

MILITARY ENGINEERING SERVICES

**NAME OF WORK: PROVN OF TRAINING INFRASTRUCTURE ALONGEITH TRG SHED AND  
HARDSTANDING FOR STUDENT OFFRS AT ARMY CAN BASE, NASIK.**

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SIGNATURE OF CONTRACTOR

DATE :

AGE (Contracts)

For Accepting Officer

IAFW – 2162 (REVISED) 1960  
MILITARY ENGINEER SERVICES (NOTICE OF TENDER)

1. The tender forms and conditions of contract and other necessary documents will be published on [www.eprocuremes.gov.in](http://www.eprocuremes.gov.in) on or after the date as mentioned in the aforesaid appendix 'A'. The appropriate standing security amount for this work shall be as deposited by the contractor as enlisted in the area in which the work lies for category mentioned in aforesaid appendix 'A'.

1A A tender is invited for the work as mentioned in Appendix 'A' to this Notice of tender

2. The work is estimated to cost as indicated in aforesaid Appendix 'A'. This estimate however not a guarantee and is merely given as a rough guide and if the work costs more or less, the tenderer will have no claim on that account.

3. The tender shall be based on (as mentioned in Appendix 'A')

4. The work is to be completed within the period as indicated in the aforesaid Appendix 'A' (in accordance with the phasing if any, indicated in the tender) from the date of handing over of site, which will be on or about 2 weeks after the date of acceptance of the tender.

5. 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. In case whether the tendered amount is in excess of the financial category, whether or not the estimated amount was within the financial category of the contractor, the Accepting Officer reserves the right to accept the tender, in which event the tenderer would be required to lodge Additional Security Deposit as notified by the Accepting Officer in terms and conditions of contract. Contractors whose names are borne on the MES approved list of any other MES formation and who have deposited Standing Security and have executed Standing Security Bond may also tender without depositing Earnest Money along with the tender and if the Accepting Officer proposes to accept the tender, such tenderer would be required to deposit 'Security Deposit' as notified by the Accepting Officer before acceptance of tender. Not more than one tender shall be submitted by one contractor or one firm of contractors. Under no circumstances, will a father and his Son(s) or other close relations who have business dealings with one another be allowed to tender for same contract as separate competitors. A breach of this condition will render the tenders of both party liable for rejection.

6. The **Garrison Engineer Nasik Road, AOP Complex, Near AOP Gate, Gandhinagar, Nasik 422 006** will be Accepting Officer here in after referred to as such for purpose of this contract.

7 Application for tender forms must be submitted to **Garrison Engineer Nasik Road** so as to reach his office on or before the date (referred Appendix 'A'). Invitation for application for issue of tender does not constitute any guarantee for issue of tender to the applicant even to the enlisted contractor of appropriate class. Issue of tender will be decided by the Accepting Officer based on interalia, past track records, financial position and experience of similar works executed by the applicant/contractor. The Accepting Officer shall consider applications received upto the date of receipt of applications/extended date of receipt of application for issue of tender. The applicant/contractor will be informed regarding non-issue of the tender without assigning reasons. The applicant / contractor if he so desires, may appeal to the next higher engineer authority with copy to the Accepting Officer. No appeal/representation will be entertained in respect of application for issue of tenders received after the due date of receipt of applications/extended date of receipt of applications. The decision of the next higher Engineer authority shall be final. No applicant/contractor shall be entitled for any compensation what so ever for rejection of his application.

8 Tender form and conditions of contract and other necessary documents (together with addressed envelopes to be used for the return of tender forms and other documents) will be issued on the date as given in Appendix 'A' to approved contractors. The appropriate standing security amount for this work shall be deposited by contractors enlisted in the area in which the work lies for category as given in Appendix 'A'.

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MILITARY ENGINEER SERVICE - NOTICE OF TENDER (CONTD.)

9 In the case of a contractor who has not executed the standing security bond, the tender accompanied by earnest money amounting to a sum given in Appendix 'A' in the form of deposit at call receipt issued in favour of MES formation given in Appx 'A' by a Scheduled Bank or in receipted treasury challan, the amount being credited to the revenue deposit of the Garrison Engineer Nasik Road, AOP Complex, Near AOP Gate, Gandhinagar, Nasik 422 006. A contractor who is not enlisted for the area in which the work lies, but whose name is in the MES approved list of any MES formation and who have deposited standing security and executed standing security bond may tender without depositing earnest money along with the tender, but if the Accepting Officer besides to accept the tender, such tender shall lodge security deposit, as notified by the Accepting Officer, with the Controller of Defence Accounts concerned in the prescribe form before acceptance of tender.

9A A contractor who has executed the standing security bond, but not for the appropriate category as mentioned above, shall lodge with the Accepting Officer concerned, additional security deposit as notified by the Accepting Officer within 30 days of the receipt by him of notification of acceptance of his tender, failing which the sum will be recovered from the first RAR payment, however, in case where any payment is made to the contractor within 30 days of the receipt by him of notification of acceptance of tender. The amount of additional security deposit shall be recovered from such payment.

10 The GE will return the earnest money wherever applicable to all unsuccessful tenderer by endorsing an authority on the deposit receipt for its refund on production by the tenderer of a certificate of the Accepting Officer that a bonafied tender (vide Ser No 18 here-in-after) was received and all documents were returned.

10A The GE will either return the earnest money to the successful tenderer by endorsing an authority on the deposit receipt for its refund on receipt of an appropriate amount of Security Deposit or will return the same in part or full on account of security deposit if such a transactions is feasible.

11 Copies of the drawings and other documents pertaining to the work (signed for the purpose of identification by the Accepting Officer or his accredited representative) and samples of materials and stores to be supplied by the contractor will be open for inspection by a tenderer at the office of GE during working hours.

12 The tenderer are advised to visit site by making prior appointment with the GE in sufficient time.

13. A tenderer shall be deemed to have full knowledge of all relevant documents, samples, site etc. whether he has inspected them or not.

Contd...

MILITARY ENGINEER SERVICE - NOTICE OF TENDER (CONTD.)

14 Tenders shall be uploaded by the bidder on [www.eprocuremes.gov.in](http://www.eprocuremes.gov.in)

15 Any tender which proposes any alteration to any of the conditions laid down on which proposes any other condition or any description, whatsoever, is liable to be rejected.

16. The submission of tender by a tenderer implies that he has read this notice and conditions of contract and has made himself aware of the scope and specifications of the work to be done and of the conditions and rates of stores, tools and plants etc., that will be issued to him and local conditions and other factors bearing on the execution of the work.

17. Tenderers must be in possession of a copy of the MES Standard Schedule of Rates (Part I & II) including errata/amendments hereto of relevant Zone in which this work lies.

18. Tenderer must be very careful to deliver a bonafide tender. A bonafide tender must satisfy each and every condition laid in this notice.

19 The Accepting Officer reserves his right to accept a tender submitted by a public undertaking, giving a purchase preference over other tender(s) which may be lower, as are admissible under the Govt. policy. No claim for any compensation or otherwise shall be admissible from such tenderers whose tenders may be rejected on account of the said policy.

20 The Accepting Officer does not bind himself to accept the lowest or any tender or to give any reasons for not doing so.

21. This notice of tender shall form part of the contract.

SIGNATURE OF CONTRACTOR

DATE :

AGE (Contracts)

For Accepting Officer

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

(TO BE USED IN CONJUNCTION WITH GENERAL CONDITION OF IAFW-2249)**MILITARY ENGINEERING SERVICES**

Tele : 2412822

Military Engineer Services  
Garrison Engineer Nasik Road  
AOP Complex, Near AOP Gate  
P.O. Gandhinagar  
Nasik – 422 006

8903 / / E8

Nov 2022

**TENDER AND ITEM RATE CONTRACT FOR WORKS BY MEASUREMENTS REQUIRED  
IN THE EXECUTION OF PROVN OF TRAINING INFRASTRUCTURE ALONGEITH TRG  
SHED AND HARDSTANDING FOR STUDENT OFFERS AT ARMY CAN BASE, NASIK.**

1. A tenderer / bidder who is qualified as per the eligibility criteria mentioned in the tender documents and has interalia sound past record is hereby authorized to tender for the above work. The tender /bid (both cover-1 & cover-2) shall be submitted / uploaded on the MES website portal ([www.defproc.gov.in](http://www.defproc.gov.in)) as per time and date mentioned in tender documents.

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

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Signature of Officer Issuing documents  
Appointment : Garrison Engineer  
Accepting Officer

---

Signature of contractor  
Dated: \_\_\_\_\_

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

SCHEDULE 'A'LIST OF WORK AND PRICES

NAME OF WORK : **PROVN OF TRAINING INFRASTRUCTURE ALONGEITH TRG SHED AND HARDSTANDING FOR STUDENT OFFRS AT ARMY CAN BASE, NASIK.**

## NOTES :

1.0 Schedule 'A' has not been pre-priced by MES. The tenderers are required to work out and quote their rate for each item of Schedule 'A' based on description of item, Particular Specifications, Special Conditions, General Conditions etc and quote the same in rate column under Column 6 both in figures and words and extend the total amount under Column 7.

2.0 PERIOD OF COMPLETION :- The period of completion for the entire work is **270 Days** period from the date of handing over the site. **Defect liability period is 24** (Twenty Four) months from date of completion of work.

3.0 UNIT RATES :- Unit rates shall deemed to allow for provision of all materials, processes operations and special requirement detailed in special conditions. Particular specifications irrespective of whether those appear as specific items or not in Sch 'A'.

4.0 The quantities shown in column 4 are approximate and are inserted as guidance only. They shall however not be varied beyond the limits laid down in Condition 7 of IAFW-2249 (General Conditions of Contracts).

5.0 The total amount is not firm but will be treated as the contract sum referred in IAFW-2249.

6.0 Method of measurement for all the work under this contract shall be as described in MES Schedule unless otherwise specified in the documents particularly.

7.0 The rates quoted by the contractor against respective items of Schedule 'A' shall deemed to allow for all minor details of construction which are not specifically shown on drawings or given in the particular specification but are essential to the execution of work in work man like manner and sound construction. In case of difference in opinion between the contractor and GE as to whether or not certain items of work constitutes "Minor details of construction" which are deemed, to have been included in the contractors quoted prices, the decision of the Accepting Officer shall be final, conclusive and binding.

8.0 Unless otherwise mentioned in the description of Sch 'A' items the tendered rate for each item shall be deemed to be included for materials and labour etc complete as specified in 3 above.

9.0 Unit rates quoted by tenderer for the entire items of this tender shall be deemed to include for the provision of material and labour/supply and fix/supply and complete unless otherwise described such as labour only/fixing only/laying only in the description of items itself.

10.0 The following abbreviations have been used in Schedule :

(a) RM : Running Metre (b) Kg – Kilogram (c ) Sqm – Square Metre

(d) Cum – Cubic Metre (e) Qtl – Quintal (f) M&L- Material and labour

(g) S&F- Supply and fix

11.0 The tenderers are advised to visit the site and acquaint themselves before quoting the tender. The tenderers are deemed to have visited the site irrespective of whether they have visited the site or not before quoting the tender. No claim whatsoever arising will be entertained at a later date.

12.0 Fixed in repairs means taking down the existing one and supplying and fixing the new one in lieu and Fixing only in repairs means taking down the existing one and re fixing the same.

