considered non-bonafide. In such cases the lowest tender shall be determined from amongst the valid/bonafide bids only. Accepting Officer may decide whether 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 alter 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 MES enlisted tenderer having deposited the standing security bond an amount equal to the earnest money stipulated in the NIT shall be shall he 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 it any, shall not be eligible for this tender in second call or subsequent calls.
- 14. Tender to related lines shall not be issued simultaneously. Firms shall be termed as related if Proprietor/one or more Partners/Directors arc common. Decision of Accepting Officer on issue/deny the tender to any one of the related firms shall be final and binding.

15. INTERGRITY PACT (to be included as per value of work) - NA
 16. JOINT VENTURE (to be included as per value/type of work) - NA

17. 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.

(Signature of Contractor)

Accepting Officer

File No: 8406/ 03 /E8 28 Oct 2024

Garrison Engineer (NW) Mankhurd-400 088

Email ID: nwmnkd4-mes@nic.in Tele No: 022-25580236/25550714

IN LIEU OF IAFW-1779-A(REV-1955)

Issuing the document

TO BE USED CONNECTION WITH GENERAL CONDITION OF CONTRACT (IAFW-2249 1989 PRINT)

Tele: 022-25580236 Garrison Engineer (NW)
Mankhurd, Mumbai - 400088

8406/ 04 /E8 28 Oct 2024

ITEM RATE TENDER AND CONTRACT FOR WORKS REQUIRED IN THE EXECUTION OF "DAY TO DAY PETTY REPAIRS TO MISC B&R ITEMS IN VARIOUS BLDGS AT DEFENCE COLONY, WED, NSD MANKHURD AND MISC WORKS AT VARIOUS BLDGS IN SPDC AND WED AREA AND REPAIR TO CAGGING OF WATER TANKS AT SPDC, WED, AND DSRV AREA UNDER GE (NW) MANKHURD"

1.	M/sthereby auth	orised to teno	der for the above	ye work. The gu	of oted tender is to	he unloaded in
			Nov 2024 upto		oted terider is to	be uploaded iii
				hould be addres V) MKD- OF 20	ssed as indicated 024-2025 '.	d at top of this
THE F		OF INDIA DO	ES NOT BIND	HIMSELF TO A	CCEPT THE LO	WEST OR ANY
					Signature of	the Officer

SCHEDULE 'A'

NAME OF WORK: DAY TO DAY PETTY REPAIRS TO MISC B&R ITEMS IN VARIOUS BLDGS AT DEFENCE COLONY, WED, NSD MANKHURD AND MISC WORKS AT VARIOUS BLDGS IN SPDC AND WED AREA AND REPAIR TO CAGGING OF WATER TANKS AT SPDC, WED, AND DSRV AREA UNDER GE (NW) MANKHURD

NOTES:

PERIOD OF COMPLETION :

- (a) The entire work under this contract shall be completed within **300 (Three Hundred) Days** from the date of commencement shown in work order No. 1 placed by the GE.
- (b) Site for execution of work shall be handed over on the date of handing over of site shown on work order No. 1. In case it is not possible for the department to make the entire site available on the said date, the contractor shall have to arrange his programme accordingly (Contractr's own cost). No claim whatsoever for not giving the entire site in one go and for giving the site gradually shall be tenable.
- 2. For schedule of items refer BOQ document in Excel format. The quantities inserted in Schedule of works (BOQ) under Col. 4 are approximate and are inserted as a guide only. They do not constitute any guarantee of the ultimate quantities which will be ordered on the contractor. They shall not however be not varied beyond the limits laid down in condition 7 of IAFW-2249. (General conditions of contracts).
- 3. The contractor shall quote the unit rate in column 13 of BOQ. The unit rates in figures only shall be entered.
- 4. The total amount in column 53 will be treated as 'contract sum' referred to in IAFW-2249 (1989 Print) General Conditions of Contracts.
- 5. Unless otherwise specifically stated in the description of the items, the unit rates quoted in column 13 Schedule of works (BOQ) shall be deemed to include for all material and labour, supply and fix complete as required for executing the respective items of works.
- 6. (a) The unit rates quoted by the tenderer against respective items of Sch of works (BOQ) shall be deemed to include minor details of construction of work, not specifically mentioned in description of items of Schedule of works (BOQ) and or in the particular specifications/drawing and which are fairly and obviously intended/essential to the execution of work in a workmen like manner and sound constructions.
 - (b) In case difference of opinion between the contractor and the Engineer-in-Charge as to, whether or not certain items of work constitute " minor constructional details" which is deemed to have been included in the contractor's quoted rates, the decision of the Accepting Officer shall be final, conclusive and binding.
- 7. The description of items of Schedule of works (BOQ) shall be read in conjunction with particular specifications and drawings.
- 8. Unit rate quoted shall be deemed to include for all the preambles stipulated for relevant items of SSR 2020 Part –II (Rates).
- 9. The quoted rate/ amount shall be deemed to include all type of taxes, cesses, service tax, duty etc as applicable as per prevailing law.
- 10. The contractors quoted rate shall also be deemed to include all type of GST as well as the provn of GST Act. Nothing extra whatsoever shall be admissible on this account.
- 11. The tender shall be remain open for acceptance for a period of **60 (sixty)** days from the date as specified for its submission.
- In case the contractor does not quoted rate against any item or items in any particular part of BOQ for which he has quoted the tender, the rate will be treated as Rs 0.00 (Rupees zero only). The contractor shall execute the work against such items of the particular part of schedule without any cost to Govt minimum upto the extent of quantities inserted in BOQ.
- 13. In case any repeated items in BOQ the lowest rate quoted by the contractor against any of items shall be considered for the purpose of payment no claim whatsoever shall be entertained on this account
- 14. (a) In case of any deviation, mode of pricing shall be decided by Accepting Officer in terms of Condition 62 of IAFW-2249.
 - (b) In the event of a deviation order involving fixation of Special (Star) Rate, Draft Rate shall be prepared by GE (within a maximum period of 30 days) while initiating the proposal for deviation seeking approval of Accepting Officer and notified to contractor. While notifying the Draft Rate, it will be clearly stipulated that the same is merely and estimated rate and firm rate shall be fixed based on actual and receipt of supporting documents from contractor such as vouchers/literature of product/test certificates etc (as applicable) on completion of the work involving Star Rate. Any objection to the method of fixing Star Rate will be dealt as per Condition 7 of IAFW-2249.
 - (c) Draft Star Rate shall be made based on market enquiry through telephonic enquiry/quotation/email/rate lists/internet base sources, material & labour constants available in various civil engg books and record available in respect of Star Rates approved in the past for similar items of work etc. Contractor may also assist GEs office in preparation of draft Star Rate.
 - (d) The Draft Star Rate shall be purely a draft rate and shall not be used for claiming final payment during execution of work. However GE shall allow part payment to the tune of 80% during execution to avoid any financial hardship to contractor.
 - (e) After completion of the item of work involving Star Rate, contractor shall submit the vouchers/literature of product/test certificates (as applicable, decision of GE being final in case of any disagreement) for finalization of Star Rate. The Star Rate shall be technically checked by DCWE (C) / Director (C) depending upon the financial effect & approved by competent authority within a period of one month from submission of relevant documents by the contractor as mentioned above.
 - (f) The Star Rate as approved by competent authority after technical check by DCWE (C) / Director (C) depending upon the financial effect shall be referred as "the rate decided by GE" under Para 62 (G) of IAFW-2249.

Signature of Contractor Date:

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

NAME OF WORK: DAY TO DAY PETTY REPAIRS TO MISC B&R ITEMS IN VARIOUS BLDGS AT DEFENCE COLONY, WED, NSD MANKHURD AND MISC WORKS AT VARIOUS BLDGS IN SPDC AND WED AREA AND REPAIR TO CAGGING OF WATER TANKS AT SPDC, WED, AND DSRV AREA UNDER GE (NW) MANKHURD

SCHEDULE OF CREDIT

(For materials likely to be obtained from dismantling and becoming the Contractor's property) Notes:-

- (a) All unserviceable materials likely to be retrieved from dismantling/demolition shall become the Contractor's property. Materials likely to be retrieved from dismantling/demolition are on 'as and where basis'. No financial adjustments whatsoever shall be made at later stage. Materials thus retrieved shall be removed from the site immediately as directed by Engineer-in-Charge. Credit assessed below for this schedule shall be catered in RAR/FB
- (b) Credit for materials obtained from demolition / dismantling as assessed by the Department are shown in this schedule.
- (c) Quantities under col 4 are provisional. The tenderer shall have no claim whatsoever if there is any variation in actual quantities and those mentioned in this schedule and the cost indicated there in and the actual cost.
- (d) Material obtained from dismantling/ demolition of any other item which is not included in schedule of credit shall become property of Govt and shall be returned to the Garrison Engineer (NW) Mankhurd.

SI No	Description of item	Units	Qty		ssessed by the partment	
				Rate	Amount (Rs)	
1	Old AC/GI sheet/ridges.	Sqm	84.00	20.00	1680.00	
2	Old wash basin and urinal any type	Each	9.00	20.00	180.00	
3	Old flushing cistern	Each	5.00	15.00	75.00	
4	Old bib tabs,pillar tabs,angle cock,health faucet etc	Each	95.00	20.00	1900.00	
5	Old GI tubing 15 mm	RM	20.00	12.00	240.00	
6	Waste Pipe 32 /40 bore	Each	30.00	10.00	300.00	
7	Old PVC connection	each	19.00	5.00	95.00	
8	GI Tubing 20mm bore	RM	15.00	15.00	225.00	
9	GI Tubing 40mm bore	RM	10.00	20.00	200.00	
10	GI Tubing 25 mm bore	RM	15.00	18.00	270.00	
11	Old pvc pipe any dia	RM	30.00	10.00	300.00	
12	Old LDPE pipe 32mm		20.00	10.00	200.00	
13	Old unserviceable tiles / stone slabs (any type)		206.00	10.00	2060.00	
14	Old iron scrap		4000.00	10.00	40000.00	
15	Old unserviceable aluminium fittings	Each	240.00	3.00	720.00	
16	Old unserviceable door closure	Each	10.00	50.00	500.00	
17	Old unserviceable stainless steel wire cloth	Sqm	120.00	2.00	240.00	
18	Old unserviceable gate valves any dia	Each	13.00	30.00	390.00	
19	Old curtain rod with brackets	RM	25.00	5.00	125.00	
20	Old brick masonry / bats	Cum	5.00	150.00	750.00	
21	Old stone masonry	Cum	10.00	250.00	2500.00	
22	Old unserviceable wooden window shutters including frame any type	Each	20.00	100.00	2000.00	
23	Old unserviceable wooden scantling	RM	25.00	10.00	250.00	
24	Old unserviceable plywood / particle board any type/ any thickness	Sqm	90.00	25.00	2250.00	
25	Ceiling board of any type	Sqm Each	115.00 18.00	10.00 225.00	1150.00	
26	Old unseviceable chowkats with shutters any type	4050.00				
	Total Schedule of Credit 62,650.00					

Signature of Contractor Date:

AGE (Contracts) for Accepting Officer

NAME OF WORK: DAY TO DAY PETTY REPAIRS TO MISC B&R ITEMS IN VARIOUS BLDGS AT DEFENCE COLONY, WED, NSD MANKHURD AND MISC WORKS AT VARIOUS BLDGS IN SPDC AND WED AREA AND REPAIR TO CAGGING OF WATER TANKS AT SPDC, WED, AND DSRV AREA UNDER GE (NW) MANKHURD

SCHEDULE 'B'

(ISSUE OF MATERIALS TO CONTRACTOR) (See condition 10 of IAFW-2249)

SI No	Particulars	Unit	Rate at which material shall be issued to the Contractor	Place of issue of material	Remark s
1	2	3	4	5	6
Nil					

SCHEDULE-`C'

List of Tools and plant (other than transport) which will be hired to the Contractor (See conditions 15, 34 and 35 of IAFW 2249)

SI no	Quantity	Particulars	Details of MES crew supplied	Hire charges per unit per working day	Standby charges per unit per off day	Place of issue (by name)	Remark s
1	2	3	4	5	6	7	8
	Nil						

SCHEDULE-'D'

(TRANSPORT TO BE HIRED TO THE CONTRACTOR)
(See conditions 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	7	8		
	Nil						

Signature of Contractor Date:

AGE (Contracts) for Accepting Officer

TENDER

To,
The President of India
Having examined and perused the following documents:

- 1. Specifications signed by the AGE (Contracts), Garrison Engineer (NW) Mankhurd, Mumbai -400 088.
- 2. Schedule `A', `B', `C', and `D' attached hereto.
- 3. MES Standard Schedule of Rates Part-I 2009 Specifications (including amendment Nos. 01 to 03) and MES Standard Schedule of Rates 2020 Part-II Rates (including amendment Nos. 01 to 122) {hereinafter and in IAFW-2249 referred to as the MES Schedule}.
- **4.** General Conditions of Contracts IAFW-2249 [1989 Print] together with errata 01 to 20 and amendments 01 to 49 and the Schedule of Minimum Wages.
- Water Condition 31 of IAFW-2249 [General Conditions of Contracts].WATER WILL NOT BE SUPPLIED BY MES.
- **6.** Should this tender be accepted, * I/WE AGREE
 - *(a) "That the sum of Rs. forwarded as Earnest Money which shall either be retained as a part of Performance Security or be refunded by the Government on receipt of an appropriate amount of the Performance Security, within the time specified as per condition 19 of IAFW-2249.
 - (b) To 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 of IAFW-2249 upto a maximum of (\pm) 10% (Ten percent) and further agree to refer all disputes as required by condition 70 to sole Arbitration of Serving Officer having degree in Engineering or equivalent or having passed final/direct final examination of sub division-II of Institution of Surveyors (India) recognized by the Government to be appointed by the Chief Engineer Southern Command, Pune, whose decision shall be final, conclusive and binding.

^{*}Delete whichever not applicable.

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

Signature			in the	capacity of			duly authorised to sign the
tender	for	and	on	behalf	of	M/s	
(BLOCK (CAPITAL	S)					
		•		Name of the IN BLOCK (•		
				Posta	al Addres		
				1 0010	ai 7 idaioc		
Witness				Telegra	aphic Ado	lress:	
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_				_ _			
-					Tele	phone:	
				ACCE	PTAN	CE	
		altera	itions ha	ve been m	ade in th	nese do	cuments and as evidence that these
alteration	s were m						ement these have been initialed by the
Contracto	r and Shi	ri AAW Sh	aikh, AG	E (Contracts	s), GE (N'	W) Manl	khurd, Mumbai-88.
The said	Officer/Of	fficers is/a	re hereb	v authorised	to sign a	and initia	al on my behalf the documents forming
part of thi				,	3		,
The abov Schedule		was accep	oted by n	ne on behal	f of the F	residen	t of India for the item rates contains in
Rs		(Rupees_				
							only) on the day of
							only) on the day of
		2024.					
Signature	dated thi	is		day of		20	024.

(FOR AND ON BEHALF OF THE PRESIDENT OF INDIA) The Garrison Engineer (NW) Mankhurd Mumbai -400 088 Accepting Officer

GENERAL CONDITIONS OF CONTRACTS - IAFW 2249 (1989 PRINT) FOR *ITEM RATE CONTRACTS - IAFW 1779-A (REVISED 1955)

A copy of the GENERAL CONDITIONS OF CONTRACTS - IAFW 2249 (1989 Print) with errata1 to 20 and amendment Nos. 01 to 49 have been supplied to me/us, has been perused by me/us and is in my/our possession. I/We have read and understood the provisions contained in the aforesaid GENERAL CONDITIONS OF CONTRACTS before submission of this tender and I/We shall abide by the terms and conditions thereof, as modified if any, elsewhere in these tender documents.

It is hereby further agreed and declared by me/us, that the GENERAL CONDITIONS OF CONTRACTS, IAFW-2249 (1989 Print) including condition 70 thereof pertaining to settlement of disputes by arbitration, containing 33 pages (serial page Nos. 17 to 47) with errata 1 to 20 and amendment Nos. 1 to 49 (serial page Nos. 48 to 78) form part of these tender documents.

<u>Note</u>: In case of difference in interpretation due to wordings of English and Hindi versions of the General Conditions of Contracts (IAFW-2249) (1989 Print), the English version will prevail.

*Delete whichever is not applicable.

Signature of Contractor

AGE (Contracts)
For Accepting Officer

Dated:

SCHEDULE OF MINIMUM FAIR WAGES

It is hereby agreed that the `Schedule of Minimum Fair Wages' as published vide the Government
of India latest Notification, forms part of these tender documents. 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.

Signature of Contractor

AGE (Contracts)
For Accepting Officer

Dated:

SPECIAL CONDITIONS

1.1 GENERAL

1.1.1 The following conditions shall be read in conjunction with General Conditions of Contracts IAFW-2249 (1989 Print) and IAFW-2159 (Revised 1947) including errata and amendments thereto.

1.1.2 If any provision in these special conditions is at variance with the provisions of the above mentioned documents, provisions in these special conditions shall be deemed to take precedence there over.

1.2 <u>VISIT TO SITE</u>

The tenderer is advised to inspect the site, by prior appointment with the Garrison Engineer, to ascertain the nature of site, access thereto, local facilities for procurement of materials, working hours and labour rates prevalent in the area and all other matters affecting his price in the tender for execution and the completion of the work. The tenderer shall be deemed to have full knowledge of the site (s) whether or not he actually visits it/these. For the purpose of collection of materials and execution of the works, the site will be considered as lying in area as mentioned in clauses hereinafter.

1.3 SECURITY AND PASSES

- 1.3.1 Tenderers attention is invited to condition 25 of IAFW-2249. He 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. 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. 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.
- 1.3.2 The Engineer-in-Charge shall, at his discretion has the right to issue passes, as per rules and regulations of the installation/area in force, to control the admission of the Contractor, his agents, and employees and work people to the site of the work or any part thereof. Passes shall be returned on any time on demand by the Engineer-in-Charge or the authorities concerned and in any case on completion of work.
- 1.3.3 The Contractor and his agents, employees and work people shall observe all the rules promulgated by the authority controlling the installation/area in which the work is to be carried out 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 hours etc lost on this account.

1.4 MATERIALS AND SAMPLES

- **1.4.1** Refer condition 10 of IAFW-2249 and clause 1.6 & 1.7 of MES Schedule.
- **1.4.2** Materials provided by the Contractor for incorporation in the works shall, unless otherwise specified in the particular specifications be ISI marked. IS means Indian Standards as issued by the Bureau of Indian Standards. Wherever in the specifications `IS' is referred to, it means the edition with all amendments, current on the due date of receipt of the tender documents.
- 1.4.3 The tenderer is advised to inspect other materials, which are displayed in the office of the GE, before submitting his tender. The tenderer shall be deemed to have inspected the samples and satisfied 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. The materials to be incorporated in the work by the Contractor shall be ISI marked or shall be equal or superior in quality to sample displayed and shall comply with the specifications given hereinafter.
- 1.4.4 The Contractor shall produce samples of all materials, articles, fittings, accessories etc. that he proposes to use and get these approved in writing by the Garrison Engineer within reasonable time from the date of commencement of work as per work order. The materials, articles, etc. as approved, shall be labelled as such and shall be signed by the GE and the Contractor's representative. These samples shall be kept in the custody of the Garrison Engineer/Engineer-in-Charge.
- **1.4.5** The Contractor shall not procure materials unless the samples are first got approved by the Garrison Engineer. All items/materials for which approval is obtained from the GE shall be recorded in MBs as 'Not to be abstracted'
- **1.4.6** The brand of all materials, articles, fittings, etc. approved together with the names of the manufacturers and firms from which supplies have been arranged shall be recorded.

- **1.4.7** (a) It is mandatory that ISI certified marked items/articles shall be incorporated in the work.
 - (b) The Govt. reserves the right to get any items/articles tested in approved laboratories. The cost of sample for testing shall be borne by the Contractor and the remaining expenses such as cost of transportation of sample to laboratory and testing fee shall be borne by the Govt., if the test result is found to be satisfactory. However, in the event of the test result being found unsatisfactory, the entire cost of testing including cost of sample shall be borne by the Contractor. The Government may get more than one sample of the same materials tested and the cost of such testing shall be borne by the Government.

1.5 PROPRIETORY/ BRANDED MATERIAL

- 1.5.1 Proprietary/branded materials such as paints, chemicals for anti-termite treatment, bitumen, waterproofing compound etc, quantity of which cannot be checked after incorporation in the work, shall when collected at site, be recorded in measurement book and signed both by the Engineer-in-Charge and the Contractor as a check to ensure that the required quantity has been brought at site for incorporation in the work.
- **1.5.2** 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.
- 1.5.3 The Contractor shall obtain proprietary/ branded materials from manufacturers or from manufacturer's authorised stockists where such authorised stockist has been appointed. The Contractor shall, on demand, produce original receipted vouchers/ invoices of suppliers to the Garrison Engineer, to ensure that the Contractor has actually brought the required quantity of the materials from the authorised dealers/manufacturers and also to be find out the rates thereof. The original vouchers/ invoices shall be defaced and stamped by the Engineer-in-Charge, indicating contract number, name of work, under his dated signature. The Contractor shall ensure that the materials are brought to site, in original sealed containers/ packing bearing manufacturer's marking except in the case of the requirement of material(s) being less than the smallest packing.
- 1.5.4 PRODUCTION OF VOUCHERS Contractor shall produce purchase vouchers from the manufacturers and/or their authorised agents for the full quantity of following materials to the Garrison Engineer, as applicable as a prerequisite before submitting claims for payment for advances on account of the work done and/or materials collected in accordance with condition 64 of General Conditions of contracts (IAFW-2249). The Garrison Engineer shall check the same before making RAR payment against these items. Production of purchase vouchers for these items is mandatory. The Garrison Engineer shall not make payment against the items listed below in RARs unless the purchase vouchers for the same have been produced to him and verified by him:
 - (a) Water proofing compound
 - (b) Chemicals for anti-termite treatment
 - (c) Paints
 - (d) All proprietary articles
 - (e) Bitumen for road work
 - (f) Air blown grade bitumen for water proofing work
 - (g) Cement
 - (h) Steel
- **1.5.5** The vouchers shall be endorsed, dated and initialled by the Engineer-in-Charge giving the contract number and name of work. A certified copy of each of such vouchers signed both by the Engineer-in-Charge and the Contractor shall be kept on record.

1.6 TIME AND PROGRESS (CPM CHART)

1.6.1 The CPM Chart to be prepared as per Condition 11 of IAFW-2249 (General Conditions of Contracts) shall consist of detailed net work analysis and a time Schedule. The critical path net work will be drawn jointly by the Garrison Engineer and the Contractor soon after acceptance of the tender. The Contractor so as to finish the work within the stipulated time will do the time scheduling of the activities. On completion of the time schedule, firm calendar date Schedule will be prepared and submitted by the Contractor to the Garrison Engineer who will approve it after due scrutiny. The Schedule will be submitted in four copies within two weeks from the date of handing over the site.

CA No: GE (NW) MKD- of 2024-2025 Serial Page No: 89 SPECIAL CONDITIONS (Contd...)

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

1.7 SECURITY OF CLASSIFIED DOCUMENTS

The Contractor's special attention is drawn to condition 2-A and 3 of General Conditions of Contracts (IAFW-2249). The Contractor shall not communicate any classified information regarding the works either to sub-Contractors or others without 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 works and he should return all documents furnished to him in respect of the works on completion of the work or earlier termination of the contract. The Contractor shall along with the final bill, attach a receipt from the Engineer-in-Charge in respect of his having returned the classified documents as per condition 3 of General Conditions of Contracts (IAFW-2249).

1.8 FAIR WAGES

The Contractor shall have no claims, whatsoever if on account of any rules and regulation or otherwise he is required to pay wages in excess of the fair wages shown in the schedule of wages under condition 58 of General Conditions of Contracts IAFW-2249.

1.9 PERIOD FOR KEEPING TENDER OPEN

The tender shall remain open for acceptance for a period of 60 (Sixty) days from the date specified for its submission.

- **1.10** Blank
- 1.11 ROYALTIES Delete the existing condition 14 of IAFW-2249 and insert the word "BLANK" in lieu.
- 1.12 LAND AND LABOUR ACCOMMODATION, AND STORES AND WORKSHOP ETC.
- 1.12.1 Delete lines 5 to 9 of Para 1 of Condition 24 of General Conditions of Contracts IAFW-2249 i.e. from "In the event of area of land" to "land allotted to him" and insert as under: "The Contractor shall be allotted, the area as marked on the layout plan for the purpose of erection of temporary workshop, stores for which he shall pay the nominal rent of Re.1/- per year or part of a year. No MD land is available for accommodation of labour and canteen in restricted area for which the Contractor shall make his own arrangement at his own expense."
- **1.12.2** The Contractor will not be allowed to quarry/ win earth from MD land.

1.13 CO-OPERATION WITH OTHER AGENCIES

- **1.13.1** The Contractor shall permit free access and generally afford reasonable facilities to other agencies or departmental workmen engaged by Government to carry out their part of the work, if any, under separate arrangements.
- 1.13.2 The Contractor's prices shall be deemed to cater for all the above contingencies and nothing extra shall be admissible on this account.

1.14 LABOUR (REGULATION & ABOLITION) ACT

1.14.1 Contract labour (Regulation & Abolition) Act 1970 is applicable to MES Contractors. Rates quoted by the tenderer shall be deemed to take into account the cost, etc., required to comply with the provisions contained in the said act and the rules framed under the said act.

SPECIAL CONDITIONS Contd...

- 1.14.2 Refer Condition 58 of IAFW-2249. The "Schedule of Minimum Wages" as published vide Govt. Of India Notifications, as available on date of receipt of tender forms part of these tender documents. However, the Contractor shall not pay wages lower than minimum wages for labour as fixed by the Govt. Of India/ State Govt/ Union territory under Minimum Wages Act or Contract Labour (Abolition and Regulation Act), whichever is higher.
- **1.14.3** The fair wages referred to in condition 58 of IAFW-2249 will be deemed to be the same as the minimum wages payable as referred to above.
- **1.14.4** 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.

1.15 WATER SUPPLY

- **1.15.1** Refer condition 31 of General Conditions of Contracts (IAFW-2249) and clause 1.13 of MES Schedule.
- 1.15.2 Water will NOT be supplied by the MES & the Contractor shall make his own arrangements for water for the entire work. However, the Contractor if he so desires, will be permitted to drill bore well(s) in the area at his own cost. The well(s) dug/drilled by the Contractor shall become the property of the Govt. without any extra cost. The Contractor shall at his own cost, get the water tested from recognised Govt. Laboratory about the portability of water and produce the certificate to the GE.
- **1.15.3** Water used for mixing and curing shall be generally potable water, clean and free from impurities viz. oils, acids, alkaline salts, sugar, organic materials or other substance that may be deleterious to concrete or steel and also conform to IS-456.

1.16 ELECTRIC SUPPLY

- **1.16.1** In the case the Contractor desires to buy electricity from the MES and if the same is available for supply with the department he shall be charged for the electric energy consumed at the following rates:
 - (a) At Rs.15.94 per unit for lighting and
 - (b) At Rs. 15.94 per unit for power
- 1.16.2 Electric supply required for works shall be made available by the MES at the points marked on site plan. The main switch and kWH meter to register the electric energy supplied shall be provided and installed by the Contractor. The Contractor shall provide all necessary connections, cables, fittings etc. from main switch in order to ensure a proper and suitable supply of electricity for the execution of work.
- **1.16.3** MES do not guarantee availability/continuity or supply of full quantity of electricity as required/demanded by the Contractor. The electricity shall be supplied to the extent available with the department. No compensation whatsoever shall be allowed for supply becoming intermittent or for break down in the system.
- 1.16.4 The GE or his representative shall be free to inspect all the power consuming devices or any electric lines provided by the Contractor. Any devices or electric lines provided by the Contractor, which are not to the satisfaction of the GE shall be disconnected from the supply, if so directed by the GE.

1.17. <u>PERFORMANCE SECURITY AND REFUND OF PERFORMANCE SECURITY (Refercondition No 19 of IAFW-2249, General Condition of Contracts)</u>

(A) PERFORMANCE SECURITY

- **1.17.1** The performance security for an amount equivalent to 5% of the contract sum <u>shall be in favour of Accepting Officer</u> and shall be in any of the forms mentioned below. Work order No 01 shall be placed only after submission of Performance Security of adequate value by the contractor. In case a fixed deposit receipt of any Bank is furnished by the contractor to the Government as part of the Performance Guarantee and the Bank is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnished additional security to the Government to make good the deficit:-:
 - (a) A Bank Guarantee in the prescribed form.
 - (b) Government securities, FDR or any other Government instruments stipulated by the Accepting Officer i.e in favour of GE (NW) Mankhurd.
- 1.17.2 If the Performance Security provided by the successful Contractor in the form of Bank Guarantee, it shall be issued by Nationalized / Scheduled Indian bank but its confirmation shall be done only from the Head Office of the Bank.

SPECIAL CONDITIONS (Contd...)

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

1.17.4 Failure of the successful Contractor to comply with the requirements of sub clause 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.

1.18 REFUND OF PERFORMANCE SECURITY

The Performance Security Deposit mentioned in Condition 19 of IAFW-2249 will be refunded to the Contractor after the expiration of the Defects Liability Period (stipulated in condition 46) by the GE provided always that the Contractor shall first have been paid the final bill and have rendered a No-Demand Certificate (IAFW -451).

1.19 MINOR CONSTRUCTIONAL DETAILS

Unit rates / lump sum quoted by the Contractor shall be deemed to allow for all minor constructional details which are not specifically shown on drawings or given in the Particular Specifications but are essential for the execution of work and services in workman like manner and sound construction. In case of difference of opinion between the Contractor and the Garrison Engineer as to whether or not certain item of work constitutes `Minor Constructional Details' which is deemed to have been included in the Contractor's quoted lump sum, the decision of the Accepting Officer shall be final, conclusive and binding.

1.20 SALES TAX CONSEQUENT UPON THE CONSTITUTION (FORTYSIXTH AMENDMENT ACT 82)

- (a) Tendered rates shall be inclusive of all taxes and levies payable under the respective statute including Sales Tax/ VAT/GST imposed on transfer of the right to use any goods for any purpose, Act of the State Government promulgated consequent to the 46th amendment to the constitution.
- (b) Tenderer shall note that no separate amount is to be indicated for the above mentioned Sales Tax /VAT/GST payable to the Government, in his tender. The element of this Sales Tax shall be included by the tenderer in his lump sum/unit price quoted.
- (c) Any tender which proposes any alteration to the above condition and/or which proposes the element of Sales Tax / VAT / GST separately over and above the quoted lump sum/unit price will be treated as conditional tender and is liable for rejection.

1.21 <u>RE-IMBURSEMENT/REFUND ON VARIATION IN "TAXES DIRECTLY RELATED TO CONTRACT VALUE"</u>

- (a) The rates quoted by the Contractor shall be deemed to be inclusive of all taxes (including Sales Tax/VAT/GST on materials, Sales Tax/VAT/GST on Works Contracts, Turnover Tax, Service Tax, Labour Welfare Cess/ GST etc.), duties, Royalties, Octroi & other levies payable under the respective statutes. No reimbursement/refund for variation in rates 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.
- (b)(i) The taxes which are levied by Govt at certain percentage rates of Contract Sum/Amount shall be termed as "taxes directly related to Contract value" such as Sales Tax/VAT/GST on Works Contracts, Turnover Tax, Labour Welfare Cess/tax and like but excluding Income Tax. The tendered rates shall be deemed to be inclusive of all "taxes directly related to Contract value" with existing percentage rates as prevailing on last due date for receipt of tenders. Any increase in percentage rates of "taxes directly related to Contract value" with reference to prevailing rates on last due date for receipt of tenders shall be reimbursed to the Contractor and any decrease in percentage rates of "taxes directly related to Contract value" with reference to prevailing rates on last due date for receipt of tenders shall be refunded by the Contractor to the Govt/deducted by the Govt from any payments due to the Contractor. Similarly imposition of any new "taxes directly related to Contract value" after the last due date for receipt of tenders shall be reimbursed to the Contractor and abolition of any "taxes directly related to Contract value"

SPECIAL CONDITIONS (Contd...)

prevailing on last due date for receipt of tenders shall be refunded by the Contractor to the Govt/deducted by the Govt from the payments due to the Contractor.

- (ii) The Contractor shall, within a reasonable time of his becoming aware of variation in percentage rates and/or imposition of any further "taxes directly related to Contract value", give written notice thereof to the GE stating that the same is given pursuant to this Special Condition, together with all information relating there to which he may be in a position to supply. The Contractor shall submit the other documentary proof/information's as the GE may require.
- (iii) The Contractor shall, for the purpose of this condition keep such books of account and other documents as are necessary and shall allow inspection of the same by a duly authorized representative of Govt, and shall further, at the request of the GE furnish, verified in such a manner as the GE may require, any documents so kept and such other information as the GE may require.
- (iv) Reimbursement for increase in percentage rates/imposition of "taxes directly related to Contract value" shall be made only if the Contractor necessarily & properly pays additional "taxes directly related to Contract value" to the Govt, without getting the same adjusted against any other tax liability or without getting the same refunded from the concerned Govt Authority and submits documentary proof for the same as the GE may require".

1.22 ADVANCES ON ACCOUNT OF NON-PERISHABLE MATERIALS

The Contractor may be paid advance on account to the full value of the under mentioned materials only, brought on the site, on his furnishing guarantee bond(s) from a scheduled bank for the amount of the retention money, should otherwise be recoverable from him under the contract:

- (i) Factory made panelled shutters
- (ii) Factory made Aluminium windows/ ventilators
- (iii) Sanitary fittings
- (iv) Builders hardware fittings (iron mongery)
- (v) Electrical cables/ wires/ fittings/ fixtures
- (vi) Water supply pipes, fittings/ fixtures
- (vii) All other non-perishable materials as decided by the GE

The Bank Guarantee Bonds shall be executed for a period and on a form as directed by the Accepting Officer. The Contractor shall further arrange to extend the period of Guarantee Bond if and when necessary, as directed by the Accepting Officer or shall furnish fresh guarantee bond of similar value. It will be noted that advance on account to the full value to materials brought on the site is permissible only in respect of fittings and fixtures and other manufactured items which do not lose their identity. Materials like bricks, aggregate, precast concrete and similar items shall not be taken in the list.

1.23 CLEANING DOWN (Refer Condition 49 of IAFW-2249)

The Contractor shall clean all floors, walls, remove cement, lime, paint marks/drops etc clean the joinery, glass panes etc, touch up all painters work and carry out all other necessary items of work in connection therewith and leave the whole premises clean and tidy before handing over the building. No extra payment shall be claimed by the Contractor for this operation.

1.24 LABEL OF ARTICLES

The Contractor shall provide aluminium LABEL of not less than 75mmx25mm and of adequate gauge with brass screws on articles like transformer, panel board, generating set etc indicating there on the names of the firm, the contract No. and year as directed by the GE. The cost of such aluminium labels shall be deemed to be included in the quoted rates against respective item of Schedule-`A'.

1.25 DAMAGE TO STRUCTURE

Any damage done to the structure built or being built by other agency during execution of work shall be made good by the Contractor at his own cost and the site of work left clean and tidy on completion. Rectification, reinstatement, making good etc shall conform to the standard of materials originally used in the work and finished work shall match with existing work in all respect to the entire satisfaction of the GE. In case of any dispute on this account the matter shall be referred to the CWE whose decision in writing shall be final, conclusive and binding.

SPECIAL CONDITIONS (Contd...)

1.26 CONDITIONS OF WORKING:

1.26.1 CONDITIONS OF WORKING IN RESTRICTED AREA

The entire work under this contract lies in "RESTRICTED AREA". The conditions of working in restricted area are stipulated as under:

- (a) <u>DEFINITION</u>: Restricted area(s) for the purpose of this contract means the area(s) declared as such by the units as shown in site plan/described in Special Condition.
- (b) <u>VERIFICATION OF ANTECEDENTS</u>: Verification of antecedents of Contractor's representatives / labours deployed at site in connection with execution of work under the contract, as per security requirement of User Unit/installation shall be the responsibility of the Contractor and all expenses in connection with verification of antecedent by Police Authority / Security Agency shall be borne by the Contractor.
- (c) <u>VISIT TO SITE WITHIN THE RESTRICTED AREA</u>: Permission to enter the restricted area(s) at time of submission of tenders can be obtained, through the Garrison Engineer. Tenderers are advised to send prior intimation to the Garrison Engineer about the particulars of the agents, representative etc., if any, the date and the time of their proposed visits so that necessary arrangement may be made by the GE, to secure admission. Whether tenderers visit the site or not they shall be deemed to have full knowledge of the restrictions on entering in, exit from and working within the restricted area.
- (d) ENTRY AND EXIT: The Contractor/ his agent(s)/ representative(s)/ workmen etc., and his materials carts, trucks or other means of transport, etc., will be allowed to enter through and leave from only such gate or gates and at such times as the GE or Authorities in charge of the restricted area may at their sole discretion permit to be used. The Contractor's authorised representative is required to be present at the places of entry and exit for the purpose of identifying his carts, trucks, etc, to the personnel-in-charge of the security of the restricted area.
- (e) <u>IDENTITY CARDS OR PASSES</u>:
 - (i) The Contractor, his agents and representatives are required individually to be in possession of an identity card or pass duly verified by the GE. The identity card or pass will be examined by the security staff at the time of entry into or exit from the restricted area, and also any time or number of times inside restricted area.
 - (ii) Identity of Workmen Every workman shall be in possession of an Identity Card. The identity cards shall be issued after a thorough investigation of the antecedents of the labourers, by the Contractor and attested by the officer-in-charge of the units concerned in accordance with the standing rules and regulations of the unit.
 - (iii) The Contractor shall be responsible for conduct of his workmen, agents or Representatives.
 - **(f) SEARCH** Thorough search of all persons and transport shall be carried out at each gate and for as many times as gate is used for entry or exit and may also be carried out any time or any number of times at the work site within the restricted area.
- (g) <u>FEMALE SEARCHER</u>If the Contractor desires to employ female labour on works to be carriedout inside the area of factory, depot, park, unit, etc and a female searcher is not borne on the
 authorised strength of the factory, depot, park, unit, 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 (Class IV servant/ GP`D' servant) calculated for the period, female labours are
 employed by him inside the 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, unit, etc, the salary and allowances paid to the additional
 female searcher(s) shall be distributed on equitable basis between 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 recoverable on this account from any Contractor
 shall be final and binding.
- (h) <u>WORKING HOURS</u> The units controlling restricted area, usually work during six days in a week and remain closed on the 7th day. The working hours available to the Contractor's labour/staff are however accordingly get reduced because of the time taken in security checks observed at the time of entry and exit and during working hours. The exact working hours, working days and non working days observed for these restricted area(s), where works are to be carried out shall be deemed have been ascertained by the Contractor before submitting his tender. The tenderers' attention is invited to the fact that total number of working hours for a unit, are prescribed in regulations and that they cannot be increased by the Garrison

Engineer. The definition of "Working Day" as given under condition 1(t) of IAFW-2249 does not apply in case where the works are carried out in restricted area.

SPECIAL CONDITIONS (Contd...)

(j) WORK ON HOLIDAYS
The Contractor shall not carry out any work on gazetted holidays, weekly holidays and other non-working days except when he is expressly authorised in writing to do so by the Garrison Engineer. The GE may at his sole discretion declare any day as holiday or non-working day without assigning any reason for such declaration.

(k) <u>ACCESS TO RESTRICTED AREA AFTER COMPLETION</u>After the works are completed and surplus stores etc. removed, the Contractor, his agents, representatives or workmen etc., will not be allowed any access to the restricted area except for attending to any rectification of defects pointed out to him by the GE.

(I) FIRE PRECAUTIONS

- (i) The Contractor, his agents, representatives, workmen etc., shall strictly observe the orders pertaining to fire precautions prevailing within the restricted area.
- (ii) Motor transport vehicle, if allowed by the authorities to enter the restricted area must be fitted with serviceable fire extinguishers.

1.27 <u>METHOD STATEMENT</u>

- **1.27.1** The Contractor shall plan for execution and completion of work with foresight to ensure timely execution with the quality of work desired.
- **1.27.2** Period of completion shall be divided into months/ fortnights/ weeks and plan for each months/fortnights/weeks by preparing schedule for every months/ fortnights/weeks with following details, even before commencement of work.
 - (a) Items of work to be executed with quantity
 - (b) Labour to be deployed trade wise,
 - (c) T & P to be deployed
 - (d) Material to be brought to site for works to be executed next week
 - (e) Type and number of engineers to be employed.
- **1.27.3** Any special item of work to be executed alongwith description of method as to how the Contractor intends to execute. It must be submitted in advance.
- **1.27.4** The Contractor shall also plan in advance and make available all the requisite safety equipment for the labour. A list of the same shall be given.
- **1.27.5** The Contractor shall produce test certificate of T&P being deployed at site. The test certificates shall indicate the present capacity of the T&P and shall not be more than 6months old.
- **1.27.6** The above details shall be furnished by Contractor within 10days of commencement of work. Work will be not allowed to be executed without these details. However, date of commencement of work will be within one month of acceptance as per contract.
- **1.27.7** Delay on account of non-submission of these details /test certificate will be attributable to Contractor and no extension of time will be granted on this account.