13.0 The GST has been implemented wef 1<sup>st</sup> Jul 2017 by subsuming various taxes as well as revision of tax slab of various items / services and shall be applicable in this work. Therefore, the bidders are advised to consider all provisions of the GST while quoting the tender and nothing extra shall be entertained on this account.

14.0 In case **revised BOQ** is uploaded by the department, tenderer has to quote in revised BOQ only. The uploading quotation in pre-revised BOQ shall be considered as a wilful negligence by the bidder and his quotation shall be considered non bonafide.

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

Ser No	Particulars	Rate at which materials will be issued to the Contractor		Place of issue (By Name)	REMARKS
		Unit	Rate		
1	2	3	4	5	6
--	--	NIL		--	--

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

Ser No	Qty	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)	REMARKS
1	2	3	4	5	6	7	8
--	--	--	--	NIL	--	--	--

SCHEDULE 'D'TRANSPORT TO BE HIRED TO THE CONTRACTOR(REFER CONDITION 16 & 25 OF IAFW-2249)

Ser No	Quantity	Particulars	Rate per unit per working day	Place of issue (By Name)	REMARKS
1	2	3	4	5	6
--	--	--	NIL	--	--

SIGNATURE OF CONTRACTOR

DATE :

AGE (Contracts)

For Accepting Officer

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

## T E N D E R

To,

The President of India,

Having examined and pursued the following documents :-

1. Specifications signed by the Garrison Engineer Nasik Road.
2. Drawing detailed in the specifications.
3. Schedule 'A', 'B', 'C' & 'D' attached hereto.
4. MES Standard Schedule of Rates 2009 Part I specifications and **Part-II Rates 2020** herein after and in IAFW – 2249 referred to as the MES Scheduled together with Amendment 1 to 3 for Part – I as applicable thereto.
5. General Conditions of Contracts IAFW-2249, 1989 Print together with the amendments 1 to 48 and errata 1 to 20. (Printed and bounded alongwith copy of IAFW – 2249, 1989 print) and Schedule of Minimum Fair Wages applicable for Area 'C'.
6. Water Condition 31 of IAFW-2249 (General Condition of Contracts) water will be supplied by MES.
7. Should this tender be accepted: -

\*I/We Agree

(a) That the sum of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_

\_\_\_\_\_ only) forwarded as Earnest Money shall either be retained as part of Security Deposit or refunded by the Govt on receipt of the appropriate amount of Security Deposit, all as per Condition 22 of IAFW-2249.

(b) To execute all the work referred to in the said documents upon the terms and conditions contained or referred to therein at the item rates contained in the aforesaid Schedule 'A' or at such other rates fixed under provisions of Condition 62 and to carry out such deviations as may be ordered vide Condition 7 of IAFW-2249 upto a maximum of **10% (TEN PERCENT)** and further agree to refer all disputes as required by Condition 70 of IAFW-2249 to the Sole Arbitrator of Serving Officer having degree of Engineering or equivalent or having passed final / direct final examination of Sub Division II of Institution of Surveyors (India) recognized by Govt of India to be appointed by the Chief Engineer Pune Zone, Pune or in his absence the Officer Officiating a Chief Engineer Pune Zone, Pune whose decision shall be final conclusive and binding.

\*To be deleted where not applicable.



IN LIEU OF IAFW-1779-A (REVISED 1955) (CONTD.)

Signature \_\_\_\_\_ in the capacity of \_\_\_\_\_  
 duly authorised to sign the tender for and on behalf of \_\_\_\_\_

**(IN BLOCK CAPITALS)**

Dated : \_\_\_\_\_

Postal Address : \_\_\_\_\_

Witness : \_\_\_\_\_

Address : \_\_\_\_\_ Telephonic Address : \_\_\_\_\_

\_\_\_\_\_ Telephone No. \_\_\_\_\_

**ACCEPTANCE**

\_\_\_\_\_ Alterations have been made in this document and as evidence  
 that these alterations were made before the execution of the contract agreement and they  
 have been initialed by the contractor and Shri BS Gade, AE (QS&C), AGE (Contracts). The  
 above tender was accepted by me on behalf of the President of India for the item rate  
 contained therein for the contract sum of  
 Rs.....(Rupees.....  
 .....only)  
 on.....day of .....20

Signed \_\_\_\_\_ dated this \_\_\_\_\_ day of \_\_\_\_\_ .

**APPOINTMENT :** EE  
 GARRISON ENGINEER  
 NASIK ROAD - 422 006  
 ACCEPTING OFFICER  
 (FOR AND ON BEHALF OF  
 THE PRESIDENT OF INDIA)

MILITARY ENGINEER SERVICESGENERAL CONDITIONS OF CONTRACTS(IAFW - 2249, 1989 PRINT)FOR

\* LUMPSUM CONTRACTS (IAFW - 2159)

\* TERM CONTRACTS FOR ARTIFICERS' WORK (IAFW - 1821)

AND

\* MEASUREMENT CONTRACTS (IAFW – 1779 &amp; 1779-A)

It is hereby agreed that by \*me/us that a copy of the GENERAL CONDITIONS OF CONTRACTS (IAFW-2249, 1989 PRINT) with errata 1 to 20 and amendments from 1 to 48 and Schedule of Minimum Fare Wages have been supplied to \*me/us and is in \*my/our possession. \*I/We have read and understood the provisions contained in the aforesaid GENERAL CONDITIONS OF CONTRACTS and Schedule of Minimum Fare Wages before submission of this tender, and \*I/We agree that \*I/We shall abide by the terms and conditions thereof, as modified, if any, elsewhere in these documents.

It is further agreed and declared by \*me/us that the GENERAL CONDITIONS OF CONTRACTS (IAFW-2249) (1989 Print) including conditions 70 thereof pertaining to settlement of disputes by Arbitration containing 33 pages. Errata 1 to 20 and amendments 1 to 48 form part of these tender documents containing 14 pages.

SIGNATURE OF CONTRACTOR

DATE :

AGE (Contracts)

For Accepting Officer

\* Delete whichever is not applicable.

SCHEDULE OF MINIMUM FAIR WAGES PAYMENT  
BY THE CONTRACTOR UNDER FAIR WAGES ACT

It is hereby agreed by me/us that the Schedule of Minimum Fair Wages is published vide Govt of India, Min of Labour Order No 1 (2) 92-IS II dated 10 Mar 92 applicable to Area 'C' containing 7 (SEVEN) pages (Serial Page Nos. **60 to 66**) shall form part of the contract.

\*\*\* My/Our signature (s) hereunder is deemed to my/our having signed the aforesaid schedule of Minimum Fair Wages forming part of the tender.

SIGNATURE OF CONTRACTOR  
DATE :

AGE (Contracts)  
For Accepting Officer

\*\*\* Delete which is not applicable.

NOTE: - SCHEDULE OF MINIMUM FAIR WAGES IS AVAILABLE FOR REFERENCE IN THE OFFICE OF GARRISON ENGINEER NASIK ROAD. ATTENTION OF TENDERERS IS INVITED TO THE FACT THAT SCHEDULE OF MINIMUM FAIR WAGES HAS BEEN REVISED WITH EFFECT FROM 01 APRIL 1992. REVISED SMFW MAY BE REFERRED IN THIS OFFICE.

**SPECIAL CONDITIONS****1.0 GENERAL**

1.1 The following special conditions shall be read in conjunction with General Conditions of Contracts (IAFW-2249 1989 print) including amendments and errata thereto. If provisions in these special conditions are at variance with the provisions in the foresaid documents, the provisions in these special conditions shall be deemed to take precedence there over.

1.2 The work under this contract shall be carried out in accordance with Schedule "A", the particular Specifications, drawings and other provisions in MES schedule.

1.3 The term General specifications referred to hereinbefore as well as referred to in IAFW-2249 (General conditions of contracts) shall mean the specifications contained in the MES schedule.

1.4 General rules specifications, special conditions and all preambles in the MES schedule shall be deemed to apply to the works under this contract. In case of any discrepancy the provisions in these documents shall take precedence over the aforesaid provisions in the MES schedule.

**2.0 SECURITY OF CLASSIFIED DOCUMENTS (REFER CONDITION 2A & 3 OF IAFW-2249)**

2.1 Contractor's special attention is drawn to conditions 2A and 3 of General Conditions of contracts (IAFW-2249) and also to the Indian Official Secret Act –1923 (particularly section 5). The contractor is bound by the provisions of the Act. The contractor shall not communicate any classified information regarding works either to sub contractor(s) or others without prior approval of Engineer-in- Charge. The contractor shall also not make copies of the design/drawings and other documents furnished to him in respect of works and he shall return all the documents on completion of the work or on earlier termination of the contract. The contractor shall alongwith final bill attach a receipt from the Engineer-in –Charge in respect of his having returned the classified documents as per Condition 3 of the General conditions of Contracts (IAFW-2249).

**3.0 INSPECTION OF SITE AND RELEVANT DOCUMENTS (REFER CONDTION 4 OF IAFW-2249)**

3.0 INSPECTION OF SITE AND RELEVANT DOCUMENTS (REFER CONDTION 4 OF IAFW-2249) :- The contractor is required to visit the site of works and make himself thoroughly acquainted with the working conditions and of the approaches/accessibility to site availability of materials and all other relevant conditions affecting the completion of entire work. He is required to make himself fully acquainted with the nature and scope of work before tendering. For the purpose of inspection of relevant documents other than those sent herewith, the contractor is required to contact the Garrison Engineer who will give the reasonable facilities. The contractor shall be deemed to have visited the site before submitting the tender irrespective of whether he does it or not.

**4. MATERIALS AND SAMPLES (REFER CONDITION 10 OF IAFW –2249)**

4.1 The tenderer is advised to inspect samples of the local buildings materials maintained by the GE before submitting his tender. He will be deemed to have full knowledge of these materials whether he inspects them or not. The materials to be provided by the contractor shall conform to/shall be superior to the standard of samples displayed in the office of Garrison Engineer in matter of quality unless otherwise specified.

4.2 All materials unless otherwise specified (excluding the materials issued under Schedule 'B') supplied and incorporated in the works shall comply with the requirements of relevant Bureau of Indian Standards (BIS)including published as on the date of tender mentioned in the MES standard Schedule of Rates (SSR)mentioned herein before, duly ISI marked. Material having ISI certification marks issued by BIS only will being corporated in the work except where specified "Makes" have been specified in which case such article/material/equipment of particular 'Make' specified shall only be incorporated in the works. In case the materials conforming to the relevant ISI may be incorporated in the works. These provisions shall supercede all the specifications given elsewhere in the tender documents.

**SPECIAL CONDITIONS**

4.3 The contractor shall produce samples of materials for incorporation direct to the GE and get them approved in the writing by the GE before commencement of work. All samples of materials, articles etc as approved shall be labeled as such and shall be signed by GE and contractor and kept in the safe custody of GE/Engineer-in- Charge.

**5.0 RECORD OF MATERIALS**

(a) Original vouchers/invoices for Bitumen materials as required for execution of work shall be produced by the contractor before claiming RAR payments, and MUST BE recorded in MB. Payment shall not be made without production of invoice/voucher bearing sales tax number.

(b) In addition to the above any other proprietary materials which are not reflected but included in the work shall also be submitted by the contractor as per the direction of GE, his decision shall be final and binding.

(c) The vouchers/invoices shall be from the manufacturers and/or from their authorized agents for full quantity of respective items required for the work under this contract. These vouchers shall be endorsed, dated and initialled by the Engineer-in-Charge giving the contract number and name of work and a certified true copy of each such voucher signed both by the Engineer-in-charge and the contractor shall also be kept on MES record.

(d) The quantity brought to site shall be recorded in measurement books and signed by contractor and Engineer-in-Charge as a check to ensure that the required quantity have been brought to site for incorporation in the work.

(e) Proprietary materials brought at site shall be stored as directed by Engineer-in-Charge and those already recorded shall be suitable marked for identification.

(f) The contractor shall ensure that materials are brought to site in original sealed in containers or packing bearing manufacturer's marking except in the case of the total requirement less than the smallest packing.

6 ----- BLANK-----

**7.0 CO-OPERATION WITH OTHER AGENCIES**

7.1 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 works, if any, under separate arrangements.

7.2 The contractor's prices shall be deemed to cater for all the above contingencies and nothing extra shall be admissible on this account.

8.0 **DAMAGE TO EXISTING STRUCTURE/BUILDING** :- Any damage done to existing structure during the 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 finalized work shall match with the existing work in all respects to the entire satisfaction of the GE. In case of any dispute on this account the matter shall be referred to the Accepting Officer whose decision in writing shall be final conclusive and binding.

9.0 **CONTRACT LABOUR (REGULATION AND ABOLITION) ACT 1970** :- The contractor when required to employ more than twenty workmen on the works under this contract, shall be bound by the contract labour (Regulation and Abolition Act 1970) and rules framed under. No contractor can undertake or execute his work without a licence issued by a licensing Officer.

**10.0 MINIMUM WAGES : PAYMENT TO LABOUR (CONDITION 58 OF IAFW –2249)**

**SPECIAL CONDITIONS**

10.1 Refer condition 58 of IAFW-2249. The contractor shall not wages lower than minimum wages for labour as fixed by the Govt of India/State Govt/Union Territory whichever is higher.

10.2 The fair wages referred to in condition 58 of IAFW-2249 shall be deemed to be the same as the minimum wages payable as referred to above.

10.3 The contractor have shall have no claim whatsoever if on account of local factor and or regulations or otherwise he is required to pay the wages in excess of minimum wages as described above during the execution of work receipt except reimbursement refund of wages of labour specified hereinafter.

**11.0 ANTECEDENTS OF CONTRACTORS AND THEIR AGENTS REPRESENTATIVE WORKMEN**

11.1 The contractor shall employ only Indian Nationals and his representatives servants, workmen and verify their antecedents and loyalty before employing them on the works. He shall ensure that no person of doubtful antecedents and Nationality is, in any way associated with the works and if for reasons of technical collaboration or other consideration, the employment of any foreign national is unavoidable, the contractor furnish full particulars to this effect to the Accepting Officer at the time of submission of tender. The GE shall have full powers and without giving any reasons to the contractor immediately cease to to employ in connection of this contract any Representative Agent, servant and workmen or employee whose continued employment in his opinion is undesirable. The contractor shall not be allowed any compensation on this account.

**12.0 ELECTRICITY SUPPLY**

12.1 Electrical energy required for lighting and power, purpose shall be made available by MES at one point near the contractor's shed marked in the site plan and KWH meter to register the power supplied shall be provided and installed by the MES. The contractor shall provide all necessary connection, cable fittings etc from the main switch in order to ensure proper supply of electricity.

12.2 The contractor shall be charged for the electric supply consumed for the work at Rs 6.70/- unit (Rupees six and paisa seventy only).

12.3 The aforesaid charge is inclusive of charges for meters to be installed by MES.

12.4 MES do not guarantee continuity of supply and compensation whatsoever shall be allowed for supply becoming intermittent or break down in the system.

**13. WATER**

13.1 Reference condition 31 of General Conditions of Contracts, IAFW-2249, MES will supply water to the contractor at points marked on the site plan.

13.2 MES will be responsible to the contractor for any damage or compensation for failure in supply of water or the supply thereof if failure or curtailment as the case may be arised from accident or becomes necessary as a result of drought or any other causes. The decision of GE in this respect shall be final and binding.

**14.0 RECORD OF CONSUMPTION OF CEMENT**

14.1 For the purpose of keeping a record of cement brought and consumed by the contractor shall maintain a pucca / bound Register in the form approved by the Engineer-in-Charge showing daily receipt from MES, quantity used in works and balance in hand. This register shall be signed daily by the contractor/Contractor's representative and the Engineer-in-Charge in token of their verification of its correctness.

14.2 The Register shall be kept at site in the safe custody of the Contractor during progress of work and he shall on demand produce the same for verification of Inspecting Officer. On completion of the work, the register shall be handed over to the Engineer-in-Charge for the record with MES.

**15.0 SECURITY AGAINST LOSS OR DAMAGE**

**SPECIAL CONDITIONS**

15.1 The contractor shall furnish to the Engineer-in-Charge every morning distribution return to his plants / equipments on site of work stating the following particulars: -

- (i) Particulars of plants / equipments, their make, model No, if any, Regn No, if any, capacity, year of manufacture and year of purchase etc.
- (ii) Total No (quantity) on site of work.
- (iii) Location, indication No, quantity of each location of site of work.
- (iv) Purchase value on the date of purchase.

For the purpose of this condition, plant/equipment shall be given vehicle No i.e trucks and lorries but neither the workmen tools or any manually operated tools/equipment. The Engineer-in-charge shall record the particulars supplied by the contractor in works dairy and send the return to the GE for record in his office.

16.0 BLANK

17.0 ROYALTIES

17.1 Reference Condition 14 of General Conditions of Contracts (IAFW-2249). No quarries on defence land are available.

18.0 PERIOD OF KEEPING THE TENDER OPEN

18.1 This tender shall remain open for acceptance for a period of 90 (Ninety) days from the date on which the COVER I i.e. Technical bid is scheduled to be opened. For the purpose of calculating this period, the day on which the COVER I i.e. Technical bid is scheduled to be opened, shall be excluded

19.0 NETWORK ANALYSIS

19.1 The time and progress chart to be prepared as per conditions of IAFW-2249 (General Conditions of Contracts) shall consists of detailed network analysis and a time schedule. The critical path network will be drawn jointly by the GE and the contractor soon after the acceptance of tender. The time scheduling of the activities will be done by the contractor, so as to finish the work within the time schedule a firm calendar date schedule will be submitted in four copies within two weeks from the date of handing over the site.

19.2 During the currency of the work, the contractor is expected to adhere to the time schedule and this adherence will be part of the contractor's performance under the contract. During the execution of the work the contractor is expected to participate in the review and updating of network undertaken by the GE. The review may be undertaken at the discretion of the GE either as periodical appraisal measure or when the quantum of work ordered on the contractor is substantially changed through deviation order or amendments. Any revision of time schedule as a result of the review will be submitted by the contractor by the GE within a week for his approval after due scrutiny. The contractor shall adhere to the revised time schedule thereafter. In case of contractor not agreeing with the revised schedule, the same will be referred to the Accepting Officer whose decision shall be final conclusive and binding. GE's approval to the revised schedule resulting in a completing date beyond the stipulated date of completion shall be automatically account to a grant of extension of time. Extension of time shall be considered and decided by the appropriate authority mentioned in condition 11 of IAFW-2249 and separately regulated.

19.3 Contractor is expected to mobilise and employ sufficient resources to achieve the detailed schedule within the broad frame work of the accepted methods of working and safety. No additional payment will be made to the contractor for any multiple shifts or other incentive contemplated by him in his work schedule even though the time schedule is approved by the Department.

20.0 SITE CLEARANCE



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20.1 (Refer condition 49 of IAFW-2249, General Conditions of Contract). The contractor shall remove from the site unused stores and huts and the like belonging to the contractor provided for the execution of work under this contract and the site of works shall be cleared off all rubbish and waste materials by the contractor and the site of work delivered in clean and tidy manner to the satisfaction of the Engineer-in-Charge on before the date of completion. Nothing extra whatsoever shall be paid to the contractor for such clearance of site.

20.2 The contractor shall clean all floors, remove cement/lime/pain drops etc clean the joinery, glass panes etc, touch up all painting work and carry out all other necessary items of work in connection there with and leave the whole premises clean & tidy to the entire satisfaction entire satisfaction of the Engr-in-Charge before handing over the buildings.

**21.0 QUALITY OF WORK AND FINISHES :-**

21.1 To determine the acceptable standard of workmanship, portion of different works included in the Schedule 'A' (sample quarter) as decided by GE shall be completed by the contractor well in advance under close supervision of the Engineer-in-Charge and shall be got approved from the GE. The workmanship of various trades and finishes of this portion shall serve as guiding samples for work in the remaining buildings.

21.2 The contractor shall proceed with work in bulk only after satisfactory compliance of the requirements in Para 21.1 above. The total completion period allowed for work shall be deemed to have made allowance for the requirement.

22.0 **OUT OF POCKET EXPENSES** :- Out of pocket expenses incurred by the tenderer in submitting this tender shall not be reimbursed whether tender is accepted or not.

**23.00 AVAILABILITY OF LAND FOR STORAGE OF MATERIALS**

23.1 Delete the following in Para 1 of condition 24 of IAFW –2249, General Conditions of Contracts” In the event of areas of land allotted to him.

23.2 The contractor shall be allotted free of charge, the area marked on layout plan for the purpose of erection of temporary workshop, stores etc. No Defence land is available for accommodation of labour and canteen for which contractor shall make his own arrangement at his own expenses.

24.0 **WORKING HOURS / DAYS** :- The contractor or his workmen shall not be permitted to work on Sundays, Holidays or after normal working hours without prior written permission of the GE.

**25.0 CONDITIONS OF WORKING IN RESTRICTED AREA**

25.1 **Work under this contract lies in Restricted Area.**

25.2 Visit To The Site Before Tendering :- Permission to enter the Restricted Area at the time of submission of tenders can be obtained through the GE. Tenderers are advised to send prior intimation to the GE about the particulars of their agents, representatives etc, if any, dates any time of their proposed visits so that necessary arrangements may be made by GE to secure admission whether a tenderer visits the site or not be shall be deemed to have full knowledge of the restrictions on entering into/exit from and working within the Restricted Area.

25.3 **ENTRY/EXIT** :- The contractor, his agents(s), representatives, workmen etc and his materials, cart trucks or other means of transports etc will be allowed to enter through and leave from only such gate or/gates and at such times as the GE or authority in charge of the Restricted Area may at their sole discretion permit to be used. The contractor's authorized representative is required to be present at the place of entry and exit for the purpose of identifying his carts, trucks etc to the personnel in charge of the security of Restricted Area.

25.4 **IDENTITY CARDS OR PASSES** :- The contractor, his agents and representative are required individually to be in possession of an identity Card or pass duly verified by the Police



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Department. The Identity Card or pass will be examined by the security staff at the time of Entry into or exit from the Restricted Area and also at any time or number of times inside the Restricted Area.

**25.5 IDENTITY OF WORKMEN**

25.5.1 Every workmen shall be in possession of an identity card. The identity card will be issued after thorough investigation of the antecedents of the labourers by the contractor and attested by the Officer-in-Charge of then it concerned in accordance with the standing rules and regulations of the units.

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

25.6 **SEARCH** :- Though search of all persons and transport shall be carried out at each gate and for as many time as a gate is used for entry or exit and may also be carried out at any time or any number of times at the work site with the Restricted Area.