<u>**MONTH/FOR</u>	<u>.I NIGH I/WI</u>	<u>-EK NO</u>
From	То	
EXECUTION		

SI No	Item of work	Quantity
1		
2		
3		

SI No	No of Engineers to be employed	
		Nos
1	Civil	
	(a) Graduates	
	(b) Diploma Holders	
2	Electrical	
	(a)	
	(b)	
3	Mechanical	
	(a)	
	(b)	

SPECIAL CONDITIONS (Contd...)

SI No	Labour required to be employed	
	Trade	Nos
1	Mazdoor	
2	Manson	
3	Electrician	
4		
5		
6		

SI No	T&P to be deployed	
	Type	Nos
1		
2		
3		
4		

MATERIALS TO BE BROUGHT AT SITE FOR EXECUTION MONTH/FORT NIGHT/ WEEK WISE DETAILS

SI no	Description of material	Quantity	Source
1.			
2.			
3.			
4.			

1.28 OFFICIAL SECRETS ACT

The Contractor shall be bound by the Official Secrets Act, 1923.

1.29 CONCILIATION

- **1.29.1** Scope of conciliation The scope of conciliation shall be restricted to the following types of disputes with financial limits as indicated therein:
 - (a) Disputes relating to levy of compensation for delay in completion-actual amount of Compensation
 - **(b)** Disputes relating to technical examination of works.
 - **(c)** Disputes relating to interpretation of the provisions of the contract with reference to their application to parties.
 - (d) Disputes relating to non return of Schedule` stores over issued to the Contractor.
 - **(e)** Any other dispute having fair chances of being resolved by conciliation and considered fit to be referred to conciliation by the parties.
- **1.29.2** For items (b), (c), (d) and (e) each as stated above the financial limit shall be 2,00,000/- (Rupees two lakh) or one percent of the Contract amount whichever is less.

1.29.3 COMMENCEMENT OF CONCILIATION PROCEEDINGS

- **1.29.3.1** The party initiating conciliation shall send to the other party a written invitation to Conciliate, briefly identifying the subject of the dispute.
- **1.29.3.2** Conciliation proceedings shall commence when the other party accepts in writing the invitation to conciliate.
- 1.29.3.3 If the other party rejects the invitation, there will be no conciliation proceedings. If the party initiating conciliation does not receive a reply within 30 days from the date on which he sends or within such other periods of time as specified in the invitation, he may elect to treat this as a rejection of the invitation to conciliate and if he so elects, he shall inform in writing the other party accordingly.

1.29.4NUMBER OF CONCILIATORS There shall be a sole Conciliator

- 1.29.5 APPOINTMENT OF CONCILIATOR All disputes brought out in para 1.29.1. (a) to (e) above shall be referred to the Sole Conciliator viz Serving Officer not below the rank of Superintending Engineer / Superintending Engineer (QS & C) having degree in Engineering or equivalent or having passed final / direct final examination of Sub Division II of Institution of Surveyors (India) to be appointed by the Engineer-in-Chief, Army Headquarters, New Delhi or in his absence the Officer officiating as Engineer-in-Chief or Director General of works specifically delegated by the Engineer-in-Chief in writing.
- **1.29.6 STATUS OF EFFECT OF SETTLEMENT AGREEMENT** The settlement agreement signed by the parties as a result of conciliation proceedings shall have the same status and effect, as it is an arbitral award on agreed terms.

SPECIAL CONDITIONS (Contd...)

1.30 PROCEDURE FOR REFERING DISPUTES (OTHER THAN THOSE FOR WHICH THE DECISION OF THE CWE OR ANY PERSON IS BY THE CONTRACT EXPRESSED TO BE FINAL AND BINDING) TO SOLE CONCILIATOR FOR CONTRACTS VALUING LESS THAN RS.10.00 CRORE IN TERMS OF CONDITION 71 OF IAFW-2249.

- (a) The party initiating conciliation shall send to the other party a written communication to conciliate identifying the subject disputes.
- (b) on receipt of such request, the Accepting Officer shall with in fifteen days refer the matter to CE (Navy) Mumbai or in his absence the officer Officiating as Chief Engineer
- (c) Chief Engineer within one month of receipt of request for appointment of sole conciliator shall appoint Sole conciliator who shall be serving officer having degree in Engineering or equivalent or having passed final/direct final examination of sub division II of Institution of Surveyors of India) recongnised by Govt and refer the disputes for settlement/agreement between the parties to the contract.
- (d) The sole Conciliator so appointed within fifteen days will enter into reference and fix a hearing to represent the matter by both the parties and finalize the finding within two months after entering into reference and shall forward his proposed settlement/agreement to both the parties to contract.
- (e) After receipt of settlement/agreement, the accepting officer and the other party with in one month shall communicate their consent or rejection of settlement/agreement to each other in writing and if the settlement/agreement as suggested by sole conciliator is agreed to by both the parties, shall have the same status and effect as it is on arbitral award on agreed terms within the provisions of Arbitration and conciliation Act 1996. The silence of both the parties after receipt of settlement/agreement as arrived by Sole Conciliator after one month shall be considered as finality of the settlement/agreement and shall be binding on both the parties not subject to challenge again. However, if any party rejects the settlement/agreement within one month from the date of receipt of settlement/agreement, the dispute may be referred by the aggrieved party for adjudication by arbitrator as per agreed terms of contract.
- (f) The amount of settlement shall be treated as an agreed amount payable under the contract and such payment shall be processed through hand receipt.

	AGE (Contracts)
Date:	for Accepting Officer

PARTICULAR SPECIFICATIONS

1. **GENERAL**

1.1 Works under this Contract shall be carried out as detailed in different parts of Schedule-`A' and in accordance with Particular Specifications, Special Conditions, provisions given in General Summary and General rules and Specifications / Provisions given in MES SSR Part-I 2009 aswell as General rules, Special conditions and preambles to various rates given in MES SSR Part-II 2020 (MES SSR Part-I and II hereinafter called as MES Schedule).

- 1.2 The term `General Specifications' referred to in these documents 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, method of measurements 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 case of variance between provisions inthese documents and those given in MES Schedule, the provisions in these documents shall take precedence over the aforesaid provisions in the MES Schedule.
- 1.4 The term 'as specified' wherever appears in tender documents and drawings, relates to relevant particular specifications and in its absence General specifications.
- 1.5 Particular Specifications in this section given hereinafter shall be generally applicable to all works covered under all parts of Schedule-'A'. The particular specifications are in brief and are only to particularize, amend and emphasize the specifications given in MES Schedule, which are not repeated.
- 1.6 Where specifications for any item of work are not given in these particular specifications or in MES Schedule, specifications as given in relevant Indian Standard or Code of Practice shall be followed.
- 1.7 Reference to any drawings which is mentioned in these Particular Specifications shall be deemed to be forming part of the tender. The tenderer shall refer such drawings/ details in the office of the Accepting Officer before quoting his tender.

2. SCOPE OF WORK

The scope of works :-

- (a) Day to day petty repairs to Misc B&R items in various Bldgs at Defence colony, WED, NSD Mankhurd.
- (b) Misc works at various bldgs in SPDC and WED area under AGE B/R Sewri.
- (c) Repair to cagging of water tanks at SPDC, WED, and DSRV area under AGE B/R Sewri.

all as laid in Sch-'A' and as described and specified in these Particular Specifications. Contractor shall have to plan his progress accordingly to the relocation / shifting of users as directed by the Engineer-in-charge. Site as available and rendered by the Engineer-in-charge shall be completely repaired so as to facilitate shifting / relocation of users, so that further site can be made available to the Contractor to progress work.

- **DIMENSION** In laying out the centre line dimensions mentioned in the drawings or deduced there from and or as directed by the Engineer-in-charge, shall be strictly followed.
- 4. MATERIALS
- All materials to be supplied by the Contractor for incorporation in work shall conform to relevant specifications / IS.
- 4.2 In case specifications of materials needed for incorporation is not contained anywhere in the contract documents, the specifications of such materials proposed to be incorporated in work shall be got approved in writing from the GE before incorporation in the work. The Contractor is advised to check availability, lead, time of procurement from these suppliers before quoting.
- 4.3 As far as practicable all manufactured articles other than those manufactured in the Contractor's workshop at site shall bear ISI certification mark and which are readily available in the market and are as given in Special Conditions. It is mandatory for the Contractor that ISI certified marked items/articles as listed therein shall only be incorporated in the work.
- 4.4 Local materials such as stone aggregate, sand, lime, etc shall generally conform to the sample kept in the GE's office in addition to their conformity with relevant specifications given in the tender documents. The samples of such materials shall be got approved from GE in writing before the materials are brought at site in bulk. The Contractor shall submit samples of materials to the GE through Engineer-in-Charge for approval.
- 4.5 Letters conveying approval of samples / materials by the GE will interalia mention source of supply / name of manufacturer, trade name/brand (if applicable) and reference to clause of the tender documents containing specification of particular materials.
- **4.6** The Contractor and executives will ensure that the materials incorporated in the work are identical with the approved samples.
- 4.7 Materials brought by the contractor on the site in connection with the subject contract shall be adequately stored and/or protected against damage by weather or other causes. In case of any loss or damage to the above materials, the contractor shall be wholly responsible and no claim what so ever shall be entertained by the department.

PARTICULAR SPECIFICATIONS..... (Contd)

5. TESTING OF MATERIALS

5.1 All the materials to be incorporated in the work shall be subject to quality control tests as per the testing procedure and frequency as laid down in relevant IS and or as specified in the tender and or as directed by the Engineer-in-charge.

5.2 However any test required in the work shall also be got done in Govt. approved lab/Engineering College/National Test House as approved by the GE and entire cost of sample, handling, transportation and actual testing charges will be borne by the Contractor directly.

6. CONCRETE WORK

6.1 **CEMENT**

- (a) 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 of SSR, IS Specifications as amended and as specified in Appendix-`C'to Particular Specifications given hereinafter.
- (b) Type of cement for the subject work shall be ordinary Portland cement grade 53 (Fifty three).

6.2 **FINE AGGREGATE**

- (a) Fine aggregate for concrete works shall be natural sand/crushed, stone sand/crushed gravel. Sand or combination thereof shall be conforming to IS-383 and grading within the limits of Grading Zones II to III all as specified in clause 4.4 of MES Schedule. Sand conforming to grading zone IV of IS-383 shall not be used for RCC work.
- **(b)** The sand shall be hard, dense, strong, durable, clear and free from veins and adherent coatings and free from injurious amount of disintegrated pieces, alkali, vegetable matters and other deleterious substances. As far as possible, flaky and elongated pieces should be avoided.
- **(c)** Natural river sand/crushed stone sand shall be obtained from the permanent river sources as approved by the GE.

6.3 COARSE AGGREGATE

- (a) Coarse aggregate for all cement concrete work shall be graded broken/ crushed trap stone obtained from approved quarries as specified in clause 4.4 of MES Schedule. Mixture of the two types shall however not be used.
- (b) Coarse aggregate shall be obtained from the sources as approved by the GE.

6.4 GRADING OF COARSE AGGREGATE

Graded Aggregate of nominal sizes given hereunder, shall be used, unless specified otherwise, in the specifications hereinafter:

- (a) Plain or reinforced cement concrete except in foundation of brick or stone walls/pillars, floors and sub base to floors.
 - (i) For structural elements of depth/thickness more than and including 100mm: 20mm
 - (ii) For structural elements of depth/thickness less than 100mm: 12.5mm

Note: However, in no case the nominal size of aggregate shall be greater than one fourth the minimum thickness of the member

(b) Plain concrete in foundation of brick or stone walls, pillars, floors and sub-base to floors.

(i) Under 30mm thickness : 12.5mm (ii) 30mm to 80mm thickness : 20mm

(iii) Exceeding 80mm thickness: 40mm

6.5 WATER

Water shall conform to the requirement stipulated in IS-456 and as per Clause 4.9 of MES Schedule.

6.6 MIX OF CONCRETE

Mix of concrete shall be all as stipulated in various items of Schedule-'A'.

PARTICULAR SPECIFICATIONS.....(Contd)

6.7 PROTECTION AND CURING OF CONCRETE

This shall be carried out in accordance with specifications, given in clause No. 4.11.13 and 4.11.14 of MES Schedule Part-I 2009

7. BRICK WORK:

Brick shall be kiln burnt sub class 'B' locally available best quality, conforming to the samples kept in GE's office. The bricks shall have average compressive strength of 35 Kg/Sq. cm of not less than 50kg/Sqcm. Water absorption of bricks shall not exceed 20% when tested in accordance to IS -3495. Sampling and testing of bricks shall be carried out as per IS-5454 and IS -3495. The size of the bricks shall be 230 x 115 x 75mm. The tolerance in size of bricks shall be + 8%

8. STEEL AND IRON WORK

- **8.1** All steel required for the work under the Contract shall be procured, supplied and in the work by the Contractor under his own agreement.
- **8.2 GRADES & QUALITY** Steel supplied by the Contractor shall conform to the following grades and quality:
 - (a) Steel for concrete reinforcement at locations as detailed:
 - (i) TMT steel of Fe 500 / Fe 500d / Fe 550 / Fe 550d grade manufactured by M/s SAIL, M/s TISCO, M/s RINL, M/s Shyam Steel Industries Ltd., M/s SPS Rolling Mills Ltd, and M/s Jai Balaji Industries Ltd conforming to IS-1786 shall be incorporated.
 - (ii) Where indicated as high yield strength deformed bars, it shall be high strength deformed steel bars conforming to IS-1786-1985 (Reaffirmed 1990) & grade Fe 500 / Fe 500d / Fe 550 / Fe 550d.

(b) Structural steel

- (i) Structural steel standard quality shall conform to IS-226, 1975 and grade Fe-410-S. This type of steel shall be provided in the locations mentioned in clause 10.4.1 of MES Schedule Part-I.
- (ii) Structural steel ordinary quality shall conform IS-1977, 1975 and grade Fe-410-0. This type of steel shall be used for structure not subjected to dynamic loading. This type of steel will not be used where welding is used in fabrication and in the areas falling in the earth quack zone where severe damage is expected and design of structure is based on plastic theory. This type of steel shall be provided in the locations specified in clause 10.4.2 of MES Schedule Part-I.
- (c) <u>Hard drawn steel wire fabric for concrete reinforcement</u>:

Fabric reinforcement shall conform to IS-1556, 1982.

Note: Any items of steel specified in clause 12.2 (a) to (c) above not conforming in grade and quality shall be rejected and the rejected steel items under the particular consignment shall be removed from the site by the Contractor at his own cost within 7 (seven) days. The Contractor will have no claim whatsoever on this account.

8.3 SOURCE OF PROCUREMENT

(a) Structural Steel

The Contractor shall procure structural steel from the main producer viz., (i) M/s SAIL (ii) M/s Rashtriyalspat Nigam Ltd. (iii) M/s TISCO, (iv) M/s Shyam Steel Industries Ltd., (v) M/s SPS Rolling Mills Ltd, and (vi) M/s Jai Balaji Industries Ltd.

(b) TMT Steel

Steel required for the work shall be procured by the Contractor from main producers like M/s SAIL, M/s Rashtriyalspat Nigam Ltd, M/s TISCO, M/s Shyam Steel Industries Ltd., M/s SPS Rolling Mills Ltd, and M/s Jai Balaji Industries Ltd. The steel shall conform to the requirements as stated in clause 10.2 above. The documents in support of the purchase of steel shall be verified by the site staff and GE. The particulars of the manufacturer/supplier of steel shall be obtained from the Contractor for every lot of steel separately. The form given at Appendix-`E', shall be used for the purpose.

(c) The Contractor shall place their demand/requisition of steel with adequate lead-time. The steel shall be purchased from the storage depots of the main producers and not from their authorized agents/dealers as the authorized agents/dealers deal with the steel manufactured by

PARTICULAR SPECIFICATIONS.....(Contd)

more than one manufacturer. The authorized conversion agents/dealers of the main producers can supply the steel to the Contractor provided the main producers have given such directions in a specific sale/purchase order and they are producing TMT steel using Thermex / Tempcore/ Evcon Turbo technology. It is therefore necessary and mandatory to be ensured by the GE that steel is not purchased by the Contractor directly from the "Authorized Conversion Agent" or from the "Authorized Dealer/Agent" of the Main producers.

- (d) However, non structural steel as for hold fast railing and the structural steel where total requirement under the contract in less than 5.0 tonnes may be procured locally after obtaining permission of the GE in writing.
- (e) The Contractor shall submit original vouchers from the manufacturer for the total quantity of steel 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 before acceptance. The original test certificates and vouchers shall be defaced by Engineer-in-Charge and kept on the record in the office of the GE duly authenticated and with cross reference to the control number recorded in the Steel Acceptance Register. The Steel Acceptance Register, as given at Appendix-'E' shall be signed by the JE, Engineer-in-Charge, GE and Contractor. The Accepting Officer may order a Board of Officers for random check of steel and verification of connected document. The entire quantity of all steel items shall also be suitably recorded in the Measurement Book for record purposes as 'not to be

Abstracted', before incorporation in the work and shall be signed by the Engineer-in-Charge and the Contractor.

(f) TMT Steel bars of size 8mm to 16mm and more than 16mm shall be procured directly from main producers only.

8.4 STEEL SUPPLY / ACCEPTANCE FORM

For each consignment of steel supply/acceptance form (Refer Appendix-'D') will be filled in & jointly signed by the Department representative [AGE / JE (Civil)] and the Contractor and accepted/rejected by the GE before incorporation in the works. (Note: Steel supply/acceptance form shall be issued by the GE)

8.5 STEEL REINFORCEMENT

Reinforcement shall be fabricated, placed in position all as directed and specified in Clause 10.17 to 10.22 of MES Schedule (Part-I) 2009 without application of heat.

9. WOOD WORK AND JOINERY

9.1 TIMBER

- (a) Timber for all joinery and wood work 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.
- (b) Timber shall be well seasoned, whether air or kiln dried at the discretion of the Contractor but without any price adjustments. The moisture content of timber shall not exceed the limits laid downvide Clause 7.7 of the MES Schedule. Adequate number of test shall be carried out by the Engineer-in-Charge to determine the moisture content in the timber to be used in the work and the Contractor shall provide necessary facilities for test as required by Engineer-in-Charge without any extra cost to Government. Testing charges shall also be deemed to be included quoted rates by the Contractor.

10 FACTORY MADE PANELLED DOOR SHUTTERS

- 10.1 Panelled door shutters and glazed / gauged shutters shall be factory made shutters conforming to IS-1003 (Part-I). Styles and rails shall be kiln seasoned and chemically treated by pressure process as per para 5.5 of IS-401 (under vacuum pressure). The dimensions and overall sizes shall however be as shown on drawings.
- **10.2** The thickness of door shutters shall be as shown on drawings and if not shown on drawings, the same shall be 35mm.
- 10.3 If not shown on drawings panels for panelled door shutters shall be with 12mm thick particle board BWR quality grade 'A' exterior grade solid core, general purpose commercial face veneer on both sides conforming to IS-3097. Panelled shutter shall be provided with suitable size wooden beading all round the panel insert on both the sides of the shutter.

PARTICULAR SPECIFICATIONS.....(Contd)

11. <u>FLUSH DOOR SHUTTERS:</u> These shall be as per relevant item of BOQ and shall be from one of the Manufacturers appearing on the approved list of manufacturer(s) of Flush shutters issued by Buero of Indian Standard of India as on the last date of receipt of the Tender.

- **FACTORY MADE PANELLED SHUTTERS AND GLAZED SKELETON SHUTTER.** These shall be all as per relevant items of Sch 'A'. Make of factory made shutters shall be all as given in Appx C.
- **13**. **PVC DOORS AND FRAMES**. Factory made solid moulded PVC door shutters and frames shall be as per BOQ and MES Schedule Part –I.