25.7 **FEMALE SEARCHES** :- If the contractor desired to employ female labour on works to be carried out inside the area of a factory, Depot, Park etc and a female searcher is not borne on the authorised strength of the factory, Depot, Park etc at the time of submission of the tender, he shall be deemed to have allowed in his tender for pay and allowances etc for a female searcher (class IV servant/Group 'D' servant calculated for the period of female labour is employed by him inside the area. If more than one contractor has/have to be employed in addition to the additional female searchers (s) shall be distributed on an equitable basis between the contractors employing female labour taking into consideration the value and period of completion of their contracts. The GE's decision in regard to the amount recoverable on this account from any contractor shall be final and binding.

**25.8 WORKING HOURS**

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

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

25.8.3 Contractor's materials transport etc, shall normally be permitted to go out of the area between 8.00 AM to 6.00PM only.

25.8.4 Contractor's may also be allowed to carry out the work beyond 6.00 pm and upto 8.00 pm (day and night). However no movements or materials and transport out of site of works shall be permitted during night unless special permission obtained from the factories/unit authority.

25.8.5 **WORK ON HOLIDAYS** :- The contractor shall not carry out any work on gazetted holidays, weekly holidays and other non-working days except when he is specially authorised in writing to do so by the GE. The GE may at his sole discretion declare any days as holiday or non-working day without assigning for such declaration.

25.8.6 **ACCESS TO RESTRICTED AREA AFTER COMPLETION OF WORKS** After the works are completed and surplus stores etc returned to the contractor, his agents, representatives or workmen etc may not be allowed to have access to the restricted area except for attending any rectification of defects pointed out to him by the GE.

**26.0 MINOR AND MISSING DETAILS**

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26.1 The lumpsum quoted by the tenderers shall also include for any minor details of works and/or construction which area obviously and fairly intended and which may not have been specifically referred to in the tender documents but which area essential for the execution and completion of the work in a workman like manner and sound construction.

26.2 If certain details are missing, in that case, the details indicated elsewhere in the drgs which are similar or near to the missed out items of work shall be followed. In the absence of any other similar, and near details, the minimum essential requirement for the completion of work from the structural and utility point of view shall be deemed to be included in the amount quoted.

26.3 In the case of different of opinion between the contractor and department as to whether or not a certain item of work constitute minor extra constructional details included in the lumpsum amount quoted or not the decision of the Accepting Officer shall be final, conclusive and binding.

**27.0 REIMBURSEMENT/REFUND ON VARIATION IN TAXES DIRECTLTLY RELATED TO CONTRACT VALUE**

(a) The rates quoted by the Contractor shall be deemed to be inclusive of all taxes (including Sales Tax/ VAT on materials, Sales Tax/VAT on Works Contracts, Turnover Tax, Service Tax, Labour Welfare Cess /tax etc) duties, Royalties, Octroi & other levies payable under the respective statutes. No reimbursement/refund for variation in rates of taxes, 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 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 tender shall be refunded by the Contractor to the Govt/deducted by the Govt from any payments due to the contractor. Similarly imposition of any new “taxes directly related to Contract value” after the last due date for receipt of tenders shall be reimbursed to the contractor and abolition of any “taxes directly related to contract value” prevailing on last due date for receipt of tenders shall be refunded by the Contractor to the Govt/deducted by the Govt from the payments due to the Contractor.

(ii) The Contractor shall, within a reasonable time of his becoming aware of variation in percentage rates and/or imposition of any further “taxes directly related to Contract value”, give written notice thereof to the GE stating that the same is given pursuant to this Special Condition, together with all information relating there to which he may be in a position to supply. The Contractors shall submit the other documentary proof/information's as the GE may require.

(iii) The Contractor shall, for the purpose of this condition keep such books of account and other documents as are necessary and shall allow inspection of the same by a duly authorized representative of Govt, and shall further, at the request of the GE furnish, verified in such a manner as the GE may require, any documents so kept and such other information's 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”.

(v) Form 'D' shall be issued by the department to the contractor in respect of such items of the equipment's required for the works, the procurement of which shall be required for payment of

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interstate sales tax by the contractor. Form 'D' shall be issued in the name of contractor only. However, if the Sales Tax authority abolish Form 'D' for inter State Tax, no such form shall be issued and no claim in respect of compensation or otherwise on this account shall be admitted from the Contractor.

**28.0 SECURITY AND PASSES**

28.1 Contractor's attention is invited to condition 25 of IAFW-2249. He shall employ only Indian Nationals after verifying their antecedents and loyalty. The contractor shall on demand by the Engineer-in-Charge submit list of his agents, employees and work people concerned and shall satisfy the Engineer-in-Charge as to the bonafide of such people.

28.2 The Engineer-in-Charge shall at his discretion have the right to use passes as per rules and regulations of the installation/Area in force to control the admission of the contractor, his agents employees and work people to the site of the work or any part thereof. Passes should be returned at any time on demand by the Engineer-in-Charge or the authorities concerned and in any case on completion of work.

28.2.1 The contractor and his agents, employees and work people shall observe all the rules promulgated by the authority controlling the installation/Area in which the work is to be carried out eg, prohibition of smoking and lighting, fire precautions search of persons on entry and exist, keeping to specific routes, observing specified timing etc, nothing extra shall be admissible for any man hours etc, lost on this account.

**29.0 PRODUCTION OF VOUCHERS FOR MATERIALS**

29.1 Contractor shall produce original purchase vouchers/invoices challans along with Test Certificates wherever applicable from the manufacturers and/or their authorized agents for the full quantity of the materials as applicable as a pre requisite document before submitting claims for payment for advance on account of materials collected, in accordance with Condition 64 of IAFW-2249, General Conditions of Contracts.

**30.0 SALES TAX ON WORKS CONTRACT**

30.1 The tenderer shall specially note that his offer shall be inclusive of all taxes; statutory levies etc, including sales tax on works contract consequent upon 46th amendments to constitution of India and nothing extra shall be admissible on this account.

30.2 Any conditional tenders regarding payment of Sales Tax will not be considered and is liable to be rejected.

30.3 In terms of State Govt Sales Tax rules in vogue and as promulgated from time to time, sales tax on works contract will be recovered at source from payment to be made to the contractor at rates as specified by Govt and no extra payment shall be admissible to the contractor on this account.

**31.0 SERVICE TAX**

31.1 Please note that service tax, labour welfare cess/tax and element towards ESI & PF contribution shall be applicable to this contract besides other applicable taxes/levies as per laws of land. The quoted offer is deemed to include this provision.

**32.0 STACK MEASUREMENT**

32.1 Refer Preambles 20.A.1 and 20.B.1 of MES Schedule Part II 2010 soling stone chipping for premixed carpet etc shall be stacked at suitable level places and their measurements recorded in measurement book and signed and dated by the MES representative and the contractor as check to ensure that the required quantities have been brought at site for incorporation in the work. No deduction shall be made in the stack measurement for unevenness of ground. This provision however shall not absolve the contractor from providing more materials required to complete the

**SPECIAL CONDITIONS**

work to the required specifications and to repair potholes, cracks etc that may occur during rolling. In case contractor does not install hot mix plant for mixing bituminous premix carpet at site and desires to procure the said remarks outside agency the provisions of stack measurement of stone chips shall not be insisted upon. The qty of mixed concrete shall however, be recorded in measurement book and jointly signed by contractor and Engineer-in-Charge

**33 PERFORMANCE SECURITY AND REFUND OF PERFORMANCE SECURITY****(A) PERFORMANCE SECURITY**

33.1 Within 28 days of receipt of the letter of acceptance, the successful contractor shall deliver to the Accepting Officer a Performance Security in any of the forms given below:-

- (a) A Bank Guarantee in the prescribed form attached as Appendix 'F'.
- (b) Government securities, FDR or any other Government instruments stipulated by the Accepting Officer.

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

33.3 The period of validity of Bank Guarantee Bond against Performance Security shall be upto and including the date of expiry of the Defect Liability period. In case of any delay in completion of work, Bank Guarantee shall be extended as required, the contractor shall be directed by the Accepting Officer of the Contract to have the validity of BGB extended before expiry of defect liability period.

33.4 Failure of the successful contractor to comply with the requirement of sub clause 33.1 shall constitute sufficient grounds for cancellation of award of work and forfeit of the Earnest Money. In case of MES enlisted contractors, amount equal to 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 contractors shall remain suspended till the aforesaid amount equal to Earnest Money is deposited in Government Treasury.

**(B) REFUND OF PERFORMANCE SECURITY**

The performance security deposit mentioned under Condition 19 of IAFW-2249 will be refunded to the Contractor after the expiration of Defect Liability period (stipulated in Special Conditions 34) 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).

**34 DEFECT LIABILITY PERIOD (Refer Condition 46 of IAFW-2249)**

The defect liability period for this work shall be 24 (Twenty Four) months.

SIGNATURE OF CONTRACTOR

DATE :

AGE (Contracts)

For Accepting Officer

**PARTICULAR SPECIFICATIONS****1.0 GENERAL:**

1.1 General Rules, specifications given in the MES standard schedule of rates 2009 Part- I as well as General rules, specifications and preambles to the various rates given in MES Standard Schedule of Rates 2010 Part II shall be deemed to be applicable to the work under this contract. Material and workmanship required to be incorporated in these works shall be as given under specification and workmanship in the various trade sections of MES Schedule duly modified by these particular specifications.

1.2 Particular specifications given hereinafter are only to particularise, amend or emphasis the aforesaid specification in the MES Schedule, which are not repeated here.

1.3 Particular specifications given hereinafter shall be read in conjunction with the provision in the MES Schedule and the relevant IS referred to therein and these particular specifications. In case of any discrepancy, the provisions in these particular specifications shall take precedence. References made to clauses hereinafter shall refer to relevant clauses of SSR 2009 (Part – I).

**2.0 SCOPE OF WORK:**

2.1 The scope of work under this contract broadly comprises of “**PROVN OF TRAINING INFRASTRUCTURE ALONGEITH TRG SHED AND HARDSTANDING FOR STUDENT OFFRS AT ARMY CAN BASE, NASIK.**” and all as specified under Sch ‘A’ and as specified hereinafter :-

Job No. : 01/LBW/CATS/22-23/Q3W : PROVN OF TRAINING INFRASTRUCTURE ALONGEITH TRG SHED AND HARDSTANDING FOR STUDENT OFFRS AT ARMY CAN BASE, NASIK.

**3. MATERIALS:**

3.1 General : All materials which are not specified otherwise shall comply with the requirements of relevant Indian Standard. In case any materials not bearing IS certification mark but confirming to relevant specifications is proposed to be incorporated in the work, the samples of the same shall be get approved in writing from the GE before their incorporation in the work. The contractor shall produce samples of all materials, which are proposed to be incorporated in the work and get them approved from the Garrison Engineer before incorporation in the work. The contractor is required to obtain these materials directly from manufacturer or their authorised dealers (if any) to submit to Engineer-in-Charge/Garrison Engineer an original stamped receipted bills alongwith the relevant invoices from the manufacturers or their authorised dealers (if any) in support of having brought the full quantity, documents will be recorded in the measurement book where receipt of materials has been recorded.

**4. DEMOLITION / DISMANTLING:**

4.1 Demolition / Dismantling shall be carried out with utmost care and only to the extent as directed by Engineer-in-Charge.

4.2 The material obtained from demolition / dismantling shall be stacked at site neatly. The material obtained from demolition / dismantling shall be classified into ‘Serviceable’ and ‘Unserviceable’ by Engineer-in-Charge. The entire serviceable material shall be reused/ incorporated in the work and unserviceable materials for which credit has been offered in Sch of Credit shall be the property of contractor, balance materials shall be the property of the department and shall either by removed to MES Store Yard or disposed off as directed by the Engineer-in-Charge. The decision of Garrison Engineer as regard of classification of serviceable and unserviceable material shall be final and binding.

5. PREPARATORY WORKS: All preparatory works shall be passed by the Engineer-in-Charge before applications of any treatment. No work shall be commenced until preparatory works is passed by the Engineer-in-Charge. Cement shall not be issued by the department for stooping nail holes cracks and cavities small patch repairs and no payment shall be made for application of one additional coat treatment over patch repairs etc.

6. EXCAVATION & EARTHWORK : Excavation shall be done to the extent as ordered by Engineer-in-Charge. excavation and earthwork shall be done as per Section 3 of SSR 2009 Part-I. unit rates quoted by tenderer shall be deemed to be inclusive of provisions contained under Clause 3.12, 3.13, 3.17 & 3.18.

7. HARD CORE :Refer Clause 3.27 of MES Schedule Part-I. Hard core shall be of broken trap stones of n.exc. 63mm, well graded to provide dense and compact sub grade. Unless otherwise indicated or specified/specification, the thickness of hardcore shall be 100mm consolidated. Hard core filling where specified shall be spread, leveled in layers n.exc. 15cm thick well rammed, watered and consolidated. Moorum



**PARTICULAR SPECIFICATIONS**

may be used to fill interstices in hardcore. Thickness wherever specified/schedule of finishes shall be treated as consolidated thickness.

**8. CONCRETE:****8.1 MATERIAL**

8.1.1 CEMENT: Cement shall be ordinary Portland cement / PPC all as specified in Appx 'A' to particular specifications and shall be procured by contractor at his own cost and arrangement.

8.1.2 COARSE AGGREGATE: Coarse aggregate for all cement concrete work shall be best quality locally available graded crushed black trap stone or broken stones obtained from quarry as approved by GE. Aggregate shall be as per Clause 4.4.1, 4.4.2 & 4.4.3. The size and grading of aggregate shall be as per Clause 4.4.7(1).

8.1.3 FINE AGGREGATE: Fine aggregate (sand) shall be river sand obtained from sources as approved by GE. The sand shall be as per Clause 4.4.1, 4.4.2, & 4.4.3. The grading of sand shall be as per Clause 4.4.7 (2).

8.1.4 MIXING: All cement concrete shall be mixed in concrete mixer of approved type. However, GE may permit hand mixing where quantity of concrete to be mixed is small.

8.1.5 WORKMANSHIP: Concrete shall be mixed by volume in preparation as specified under Sch 'A'. Concrete shall be mixed in mechanical mixer only. Transportation, curing etc. shall be all as specified under SSR 2009 Part I, Section 4.

**9. WOODWORK & JOINERY :**

9.1 TIMBER : All timber for wood work and joinery (except particle boards, block boards and ply wood unless otherwise specified hereinafter) shall be of 2nd class hard wood of species as indicated in Para 7.8.1 of SSR Part - I.

9.1.1 Maximum permissible moisture contents in timber for various purposes is stipulated in IS-287 and also refer paras 7.6 and 7.7 of SSR, Part-I. Work under this contract falls under climatic Zone-II.

**9.2 WORKMANSHIP**

9.2.1 GENERAL: General requirement for workmanship in the joinery work shall be as per Clause 8.15 to 8.17.

9.2.2 WOODEN CHOWKAT: Timber frames and chowkat shall be all as specified under Clause 8.18. Chowkat shall be fixed as per clause 8.19 as applicable.

9.2.3 SHUTTERS : General requirement of shutters shall be as per Clause 8.2 to 8.2.7.

9.2.3.1 PANELLED / GLAZED / GAUGED SHUTTERS : Shutters shall be made as specified under Clause 8.21. For panel shutter, panel shall be fixed by beading. Panel inserts shall be veneered particle board, timber, or plywood panelling as directed as per Clause 8.21.5 to 8.21.5.4. Glazed/gauged shutters shall be as per clause 8.21.6 and 8.21.7. Dimension of members of shutters shall be as per clause 8.24. Shutters shall be fixed as per Clause 8.26.

9.3 FACTORY MADE SHUTTERS : All paneled / glazed / wire gauged shutters of doors shall be factory made, manufactured in accordance with IS- 1003, made of well selected kiln seasoned, chemically pressure treated, second class hardwood ( as approved by GE). Styles, rails and gazing bars shall be as specified in clause hereinbefore. Panel inserts shall be 12mm thick particle board commercial on both faces, confirming to specifications mentioned. Thickness of shutter shall be as mentioned in Sch 'A' against relative items.

9.3.1 A Tolerance of (plus / minus) 3mm on width and height only shall be allowed, provided the shutter snugly fits into the frame. The thickness of shutter given in drawing shall be the finished thickness and no tolerance on this shall be permissible.

9.3.2 A Tolerance of (plus / minus) 3mm on width and height only shall be allowed, provided the shutter snugly fits into the frame. The thickness of shutters given in drawing shall be the finished thickness and no tolerance on this shall be permissible.

9.3.2 The GE should visit the factory when a lot of factory made paneled shutters are ready for dispatch to site. The GE should ascertain whether the testing facilities are available for seasoning, preservative treatment of timber and shutters are manufactured as per IS – 1003 specifications.

**9.4 FLUSH DOOR SHUTTER :-**

**PARTICULAR SPECIFICATIONS**

Flush door shutter all as specified in Schedule 'A' and shall be factory made solid core construction with block board core and shall be ISI marked. Plywood face panel shall be of non decorative commercial on both sides bonded with phenol formaldehyde synthetic resin. Shutter shall be internally lipped.

9.4.1 **WORKMANSHIP** :- Workmanship shall be as specified in MES Schedule as applicable.

9.4.2 **WELDING** :- Welding shall be in accordance with Clause 10.15 of SSR Part I

10. **PVC DOORS**

10.1. All door frame / shutters of all toilets shall be of PVC as per details given in Sch 'A' and as specified/ shown in drawing in MES Schedule Part I and Part II.

11. **PARTICLE BOARD**

11.1 Particle board shall be bonded with BWR type synthetic resin adhesive and shall conform to exterior grade of IS 3087 flat pressed, three layers. It shall be ISI marked.

12. **BUILDERS HARDWARE** :

12.1 All articles of iron mongery shall confirm to the specifications given in Section 9 of MES Schedule 2009, Part I. The contractor shall produce the samples of each articles of iron mongery and get approved in writing by the GE. The articles of builders hardware shall bear ISI mark wherever available.

12.2 Butt hinges and Tee hinges shall be stainless steel and shall be of bright finish with smooth surfaces.

13. **SANITARY APPLIANCES** :

13.1 **GENERAL** : General requirement of sanitary appliances shall be as per Clause 18.80 to 18.85 and 18.32. All sanitary fittings shall be of first quality.

13.2 **SOIL / WASTE AND VENT PIPE** : Provide 100mm dia cast iron soil pipe from outlet of WC with cast iron bends, double 'Y' junction etc. and shall be connected to first manhole. 'Y' junction / bends on external wall shall have oval access door. Waste pipes and vent pipes shall be rigid PVC pipes conforming to IS-1985. Vent pipe shall be provided with PVC cowl. PVC vent pipe shall be of 75mm dia.

13.3 **TESTING** : Testing of sanitary installation and internal plumbing shall be carried out as per Clause 18.93.4.

13.4 **MATERIALS** :Appliances shall be white as per Clause 18.32.1. Make of appliances shall be of approved manufacture and as approved by GE.

13.6 **MIRROR** : Mirror shall be made of selected quality sheet glass of thickness as indicated in Sch 'A' with edges rounded or leveled as specified in clause 18.38 of SSR Part-I. The mirror shall be approved make and of size as directed and shall be mounted as directed by Engr-in-Charge.

13.7 **BIB TAPS & STOP VALVES** : These shall be of brass cast forged all as per 18.14.1 of SSR Part-I of approved make with ISI mark.

13.8 **PILLAR TAP** : Pillar taps shall be of size & type as indicated under Sch 'A' conforming to IS-1795-1982 as per Clause 18.16. Make of bib taps & valves shall be as approved by GE

13.9 **HDPE WATER STORAGE TANK**: HDPE water storage tank shall be double layered cylindrical vertical type, IS-12701 – 1989 marked of capacity as indicated in Schedule 'A'

14 **PLASTERING**:

14.1 **General** – Surface to the plastered/pointing shall be prepared well wetted as specified in Clause 14..14 and 14.14.1 on serial page No 315 of SSR Part – I. The contractor shall take every precaution right from the commencement of the plaster and shall be responsible to make good any portion of plaster work which in the opinion of Engineer-in-Charge required removal and redoing.

14.2 **Sand** : Sand for all plastering work shall be obtained from approved sources and shall conform to or be superior in quality to the sample kept in the office of GE. The grading of sand shall generally conform to IS 388 as specified.

14.3 **Plastering** : Thickness and mix of cement plaster shall be as indicated in relevant items as directed at site. Water proofing liquid shall be mixed where indicated. Finishing shall be fair and even or even smooth as indicated in relevant items. Water proofing liquid shall be as described in clause 13.6.2 hereinbefore.

**PARTICULAR SPECIFICATIONS****15. PAINTING****15.1 GENERAL**

15.1.1 Painting shall comply with the requirements given in clause 17.2 of SSR Part I 2009. Finishing coat shall be of glossy finish.

15.1.2 Preparation of surfaces prior to painting shall be carried out all as specified in Section 17 of SSR Part-I.

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

15.1.4 All paint shall be synthetic enamel paint and shall be obtained from any one of the following manufacturer/authorised dealers and shall be first grade/first quality.

15.1.5 The Contractor shall inform the GE within 2 (Two) weeks of the acceptance of the tender the name of the manufacturer and brands of paints he will use in the works and submit samples there of and obtain prior written approval of GE before their use in the works.

15.1.6 The contractor if so required by the GE shall produce original paid printed vouchers from the manufacturers or their authorised dealers to establish that the paints conform to above specifications.

15.1.7 The Contractor shall ensure that the paints used are actually those that have been approved by the GE.

15.1.8 Tint/shade of paint shall be as approved by GE.

15.1.9 Work shall be executed all as described in Schedule 'A' and as specified in Section 17 (as applicable) of SSR 2009 Part-I.

**16. PAINTING TO WOOD WORK**

16.1 Where painting to wood work is required prepare surface and apply one priming coat of pink primer, the under coat and one finished coat of synthetic enamel paint all as specified in SSR Part I. All surface of timber exposed to view and for which no type of finish is specifically catered for in these particular specifications shall be treated with coats of paint as specified hereinbefore. However for timber surfaces only one coat of synthetic enamel paint is sufficient.

**16.2 PAINTING TO STEEL WORK**

16.3.1 Where painting to steel and iron work is indicated in drgs. Prepare surfaces and apply one priming coat of red oxide one under coat and finishing coat of synthetic enamel paint all as specified in the SSR Part I.

16.3.2 The steel surface which are required to be given three coats of paint primer coat being given after fabrication but before assembling and erection.

**17. BRICK WORK :**

17.1 Bricks shall be best locally available kiln/clamps burnt bricks as per sample kept in the office of GE. The nominal size shall be 20 to 23cms long x 10 to 12cms wide x 6 to 8cms thick. Bricks shall be tested if ordered by GE. Testing charges shall be borne by contractor.