14. **BUILDERS HARDWARE**

- 14.1 All articles of iron mongery (Builder's hardware) shall generally conform to the specifications given in section 9 of MES Schedule Part-I. The Contractor shall produce the samples of each article of builder's hardware which he proposes to use and get the same approved in writing by the Garrison Engineer. Articles of builder's hardware shall bear ISI mark, wherever available.
- **14.2** The type of builder's hardware shall be as follows:
 - (a) Butt hinges shall be of stainless steel (with stainless steel pin) and shall be of bright finish with smooth surface
 - **(b)** Double / single action spring hinges and catches shall be of mild steel.
 - (c) Coat hooks/pegs shall be of brass chromium plated.
 - **(d)** All other articles / fittings of builder's hardware shall be of extruded sections, aluminium anodised white. Thickness of anodising shall be 15microns.
 - (e) All hardware shall be fixed with steel cadmium plated screws.
- **14.3** The type pattern and size of aluminium anodised fittings shall be as follows:
 - (a) Aldrop bolts (sliding door bolt) shall be provided to doors where directed. These shall be with hasp and staples (bolt type) and fixing clips etc. complete and shall conform to IS-2681. Aldrop bolts shall be fixed with nuts and bolts only.
 - (b) Hasp and staples shall be of safety pattern plate type.
 - (c) Hooks and eyes shall be plate type and the hooks shall be out of extruded section.
 - (d) Door handles shall be of plain pattern with back plate. The dia of the bars shall be 10mm.
 - (e) Barrel bolt/tower bolts shall be provided with 10mm dia shoot upto 150mm and 12mm dia shoot above 150mm.
 - (f) Sliding latch shall be 200mm long of 15.5x9mm flat slide.
 - (g) Magic eye shall be provided in the main entrance door of each quarter as approved by the
 - **(h)** Screws for all fittings shall match the respective fittings, both in materials and finish except that screws for anodized aluminium fittings shall be of steel cadmium plated.
 - (j) Piano type hinges shall be continuous type and shall be of stainless steel, bright finish.

14.4 TOWER BOLTS

- **14.4.1** Aluminium anodized tower bolts shall comply with IS-204 (Part-II) specification for tower bolts, Part-II non-ferrous metals. The shape and size of tower bolt shall be as indicated. The type and size of tower bolt shall be as specified in respective item.
- **14.4.2** Barrel and tower bolts, wherever possible shall have the knob integral with bolts. In case it is not possible to provide a single piece construction of bolt, the knob may preferable be fitted to the bolts with a pin or alternatively screwed and riveted to the bolts, and its shape may be round as directed. Where diameter of bolt of particular size of tower bolt is not stated in the IS, the bolt shall be of 10mm diaupto size 125mm and 12mm dia for sizes 150mm and above.
- **14.5 BUTT HINGES**Butt hinges shall be stainless steel of weight all as specified in clause 9.7.2 of SSR Part-I.
- 14.6 <u>HANDLES</u> Handles for doors shall be aluminium anodized fabricated type as specified in clause No.9.11 of MES Schedule Part-I, and sizes of handles shall be provided as indicated in Schedule-'A'.
- **14.7 ALUMINIUM SLIDING DOOR BOLTS** Aluminium sliding door blots shall be aluminium anodized all as specified in clause No 9.5.2 of MES Schedule Part-I.

PARTICULAR SPECIFICATIONS.....(Contd)

14.8 FLOOR DOOR STOPPER These shall be as specified in clause No. 9.15, 9.15.1 and 9.15.2 of MES Schedule Part-I 2009 and as approved by the GE.

15. PLASTERING

15.1 GENERAL

- (a) The mix of plaster shall be as stipulated in respective item of work.
- **(b)** All plastered surfaces shall be troweled to smooth and even surface or desired surfaces as stipulated without using extra cement.
- **(c)** Thickness of cement plaster mentioned hereinafter shall be finished thickness exclusive of dubbing. Dubbing may however be done in one operation with plaster.
- **(d)** All corners, angles, 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 junctions of walls shall be rounded to minimum radius of 5mm.
- **(f)** 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 as applicable.

15.2 MATERIALS

- (a) Cement Refer `Appendix-`A' to these particular specifications.
 - **(b)**Sand Refer Clause 14.5 of MES Schedule Part-I and sand shall be obtained from the sources as approved by the GE and shall conform to the sample kept in the office of the GE.
 - (c) Water Refer Clause 14.11 of MES Schedule Part-I 2009.

16. SYNTHETIC ENAMEL PAINTING WORKS

- (a) All synthetic enamel paint, emulsion paint shall be of 1st quality manufactured by the standardfirms of make as per Appendix-`B' attached.
- **(b)** The Contractor shall inform the GE, within three weeks of the acceptance of the tender, the brand/names of the manufacturers of paint proposed to be used in the works and submit samples thereof and obtain prior written approval of the GE before their use in works.
- **(c)** 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 Standards.
- (d) Paints for priming coat, under coat and finishing coat shall be of the same manufacturer.
- (e) Tint of paint, if shall be as stipulated and as approved by the GE.
- **(f)** Steel and iron work shall be painted in the manner as specified in clause 17.8 of MES Schedule Part-I.

17 WHITE WASHING

- 17.1 White (lime) wash shall be provided as indicated, all as specified in clause No. 15.2, 15.12, 15.12.3 and 15.12.5 of MES Schedule. For white washing on ceiling adequate quantity of zinc oxide shall be added to lime wash for achieving egg white shade.
- 17.2 Lime used for white washing shall be freshly burnt fat lime (class 'C') or magnesium lime (class 'D' or 'F') white in colour, conforming to IS-712 of 1984.
- 17.3 Blue vitriol shall comprise of fresh crystals of hydrous copper sulphate (blue vitriol) conforming to IS-261 1982 and shall be ground to fine powder.
- **18. OIL BOUND DISTEMPER** Oil bound distemper conforming to IS 428- 1969 shall be provided as indicated, all as specified in clause No 15.14 and its sub-clauses therein of MES Schedule.

19. ACRYLIC EMULSION ANTIFUNGAL PAINT

19.1 APPLICATIONS

(a) Fungus / moss / algae affected surface on new or old surfaces shall be removed if any with antifungal treatment or with the help of available fungicide bleaching powder solution all as per

PARTICULAR SPECIFICATIONS.....(Contd)

Manufacturer's instructions. The surfaces shall be cleaned by wire brushing and washed with water before application of primer or paint.

- **(b)** Before application of primer for plastered surfaces, the surfaces shall be cleaned, made free of loose particles, dust, grease, chalk, fungus and mould. One coat of acrylic emulsion weather coat paint with water (1:1 by volume) as a self priming coat shall be applied as per manufacturer's instructions and as directed by the Engineer-in-Charge.
- **(c)** The acrylic emulsion weather coat paint shall be applied by brush or roller. No strainer or colorants shall be used. The paint shall be stirred well before use. The primer coat shall not be left without application of top coats for a long period of time.
- (d) Application of Acrylic emulsion weather coat paint. Two coats of acrylic emulsion weather coat paint thinned with 400ml water per lit of paint shall be applied. The drying period between two coats shall be minimum 4hours or as per Manufacturer's instructions. The shade shall be as approved by the GE. Finish of acrylic emulsion weather paint shall be smooth matt finish.
- **(e)** The paint shall be as per manufacture's original colour as available no mix of tint shall be made into original shades.
- (f) The weather coating acrylic emulsion paint shall be any one of the make given in Appendix 'B'.

19.2 STAGEWISE APPLICATION FOR ACRYLIC PAINT

Work for acrylic emulsion paint shall be carried out as per stage given below. Before starting the work for next stage prior approval of Engineer-in-charge shall be obtained.

Stage I : Preparation of surface.

Stage II : Applying priming coat

Stage III : Applying first coat of acrylic emulsion paint

Stage IV : Applying second coat of acrylic emulsion paint

19.3 Acrylic Emulsion Paint (Interior grade) & Pre/Post Anti-termite Treatment

Acrylic emulsion painting (interior grade) shall be carried out all as specified in clause No. 17.17 under section 17 of SSR Part-I 2009.

19.4 **GUARANTEE**

- (a) The Contractor shall ensure that all the buildings painted with acrylic paint free from fungal infections, light patches, discolour, etc. & Pre/Post Anti-termite Treatment during the guarantee period of 05 years and he shall be responsible to upkeep the entire surface for a period of 05 years from the certified date of completion of work. The security deposit towards the guarantee for efficiency of treatment (acrylic painting) shall be retained from the RAR/Final bill amount. The security deposit amount shall be calculated as per the scales laid down by MES for calculating Individual Security deposit on the total amount of exterior painting carried out at contract rates. This amount shall be released to the Contractor after satisfactory expiry of five years guarantee period. The GE may accept BGB from schedule bank or a fixed deposit receipt (pledged in the GE's favour) from any Nationalised bank for the said guarantee amount for a period of five years, in which event no further amount will be recovered from the final bill/RAR on this account. The defects liability period under condition 46 of General conditions of contract (IAFW-2249) shall be deemed to be amended to the extent mentioned above for acrylic painting works.
- (b) The Contractor has to submit necessary guarantee for 05years in prescribed format on Rs.100/non-judicial stamp paper from the certified date of completion of Contract to keep the building free from fading, peeling off paint during guarantee period. The Contractor shall be responsible to ensure that the buildings are kept free from fading or peeling off the acrylic paint during guarantee period. However, the Contractor may take equivalent back to back guarantee from the manufacturer / applicator of acrylic paint he opts / employs in the work.

20. <u>FLOORING</u>20.1 <u>GENERAL</u>

- (a) Provisions contained in Clause 13.25, 13.32, 13.38 and 13.39 of MES Schedule are to be adopted for laying floors and pavements.
- **(b)** Floors shall be laid to levels or to falls as directed by the Engineer-in-Charge. Floor finish over base shall be laid all as specified in MES Schedule.

PARTICULAR SPECIFICATIONS.....(Contd)

20.2 NON SKID/MATT FINISHED CERAMIC TILES FLOORING/DADO

(a) Non skid/Matt finished ceramic tiles flooring / dado shall be provided in the locations indicated and as directed.

(b)Non skid/matt finished ceramic tiles in flooring shall be of size as directed and shall not less than 6 to 7mm thick, coloured, Grade B II (a) confirming to IS No 13712 of superior quality with water absorption not more than 3 to 6%, matt finish. Tile shall be laid bedding / sub base as stipulated. Tiles shall be set and jointed in neat cement paste and shall be pointed in white cement mixed with approved pigment to match the colour of tiles. Joints shall be thin and nearly indistinguishable. The workmanship in all respects shall be as specified in Clause 13.40 of SSR Part-I 2009.

- **(c)** Makes of tiles shall be as specified hereinafter and colour, pattern and design of tiles shall be as approved by the GE.
- (d) Glazed ceramic tiles in dado shall be 6 to 7mm thick, coloured, Grade B II (b) confirming to IS No 13712 of superior quality with water absorption not more than 3 to 6% and shall be provided in locations as directed. Tiles shall set and jointed in neat cement paste over backing coat and shall be pointed in white cement mixed with approved pigment to match the colour of tiles. Joints shall be thin& nearly indistinguishable. The workmanship in all respects shall be as specified in clause 13.40 of SSR Part-I.
- (e) Height of dado shall be as indicated or as directed.

20.3 CUDAPPAH STONE IN FLOORS / JAMBS / CILLS / KITCHEN PLATFORMS, ETC

- (a) Cudappah stone in floors, platforms, jabs, cills, etc shall be provided at locations as directed by the Engineer in Charge and these shall be machine cut and machine polished.
- **(b)** Cudappah stone tiles/slab shall be of selected quality, hard, sound dense & homogeneous in texture, free from defects & conforming to specifications of SSR Part-I. Thickness of tile shall be 20 to 25mm and or as directed.
- **(c)**Cudappah stone tiles/slabs shall be set, jointed & pointed in neat cement slurry with pigment to match the colour of tiles and laid over bedding layer / concrete sub-base/ RCC slab. Joints shall be thin & nearly indistinguishable.
- (d) Polishing of Cudappah stone shall be done using polishing machine and with required grinding stones and in a manner and to the satisfaction of the Engineer-in-charge.
- **(e)** Slabs / stone shall be provided in a chase inside the wall at least 25mm deep and set, jointed & pointed in neat cement slurry to match with the colour of the slab. The exposed edges shall be bull nosed as directed by the GE.
- 21. <u>ALUMINIUMWINDOWS/VENTILATORS/PARTITIONS/DOOR</u>. Aluminum windows/ ventilators/ partition/ doors shall be made out of extruded aluminum sections and shall be powder coated. The thickness of powder coating shall not be less than 50 microns of shade as approved by the GE. The section of Aluminum windows/ventilators shall be manufactured by INDALCO/ HINDALCO/ JINDAL.
- **21.1** Glazing of aluminum doors/ windows/ventilators shall be with sheet glass smoke white ordinary quality conforming to IS-2835, 1977 and thickness of sheet glass shall be as mentioned in respective item of schedule.
- 20.2 All fittings to aluminum windows/ventilator shall be as per the manufacturer instructions and all as directed by GE.

22. GLAZING

Sheet glass or figured glass for glazing shall be of thickness as indicated and shall conform to IS 2835-1977 Specification for transparent sheet glass. Sheet glass shall be flat transparent and clear as judged with the naked eye. It shall be free from any cracks and any defects. Preparation and fixing shall be all as specified in clause 16.7 of SSR Part-I 2009.

23. PRELAMINATEDPARTICLE BOARDS

Pre-laminated particle board wherever specified hereinafter shall be of decorative type provided with laminated decorative surfaces and shall conform to IS-12823.

24 PVC (SWR) PIPES & FITTINGSPVC (SWR)

pipes shall conform to IS-13592-192 fittings shall conform to IS-5382. PVC (SWR) fitting shall be used as per recommendations of the manufacturer of the pipes. PVC (SWR) pipes and fittings shall be strong, dimensionally stable and shall be free from defects.

PARTICULAR SPECIFICATIONS.....(Contd)

25 ROLLING SHUTTERS

25.1 The Contractor shall visit the site / location of building / rooms, study all criterions carefully and base his work accordingly. Parts / components replaced shall be of the original manufacturer (as existing) or of the best available in the market as detailed and as approved.

25.2 The rolling shutters (mechanically operated / manual types) shall be duly tested for proper performance and operation as directed by the Engineer-in-charge and the test results shall be kept on records duly signed by all concerned.

26 FLUSHING CISTERNS

These shall be as specified in clause No. 18.34, 18.34.1 to 18.34.7 of MES Schedule Part-I 2009 and as approved by the GE.

27 WASH HAND BASIN

- (a) Wash hand basin of size stipulated shall be of vitreous glazed ware oval shape and colour as approved by the GE with waste union and perforated grating (both fittings of brass chromium plated) (b) 32mm diagalvanised steel medium grade waste pipe fitted with brass chromium plated screws coupling outlet complete. Length of waste pipe shall be as directed.
 - (c) Chromium plated steel chain and rubber plug

28 GI WATER TUBING

- (a) All water tubing shall be galvanised medium grade conforming to IS: 1239 and fittings shall comply with the requirement of relevant IS. Laying of GI pipes shall be in accordance with Clause 18.51 of MES Schedule. The Contractor shall use proper bends, elbows, tees etcat turning corners. The Contractor shall provide screwed plugs to all open ends of pipe on completion of days work. The requirement pertaining to materials, conformity with National Building workmanship, testing, record of installation shall be all as specified in MES Schedule (clause 18.40 and 18.41) shall be followed. All pipe work shall be laid or fixed to be completely airtight and watertight as specified. Testing of pipe shall be carried out as in Clause 18.50.4 of the MES Schedule. The entire water piping work, when completed shall be tested for leaks under working conditions of pressure flow. The joints found leaking on pipes shall be removed and replaced at the Contractor's expense. Works shall be executed by a licensed plumber.
- (b) The pipes passing through the walls, floor, slabs, roof slab etc. shall pass through sleeves of approved materials of adequate sizes. Holes through walls, etc. around the sleeves to full thickness of wall shall be finished to match surrounding surface.

29 BIB TAPS, PILLAR TAPS, STOP VALVES AND GUN METAL GATE VALVE

These shall be all as indicated in relevant items of Sch 'A' and as specified in relevant clauses of SSR Part-I 2009. Make of PPR pipe shall be as specified in Appx 'A'.

30. WATER PROOFING TREATMENT TO ROOF

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

PARTICULAR SPECIFICATIONS.....(Contd)

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

30.3 **WATER PROOFING MEMBRANE**

APP modified water proofing membrane to be incorporated in the work for WPT shall be obtained from one of the following manufacturers:

Super Thermolay Manufactured by STP limited (formerly Shalimar Products) B-46,

Hind Road Extension, Kolkata-700 008

Chemisol Adhesives Pvt Ltd, 7/10 Botawala Building, 2nd floor, (b) Chemistik

Horniman Circle, Fort, Mumbai-400 023 (Tel: 022-2661936,

2625389 & 2625520)

Manufactured by TEXSA India Ltd., A-418, 1st floor, DLF City, (c) Moply

Gurgaon -02

Manufactured by IWL India Ltd., W-360, North Main Road, Anna (d) Hyperplas

Nagar West Extension, Chennai-600101 (Tel: 044-45536000)

30.4 **PHYSICAL PROPERTIES**

(v)

The physical properties of APP modified water proofing membrane shall be as under:

(i) Membrane Weight Not less than 4.0kg/sqm Not less than 160gms/sgm (ii) Not woven polyester weight (iii) Softening paint of membrane Not less than 150°C

Joint tensile strength Longitudinal > 650/sqcm at 230°C (iv)

Transverse > 450/Sqm Longitudinal > 150N, Transverse > 150N

(vi) Elongation > 30%

water > 3kg/cm² (vii) Impermeability under pressure

30.5 The water proofing membrane treatment shall be carried out by the approved applicator of the manufacturer as approved by the GE.

30.6 **CERTIFICATE BY SPECIALISED AGENCY**

Tear strength (L/T)

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

APPLICATION AND WATER PROOFING OVER ROOF 30.7

- (a) The locations of seepage/leakage if any shall be identified and marked. Grouting will be carried out in portion of roof slab observed with seepage at Contractor's expense as under:
- (b) A matrix of dimension 1.0x1.0m shall be drawn on the affected portion of roof slab and 1m beyond on all sides.12mm dia grouting nozzles shall be fixed at each cardinal point of the matrix in the affected portion of slab. The nozzle should penetrate up to 40mm below roof slab or up to top reinforcement in roof slab. After cleaning the roof slab, the roof slab shall be grouted using injection-grouting method with a pressure of 2.0kg/cm², using a grout of cement slurry with 20 parts of water and 1 part of cement by volume till rejection. After grouting is over, the nozzles holes shall be sealed off with cement mortar 1:3 and cured. Then the entire roof slab shall be washed with fresh water and allowed to dry.
- (c) PCC padding 1:2:4 mixed with 2% WPC of 40mm average thickness on the cleaned roof surface shall be provided and cured for 7days minimum. PCC padding shall be turned round into coving at all junctions with wall/parapet upto a height of 150mm. The rain water gutter portion shall not be provided padding but shall be finished with cement mortar 1:4 with 2% WPC of minimum 20mm thickness with requisite slope to permit easy drainage and roof allowed to dry.

PARTICULAR SPECIFICATIONS.....(Contd)

- (d) Oil bound bitumen primer @ 0.4litre/sqm manufactured by the same agency as that of APP with a density of 0.87-0.89kg/litre at 25°C shall be applied on the prepared dry roof surfaces. Provide and lay APP modified water proofing membrane reinforced with non woven polyester mat one layer weighing > 3.5kg/sqm.
- **(e)** APP membrane shall be laid using butane torch-on application with minimum 10cm side overlap and 15cm end lap. The laying of membrane shall be got done through an authorised applicator of anufacturer of membrane.
- **(f)** Over the membrane provide a finishing coat of solar reflective bituminous aluminium paint @ 0.10kg/sqm or as detailed in Sch-'A' and all as prescribed by manufacturer of membrane.

30.8 TESTING OF MEMBRANE

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

- (a) Thickness of membrane
- (b) Weight of membrane
- (c) Tensile strength (Longitudinal/Crosswise)
- (d) Tear Resistance
- **(e)** Softening point
- (f) Weight of Carrier (Polyester)

Apart from above tests Contractor shall also produce manufacturer's test certificate. Test certificate shall be produced with every consignment of material brought at site by the Contractor.

31. WATER PROOFING TO SUNKEN FLOOR OF TOILET/ BATH/ WC: Water proofing to sunken floor of toilet/bath/WC shall be carried out all as described in relevant item of Schedule 'A'.