17.2 Thickness of bed/vertical joints shall not exceed 15mm. Clause 5.26 of MES Sch Part I regarding thickness of joints shall not be applicable to the work covered under this contract.

17.3 Sand for masonry mortar shall consist of natural sand confirming to IS-2116. Sand shall be hard durable clean and free from adherent coating and shall not contain clay and impurities and all as specified in Clause 5.4 of MES Sch Part I.

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

18.1. **GALVANISED STEEL SHEETING** : The plain or corrugated galvanized steel sheets shall be as per clause 10.29 and shall comply with the requirement of IS 277-1992 with Zink coating of 275 gm/Sqm. The



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sheets shall be fixed as directed by Engr-in-Charge. The rate quoted shall include for the cost of cutting, bending, drilling etc complete including fixing.

**19. CEMENT BASE PAINT :**

19.1 Two coat of cement base paint shall be applied over one coat of white wash. Cement paint shall be conform to IS-5410 and shall be applied as specified in clause 15.15 of SSR Part I.

19.2 Colour / Shed of cement paint shall be approved by GE. Cement paint shall be procured from the approved manufacturer listed hereinafter.

20. **ALUMINIUM DOORS / WINDOWS / VENTILATORS:** Aluminium members shall be as directed and shall be powder coated or as approved by GE. The fittings associated with doors and fixing shall be as per manufacturers instructions.

20.1 PVC neoprene gasket shall be used in the glazing beads and around the shutters of windows, ventilators

**21. WATER PROOFING TREATMENT TO ROOF SLAB:**

21.1.1 Water proofing treatment to RCC roof slab including roof projection, gutters shall be provided all as specified hereinafter.

21.1.2 Approved makes for APP membrane and treatment shall be as follows: -

- a) Moply FP of M/s STP Texsa Ltd
- (b) Super Thermolay manufactured by M/s Shalimar Tar Products Ltd.
- (c) Dr. Fixit of M/s Pidilite Industries Ltd.
- (d) Hydro stop of Tiki Tar Sanos (India) Pvt Ltd
- (e) IWL India Limited
- (f) Asian paint Limited

21.1.2.1. The surface of roof, parapet and gutters, drains mouths etc over which water proofing treatment is to be applied, shall be cleaned of all foreign matter such as fungus, moss, dust etc by wire brushing and dusting. For cast iron / PVC drain outlets a groove shall be cut around to tuck in the treatment. Concrete angle-fillets shall be provided at junctions between roofs and vertical faces of walls (parapet and other walls), around obstacles such as pipes, chimney stacks etc and other similar situation to ease up about corners.

21.1.3 The overlaps for APP membrane shall be of minimum 100mm on longitudinal direction and 150mm on transverse direction.

21.1.4 The membrane shall conform to following specifications: -

- (a) Softening point  $140^{\circ}\text{C}$  (minimum).
- (b) Cold flexibility  $(-) 5^{\circ}\text{C}$
- (c) Single central non-woven polyester reinforced:  $> 160\text{ gm/Sq.m}$
- (d) Joint strength in longitudinal direction:  $650\text{ N} / 5\text{ cm}$ .
- (e) Tear strength in longitudinal and transverse direction –  $350\text{ N} / 5\text{ cm}$
- (f) Minimum elongation: 20% in both directions
- (g) Dimensional stability: Maximum 1% change
- (h) Water tightness at :  $2\text{ Kg. f} / \text{cm}^2$
- (j) Water absorption: Not more than 1% of mass in 24 hours.

21.1.5 The above treatment shall be carried out as per manufacturer's instruction, through manufacturers or their authorized applicator only and record to that effect shall be maintained. Each stage of treatment shall be approved by the GE in writing to ensure full-proof ness of the treatment.

**Note:** The contractor shall furnish the following: -

- (i) Quality confirmation from the manufacturer of the product along with quantity supplied.
- (ii) Manufacturers test certificate.
- (iii) Test results if tested in any of the independent laboratory. The testing charges shall be borne by the contractor.

21.1.6 Contractor shall submit original purchase voucher and test certificate of the manufacturer co-relating the date of manufacture and batch number. The test certificate shall indicate softening point, cold flexibility / pliability, tensile strength and elongation. The membrane shall contain the name of manufacturer logo and sticker (which should specify the name and the details of original product), which will be verified by the

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Engineer-in-Charge before approval by GE for incorporation in the work. The firms imparting the membrane and re-branding with their own name should invariably intimate the name and documentary evidence of original product etc while seeking approval.

21.1.7 Engineer-in-Charge shall carry out independent testing of the material at one of the following testing house / laboratories having requisite testing facilities.

- (a) VJTI (Veer Mata Jijabai Technological Institute) Matunga, Mumbai
- (b) Shree Ram Institute, Delhi.
- (c) Attuned polymers, 310, C-Wing, Bhaveshwar Plaza, LBS Marg, Ghatkopar (W) Mumbai
- (d) Govt Engg College Nasik / Ahmednagar / Aurangabad having facility for testing of material.

All the expense for independent tests shall be borne by the contractor.

The membrane for waterproofing treatment shall be obtained from one of the makes specified here in before.

21.1.8 All water proofing work using APP membrane shall be carried out through manufacturer or their authorized applicator of respective manufacturers as mentioned here-in-after. Contractor shall produce valid certificate from respective manufacturer regarding authentication and adequate experience of applicator. Engineer-in-Charge should verify correctness of material, manufacturer and applicator, contractor intent to engage in the work and all such record shall be sent to GE for prior approval.

21.2 At the junction of parapet and RCC roof, PCC benching in 1:2:4 type B1 shall be provided to drain of rain water before laying water proofing treatment over the roof slab. The water proofing treatment shall be extended up to a full height and width of parapet / curb wall. APP membrane shall be adequately grooved at the end into the wall for preventing in grace of water.

21.3 The main contractor shall stand guarantee to the government for a period of **TEN** years from the date of taking over the completed building for the efficiency and effectiveness of the treatment carried out (except aluminium paint). The main contractor shall furnish a written guarantee in favour of GE on a non-judicial stamp paper of value Rs. 100/- along with a guarantee certificate from manufacturer in favour of Garrison Engineer immediately on completion of the work as per proforma attached in **Appendix 'B'**.

21.4 **CERTIFICATE BY SPECIALISED FIRM:** A specialized firm who has executed the work of water proofing treatment under the contract shall render certificate to the department stating that the said work has been executed by them and shall be signed jointly with the main contractor.

21.5 **GUARANTEE FOR WATER PROOFING TREATMENT:** The contractor shall give a written guarantee for (10) Ten years from the certified date of completion of entire work for the effectiveness of the water proofing treatment carried out in the prescribed Proforma as given in Appendix 'B' in favour of Garrison Engineer, Nasik Road. For giving guarantee, if any additional treatment over and above that is specified is required, the same shall be carried out by the contractor without any extra cost to the Govt. The guarantee for water proofing treatment shall be furnished by the main contractor and not be the specialised firm. This guarantee does not however absolve the main contractor from his responsibility in respect of this specialist work as per contract conditions. The main contractor shall be responsible to ensure that the buildings are kept free from water leakage / seepage / dampness during guarantee period.

21.6 **GUARANTEE AMOUNT:** An amount equal to the individual security deposit worked out on the cost of roof treatment at contract rates towards guarantee for water proofing treatment work done on roof shall be retained out from the final bill as guarantee amount for **10** years towards the performance of the work executed i.e. water proofing treatment. This amount shall be released after successful expiry of the guarantee period provided there are no water leakage / seepage / dampness in the buildings and the contractor shall first have been paid final bill and have rendered a 'No demand Certificate' [IAFW – 451]. The Security Deposit referred to in Condition 22 of General Condition of Contract [IAFW-2249] is independent of the Guarantee amount referred herein before. Conditions 10, 46 & 68 of the General Condition of Contract [IAFW-2249] shall be deemed to be amended to the extent mentioned above. However, the guarantee amount will be released to the contractor if a fixed deposit in the name of "Garrison Engineer, Nasik Road" for equal amount for 10 years is submitted by the contractor. The fixed deposit amount shall be released to the contractor after expiry of guarantee period satisfactorily. If any defect is noticed during the guarantee period, it should be rectified by the contractor within seven days from the date of receipt of demand in writing from the GE and if the contractor fails to do so, the same shall be got done through other agency at the risk and cost of the contractor.

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21.7 Should the GE at any time, during the construction or prior to the expiry of said guarantee period, finds that the bldg having water leakage / seepage / dampness the contractor shall on demand in writing from the GE specifying the buildings complained of, notwithstanding that the same may have been inadvertently passed / certified and paid for, undertake to carryout such treatment as may be necessary forthwith to render the buildings free from leakage / seepage / dampness at his own expense till the expiry of the guarantee period. In the event of Contractor's failure to do so, within the specified period to be specified by the GE in his demand aforesaid, the GE may undertake through other agency at the risk and cost in all respect of the contractor. The liability of the contractor under this condition shall, however not extend beyond the period of 10 years from the certified date of completion, unless the GE had previously given notice to the contractor to rectify the defects.

21.8 In order to facilitate the watch of satisfactory fulfillment of guarantee, the contractor shall provide a board of adequate dimensions but not less than 600mm x 450mm x 20mm, set and pointed in CM (1:4) on all the buildings at 900mm above the plinth level as directed by the Engineer-in-Charge and indicate thereon the Contract No., Name of the contractor, Name of the agency who has executed the water proofing treatment, date of completion of the work and the date of expiry of the guarantee period.

21.9 PONDING TEST FOR COMPLETED WPT: After completion of WPT all as specified, the entire work shall be pond testing by providing bunds with mud or lime mortar as feasible as per site requirement all around and blocking water spouts / openings for a period of 24 hrs by ponding with water 5 to 7.5cm in height in the presence of GE. The GE should certify completion of WPT only after ensuring that no seepage / leakage is observed during pond testing. Otherwise WPT shall be redone in affected area. Aluminium paint all as specified shall be then provided over approved WPT.

**22. GI TUBING & FITTINGS**

22.1 MATERIAL : GI Tubing shall be of medium grade & bore as specified under Sch 'A' conforming to IS-1239 (Part I) 1979 as per Clause 18.4. GI tubes and fittings shall be ISI marked

**22.2 WORKMANSHIP :**

22.2.1 External GI tubing shall be laid as per clause 18.50 and internal tubing shall be laid as per Clause 18.51 and as directed by Engineer-in-Charge.

Connections from and to Water storage tanks shall be as under: -

- (i) Inlet shall be provided with valve/stop cock on the riser and controlled by ball valve in the tank.
- (ii) Outlet shall be provided with valves/stop cock and shall be 5cm above bottom of tank.
- (iii) Anti airlock air vent pipe shall be provided and branched from outlet.
- (iv) Over flow shall be provided slightly above level of inlet pipes and should be discharged at a conspicuous spot clear off the roof and not on the roof.
- (v) Washout pipe of 25mm dia of 15cm short length shall be provided and shall be plugged at the end.

22.2.2 Water tubing shall be galvanized MS screwed and socketed and tubing and fittings shall comply with relevant IS specified in para 18.4 and shall be medium grade.

22.2.3 Unions shall be provided before stopcocks as per the directions of the Engineer-in-Charge for easy removal/repair of pipes/fittings for each branch of inlet/outlet etc.