31.1 GUARANTEE:

- (a) The contractor shall ensure that the sunken floors shall be free from leakages etc during the guarantee period of 05 years and he shall be responsible to upkeep the entire surface for a period of 05 years from the certified date of completion of work. The security deposit worked out @2.5% on he amount of work done for the relevant items of water proofing treatment towards the guarantee period of 05 years for satisfactory performance of treatment. This amount shall be released to the contractor after satisfactory expiry of 05 years guarantee period. The GE may accept BGB from Schedule Bank or a fixed deposit receipt (pledged in GE's favour) from any Nationalized Bank for the said guarantee amount for a period of 05 years, in which event no further amount will be recovered from the final bill/ RAR on this account. The defects liability period under condition 46 of General conditions of contract (IAFW-2249) shall be deemed to be amended to the extent mentioned above for acrylic painting works.
- (b) Necessary guarantee shall be obtained from the contractor on non judicial stamp paper giving five years guarantee from the certified date of completion of contract to keep the toilet free from leakages during guarantee period. The guaranteed does not however, absolve the contractor form the responsibility in respect of this specialized work as per contract conditions.
- 31.2 PERFORMA OF GUARANTEE: GUARANTEE TO BE EXECUTED BY CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WATER PROOFING WORKS/ACRYLIC EMULSION ANTIFUNGAL PAINT/ LEAKAGE SEEPAGE PROOF COATING/ SUNKEN FLOOR TREATMENT. (to be submitted in a Rs.100/- non-judicial stamp paper)

This	agreement	made	this	day	of			two	thousa	nd		_ betv	veen
	of			(son	of								
(hereir	nafter called	guarant	or on	the one	part)	and	the	PRE	SIDENT	OF	INDIA	(herein	after
called	called the Government on other part).												
WHER	WHEREAS this agreement is supplementary to a contract hereinafter called the contract)					ract)							
dated			and r	nade be	tween	the	GUA	RAN	TOR o	f the	one p	art and	the
GOVE	RNMENT on	the o	ther pa	art where	e by	the C	ontra	actor	interalia	a, uno	dertook	render	the
buildin	as and struc	tures in	the s	aid contra	act rec	cited c	amo	letelv	water a	nd lea	ak proo	f.	

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

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PARTICULAR SPECIFICATIONS.....(Contd)

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

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

- (a) Misuse of and sunken floor slabs shall mean by operation which will damage roofing treatment, like chopping of firewood and things of the same nature which might cause damage to the roof.
- **(b)** Alteration shall mean construction of any additional storey or any part of roof or construction adjoining to existing roof, where by roofing treatment is removed in parts and removal of finishes of sunken portion of slabs.
- (c) The decision of the Garrison Engineer with regard to cause of leakage shall be final and binding. During this period of guarantee the guarantor shall make good all defects and in case of any defects being found, render the building water proof and finish the disturbed surfaces as existed to the satisfaction of the Garrison Engineer at his cost and shall commence the work for such rectification within seven days from the date of issue of the notice from the Garrison Engineer calling upon him to rectify the defects, failing which the work shall be got done by the department by some other contractor at the Guarantor's risk and cost. The decision of the Garrison Engineer as to the cost, payable by the Guarantor shall be final and binding.

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

IN WITNESS THEREOF these presents have been execute	d by the obligator		an	d by
for and on behalf of the PRESIDENT OF INDIA o	on the day month a	nd year	first	above
written.				
SIGNED sealed and delivered by OBLIGATOR in the	presence of:			
1. 2.				
SIGNED ON BEHALF OF THE PRESIDENT OF IND	IA BY	in presenc	e of	:-

2.

1.

PARTICULAR SPECIFICATIONS.....(Contd)

32. PRE PAINTED GALVALUME SHEET

Galvalume sheet shall be 0.50mm thick (total coated thickness), 550 Mpaminimum, yield strength. It shall be coated with hot dip alloy of 55% Aluminium 43.5 Zinc1.5% Silicon and finished with resin coat on both surfaces @ 150 gm/sqm of coating(total both surfaces) having overall width and laid width as specified and shall be fixedusing hot dip galvanized, self drilling and self tapping screws neoprene and EPDMwashers. Penetrations and laps in sheet shall be sealed by using proper sealant profile. HDPE fillers shall be provided wherever required to close voids between sheets, sheet &fasteners etc.

33 WATER CLOSET (ORISSA PATTERN)

- (a) Water Closet (Orissa Pattern) shall conform to IS 2556 (Part III) and shall be long pattern, coloured of size 580x440mm provided with integral foot rests and with `P' or `S' trap, as directed
- **(b)** The pan shall be set in the lime concrete (1:2) at least 15cm around and finished just below the ring to receive the specified thickness of floor finish
- **(c)** PVC readymade connecting pieces suitable for 15mm GI Pipes, 450mm long low density conforming to IS-4985 including brass union and nuts at both ends.

34 WC PEDESTAL PATTERN (EWC):

Pedestal pattern (wash down) water closet shall include white pedestal pan (pattern I) with and including concealed `P' or `S' trap. PVC seat and cover shall conforming to IS-2548 (Part-I) and of colour, pattern and hinging device as specified in schedule 'A'. Fixing shall be done as specified in MES schedule Part-I and as per manufacturer's instructions.

35. ALUMINIUM GRILL. Aluminium grill shall be provided as described under respective item of Schedule "A". The make shall be of M/S Aluminium profiles Associates Mumbai, AERO GRILL Chennai, specialist grill Kanpur/Deco grill or equivalent as approved by GE.

37. DEMOLITION / DISMANTLING AND MAKING GOOD

- 37.1 All dismantling work (except for which separate item is given in Schedule-'A') required for execution of work mentioned in Sch-'A' shall be deemed to be included in the rate quoted. The Contractor shall make good all disturbed surface to match with the existing specification and to the entire satisfaction of the Engineer-in-Charge. All dismantled material except shown in Schedule of credit shall be property of department and shall be handed over in store yard for which no removal shall be payable.
- **37.2** The Contractor should take necessary precaution for dismantling to the required shape/size. Contractor without any payment shall make all excess dismantling and damages caused to existing structure good.
- **37.3** Rates quoted for dismantling/taking down/fixed in repair shall include cost of making good, sorting of materials, and their removal as directed by the Engineer-in-Charge.
- 37.4 Old material/rubbish/unserviceable materials obtained as a result of taking down etc shall be removed outside MD land and unit rate quoted for dismantling/demolition/taking down shall be inclusive of this provision.
- 37.5 However old retrieved material for which credit has been offered to the contractor as per Sch of Credit shall be become contractor's property and shall be removed by the contractor after payment.
- 37.6 Other retrieved material which has any re-sale/salvage value or serviceable materials and which has not offered on credit shall be removed to the MES store yard as directed by the Engineer-in-Charge without any extra cost.

PARTICULAR SPECIFICATIONS.....(Contd)

38. SAFETY CLAUSE

The contractor before asking for completion certificate of subject work shall produce "Safety Certificate" duly signed by him specifying that all work carried out wrt to CA such all electric wires/cables, joints, screws, light fillings of any type and size, exhaust fan/Ceiling fan hood end pin, nuts bolts, door, windows, grill, roof sheeting, roof trust, false ceiling and other related works are properly secured and are safe for use/operation under the defect liability period. If accident arises due to defects on account of substandard/poor workmanship, the contractor would be liable to make good/rectify the defects at his own cost and penalty may board with warning on violation of safety provision. Repeated violation of safety measures by contractor would liable for strict action as deem fit by the department.

39. CLEANING OF SITE

All demolished and disposal materials which are not in reusable condition, as mentioned in Sch 'A' shall be removed, spread and leveled at places at a distance mentioned under Sch 'A' item and all as directed by Engineer-in-Charge. Debris shall be cleared from the site from time to time as directed by and to the satisfaction of Engineer-in-Charge, failing which the cost of the debris removal as worked out by the Engineer-in-Charge shall be withheld from the next RAR payment due to the contractor. The decision of Engineer-in-Charge on the value of withheld amount shall be final and binding.

Signature of Contractor

AGE (Contracts)
For Accepting Officer

> **CEMENT SUPPLY & ACCEPTANCE FORM** Appendix 'A'

Contract No. 1.

Name of work

3. Control No.

(b) Brand Name: (a) Name of Manufacturer (c) Grade of Cement: 4.

(a) Quantity of Cement (bags): (b) Lot No. /Week No.: 5.

6. Manufacturer's Test Certificates No. :

Random Test Details:

(a) Physical Test Report from (*) vide their letter No. : (Name of approved lab / Engineering College)

(b) Chemical Test Report from (*) vide their letter No. : (Name of approved lab / Engineering College) * to be filled the name of approval Lab/Engg. College

Details of Physical & Chemical Proprieties 8.

	Phys	ical Red	quireme	ent (as p	per IS: 40)31)						al Requ IS: 4032		its					
	(m²/kg)	e Chatellar	Auto Clave) Time	Minutes	Compress (Mpa)	sive Stre	ngth	ing testing	tency (%)	n Factor	io (Ratio)	e (%)		dride (%)	(%) ر			
	Specific Surface	Soundness by Le Expansion (%)	Soundness by A Expansion	Initial Setting (minutes)	Final Setting (minutes)	03days	07days	28days	Temperature during (°C)	Standard Consisten	Lime Saturation (Ratio)	Alumina Lon Ratio	Insoluble Residue	Magnesia (%)	Sulphuric Anhydr	Loss Opn Ignition	Alkales (%)	Chlorides (%)	Remarks
As per relevant IS																			
As per Manufacturer's certificate																			
As per random test certificate																			

Remarks with signature

Accepted/Rejected Garrison Engineer Contractor JE(Civil) Engineer-in-Charge

Remarks of BOO/Inspecting Officer/CWE:

^{*} To be allotted serially by the GE consignment wise

APPENDIX - 'B' TO PARTICULAR SPECIFICATIONS

1. CEMENT

1.1 **GENERAL**

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 hereinafter.

1.2 TYPES OF CEMENT

- (a) Ordinary Portland cement Grade 53 (IS: 12269-1987)
- (b) Rapid Hardening Portland cement (IS: 8041-1990)
- (c) Portland Pozzollana Cement (IS: 1489-1991 Pt-I)
- (d) High Alumina Cement (IS: 6452-1989)
- (e) Sulphate Resisting Portland cement (IS: 12230 1988)
- **1.2.1** Type of cement for the subject work shall be Ordinary Portland Cement grade 53 (Fifty Three) in accordance with IS: 8112-1989 unless otherwise mentioned in structural drawings forming part of the tender documents.
- **1.2.2** In case of non availability of OPC (Ordinary Portland cement) in the market, the Contractor can use PPC (Pozzollana Portland Cement) with prior permission from the Accepting Officer and his decision shall be final and binding, and in that case PPC shall meet the strength criteria of 53grade OPC (Ordinary Portland Cement) as laid down in IS-8112-1989. Mixing of OPC and PPC is not allowed.
- **1.2.3** The type of cement to be selected for use shall invariably depend upon the specific usage in the work (s). 33grade OPC shall not be used in the works. Use of PPC of required strength with fly ash content as per IS: 1489-1991 Pt-I is also permitted.

1.3 PROCUREMENT / SUPPLY OF CEMENT BY CONTRACTOR

- (a) <u>PROCUREMENT</u> The cement supplied by the Contractor shall only be procured from main producers of cement. The particulars of the manufactures of cement along with the date of manufacture shall be obtained from the Contractor for every lot of cement separately. The documents in support of the purchase of cement shall be verified by the Engineer-in-Charge / GE and site staff. The cement shall be procured by the Contractor from the manufacturers as given below.
- **(b)** MANUFACTURES The following are the main producers of Ordinary Portland cement & Portland Pozzollana Cement:
 - (i) The Associated Cement Companies Ltd
 - (ii) Ultra Tech Cement
 - (iii) The India Cement
 - (iv) Dalmia Cement
 - (v) Andhra Cement Ltd
 - (vi) Century Cement
 - (vii) Saurashtra Cement
 - (viii) Madras Cement
 - (ix) Mangalam Cement
 - (x) Birla Corp Ltd
 - (xi) Orient Cement
 - (xii) Lafarge Cement
 - (xiii) hree Cement
 - (xiv) JK Cement
 - (xv) JK Laxmi Cement
 - (xvi) JaypeeRewa Cement
 - (xvii) Ambuja Cement Ltd
 - (xviii) NK Cement Pvt Ltd (OPC & PCC)
 - (xix) Dhruv Industrial Company Ltd
- (c) Besides the above only OPC can be procured from the following producers also.
 - (i) Shiva Industries Kathua, J&K
 - (ii) Star Cement, Meghalaya
 - (iii) Meghalay Cement

APPENDIX - 'B' TO PARTICULAR SPECIFICATIONS (contd...)

1.3.1 USE OF PPC (POZOLONA PORTLAND CEMENT)

- **1.3.1.1** Portland Pozzollana Cement shall not be used for the following:
 - (i) In cold climate reason
 - (ii) Over head reservoir
 - (iii) Under ground sump
 - (iv) Prestigious Building
 - (v) Building with spans 10metre or more
 - (vi) PPC and OPC shall not be mixed
- **1.3.1.2** While using PPC the following conditions shall generally be met:
 - (i) Strength criterion for PPC cement shall be as per IS: 8112-1989
 - (ii) Stripping time shall be 14days
 - (iii) Both OPC and PPC shall not be permitted for use in the same building except for plaster and mortar
 - (iv) Mandatory certificates of testing and quality assurance shall continue to be submitted as hither-to-fore, with fly ash content as per IS: 1489-1991 (Part-I)
- **1.3.1.3** While procuring Portland Pozzollana Cement, the following requirement are to be ensured and certificate to be obtained from the manufacturer for each batch of PPC procured:
 - (i) The quality of fly ash is strictly as per IS-1489 (Part I) 2002
 - (ii) Fly ash is inter- ground with clinker not mixed with clinker.
 - (iii) Dry fly ash is transported in closed containers and stored in soils only pneumatic pumping is used.
 - (iv) The fly ash is received from thermal power plant using high temperature combustion above 1000°C
 - (v) The fly ash content in PPC is not more than 25%
- 1.3.2 The Contractor shall furnish the particulars of the manufacturer/ supplier of cement along with the date of manufacture to the Garrison Engineer for every lot of cement separately. The cement so brought shall be fresh and in no case older than 60days from the date of manufacture. The document in support of purchases of cement shall be verified by the Garrison Engineer. Before placing the order for supply of cement by the Contractor, he shall obtain written approval from the GE regarding name of manufacturer, quantity of cement etc. Cement shall be procured for minimum requirement of one month and not exceeding the requirement of the same for more than two months at a time. The cement shall be consumed in the work within three months after receipt. Cement shall conform to the requirement of Indian Standard Specification and each bag of cement shall bear relevant ISI mark. The weight of each consignment shall be verified by the GE and recorded. The content of cement shall be checked at random to verify the actual weight of cement per bag. However, the content of cement per bag shall be 50kgs only subject to tolerance given in clause 9.2.1.1 and Annexure-`B' of IS-8112-1989.

1.4 TESTING OF CEMENT

- The manufacturer shall carry out inspections and testing of cement in accordance with relevant BIS provisions. The Contractor shall submit the manufacturer's Test Certificate in original alongwith Test Sheets giving the result of each physical test as applicable and chemical composition of the cement in accordance with relevant IS provisions and the chemical composition of the cement or authenticated copy thereof duly signed by the manufacturer with each consignment, as per the following IS provisions:
- (a) Method of Sampling Hydraulic Cement as per IS-3535-1986
- (b) Method of Physical Tests for Hydraulic Cement as per IS-4031
- (c) Method of Chemical Analysis of Hydraulic Cement as per IS-4032-1985

The test certificate and test sheet shall be furnished with each batch of the manufacture. The Engineer-in-Charge shall record these details in the Cement Acceptance Register as given in Appendix-'A' to be maintained by him which will be signed by Supdt B/R Gde-I/JE (Civil), Engineer-in-Charge, Garrison Engineer and the Contractor as given in the format hereinafter for verification.

1.4.2.1 (a) The Contractor shall however, organise setting time and a compressive strength test of cement through designated laboratory on samples collected from the lot brought at site before incorporation in work. The Contractor will be allowed to use the cement only after satisfactory compressive strength of seven days to meet this requirement, Contractor is required to keep minimum 10days stock before any new lot brought at site which can be used in the work. The Contractor shall be required to remove the cement not meeting the requirement from the site within 24 hours. Seven days strength test will be relied upon to accept the lot of cement to commence the work. 28days compressive strength test will be the final criteria to accept/reject the lot.

APPENDIX - 'B' TO PARTICULAR SPECIFICATIONS (contd...)

- (b) The GE shall carry out independent testing as per the tests mentioned in the `CEMENT SUPPLY/ ACCEPTANCE FORM' of random samples of cement drawn from various lots, if sample fails in 7 days compressive strength. The testing shall be carried out through NATIONAL TEST HOUSE, SEMT wing CME, REGIONAL RESEARCH LABORATORIES IITs, GOVT Engineering Colleges, MES ZONAL LABORATORIES, National Institute of Technology as per BIS and as per test methods referred hereinbefore and shall be recorded in respective portion of Appendix-'C-1'. The decision as to where the testing of cement is to be done shall be taken by the GE. In case the cement is not of requisite standard despite manufacturer's test certificate, the Contractor shall remove the total consignment from the site at his own cost after written rejection order of the consignment by the GE. The cost of test shall be borne by the Contractor irrespective of the results of testing.
- (c) The random samples as per relevant IS shall be selected by the GE before carrying out testing. The random samples of cement to be tested shall be drawn as per MES Quality Assurance Manual. The record of such samples selected by the GE for testing shall be properly maintained in the `Cement Testing Register' giving cross reference to relevant consignment of cement and quantity received etc.
- (d) Cost of transportation of samples to the approved laboratory / test house and all testing charges including cost of sample shall be borne by the Contractor.
- **1.4.3** The Contractor shall be required to set up adequate testing facilities at site to the entire satisfaction of the Garrison Engineer for conducting 'Setting Time Test' and 'Compressive Strength Test' as per IS codes referred to hereinbefore for the samples collected from the lot brought at site. These tests shall be carried out within 7days of receipt of cement at site. The tests can alternatively be carried out at the Zonal Laboratory so designated by the GE.
- 1.4.4 The Contractor shall submit original purchase vouchers for the total quantity of cement supplied under each consignment to be incorporated in the works. 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 and defaced by the Engineer-in-Charge and kept on record in the office of GE 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 JE (Civil), Engineer-in-Charge, GE and the Contractor. The Contractor shall maintain schedule of supply of cement for each consignment.
- **1.4.5** The Accepting Officer may order a Board of Officers for random check of cement and verification of connected documents during the currency of contract.
- **1.4.6** For repair, maintenance and works where entire requirement of cement is less than 300bags, cement can be procured from authorised dealers of the firm listed hereinbefore.

1.5 STORAGE / ACCOUNTING / PRESERVATION OF CEMENT

- 1.5.1 Cement shall be stored in covered godown over dry platform at least 20cm high in such a manner as to prevent deterioration due to moisture or intrusion of foreign matters. In case of store rooms, the stack should be at least 20cm away from floors and walls. The stacking of cement shall be not more than 10bags and or done as specified in relevant IS. The storage, accounting and preservation of cement supplied by the Contractor shall be done as per standard engineer practice till the same is incorporated in the work and the cost of the same is deemed to be included in the unit rate/amount quoted by the tenderer. The EIC shall inspect once a day to verify that cement lying at site is stored, accounted, preserved and maintained as per the norms. The cement shall be stored so as to differentiate each tested and untested consignment separately with distinct identification. If the GE is not satisfied with the storage/ preservation of cement, he may order for any test(s) of cement as applicable for that consignment to ensure its conformity to the quality mentioned in the manufacturer's test certificate. The Contractor shall bear the cost of necessary testing(s) in this regard and no claim whatsoever shall be entertained.
- **1.5.2** Stacking of cement shall be done as per relevant IS and as under:
- (a) Each cement consignment shall be stacked separately and removal shall be made on the basis of `First in First out'.
- (b) Adequate top cover will be provided
- (c) Stacks in no case shall be higher than 10bags. The maximum width of each stack shall be 3.00m. If the stack is to be more than 7 or 8bags high, the bags shall be arranged in header and stretcher fashion, alternatively lengthwise and crosswise so as to tie the piles together and avoid danger of topping over.
- (d) Adequate space shall be kept between two stacks.

<u>APPENDIX - 'B' TO PARTICULAR SPECIFICATIONS</u> (contd...)

1.5.3 Cement godown shall be provided with two locks on each door. The key of one lock at each door shall remain with the EIC or his representative and that of the other lock with the Contractor's authorized agent at site of works so that cement is removed from the godown only according to daily requirement with the knowledge of both the parties. During the period of storage, if any cement bag(s) found to be in damaged condition due to whatsoever reason, the same shall be removed from the cement godownon written orders of the GE and suitable replacement for the cement bag(s) so removed shall be made and no claim whatsoever shall be admissible on this account.

- **1.5.4** Cement shall be removed from the store only according to daily requirement with the knowledge of both the parties and daily consumption of cement shall be recorded in cement consumption register which shall be signed by the Engineer-in-Charge and the Contractor. Cement constants given in Appendix `A' to E-in-C's branch letter No.19280/E8 dated 03 May 1976 shall form the basis of consumption of cement for various items of works unless indicated otherwise.
- **1.5.5** In case of consumption of cement as per cement consumption register is found to be more than the estimated quantity of cement due to whatsoever reason, the Contractor shall not have any claim whatsoever for such excess consumption of cement.

1.6 SCHEDULE OF SUPPLY

The Contractor shall procure the cement timely as required in accordance with CPM chart agreed between GE and himself. The Contractor will forfeit his right to demand extension of time if the supplies of cement get delayed due to his failure in placing order in time to the manufacturer.

1.7 DOCUMENTATION, MEASUREMENT AND PAYMENT OF CEMENT

- 1.7.1 The Contractor shall submit original vouchers from the supplier for the total quantity of cement supplied under each consignment to be incorporated in the work, all consignment received at the work site shall be inspected by the GE alongwith relevant documents received at the work site. The original vouchers and the test certificate shall be defaced by the Engineer in Charge and kept on record in the office of GE duly authenticated with cross reference to the control number recorded in cement acceptance register. This register shall be signed by the JE, Engineer in Charge, GE and the Contractor.
- **1.7.2** The Accepting Officer may order a Board of Officer for random check of cement and verification of connected documents. The entire quantity of cement shall also be suitably recorded in the Measurement Book for record purposes as `NOT TO BE ABSTRACTED' before incorporation in the work and shall be signed by the Engineer-in-Charge and the Contractor.
- 1.7.3 The payment shall only be allowed after production of original purchase voucher, certified copies of test certificates from manufacturer for each consignment and results of testing carried out in laboratory on receipt of cement (7days compressive test) are found satisfactory after testing as specified hereinbefore. Cement shall be paid as material lying at site under Condition 64 of IAFW-2249. Rate of cement given in SSR shall be applicable for cement irrespective of grade of cement specified for use in the work.

Signature of Contractor Date:

AGE (Contract)
For Accepting Officer

APPENDIX - 'C' TO PARTICULAR SPECIFICATIONS

APPENDIX - 'C'

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LIST OF APPROVED MAKES TO BE INCORPORATED IN WORK

S.NO	ITEMS	MAKES
1.	Factory made panelled	M/s Berar Timber Industries Pvt.Ltd. National Highway No.8,
	shutters and Glazed /	Village Saran, Valsad, Gujarat-396 001
	Skeleton / Wire Gauged	M/s Pioneer Timber Projects. 22, Madhya Marg, Sec. `C',
	Shutters	Chandigarh
		M/s Goyal Bros. Goyal House, Ramkund, Raipur-01
		M/s Betul Wood Products Pvt. Ltd. Industrial Estate, Betul -460
		022 (M.P.) (INDIA)
		M/s Egwood Electrical and General Industries. 1st floor, M.G.
		Secunderabad-500 003
		M/s Goyal Industrial Corpn. 8343, D.B. Gupta Marg, New Delhi
		110 005
		M/s Prince Timbers, Gulab Nagar, Outside Victoria Bridge, Jam
		Nagar-261001
		M/s Pioneer Wudbilt Pvt. Ltd. 3141, Sector 21-D, Chandigarh
		M/s Arkay Doors (P) Ltd. G-1/45 Shop No.24, Lawrence Rd.,
		Industrial Area, New Delhi - 110 035
		M/s Doorking Industries. 27, G.N. Block Sector-V, Industrial
		Estate, Salt Lake, Calcutta - 700 091
		Mehta Seaschem Wood Industries Pvt Ltd, Old Bunder Road,
		Near Ferri Naka Behind Sharda Timber Mart, Bhavnagar –
		364001
		MP Wood Products, 124, LabriyaBheru, Dhar Road, Indore –
		452 002 (MP), Tele Fax: 0731-4057401, Mobile:098260
		45000, 98270 24211
		M/s Jain Doors Pvt Ltd., Kundli Industrial Area. Distt. Sonepet
		M/s VPRP ART, H-399, Mini Growth Centre Phase-II
		Sangaviya, Jodhpur.
		M/s A1 Teak Products Indoor
2.	Factory made PVC door	M/s Sintex Industries Ltd., Plastic Division, Kalol, N Gujarat-
	frames& shutters.	382 721,
		M/s RajshreePalstiwood Ltd., 10/1 South Tukoganj, Kanchan
		Baug Road, Indore,
		M/s Accucell,
		M/s Ercon Plastic Industries, P-7, Industrial Estate, Jodhpur-34
3.	Wood based partitions	Novopan, Bhutan Board, Green Ply, Mangalore, Mysore &
4	Doob two hold average is a	Chipboard.
4.	Dash tru-hold expansion fasteners	Dash Fasteners Pvt. Ltd. C-16, South Extension Part II, New Delhi,
	1031611613	M/s Mon Traders. C-16, Tardeo Air-conditioned Market,
		Bombay – 34
5.	Rolling shutters & collapsible	M/s Shaparia Dock And Steel Co. Pvt. Ltd.
] .	gates	M/s Swastik Rolling Shutters And Engineer Works
	Jacos	M/s Sentinal Rolling Shutters & Engineering Co.
		M/s Shalimar Rolling Shutters
		M/s Darshan Rolling Shutters, Panchvati, Nasik
		M/s Ajanta Engineering Works, Pune
		M/s Shiv Shakti Engineering, Pune
6.	Mortice locks	Harrison, RP Lock Co., New Delhi, Godrej & Boyce Co Ltd.,
.		Mumbai
7.	Hydraulic Door Closers	Everlite, Prabhat, Everest, Universal, Jai Engineering
<u> </u>	r.,	

PARTICULAR SPECIFICATIONS (Contd....)

S.NO	ITEMS	MAKES
8.		Modiguard, Saint-Gobain, Haryana Sheet glass
9.	MS Sheet	TATA, Jindal, SAIL
10.	Aluminium sections	Indal / Jindal / Everlite
11.	Drapery rod	Vista
12.		Argent Industries, Crown Industries, Mech India, Nu-Lite
	<u> </u>	Industries, Perfect Fabricators
13.	Gypsum Based ceiling	Gypsum board, Arm stong, Ramco, Bisan
14.	Aluminum sections for false	Jindal, Indal, Hindalco
	ceiling	
15.	Venetian Blinds	Trac, Kurlon, MAC
16.	Laminated sheets	Sungloss, Formica, Sunmica, Hollywood
17.	Particle board & Pre-	Anchor, Kitply, Century, Diamond, Archidply, Novopan, Deco
	aminated particle board	board.
18	Pre moulded non bituminous	Elcon, Dura Board HD-100
	oint filler board	
19	Pre moulded bituminous	STP Ltd, Tikitar Industries Ltd, Capital Steel and Chemicals
	oint filler board	Ltd, Garlex Joint Filler by M/s Garlick& Co Pvt Ltd
20	AC sheets and ridges	Charminar, Everest, UP Asbestos, Rohtas Industries, Swastik,
		Ramco, Visakha Industries.
21	AC rain water pipes	Everest, Rajasthan Asbestos Cement, Hyderabad Asbestos
		Cement, India Asbestos Products, Rohtas, Sarbamangala.
22		Easy Plast from Wall Plast, Chemplast, Ready Plast from Ultra
		Tech
23	· · · · · · · · · · · · · · · · · · ·	Bajaj, Sunflower, Faber, Butterfly
24		Nirali, Blue Star, Prayag (Gold Range, Silver Gange&
	marked	Solitaire), JAYNA, Impex Sanitation (Marlex/AMC/Simpex)
25	EWC, IWC, Wash Hand	NeycerKermag (Standard), Hindware,
23	Basin, Urinal, Flushing	, Parryware (Super Fine), Cera (Ist
		Quality), Jaguar, Johnson
	china Sanitary ware	
26	Towel Rails	Crown, Jindal, EssEss
27		Commander (Champion), Parryware (Slimline), Cera, JINDAL,
	1	SARAL Slimtouch (RiddiSiddi)
28	Seat and cover for WC	Commander, Parryware, Cera, Necycer, Johnson
29	CP Fancy bib taps, stop	Jaquar, Marc, Kohler
	valves and pillar taps	
29A		SEICO, GEM, ZOLOTO, PARKO, ESSCO
	and pillar taps (other than	·
<u></u>	fancy type)	
30	PVC toilet cabinet	Commander, Jasmine, CiplaPlast
31	Hot & cold water supply	M/s Jaquar, M/s L&K, M/s Crabtree
<u></u>	fittings	
32		Atul, Kohinoor, Swastik, Golden Fish
32A	UPVC (SWR) Pipes and	KISAN, PRINCE, SUPREME
	Fittings	
		

PARTICULAR SPECIFICATIONS (Contd....)

S.NO	ITEMS	MAKES
	CHEMICALS/ WATER PROC	_
33	Chemical for anti-termite	Montari Industries Ltd., 78, Nehru Place, New Delhi - 110 019
	treatment for structures	4-H Clubs (India), 487 A, Gandhi Nagar, Jammu-04
	(Chloropyrifos) (20	TRISHUL bearing ISI Mark confirming to IS specifications` M/s
	EC)	Dara Chemicals Industries Ltd, D-3, Lajpat Nagar-01, New
		Delhi- 24
		DURSBAN TC' manufactured by DENOCIL marketed at
		Mumbai by DE-NOCIL Corporation Protection Ltd, Ist& 2 nd
		Floor, Pirojshah Nagar, Eastern Express Highway, Vikroli
		(East), Mumbai -79
		M/S Kanonia Chemicals & Industries Ltd., P O Renukoot –
		231217, District – Sonebhada (UP)
		M/S India Pesticides Ltd , E-17 to 23, UOSIDC industrial Area,
		Deva Road ,Chinhal, Lucknow (UP)-227105.
		M/s. Dara Chemicals Industries Ltd, D-3, Lajpat Nagar-01, New
0.4	100	Delhi
34	Water proofing compound	Pidilite Industries Ltd., Taloja, Raigad District, Super Aquacem (India) Ltd., New Delhi
		M/s Krishna Conchem Products Pvt Ltd
		STP Ltd
		SICO No 1, IMPERMO EXCOT, MS Bauchemimic (India) Pvt
		Ltd
	FLOORING/ TILING	
35	Cement tiles/Terrazzo tiles	(i) M/s Bharat Tiles & Marble Pvt Ltd.
		(ii) M/s National Tiles & Industries Pvt Ltd.
		(iii) M/s Kajaria Tiles Pvt Ltd.
		(iv) M/s Nitco Tiles
		(v) M/s Somani Tiles
		(vi) M/s VITCO Tiles, Mumbai
		M/s Ultra Tiles
36	Glazed earthen ware /	(i) Johnson Tiles
		(ii) Somani Tiles
	cut) tiles}	(iii) Neycer Tiles
		(iv) Asian Granito India Ltd
		(v) Nitco Tiles
		(vi) Kajaria Tiles
		(vii) Orient Bell (viii) RAK ceramics
37	Vitrified Tiles	(i) Johnson tiles
"	Vicinios Filos	(ii) Somani Tiles
		(iii) Asian Granito India Ltd
		(iv) Regency
		(v) NITCO Tiles
		(vi) Kajaria
		(vii) Orient Bell
		(viii) RAK ceramics
20	A oid registerst Tiles	(i) Johnson Tilos
38	Acid resistant Tiles	(i) Johnson Tiles (ii) Somani Tiles
		(ii) Somani Tiles (iii) Kajaria Tiles
	-	(iv) Orient Bell
39	Inter locking tiles /Paver	(i) Super tiles & marble Pvt Ltd, Dadar (E), Mumbai -14
39	Blocks	(ii) ACME Floor (s) Tiles Mfg Co, Maulana Azad Road,
		Mumbai – 04
		(iii) Vipurva tiles & Pavers Andheri (W), Mumbai – 53
		(iv) Vitco Pavers & Tiles, Thane (W)
		(v) M/s Ultra Tiles
		N /

PARTICULAR SPECIFICATIONS (Contd....)

S.NO	ITEMS	MAKES
40	Primer	For Wood: Pink primer from asian paints, Nerolac, Shalimar,
		J & N, Berger Synthetic Enamel
41	Synthetic enamel paint	Berger Paints (Luxol high gloss), GoodlassNerolac (Nerolac), Asian Paints (Apcolite Premium), Dulux Gloss 5 in 1
42	Anti corrosive paint on structural steel	Asian Paints, Nerolac, Berger, Dulux
43	Cement Base Paint	SUPER SNOWCEM, DURGOCEM, SILVOCEM, AQUACEM
44	Acrylic emulsion paints (interior)	Berger Paints (Rangoli Acrylic emulsion), Asian Paints (Premium emulsion), Nerolac Paints (Beauty Gold acrylic emulsion), ICI Dulux (Super smooth acrylic emulsion)
45	Acrylic exterior antifungal paints	Asian Paint (Apex) Berger Paint (Weather coat all guard emulsion), Dulux (Weather shield max / Ultra clean emulsion) Nerolac (Excel anti peel emulsion)
46	Dry/ Oil bound distempers and emulsions	Asian Piants (Tractor acrylic distemper), Nerolac Paints (Beauty premium acrylic distemper), Berger Paints (Bison acrylic distemper), Shalimar Paints, Jenson & Nicholson (Jensolin acrylic distemper), ICI (Maxilite acrylic distemper)
47	Colour anodizing for Aluminium sections	Conpaptex, Vadodara, Krishna Metal industries, Mumbai, Mansi Chemicals, Ahemdabad, Anad Tech Process, Bengaluru
48	Putty	Gold Mohar, Diamond Paints, New Delhi, UK Paint Industries, New Delhi
49	Hot applied thermo plastic road marking paint (As per cl 803.4 of MORTH)	M/s Shivalik Primo India Pvt Ltd, New Delhi, Asian Paints Ltd , SHALIMARK, STP Ltd,
50	APP membrane	Texas, STP, IWL, Hydrotech, Tikitar Danosa (India) Pvt Ltd, Pidilite Industries Ltd, Mumbai
51	Epoxy Coating to Reinforcement	PSL ltd, Zary Causeway, Kachigam, Daman(UT)
52	Bituminous Sealing Compound	STP Ltd, SN Industries, Tikitar
53	ERW pipes	Jindal, Tata, BST
54	Polycarbonate Sheet	M/s VM Plastic Sunlite Polycarbonate/M/s Rajmohan Roll Forming Pvt Ltd., VMI Plastic Pvt Ltd –New Delhi, M/s Everest Industries Ltd
55	Pre-painted galvalume sheet	JSW Ispat Steel Ltd-Mumbai, Shiv Shakti FibreUdyog, M/s Everest Industries Ltd
56	FRP Door	Delux, Polyfab, Advance Marketing, SaiSwarnaFibre Plast, Pune, OMEGA Fibres, Goa
57	Acrylic emulsion sealent	Araidite, Elastseal or equivalent as approved by GE.
	ELECTRICAL ITEMS	
58	Power Transfomer 33/11 KV	CROMPTON GREAVES, ANDREW YULE, BHEL, SCHNEIDER, BHARAT BIJLEE, INDO TECH TRANSFORMER
59	Transformer 11 KV/ 415 Volts	BHEL, KIRLOSKAR, CROMPTON GREAVES, SCHNEIDER, ABB, ANDREW YULE, BHARAT BIJLEE, VOLTAMP, PACTIL, GE ENERGY, INDOTECH TRANSFORMER
60	Isolation Transformers	PUREVOLT, CONSUL, ADROIT

PARTICULAR SPECIFICATIONS (Contd....)