22.2.4 All pipes and fittings are to be put together with white lead and fine spun yarn. The whole of the pipes and connections are to be fully tested and left drip dry. Test report shall be jointly prepared and signed by the Contractor and Engineer-in-Charge.

22.2.5 All GI pipes/fittings and fixtures such as stop cock, bib cock shall bear ISI certification mark or of specified make.

22.2.6 Water supply lines inside the buildings shall be on surface.

22.2.7 All the pipe line/fittings are to be fixed consecutively & serial wise. Fixing of pipeline and then inserting of fittings will not be allowed.

22.2.8 After the completion of testing all the chases, holes are to be properly filled with plaster in CM (1:3) properly finished so as to match with the existing surfaces.

22.3. FITTINGS: - All fittings are to be accurately placed in the position as directed by the Engineer-in-Charge, plugged to walls with hard wood or any other approved plugs, set in cement as required and are to be

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left in clean, sound and in perfect condition. All sizes and lengths are to be verified at site. The work described in this specification is to include all jointing materials; wall hooks etc, necessary to make the construction perfect. Washer for taps shall be of good quality fiber or the GE may approve specifically selected leather or plastic.

**23. GLAZED CERAMIC TILE :**

23.1 Glazed ceramic tile shall conform to IS-13712 grade B-11 (a) and shall be laid as specified in clause No 13.40 of SSR Part I. Colour & shade of the tile shall be got approved from Accepting Officer before incorporation in the work.

**24. CERAMIC TILES IN DADO / SKIRTING:**

24.1 Ceramic tiles in dado / skirting shall be confirming to IS – 13712 grade B-II (a).

24.2 The size of tiles shall be as directed

24.3 The tiles shall be laid over 10mm thick bedding / backing layer in CM 1:4 and shall be as specified in Clause No. 13.40 of SSR Part – I – 2009.

24.4 The tiles shall be tested at the sampling rate given in IS – 13712.

24.5 NON SKID CERAMIC TILE : Provide non slippery ceramic tiles in flooring/skirting as under :-

a) Non slippery ceramic tiles shall be of size 300x300mm and 7mm thick.

b) Tiles in flooring shall be laid over 15mm thick bedding layer as specified in Clause No 13.40.2 of SSR Part I. Tiles 150mm height in skirting shall be laid over 15mm thick backing coat in CM 1:4 and shall be as specified in Clause No 13.40 of SSR Part I.

c) Colour and shade of the tiles shall be got approved from the GE before incorporation in the work.

25 PRECAT INTERLOCKING PAVER BLOCKS :- Precast interlocking tiles shall be all as specified in Schedule 'A' and as specified in Clause 13.18 of MES Schedule Part I

**26. RAKING OUT JOINTS**

26.1 The existing joints shall be raked out without disturbing the edges of the pavement. Damages on this account shall be made good at the risk and cost of the contractor. The raking out joints shall also include removing dismantled rubbish of sealing compound, mud cakes or dust and grass accumulated on the top of the joints. After raking out the joints, these open joints of runway shall be dusted cleaned and rubbish removed beyond the runway as directed by the Engineer-in-Charge. The raking out shall be done as above for the entire width throughout and to the satisfaction of the Engineer-in-Charge. The contractor's unit rate shall be deemed to be included for raking out mud and cake, disintegrated rubbish or flakes and grass on the top of sealing compound joints. Cleaning of joints shall be done with air compressor.

**27. WORKMANSHIP**

27.1 The sides of the joints shall be primed with the primer as specified after the joints are completely cleaned and dried. Priming shall be carried out as per manufacturers instructions and as specified in clause No 20-B 6.18.3 on Page No 20-11 of SSR Part-I.

27.2 Allow primer to dry. It should not be tacky touch.

27.3 Heat sealing compound in a boiler. The boiler should be fed with broken pieces of compound and not lumps. DO NOT OVER HEAT THE COMPOUND. Keep a bitumen thermometer and exceed pour point by 20<sup>0</sup> C. Over heated material becomes brittle and not adhere to concrete.

27.4 Transfer compound to a melter pourer without delay and pour in the joints so that there is no spillage or overflow from the joints. The pouring shall be filled with approved sealing compound as per manufacturers instructions and all as specified in clause 20-B 6.18.4 of SSR 2009 Part I. Mechanical means viz by fixing caulking to mechanical trophy designed suitable for the purpose. Hand pouring is prohibited. The sealing compound shall be filled through out the depth and width as specified in Sch 'A'. If pouring is done in winter, the joint should be slightly poured over the slab surface. The sealing must be free of bubbles and entrapped air holes. THE COMPOUND SHOULD NOT BE REHEATED AFTER A BREAK IN WORK, THE ENTIRE QUANTITY HEATED ONCE WILL BE CONSUMED REJECTED.

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27.5 Any excess compound on the surface of concrete will be scraped with a sharp tool and the pavements, cleaned. Traffic will not be allowed when the filled joint is till tacky.

27.6 While carrying out the work the pavement spoiled due to stains of sealing compound shall be cleaned by the contractor without any extra cost.

27.7 After completion of every days works, contractor shall remove all the balance quantity of materials, tools/plants etc from site & the site of work shall be cleaned and tidy as per direction of Engineer-in-Charge. Contractor's special attention is invited that wherever raking out of joints shall be carried out, filling of joints for this portion shall be carried out on the same day.

28 **JOINT IN CONCRETE PAVEMENT (USING SEALING COMPOUND)**

28.1 **General** : Joints shall be of types and dimensions as indicated in Sch 'A' and as directed by Engr-in-Charge.

28.2 Filling of construction / dummy joints / expansion joints shall be of sizes of indicated as Sch 'A' and shall be done all as specified in clause 20.B.7.10.2, 20.B.7.10.3 and 20.B.7.10.4 of SSR Part I respectively.

29. **WHITE WASH / COLOUR WASH**

29.1 **MATERIAL** : Lime for white washing and the ochres for making colour wash shall be as per Clause 15.2 and 15.3 of SSR 1991 Part I respectively.

29.2 **WORKMANSHIP** : Workmanship shall be as per Clause 15.10, 15.11 & 15.12 of SSR 1991 Part I.

30. **DISTEMPERING WITH OIL EMULSION DISTEMPER**

30.1 **MATERIALS**

30.1.1 Oil emulsion distemper shall comply with IS-428-1969. Specifications for oil emulsion distemper. The material shall be in the form of a homogeneous paste free from odour of purification as and when mixed with water. The tint/shade shall be as approved by Garrison Engineer. The Contractor shall submit samples and obtain prior written approval of GE before their incorporation in the work.

30.1.2. **WORKMANSHIP** : Work shall be executed all as described in Schedule 'A' and as specified in clause 15.14 of SSR 2009 Part – I.

30.1.3 One particular manufacturer's paints shall be used in one locality in order to ensure the uniformity of shades.

31. **GLAZING**

31.1 **SHEET GLASS**: Sheet glass for glazing shall be plain, clear, ordinary quality free from specks, bubbles, smoke wanes, air holes and other defects and shall conform to IS-2835. The thickness of sheet glass where not indicated on drawings shall be 3 mm nominal thickness for the panes not exceeding 0.5 Sq.m each and 5 mm (nominal thickness) for panes exceeding 0.5 Sq.m each. Glazing shall be done with sheet glass to all window except in situations wherein pin headed glass has been specified hereinafter. Thickness of glass for aluminium doors / windows shall be 5.5mm irrespective of size of glass panes.

32. **CONCRETE PIPE NP-2** : Reinforcement concrete pipes for drains shall be non pressure type, class NP-2 and shall conform to IS 458-1971. The concrete pipes shall be straight & free from cracks. The end of pipes shall be square with their longitudinal axis so that when placed in a straight line in the trench, no opening between ends in contact shall exceed 3 mm in pipes upto 600 mm dia. The outside & inside surface of the pipe shall smooth, dense & hard & shall not be coated with cement wash or other preparation. The pipes shall be free from local dents or bulges greather than 3 mm in depth & extending over in length in any direction greater than twice the thickness of barrel. Make - M/s National Concrete Wks, M/s Ruby Concrete Works.

33. **PVC (SWR) Pipes** :

39.1 PVC (SWR) shall be conforming to IS-4985 and shall be ISI marked. It shall be fixed with MS clamps/ laid in trenches all as specified in clause 11.37.523.0

34. **Low Density Polyethylene (LDPE) Pipes**

LDPE pipes shall conform to IS 3076-1985. Specification for low density polyethylene pipes for potable water supply. Pipes shall be smooth clean and reasonably free from grooving and other defects. LDPE Pipes shall be of pressure ratings (working pressure) 2.5, 4, 6 and 10 Kg/cm<sup>2</sup> as indicated.

Note :- Polyethylene and PVC pipe are designated by their outside diameter.



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34.1. **FITTINGS:** - All fittings are to be accurately placed in the position as directed by the Engineer-in-Charge, plugged to walls with hard wood or any other approved plugs, set in cement as required and are to be left in clean, sound and in perfect condition. All sizes and lengths are to be verified at site. The work described in this specification is to include all jointing materials; wall hooks etc, necessary to make the construction perfect. Washer for taps shall be of good quality fiber or the GE may approve specifically selected leather or plastic.

35. **PVC DOORS**

35.1. All door frame / shutters of all toilets shall be of PVC as per details given in Sch 'A' and as specified/ shown in drawing in MES Schedule Part I and Part II.

35.2 **WORKMANSHIP**

35.2.1 **GENERAL:** General requirement for workmanship in the joinery work shall be as per Clause 8.11.3 to 7.11.13.

35.2.2 **WOODEN CHOWKAT :** Timber frames and chowkat shall be all as specified under Clause 8.14. Chowkat shall be fixed as per clause 8.15 as applicable.

35.2.3 **SHUTTERS :** General requirement of shutters shall be as per Clause 8.16.2 to 8.16.7.

36. **FORM WORK:** Refer Clause No. 7.15.1 of MES Schedule Part-I.

37. **DESIGN MIX CONCRETE**

37.1 Design mix concrete shall be as per clause 4.11.2.1 of SSR Part I and IS-456. Proportions of cement and aggregates with water to obtain required strength specified shall be determined by weight by the contractor. The contractor shall prepare a trial mix and get the same tested to verify the required workability and characteristic strength. The contractor shall ensure the achievement of the defined strength of the concrete and no laxity shall be allowed on this account.

37.2 **LABORATORY MIX DESIGN AND TESTS**

As soon as possible, after receiving the order to commence work, the contractor shall procure sufficient quantities of required type of aggregates, cement and water and find their characteristics for suitability of the specifications. Based on the result of such verification, he shall carry out number of trials to determine the optimum mix to produce the specified slump and 28 days target mean strength. Each of these cubes shall also be tested simultaneously for 7 days result as guidance for job user. If the contractor so desires, he may commence the works based on test results of 7 days strength to be commensurate with the corresponding 28 days strength at his own responsibility. The trials shall be jointly carried out in the laboratory as detailed below. **The mix shall finally be approved by GE.**

Cost of materials, labour and other incidental including transportation charges for all test including the routine work test specified hereinafter shall be borne by the contractor. However the departmental laboratory facilities where available will be extended with the **payment of specified** charges. Following data and results thereof shall be submitted to the GE by the contractor for approval of mix design prior to commencement of the actual works :-

- (a) Grading and density of coarse and fine aggregates proposed to be used.
- (b) 7 and 28 days compressive strength of the cement concrete.
- (c) Mix proportion of aggregates, cement, any admixture and water for consistency (slumps) tests and their results.
- (d) Strength characteristics obtained both for 7 and 28 days compressive strength for the selected trial mixes, using minimum water cement ratios
- (e) Results of additional trials till the desired slump value was reached and the target mean strength is obtained to achieve the specifications.