61 GOD (Gang Operated Device), 11 KV and above 62 HT Switch gear 33 KV, VCB (Out Door) 63 HT Switch gear 11 KV, VCB (Indoor/Outdoor) 64 HT Switch gear protection relay electronics 65 HT Trivector Meter 66 HT Ring main unit, SF6, 11 KV ABB, SIEMENS, CROMPTON GREAVES, SCHNEIDER, BIECCO LAWRIE LIMITED, PASCAI Care. 67 Package/unified Sub-Station 68 HT Cable joints heat shrinkable/cold shrinkable/push on type 69 CT & PT, 11 KV/33 KV 70 HT 33 KV/11 KV XLPE Cables 71 Disc Insulator/Pin Insulator 11 KV and 33 KV ratings 72 HT/LT Steel tubular swaged pole 74 DISC Insulator/Pin Insulator 11 (RAIGARH), INDIA ELECTRIC POLES MFG CO (BARODA) 74 DISC Insulator/Pin Insulator 11 (RAIGARH), INDIA ELECTRIC POLES MFG CO (BARODA) 75 HT/LT Steel tubular swaged pole 76 HT/LT Steel tubular swaged pole 77 DISC Insulator/Pin Insulator 11 (RAIGARH), INDIA ELECTRIC POLES MFG CO LTD (RAIGARH), INDIA ELECTRIC POLES MFG CO (BARODA)	DER DER DER IDERA & R HT BLES
62 HT Switch gear 33 KV, VCB (Out Door) 63 HT Switch gear 11 KV, VCB (Indoor/Outdoor) 64 HT Switch gear protection relay electronics 65 HT Trivector Meter 66 HT Ring main unit, SF6, 11 KV 67 Package/unified Sub-Station 68 HT Cable joints heat shrinkable/cold shrinkable/push on type 69 CT & PT, 11 KV/33 KV 70 HT 33 KV/11 KV XLPE Cables 71 Disc Insulator/Pin Insulator 11 KV and 33 KV ratings 72 HT/LT Steel tubular swaged pole 68 HT Switch gear 11 KV, VCB BHEL, ABB, SIEMENS, CROMPTON GREAVES, SCHNEIDER, Care. 8 BHEL, ABB, SIEMENS, CROMPTON GREAVES, SCHNEIDER, Care. 9 CT & PT, 11 KV/33 KV 9 CASHON GREAVES, SCHNEIDER, CARNEIDER, CARNEIDER	DER DER DER IDERA & R HT BLES
(Out Door) 63 HT Switch gear 11 KV, VCB (Indoor/Outdoor) 64 HT Switch gear protection relay electronics 65 HT Trivector Meter 66 HT Ring main unit, SF6, 11 KV 67 Package/unified Sub-Station 68 HT Cable joints heat shrinkable/cold shrinkable/push on type 69 CT & PT, 11 KV/33 KV 70 HT 33 KV/11 KV XLPE Cables 71 Disc Insulator/Pin Insulator 11 KV and 33 KV ratings 72 HT/LT Steel tubular swaged pole 63 HT Switch gear 11 KV, VCB BHEL, ABB, SIEMENS, CROMPTON GREAVES, CHNEIDER, Care. 84 HT Switch gear protection relay BHEL, ABB, SIEMENS, CROMPTOLL, ABB, SCHNEIDER, Care. 85 HT Switch gear protection relay BHEL, ABB, SIEMENS, CROMPTOLL, ABB, SCHNEIDER, Care. 86 HT Ring main unit, SF6, 11 KV 86 HT Ring main unit, SF6, 11 KV 87 ABB, SIEMENS, CROMPTON GREAVES, SCHNEIDER, CROMPTON GREAVES, SCHNEIDER, ABB, SIEMENS, CROMPTON GREAVES, SCHNEIDER, CROMPTON GREAVES, SCHNEIDER, ABB, SIEMENS, CROMPTON GREAVES, SCHNEIDER, CROMPTON GREAV	DER DER DER IDERA & R HT BLES
63 HT Switch gear 11 KV, VCB (Indoor/Outdoor) BHEL, ABB, SIEMENS, CROMPTON GREAVES, SCHNEIDER, BIECCO LAWRIE LIMITED, PASCAL Care. 64 HT Switch gear protection relay electronics 65 HT Trivector Meter 66 HT Ring main unit, SF6, 11 KV 67 Package/unified Sub-Station 68 HT Cable joints heat shrinkable/cold shrinkable/push on type 69 CT & PT, 11 KV/33 KV PRAGATI, AE, KAPPA, SCHNEIDER, L&T (AS PERPANEL MANUFACTURERS DESIGN) 70 HT 33 KV/11 KV XLPE Cables 71 Disc Insulator/Pin Insulator 11 KV and 33 KV ratings 72 HT/LT Steel tubular swaged pole MIT Switch gear 11 KV, VCB BHEL, ABB, SIEMENS, CROMPTON GREAVES, CHNEIDER, Care. ASHIDA, EASUN REYROLL, ABB, SCHNEIDER, Care. MEGAWIN, L&T SECURE, L&T, ABB (ELSTER), SCHLUMBERGER ABB, SIEMENS, CROMPTON GREAVES, CHNEIDER, Care. ABB, SIEMENS, CROMPTON GREAVES, SCHNEIDER, CROMPTON GREAVES, SCHNEIDER, CARDEN, CROMPTON GREAVES, SCHNEIDER, CARDEN, CROMPTON GREAVES, SCHNEIDER, CARDEN, CROMPTON GREAVES, SCHNEIDER, CARDEN, MAHINDERA RAYCHEM, M-SEAL, DENSON, BIRLA 3M, MAHIN MAHINDERA MAHINDERA PRAGATI, AE, KAPPA, SCHNEIDER, L&T (AS PERPANEL MANUFACTURERS DESIGN) UNIVERSAL CABLES (UNISTAR), KEI, ASIAN CARDEN, CI (TROPODOUR) BHEL, WS INSULATORS, JAYSHREE, SOUTHER INSULATOR, MODERN INSULATOR, YAMUNA POLENSON) NATIONAL TUBING CO. KANPUR, SOHAN LAL & QUALITY STEELS, BHARAT CONDUIT & POLES (MUMBAI, INDIA ELECTRIC POLES MFG CO LTD (RAIGARH), INDIA TUBE CO LTD (JAMNAGAR),	DER DER DER IDERA & R HT BLES
(Indoor/Outdoor) SCHNEIDER, BIECCO LAWRIE LIMITED, PASCAL Care. 64 HT Switch gear protection relay electronics 65 HT Trivector Meter 66 HT Ring main unit, SF6, 11 KV 67 Package/unified Sub-Station 68 HT Cable joints heat shrinkable/cold shrinkable/push on type 69 CT & PT, 11 KV/33 KV PRAGATI, AE, KAPPA, SCHNEIDER, L&T (AS PEFPANEL MANUFACTURERS DESIGN) 70 HT 33 KV/11 KV XLPE Cables VINIVERSAL CABLES (UNISTAR), KEI, ASIAN CAFR (RPG), CCI (TROPODOUR) TO Disc Insulator/Pin Insulator 11 KV and 33 KV ratings FAMILIA SHAPA (RPG), CCI (TROPODOUR) TO HT/LT Steel tubular swaged pole WINIVERSAL CABLES (UNISTAR), KEI, ASIAN CAFR (RPG), CCI (TROPODOUR) TO HT/LT Steel tubular swaged pole WINIVERSAL CABLES (UNISTAR), KEI, ASIAN CAFR (RPG), CCI (TROPODOUR) WINIVERSAL CABLES (UNISTAR), KEI, ASIAN CAFR (RPG), CCI (TROPODOUR) WINIVERSAL CABLES (UNISTAR), KEI, ASIAN CAFR (RPG), CCI (TROPODOUR) WINIVERSAL CABLES (UNISTAR), KEI, ASIAN CAFR (RPG), CCI (TROPODOUR) WINIVERSAL CABLES (UNISTAR), KEI, ASIAN CAFR (RPG), CCI (TROPODOUR) WINIVERSAL CABLES (UNISTAR), KEI, ASIAN CAFR (RPG), CCI (TROPODOUR) WINIVERSAL CABLES (UNISTAR), KEI, ASIAN CAFR (RPG), CCI (TROPODOUR) WINIVERSAL CABLES (UNISTAR), KEI, ASIAN CAFR (RPG), CCI (TROPODOUR) WINIVERSAL CABLES (UNISTAR), KEI, ASIAN CAFR (RPG), CCI (TROPODOUR) WINIVERSAL CABLES (UNISTAR), KEI, ASIAN CAFR (RPG), CCI (TROPODOUR) WINIVERSAL CABLES (UNISTAR), KEI, ASIAN CAFR (RPG), CCI (TROPODOUR) WINIVERSAL CABLES (UNISTAR), KEI, ASIAN CAFR (RPG), CCI (TROPODOUR) WINIVERSAL CABLES (UNISTAR), KEI, ASIAN CAFR (RPG), CCI (TROPODOUR) WINIVERSAL CABLES (UNISTAR), KEI, ASIAN CAFR (RPG), CCI (TROPODOUR) WINIVERSAL CABLES (UNISTAR), KEI, ASIAN CAFR (RPG), CCI (TROPODOUR) WINIVERSAL CABLES (UNISTAR), KEI, ASIAN CAFR (RPG), CCI (TROPODOUR) WINIVERSAL CABLES (UNISTAR), KEI, ASIAN CAFR (RPG), CCI (TROPODOUR)	DER DER DER IDERA & R HT BLES
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electronics MEGAWIN, L&T SECURE, L&T, ABB (ELSTER), SCHLUMBERGER SECURE, L&T, ABB (ELSTER), SCHLUMBERGER ABB, SIEMENS, CROMPTON GREAVES, SCHNEI RAYCHEM, M-SEAL, DENSON, BIRLA 3M, MAHIN MAHINDERA PRAGATI, AE, KAPPA, SCHNEIDER, L&T (AS PERPANEL MANUFACTURERS DESIGN) TO HT 33 KV/11 KV XLPE Cables WINIVERSAL CABLES (UNISTAR), KEI, ASIAN CARRES (RPG), CCI (TROPODOUR) TO Disc Insulator/Pin Insulator 11 KV and 33 KV ratings BHEL, WS INSULATORS, JAYSHREE, SOUTHER INSULATOR, MODERN INSULATOR, YAMUNA PO (DENSON) TO HT/LT Steel tubular swaged pole WATIONAL TUBING CO. KANPUR, SOHAN LAL & QUALITY STEELS, BHARAT CONDUIT & POLES (MUMBAI, INDIA ELECTRIC POLES MFG CO LTD (RAIGARH), INDIA TUBE CO LTD (JAMNAGAR),	DER DER IDERA & R HT BLES
electronics MEGAWIN, L&T SECURE, L&T, ABB (ELSTER), SCHLUMBERGER SECURE, L&T, ABB (ELSTER), SCHLUMBERGER ABB, SIEMENS, CROMPTON GREAVES, SCHNEI RAYCHEM, M-SEAL, DENSON, BIRLA 3M, MAHIN MAHINDERA PRAGATI, AE, KAPPA, SCHNEIDER, L&T (AS PERPANEL MANUFACTURERS DESIGN) TO HT 33 KV/11 KV XLPE Cables WINIVERSAL CABLES (UNISTAR), KEI, ASIAN CARRES (RPG), CCI (TROPODOUR) TO Disc Insulator/Pin Insulator 11 KV and 33 KV ratings BHEL, WS INSULATORS, JAYSHREE, SOUTHER INSULATOR, MODERN INSULATOR, YAMUNA PO (DENSON) TO HT/LT Steel tubular swaged pole WATIONAL TUBING CO. KANPUR, SOHAN LAL & QUALITY STEELS, BHARAT CONDUIT & POLES (MUMBAI, INDIA ELECTRIC POLES MFG CO LTD (RAIGARH), INDIA TUBE CO LTD (JAMNAGAR),	DER DER IDERA & R HT BLES
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66 HT Ring main unit, SF6, 11 KV 67 Package/unified Sub-Station 68 HT Cable joints heat shrinkable/cold shrinkable/push on type 69 CT & PT, 11 KV/33 KV 70 HT 33 KV/11 KV XLPE Cables 71 Disc Insulator/Pin Insulator 11 KV and 33 KV ratings 72 HT/LT Steel tubular swaged pole 73 Package/unified Sub-Station ABB, SIEMENS, CROMPTON GREAVES, SCHNEI BAYCHEM, M-SEAL, DENSON, BIRLA 3M, MAHIN MAHINDERA PRAGATI, AE, KAPPA, SCHNEIDER ASYCHEM, MAHINDERA UNIVERSAL CABLES (UNISTAR), KEI, ASIAN CAE (RPG), CCI (TROPODOUR) PRAGATI, AE, KAPPA, SCHNEIDER ASYCHEM, MAHINDERA NATIONAL TUBING CO. KANPUR, SOHAN LAL & QUALITY STEELS, BHARAT CONDUIT & POLES (MUMBAL), INDIA TUBE CO LTD (JAMNAGAR),	DER DER IDERA & R HT BLES
67 Package/unified Sub-Station 68 HT Cable joints heat shrinkable/cold shrinkable/push on type 69 CT & PT, 11 KV/33 KV PRAGATI, AE, KAPPA, SCHNEIDER, L&T (AS PERPANEL MANUFACTURERS DESIGN) 70 HT 33 KV/11 KV XLPE Cables UNIVERSAL CABLES (UNISTAR), KEI, ASIAN CARRES (RPG), CCI (TROPODOUR) 71 Disc Insulator/Pin Insulator 11 KV and 33 KV ratings BHEL, WS INSULATORS, JAYSHREE, SOUTHER INSULATOR, MODERN INSULATOR, YAMUNA PO (DENSON) 72 HT/LT Steel tubular swaged pole WATIONAL TUBING CO. KANPUR, SOHAN LAL & QUALITY STEELS, BHARAT CONDUIT & POLES (MUMBAI, INDIA ELECTRIC POLES MFG CO LTD (RAIGARH), INDIA TUBE CO LTD (JAMNAGAR),	DER IDERA & R HT BLES
68 HT Cable joints heat shrinkable/cold shrinkable/push on type 69 CT & PT, 11 KV/33 KV PRAGATI, AE, KAPPA, SCHNEIDER, L&T (AS PERPANEL MANUFACTURERS DESIGN) 70 HT 33 KV/11 KV XLPE Cables (RPG), CCI (TROPODOUR) 71 Disc Insulator/Pin Insulator 11 KV and 33 KV ratings (DENSON) 72 HT/LT Steel tubular swaged pole NATIONAL TUBING CO. KANPUR, SOHAN LAL & QUALITY STEELS, BHARAT CONDUIT & POLES (MUMBAI, INDIA ELECTRIC POLES MFG CO LTD (RAIGARH), INDIA TUBE CO LTD (JAMNAGAR),	R HT BLES
shrinkable/cold shrinkable/push on type 69 CT & PT, 11 KV/33 KV PRAGATI, AE, KAPPA, SCHNEIDER, L&T (AS PERPANEL MANUFACTURERS DESIGN) 70 HT 33 KV/11 KV XLPE Cables UNIVERSAL CABLES (UNISTAR), KEI, ASIAN CARRED, CCI (TROPODOUR) 71 Disc Insulator/Pin Insulator 11 KV and 33 KV ratings BHEL, WS INSULATORS, JAYSHREE, SOUTHER INSULATOR, MODERN INSULATOR, YAMUNA PODENSON) 72 HT/LT Steel tubular swaged pole UALITY STEELS, BHARAT CONDUIT & POLES OMUMBAI, INDIA ELECTRIC POLES MFG CO LTD (RAIGARH), INDIA TUBE CO LTD (JAMNAGAR),	R HT BLES
on type 69 CT & PT, 11 KV/33 KV PRAGATI, AE, KAPPA, SCHNEIDER, L&T (AS PERPANEL MANUFACTURERS DESIGN) 70 HT 33 KV/11 KV XLPE Cables UNIVERSAL CABLES (UNISTAR), KEI, ASIAN CARRED, CCI (TROPODOUR) 71 Disc Insulator/Pin Insulator 11 KV and 33 KV ratings BHEL, WS INSULATORS, JAYSHREE, SOUTHER INSULATOR, MODERN INSULATOR, YAMUNA PO (DENSON) 72 HT/LT Steel tubular swaged pole NATIONAL TUBING CO. KANPUR, SOHAN LAL & QUALITY STEELS, BHARAT CONDUIT & POLES (MUMBAI, INDIA ELECTRIC POLES MFG CO LTD (RAIGARH), INDIA TUBE CO LTD (JAMNAGAR),	BLES N
69 CT & PT, 11 KV/33 KV PRAGATI, AE, KAPPA, SCHNEIDER, L&T (AS PERPANEL MANUFACTURERS DESIGN) 70 HT 33 KV/11 KV XLPE Cables UNIVERSAL CABLES (UNISTAR), KEI, ASIAN CARRED, CCI (TROPODOUR) 71 Disc Insulator/Pin Insulator 11 KV and 33 KV ratings BHEL, WS INSULATORS, JAYSHREE, SOUTHER INSULATOR, MODERN INSULATOR, YAMUNA PO (DENSON) 72 HT/LT Steel tubular swaged pole UNIVERSAL CABLES (UNISTAR), KEI, ASIAN CARRED, CCI (TROPODOUR) BHEL, WS INSULATORS, JAYSHREE, SOUTHER INSULATOR, MODERN INSULATOR, YAMUNA PO (DENSON) NATIONAL TUBING CO. KANPUR, SOHAN LAL & QUALITY STEELS, BHARAT CONDUIT & POLES (MUMBAI, INDIA ELECTRIC POLES MFG CO LTD (RAIGARH), INDIA TUBE CO LTD (JAMNAGAR),	BLES N
PANEL MANUFACTURERS DESIGN) TO HT 33 KV/11 KV XLPE Cables UNIVERSAL CABLES (UNISTAR), KEI, ASIAN CARRED, CCI (TROPODOUR) TO Disc Insulator/Pin Insulator 11 KV and 33 KV ratings BHEL, WS INSULATORS, JAYSHREE, SOUTHER INSULATOR, MODERN INSULATOR, YAMUNA PO (DENSON) TO HT/LT Steel tubular swaged pole NATIONAL TUBING CO. KANPUR, SOHAN LAL & QUALITY STEELS, BHARAT CONDUIT & POLES (MUMBAI, INDIA ELECTRIC POLES MFG CO LTD (RAIGARH), INDIA TUBE CO LTD (JAMNAGAR),	BLES N
70 HT 33 KV/11 KV XLPE Cables UNIVERSAL CABLES (UNISTAR), KÉI, ASIAN CAR (RPG), CCI (TROPODOUR) 71 Disc Insulator/Pin Insulator 11 KV and 33 KV ratings BHEL, WS INSULATORS, JAYSHREE, SOUTHER INSULATOR, MODERN INSULATOR, YAMUNA PO (DENSON) 72 HT/LT Steel tubular swaged pole NATIONAL TUBING CO. KANPUR, SOHAN LAL & QUALITY STEELS, BHARAT CONDUIT & POLES (MUMBAI, INDIA ELECTRIC POLES MFG CO LTD (RAIGARH), INDIA TUBE CO LTD (JAMNAGAR),	N
(RPG), CCI (TROPODOUR) 71 Disc Insulator/Pin Insulator 11 KV and 33 KV ratings BHEL, WS INSULATORS, JAYSHREE, SOUTHER INSULATOR, MODERN INSULATOR, YAMUNA PO (DENSON) 72 HT/LT Steel tubular swaged pole NATIONAL TUBING CO. KANPUR, SOHAN LAL & QUALITY STEELS, BHARAT CONDUIT & POLES (MUMBAI, INDIA ELECTRIC POLES MFG CO LTD (RAIGARH), INDIA TUBE CO LTD (JAMNAGAR),	N
71 Disc Insulator/Pin Insulator 11 KV and 33 KV ratings BHEL, WS INSULATORS, JAYSHREE, SOUTHERI INSULATOR, MODERN INSULATOR, YAMUNA PO (DENSON) 72 HT/LT Steel tubular swaged pole NATIONAL TUBING CO. KANPUR, SOHAN LAL & QUALITY STEELS, BHARAT CONDUIT & POLES (MUMBAI, INDIA ELECTRIC POLES MFG CO LTD (RAIGARH), INDIA TUBE CO LTD (JAMNAGAR),	
KV and 33 KV ratings INSULATOR, MODERN INSULATOR, YAMUNA PO (DENSON) 72 HT/LT Steel tubular swaged pole NATIONAL TUBING CO. KANPUR, SOHAN LAL & QUALITY STEELS, BHARAT CONDUIT & POLES (MUMBAI, INDIA ELECTRIC POLES MFG CO LTD (RAIGARH), INDIA TUBE CO LTD (JAMNAGAR),	
(DENSON) 72 HT/LT Steel tubular swaged pole NATIONAL TUBING CO. KANPUR, SOHAN LAL & QUALITY STEELS, BHARAT CONDUIT & POLES (MUMBAI, INDIA ELECTRIC POLES MFG CO LTD (RAIGARH), INDIA TUBE CO LTD (JAMNAGAR),	- v v L I \
72 HT/LT Steel tubular swaged pole NATIONAL TUBING CO. KANPUR, SOHAN LAL & QUALITY STEELS, BHARAT CONDUIT & POLES (MUMBAI, INDIA ELECTRIC POLES MFG CO LTD (RAIGARH), INDIA TUBE CO LTD (JAMNAGAR),	,,,,
pole QUALITY STEELS, BHARAT CONDUIT & POLES (MUMBAI, INDIA ELECTRIC POLES MFG CO LTD (RAIGARH), INDIA TUBE CO LTD (JAMNAGAR),	SONS.
(RAIGARH), INDIA TUBE CO LTD (JAMNAGAR),	
JAIBHARAT POLES MFG & ENGRS CO (BARODA	
	,
73 HT/LT PCC Poles SATHE CEMENT VASTU NIRMITI PUNE, DEVANO	
FENCE THANE, VAIBHAV CEMENT PRODUCT PU	JNE,
AKAT COMPANY MUMBAI	
74 Bus Bar Trunking L&T/SIEMENS/SCHNEIDER/ABB/GE/LEGRAND 75 Lightning Arrestor non-linear OBLUM/ELPRO/ATLAS/PACTIL/CROMPTON	
resistor type GREAVES/SCHNEIDER/BHEL 76 LT Panels SIEMENS/CROMPTON GREAVES/L&T/ABB/SUDF	D
ADLEC, UNILEC, NEPTUNE, JAKSON MILESTON	
TRICOLITE, ADHUNIK SWITCH GEAR,	_,
CPRI APPROVED MANUFACTURER/ISO 900	1
CERTIFIED / UNIVERSAL SWITCHGEAR CON	NTROL.
77 LT AIR CIRCUIT BREAKER L&T/ABB/GE/SIEMENS/BCH/LEGRAND/SCHNEID	ER/
PREMIUM : LEGRAND (DPX), SIEMENS	
78 MCCB (SENTREN)/HAVELLS,	
70 ACP (Drowout type) ACP COUNTIDED HAVELLO	
79 ACB (Drawout type) GE, SCHNEIDER, HAVELLS, 80 Contactor SIEMENS, ABB, L&T, GE, SCHNEIDER	
80 Contactor SIEMENS, ABB, L&T, GE, SCHNEIDER MCB/RCBO/RCCB/DB/Isolators LEGRAND (LEXIC), SIEMENS	
(BETAGUARD), SCHNEIDER (MG-MULTI-9), ABB	
(BETACOARD), SOTINGIBLITIES), ADD	
81 Prewired DB HAVELLS/LEGRAND/L&T/SIEMENS/ABB	
82 Voltmeter/Ammeter/Frequency AE, IMP, L&T (RISHAB), HAVELLS, BENTEC, TTL	ı
meter/Meters/ PF Meter TECHNOLOGIES	
(Analog Type)	

PARTICULAR SPECIFICATIONS (Contd....)

S.NO	ITEMS	MAKES
	Voltmeter/Ammeter/Frequency	ENERCON, DIRIS, DUCATI, L&T (RISHAB), TRINITY, RAAS,
	meter/PF Meter (Digital Type)	CONCORD, CONTROL & SWITCH GEAR, AE, SECURE, TTL
		TECHNOLOGY.
84	Selector Switch	SIEMENS, SULZER, KAYCEE
85	Street light timers	L&T, LEGRAND, GE, BAJAJ, SIEMENS, ABB, BCH.
86	LT Cables, 1100 Volts, XLPE	ASIAN CABLES (RPG), UNIVERSAL CABLES (UNISTAR), KEI,
		ELECTRON, CCI (TROPODOUR), FINOLEX, FORT GLOSTER,
		POLYCAB
87	Change over Switches	L&T, SIEMENS, CROMPTON GREAVES, GE, HAVELLS
88	Tamper proof electronic meter	SECURE, L&T, ANCHOR, ACCURATE METERS, HAVELLS,
	(a) Voltage Stabilizers 5 KVA to	SINETRAC, BRENTFORD, VINITEC, AE, MICROTECH
	25 KVA	VINITEC CINETRAC MICROTECH CAR DOWED WARE V
	(b) Voltage Stabilizers upto 4 KVA	VINTEC, SINETRAC, MICROTECH, SAB, POWER WARE, V GUARD
	(c) Voltage Stabilizers above	ANDREW YULE (BRENTFORD), AE, APLAB
	25 KVA (Servo Controlled)	TATALIMPADE ONIETRAS ARIAR ROMATA COM TRACTOR
90	UPS (off line & on line)	TATA LIMBART, SINETRAC, APLAB, POWER CONVERSION
	(a) above 5 KVA	TECH, PROTECH SERVICES
	(b) upto 5 KVA	MICROTECH, LUMINOUS, LABOTEK
91	DG SETS	
	(I) Engine	CUMMINS, KIRLOSKAR OILS ENGINES, ASHOK LEYLAND,
		GREAVES LTD, COTTON, MAHINDRA
	(II) Alternator	KIRLOSKAR ELCTRIC, CROMPTON GREAVES, STAMFORD,
		ABB, SIEMENS
	(III) Acoustic Enclosures for DG	BHASKAR POWER PROJECTS PVT LTD, KALA GENSET,
	Sets (as per CPCB norms)	GOEL POWER ENGINEERS, JACKSON, SUDHIR GENSET
		LTD, POWERICA, RA POWER, SHREE DIESELS
92	LT Capacitor Banks	DUCATI, SIEMENS, L&T, ABB, EPCOS, GE, UNIVERSAL
	A DE O D	(UNISTAR)
	APFC Panels	L&T, SCHNEIDER, CROMPTON GREAVES,
	Electronic Energy Meters	SECURE, L&T, ALSTOM (AREVA),
	CTs (LT)	KAPPA, IMP, AE, SIEMENS, L&T
96	PVC insulated Copper wires -	FINOLEX, L&T, KEI, ELEKTRON, NICCO, HAVELLS
97	650/1100 Volts Steel Conduit	AKG, BEC, NIC, BHARAT STEEL TUBES, CTI
	PVC casing caping	PRESS FIT, CLASSIC, PRECISION, SUPREME
	PVC Rigid Pipe (Heavy Duty)/	FINOLEX, PRINCE, TIRUPATI, DUTRON, SUPREME, AKG,
	PVC Conduit Pipe	PRECISION
100	Piano type Switch/ Sockets	ANCHOR, LEGRAND, HAVELLS, PRECISION
	Modular Switches/ sockets	ANCHOR (ROMA), LEGRAND, CRABTREE, PRECISION
	Ceiling Rose	ANCHOR, LEGRAND, CRABTREE, PRECISION
	Street light luminaires	PHILIPS, CROMPTON GREAVES, BAJAJ, WIPRO, SHAKTI,
	HPSV/Metal Halide	SURYA,
104	LED Street Light, LED Highbay	PHILIPS, CROMPTON, BAJAJ / HAVELLS
	Fittings	
105	Fluorescent tube light fittings ,	PHILIPS, CROMPTON, BAJAJ / HAVELLS
	LED tube light fittings	5, 5, 5, 5, 5, 6, 7, 8, 7
106	CFL Fittings	PHILIPS, CROMPTON GREAVES, BAJAJ, WIPRO, SURYA,
		HAVELLS, SHAKTI
107	CFL Lamps	OSRAM, PHILIPS, CROMPTON GREAVES, BAJAJ, WIPRO,
	·	HALONIX, ADHUNIK SWITCH GEAR, SURYA
<u></u>		ROSHNI LTD
107(a)	LT PCC Cable cover	Mehtab Tiles ISI marked, National Tiles

PARTICULAR SPECIFICATIONS (Contd....)

S.NO	ITEMS	MAKES
108	Exhaust Fans	CROMPTON, KHAITAN, BAJAJ, USHA
109	Electric Call Bell	ANCHOR, LEGRAND
110	Wall Mounted Fan/Air	CROMPTON,
	Circulator	ALMONARD/USHA/KHAITAN/BAJAJ
111	PVC Pole Boxes	SINTEX, FINOLEX, UNIVERSAL
112	Flame Proof Electrical Fittings	BALIGA LIGHTNING EQUIPMENT, BAJAJ, SUDHIR
		ELECTRICALS, SHYAM SWITCHGEAR, FLEXPRO
113	ACSR Conductor	ALL-IND, ICC, NICCO, BHARAT CONDUCTORS, INDIAN
		ALUMINIUM CO
114	Laminated Sheet Cover	HYLAM, FORMICA, GREEN LAMINATED BOARDS,
		ANCHOR, BAKELITE
115	Aviation Obstruction Light	BAJAJ, CROMPTON GREAVES, WIPRO, PHILIPS
116	Thimbles/Studs/Lugs	DOWELLS, JAIPURIA BROTHERS
117	Lifts	OTIS, KONE, SCHINDLER, JHONSON
118	LT Changeover Switch	L&T, SCHNEIDER, HAVELLS
119	Battery Charger	VOLTSTART, AE, BCH
	WATER SUPPLY	
120	GI Pipes	JINDAL, TATA, BST, SWASTIK, BANSAL, SURYA ROSHNI
121	HDPE Pipe	DUTRON, FINOLEX, TIRUPATI, SUPREME, DUPLON
	·	(RELIANCE), KISAN MOULDING LTD
122	CI Pipes	ELECTRO-STEEL, KESORAM, IISCO
123	DI Pipes	ELECTRO-STEEL, JINDAL SAW, TATA METALIKS KUBOTA
		PIPES LTD, LANCO INDUSTRIES, ELECTROTHERM (INDIA
		LTD)
124	CPVC Pipe	FLOW GUARD, DUTRON, FINOLEX, ASTRAL
125	PPR Pipe	SFMC, RELIANCE, SUPREME
126	MS/ERW Pipes	TATA, JINDAL, BST
127	Sluice Valves	KIRLOSKAR, L&T (AUDCO), LEADER, UPADHAYAY,
		KALPANA
128	Non Return Valve	KIRLOSKAR, LEADER, IVC, VENUS, NVR
129	Pump Sets-Mono Block	KIRLOSKAR, CROMPTON GREAVES, BEST & CROMPTON
		(BEACON), MATHER & PLATT
130	Centrifugal Pumps	KIRLOSKAR, BEST & CROMPTON (BEACON), KSB,
		MATHER & PLATT
131	Submersible Pumps	KSB, CALAMA, KIRLOSKAR,GREAT INDIA
132		
	Submersible Cable	FINOLEX, NICCO, HAVELLS, ELEKTRON
133	Motor Starter	L&T, BCH, SCHNEIDER, SIEMENS, GE
		L&T, BCH, SCHNEIDER, SIEMENS, GE BHARAT BIJLEE, KIRLOSKAR ELECTRIC, CROMPTON
133 134	Motor Starter Motor	L&T, BCH, SCHNEIDER, SIEMENS, GE BHARAT BIJLEE, KIRLOSKAR ELECTRIC, CROMPTON GREAVES, ABB
133	Motor Starter Motor Single Phase Preventor/Phase	L&T, BCH, SCHNEIDER, SIEMENS, GE BHARAT BIJLEE, KIRLOSKAR ELECTRIC, CROMPTON
133 134 135	Motor Starter Motor Single Phase Preventor/Phase Sequence corrector	L&T, BCH, SCHNEIDER, SIEMENS, GE BHARAT BIJLEE, KIRLOSKAR ELECTRIC, CROMPTON GREAVES, ABB L&T, SIEMENS, MINILEC
133 134 135 136	Motor Starter Motor Single Phase Preventor/Phase Sequence corrector Silver Ionization Plant	L&T, BCH, SCHNEIDER, SIEMENS, GE BHARAT BIJLEE, KIRLOSKAR ELECTRIC, CROMPTON GREAVES, ABB L&T, SIEMENS, MINILEC Siemens, BHEL, Bharti Waters, Jyoti Waters, Pious Waters
133 134 135 136 137	Motor Starter Motor Single Phase Preventor/Phase Sequence corrector Silver Ionization Plant Dual Ionization Plant	L&T, BCH, SCHNEIDER, SIEMENS, GE BHARAT BIJLEE, KIRLOSKAR ELECTRIC, CROMPTON GREAVES, ABB L&T, SIEMENS, MINILEC Siemens, BHEL, Bharti Waters, Jyoti Waters, Pious Waters Siemens, BHEL, Bharti Waters, Jyoti Waters, Pious Waters
133 134 135 136 137 138	Motor Starter Motor Single Phase Preventor/Phase Sequence corrector Silver Ionization Plant Dual Ionization Plant Air Release Valve	L&T, BCH, SCHNEIDER, SIEMENS, GE BHARAT BIJLEE, KIRLOSKAR ELECTRIC, CROMPTON GREAVES, ABB L&T, SIEMENS, MINILEC Siemens, BHEL, Bharti Waters, Jyoti Waters, Pious Waters Siemens, BHEL, Bharti Waters, Jyoti Waters, Pious Waters BIR, KIRLOSKAR, LEADER AUDCO, L&T
133 134 135 136 137 138 139	Motor Starter Motor Single Phase Preventor/Phase Sequence corrector Silver Ionization Plant Dual Ionization Plant Air Release Valve Foot valve	L&T, BCH, SCHNEIDER, SIEMENS, GE BHARAT BIJLEE, KIRLOSKAR ELECTRIC, CROMPTON GREAVES, ABB L&T, SIEMENS, MINILEC Siemens, BHEL, Bharti Waters, Jyoti Waters, Pious Waters Siemens, BHEL, Bharti Waters, Jyoti Waters, Pious Waters BIR, KIRLOSKAR, LEADER AUDCO, L&T VENUS, KIRLOSKAR, LEADER, VENUS, L&T (AUDCO)
133 134 135 136 137 138 139 140	Motor Starter Motor Single Phase Preventor/Phase Sequence corrector Silver Ionization Plant Dual Ionization Plant Air Release Valve Foot valve Butterfly Valves	L&T, BCH, SCHNEIDER, SIEMENS, GE BHARAT BIJLEE, KIRLOSKAR ELECTRIC, CROMPTON GREAVES, ABB L&T, SIEMENS, MINILEC Siemens, BHEL, Bharti Waters, Jyoti Waters, Pious Waters Siemens, BHEL, Bharti Waters, Jyoti Waters, Pious Waters BIR, KIRLOSKAR, LEADER AUDCO, L&T VENUS, KIRLOSKAR, LEADER, VENUS, L&T (AUDCO) ADVANCE, L&T (AUDCO), NORMAX, CASTLERS
133 134 135 136 137 138 139 140 141	Motor Starter Motor Single Phase Preventor/Phase Sequence corrector Silver Ionization Plant Dual Ionization Plant Air Release Valve Foot valve Butterfly Valves Battery	L&T, BCH, SCHNEIDER, SIEMENS, GE BHARAT BIJLEE, KIRLOSKAR ELECTRIC, CROMPTON GREAVES, ABB L&T, SIEMENS, MINILEC Siemens, BHEL, Bharti Waters, Jyoti Waters, Pious Waters Siemens, BHEL, Bharti Waters, Jyoti Waters, Pious Waters BIR, KIRLOSKAR, LEADER AUDCO, L&T VENUS, KIRLOSKAR, LEADER, VENUS, L&T (AUDCO) ADVANCE, L&T (AUDCO), NORMAX, CASTLERS EXIDE, AMCO, AMARARAJA
133 134 135 136 137 138 139 140 141 142	Motor Starter Motor Single Phase Preventor/Phase Sequence corrector Silver Ionization Plant Dual Ionization Plant Air Release Valve Foot valve Butterfly Valves Battery CI Fitting	L&T, BCH, SCHNEIDER, SIEMENS, GE BHARAT BIJLEE, KIRLOSKAR ELECTRIC, CROMPTON GREAVES, ABB L&T, SIEMENS, MINILEC Siemens, BHEL, Bharti Waters, Jyoti Waters, Pious Waters Siemens, BHEL, Bharti Waters, Jyoti Waters, Pious Waters BIR, KIRLOSKAR, LEADER AUDCO, L&T VENUS, KIRLOSKAR, LEADER, VENUS, L&T (AUDCO) ADVANCE, L&T (AUDCO), NORMAX, CASTLERS EXIDE, AMCO, AMARARAJA UPADHAYAY, KEJERIWAL, BIR, SANT, VENUS
133 134 135 136 137 138 139 140 141	Motor Starter Motor Single Phase Preventor/Phase Sequence corrector Silver Ionization Plant Dual Ionization Plant Air Release Valve Foot valve Butterfly Valves Battery	L&T, BCH, SCHNEIDER, SIEMENS, GE BHARAT BIJLEE, KIRLOSKAR ELECTRIC, CROMPTON GREAVES, ABB L&T, SIEMENS, MINILEC Siemens, BHEL, Bharti Waters, Jyoti Waters, Pious Waters Siemens, BHEL, Bharti Waters, Jyoti Waters, Pious Waters BIR, KIRLOSKAR, LEADER AUDCO, L&T VENUS, KIRLOSKAR, LEADER, VENUS, L&T (AUDCO) ADVANCE, L&T (AUDCO), NORMAX, CASTLERS EXIDE, AMCO, AMARARAJA

PARTICULAR SPECIFICATIONS (Contd....)

S.NO	ITEMS	MAKES
	AIR CONDITIONING	
145	Air Handling Unit	BLUE STAR/VOLTAS/CARRIER/ZECO
146	Cooling Tower	MIHIR/PAHARPUR/VOLTAS/POLO/DELTA
147	Chillers/Condenser	VOLTAS/BLUE STAR/CARRIER
148	Compressors	COPELAND/DANFOSS/SANYO
149	Pumps (Chillers & Condensers)	KIRLOSKAR/GRUNDFOSS/MATHER & PLATT/BEST &
		CROMPTON (BEACON)
150	Motors	SIEMENS/ABB/CROMPTON GREAVES/KIRLOSKAR
		ELECTRIC/BHARAT BIJLEE/NGEF
151	Pot/Y-Strainer	EMERALD/RAPID COOL/DANFOSS/SPARLAN
152	MS Piping	TATA/BST/JINDAL
153	(a) Butterfly Valve	ADVANCE/AUDCO/SANT
	(b) Check Valve/Non Return	ADVANCE/AUDCO/SANT/BIR
	Valve	L FARER/ALIROOWET RELIGIOUS
45.4	(c) Gate Valve	LEADER/AUDCO/ITT BELL & GOSSETT
154	Balancing Valve	ADVANCE/ AUDCO / DANFOSS / FLOWCOM
155	Pressure Gauge	FIEBIG/ H. GURU/ BAKER MERCER/ DANFOSS
156	Dial Type Thermometers	FIEBIG/ H. GURU/ TEDDINGTON
157	Insulation	OVACENIO CORNINIO (LIB TIALIO A (LL OVE
	(i) Glass wool	OWENS CORNING/UP TWIGA/LLOYD
	(ii) Insulation (Expand	CAPRICORN/BEARDSELL/PENGUIN/LLOYD
	Polystyrene)	
	(iii) Insulation (Cross	SUPREME/TROCELLANE/PARAMOUNT/LLOYD
158	Polyethylene Foam)	L SIEMENS/HONEYWELL/JOHNSON/ANERGY
156	(a) Controls (3 Way Valves	SIEWENS/HONE I WELL/JOHNSON/ANERG I
	Actuator & Motor) (b) Thermostats	ANERGY/SIEMENS/HONEYWELL/JOHNSON/ANERGY
159	Extruded Aluminium Grills	DYNA CRAFT/RAVISTAR/MAPRO/CARRYAIRE/COSMOS
133	Diffusers	DINA OKALI/KAVIOTAK/WALIKO/CAKKTAIKE/COOMOS
160	(a) Control Cable	NICCO/ASIAN CABLES/UNIVERSAL/FINOLEX/CCI
100	(a) Control Cable	(TROPODOUR)/ELEKTRON
	(b) Power Cable	GLOSTER, ASIAN, UNIVERSAL, ELEKTRON
161	Contactors/Starters	L&T/SIEMENS/ABB/BCH
162	Overload Relay	L&T/SIEMENS/ABB/BCH
163	Time Delay Device	L&T/SIEMENS/SCHNEIDER/BCH
164	Single Phasing Preventer	L&T, SIEMEN, MINILEC, SCHNEIDER
165	GSS Sheets	SAIL / TATA / JINDAL
166	Fire Dampers/ Grill/Diffuser	DYNA / RAVISTAR / MAPRO / CARYAIRE / ATE
167	Expansion Valve	DANFOSS/SPORLAN/RANCO
168	Switchgears MCCBs/	LEGRAND/L&T/SCHNEIDER (MERLIN GERIN)/ GE /
	ACBs/MCBs	SIEMENS / BCH / C&S
169	BLANK	
170	LT current transformer	IMP, KAPPA, AE, SIEMENS
171	HP/LP/Op Cut Out	PENN/INDOFOSS/RANCO/DANFOSS/JOHNSON
172	Digital temp and RH meters	HONEYWELL/FORBES MARSHALL/SUBZERO/JOHNSON
		CONTROL
173	Centrifugal Fans (for AHU's)	NICOTRA/KRUGER/COMBIFREE/OEM'S MAKE
174	Strip Heaters	RACOLD/DASSPASS/UE
175	Humidstat	PENN, DANFOSS, HONEY WELL, JOHNSON, INDOFOSS
176	Filter	JOHN FOWLER/THERMODYNE/TENACITY/PUROLOTER
177	Factory Built Duct	ROLASTAR/TECHNO AIR/CAM DUCT

PARTICULAR SPECIFICATIONS (Contd....)

Appendix "C" (Contd...)

S.NO	ITEMS	MAKES
178	Selector Switch	L&T, ELMA, OMEGA, KAYCEE
179	Indicating light	SIEMEN, CONCORD, C&S
180	Digital Voltmeter/ Ammeter	AE/EMERCON/SECURE/L&T/DUCATI/C&S/DIRIS
181	Current Transformer	AE, KAPPA, SCHEINDER
182	Flexible Connector	CORI ENGINEER, RESISTO FLEX
183	Hot Water Generator	RAPID COOL/ROSS THERMAL SYSTEM PVT
		LTD/REYNOLD/RAPID CONTROL
184	Air Washer	BREEZE AIR/THERMODYNE/CHEMPAC/KLENZOID
	Non chemical type	
185	electrostatic	SCALEOFF (MFD BY M/S WELDON), SCALEX (MFD BY M/S
	scale preventer	TBI SYSTEM), HYDROCON
	1 1 /	DAIKIN/BLUESTAR/LG/VOLTAS/SAMSUNG
187		M/s Aluminium profiles Associates Mumbai, AERO GRILL
		Chennai, Specialist Grill Kanpur/Deco Grill, Royal Grill
188	PVC /HDPE WATER TANKS	SINTEX, ROTOMEX, POLYCON,, OMTEX, ASHISH
	(ISI MARKED)	

LIST OF SECONDARY APPROVED PRODUCERS

FOR STRUCTURAL STEEL

- 1. M/s KL Steel Pvt Ltd, Post Box No 61, Lal Kuan, Bulandhser Shahar Road, Ghaziabad (UP)
- 2. M/s Kashi Vishwanath Steel Ltd, Narain Nagar Bazpur Road, Kashipur, Distt US Nagar
- 3. M/s Shyam Steel Industries Ltd, White Towers, 115 College Street, 1st floor, Kolkata 12
- 4. M/s Pushpak Steel Industries Pvt Ltd, Gate No 119, Alandi Market Road, Dhanore, Tak Khed, Pune, Tele-02135-232427/28/232244, Fax 02135-238927
- 5. M/s Amba Shakti Ispat Ltd, Plot No 06, Phase-II, Industrial Area, Kaia, Distt Sirmour-173030 (HP), Tele 01734-309983, Fax 01702-238927.
- 6. M/s SRMB Udyog Ltd Kolkata, Regd Office 45 B-B Ganguly Street, Kolkata 700012, Works: 1' oil installation Road, Paharpur, Kolkata 700008
- 7. M/s SRMB Srijan Pvt Ltd, Regd Office 7 No Khetra Das Lane, Kolkata 700012, Works: Sagar Bhanga, Durgapur 713211.

NOTES:

- Items shall be considered whichever is applicable only
- 2. Sources indicated are only for guidance and approval of the Garrison Engineer shall be taken in proper time before procurement of materials and its incorporation.
- 3. The above list is not exhaustive but indicative of all items required for work under the contract.
- 4. Sources of materials shall be as above or in the vicinity thereof. The tenderer shall ascertain the actual position/exact location of source before submitting his tender and no additional payment shall be made on account of misunderstanding of its distance from site of works. Contractor may bring material conforming to contract specifications from other sources without any price adjustment after obtaining written approval of the Garrison Engineer.
- 5. The tender shall amongst other things also ascertain all information such as royalties, taxes duties and other charges etc. on the materials and no additional payment shall be made on account of the foregoing.

Signature of Contractor Dated:

AGE (Contracts) for Accepting Officer