37.3 For design mix, it will be express condition that only weigh- batching shall be followed and no conversion of weights into volumes shall be permitted.

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37.4.1 The mix design other than RMC shall be carried out from **NIT/Govt Engineering College/National Test House/Regional Research Laboratories/CTL/CSRL other test houses having NABL accreditation for carrying out such tests.** Works shall be executed accordingly, keeping in view the requisite strength criteria of concrete and structural stability and the contractor shall be fully responsible for the same. The contractor shall be responsible for the use of requisite quantity of cement to achieve the quality and strength of the concrete as per various provisions of IS 456-2000. The contractor is deemed to have verified and obtained details applicable to this effect at a particular station before quoting tender and no claim whatsoever, shall be entertained on account of variation in the quantity of other ingredients of concrete.

**37.5 SAMPLING AND TESTING OF CONCRETE :**

37.5.1 Refer Clause No. 4.11.17 of MES Schedule Part I, which shall be read in conjunction with clause 16 of IS-456.

37.5.2 Tests will be carried out on 15 cm cubes all as per IS-516. Minimum Six cubes per sample shall be supplied by the contractor for testing.

**38 STEEL AND IRON WORK**

38.1 **GENERAL** All steel required for the work under the contract shall be procured, supplied and incorporated in the works by the contractor under his own arrangement.

**38.1.1 Grade and Quality**

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

**(a) STEEL FOR CONCRETE REINFORCEMENT**

(i) Irrespective of what is indicated/shown on drawing reinforcement bars shall be high strength deformed Steel Bars produced by Thermo Mechanical Treatment process (TMT steel bars of grade Fe 500) meeting all the requirements of IS 1786. (ii) However reinforcement steel for water treatment plants, sewage treatment plant, overhead water tanks and other water retaining structures shall be corrosion resistant steel TMT bars produced from micro alloyed billets.

**(b) STRUCTURAL STEEL**

(i) Structural Steel of Standard Quality shall conform to IS-2062 and Grade E 250 (Fe 410 W quality 'A'). This type of steel shall be provided for all structural steel works in the locations mentioned in drawings and in clause 10.4.1 of MES Schedule Part-I.

(ii) Structural Steel "Ordinary Quality" shall be used in guard bars, grills and like and shall conform to E 165 (Fe 290). This type of steel shall be provided in the locations specified in drawing and in clause 10.4.2 of MES Schedule Part-I.

(c) Hard drawn steel wire fabric for concrete reinforcement/Fabric reinforcement shall conform to IS-1566.

(d) Galvanised steel sheets (Plain and Corrugated), shall conform to IS-277 and having minimum zinc coating of 120 gm per Sqm, Gde 'B' corrugation.

**Note:** Any items of steel specified in clause No. 8.1.1 (a) to (d) above not conforming to 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 this own cost within 7 (Seven) days. The contractor will have no claim whatsoever on this account.

**38.1.2 SOURCE OF PROCUREMENTS:****A (i).REINFORCEMENT STEEL (TMT BARS):**

(a) Reinforcement steel shall be TMT bars grade Fe-500, 500d, Fe-550, 550d as specified in the structural drawings. If no grade is specified it shall be deemed to be grade Fe-500.

(b) The contractor shall procure all reinforcement steel directly from the main producer/manufacture or their authorised agent as under: -

(i) SAIL (ii) RINL (iii) TISCO (iv) SHYAM STEEL INDUSTRIES LTD (v) JAI BALAJI INDUSTRIES (vi) STEEL ROLLING MILLS LTD (vii) JINDAL STEEL & POWER LTD

**A (ii).REINFORCEMENT STEEL (TMT CRS BARS):**

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(a) The contractor shall procure corrosion resistant steel TMT Bars produced from micro alloyed billets directly from the main producer/ manufacturer as under: -

- (i) Steel Authority of India Limited (SAIL)(ii) Rastriya Ispat Nigam (RINL)(iii) Tata Iron & Steel Company (TISCO or Tata Steel)(iv) M/s SHYAM STEEL INDUSTRIES LTD(v) M/s JAI BALAJI INDUSTRIES  
(vi) M/s SRMB Srijan LTD.(vii) M/s Jindal Steels and Power Ltd.(TMT)(viii) M/s Steel Exchange India Ltd.  
(ix) M/s SPS Steel Rolling Mills Ltd.(x) M/s Concast Steel & Power Ltd, Kolkata(xi) M/s Adhunik Metals Ltd, Orissa(xii) M/s Shri Bajrang Power & Ispat Ltd Raipur, Chhatisgarh(xiii) M/s JSW Steel Ltd, Karnataka  
(xiv) M/s Electro steel Steels Ltd Bokaro, Jharkhand(xv) M/s Shyam Metalics& Energy Ltd.  
(xvi) M/s Kamachi Sponge & Power Corporation Ltd.

**B. STRUCTURAL STEEL:** The contractor shall procure all structural steel directly from the main producers or from their authorized agent or be procured from approved secondary producers as under :-

- (i) M/s KashiVishwanath Steel Ltd  
Kashipur, A-80, VivekVihar Phase-I,  
Delhi-110095
- (ii) M/s Shri Badrinarain Alloys and Steel Ltd,  
95, Stephen House, 4 BBD Bag, Kolkata-700001  
Tel: 033 2220, 5381/2248 1601,  
Fax: 033-22488664
- (iii) M/s KL Steel Pvt Ltd  
Post Box No. 61, LalKuan, Bulandshahr Road,  
Ghaziabad (UP), Tel: 2867917, Fax No 0210)
- (iv) Amba Shakti Ispat Ltd  
Plot No 6, Phase-II, Industrial Area, Kala Amb,  
Distt: Sirmour-30
- (v) Pushpak Steel Industries Pvt Ltd,  
Gate No 119, AlandiMarkal Road, Dhanore,  
Tah: Khed, Pune

38. **CHAIN LINK FENCING**

38.1 Chain link fence shall be made of galvanized wire and shall conform to IS : 2712-2003 (Specification for galvanized steel wire chain link fence) and as specified in SSR Part I Clause No. 10.34. Dia of wire and the length of side of the mesh of chain link fence and the dia of line wire shall be as indicated. The wire shall be free from scale, irregularities, imperfections, flaws, sand splits and other defects. Zinc coating shall be smooth, even and bright. Chain link to fencing shall be fixed to the fencing posts as indicated or directed.

39. **BARBED WIRE**

39.1 Galvanised steel barbed wire for fencing shall conform to IS 278-2009 (Specifications for galvanized steel barbed wire for fencing). The galvanized mild steel wire shall be confirm to IS 280-2006. The barbed wire shall consist of two lines wire 2.24 mm dia, wire end 2mm dia barbs at 75mm center to center and weighting 97 to 106 Kg per Km. The bars shall have a length of not less than 13mm and not more than 18mm. the point shall be sharp. The line and point wire shall be circular in section, free from scales and othe defects and shall be uniformly galvanized. The line wire shall be in continuous lengths and shall not contain any welds other than those in the rod before it is drawn. It shall be all as specified in Clause 10.32 of MES Schedule Part I.

40. **SITE CLEARANCE:** Before completion is certified, the contractor shall clear the site of all debris; unused materials brought at site and render the site neat and tidy. Unit rates quoted shall be deemed to include such operation

41. **MISCELLANEOUS:** The item rate quoted by the contractor shall be deemed to include for any minor details which are obviously and fairly intended and which may not have been specifically stated but are essential for execution of the work.



**PARTICULAR SPECIFICATIONS**42. APPROVED MAKES OF PRODUCTS TO BE INCORPORATED IN THE WORK :

Ser No	ITEM	MAKES/MANUFACTURERS
1	SAND	River Sand from Godavari river, Kadwa river or Dharna River
2.	COARSE AGGREGATES	Bhagur, Sayyed Pimpri, Ojhar
3.	BRICKS	Diamond/Rectangular Mark, Saikheda/333 brand, Ojhar.
4.	VITRIFIED TILES	(a) Johnson marbonite (b) Kajaria (c) Somany (d) Orient Bell (e) Euro Tiles (f) Swastik Tiles
5.	GLAZED CERAMIC WALL / FLOORING TILES / NON-SKID CERAMIC TILES	(a) Johnson Tiles (b) Kajaria (c) Somany (d) Orient Bell (e) Nitco
6.	RUBBER MOULDED INTER LOCKING PAVER BLOCKS / DECORATIVE CHEQUERED TILE / KERB STONE / MANHOLE COVER	a) M/s Mehtab Tiles, Rani Shopping Centre, Indore (MP) 452 006. Tele: 0231 – 2474934, 5092550, (b) M/s Ultra Tiles Pvt Ltd. (c) M/s Topaz tiles Pvt Ltd. , (d) Hindustan Cement pipe & concrete works, Nasik (e) Shree tiles
7.	PRELAMINATED/ PARTIAL BOARD / PLYWOOD	(a) M/s BHUTAN Board Product Ltd ritkav, wq/1, R.A. KidwaiMargWadala, Bombay, (b) M/s Indian Plywood Co., (c) M/s M/s Novateak Super , (d) ECO board Industries Ltd., (e) M/s Novapan. (f) Century, Board India Ltd, (g) M/s Mysore Chip Board Limited 8928/1, MuyltaniBhavani, PaharGunj, New Delhi –110 055 (h) M/s Mysore Chip Board Ltd, Mysore
8.	MIRROR	(a) Modi (b) Atul (c) Kohinoor (d) Swastik (e) Saint Gobain
9.	CEMENT WATER PROOFING COMPOUND	(a) M/s CICO, (b) M/s Acco Proof, (c) M/s Aqua Proof, (d) M/s Aqua Flex, (e) M/s Impero
10.	ALUMINIUM AND BRASS MONGRY	(a) M/s Crown,(b) M/s Mowjee, (c) M/s ajanta, (d) M/s Shalimar Bombay, (e) M/s Jyothi Hyderabad, (f) M/s Bharat Bombay, (g) M/s CIEF, (h) M/s Argent, EICE
11	ALUMINIUM SECTIONS	(a) M/s JINDAL , (b) M/s HINDALCO (c) M/s INDAL
12	PVC DOORS / WINDOW / SHUTTERS	(a) M/s Poly windows – Pune (b) M/s RajshreePlastwood Ltd (c) M/s Sintex (d) M/s Duroplast
13.	FACTORY MADE paneled / GAUZED SHUTTERS	(a) M/s Joinery Manufacturing Co. Jaipur (b) M/s Goel Brothers, Raipur, (c) M/s Sarab Enterprises, Pathankot (PB), (d) M/s Goyal Industrial Corporation New Delhi, (e) Geeta Enterprises, MIDC Waluj, Aurangabad, (f) MP wood products, Indore (MP), (g) M/s Indian timber products (P) Ltd, Hyderabad, (h) M/s pioneer Timber Products, Chandigarh, (j) M/s A-1 Teak products, 124/1 LibriyaBheu, Dhar road Indore – 452 002
14.	FLUSHING CISTERN LOW LEVEL	(a) M/s Commander, CERA, E.Mail – cera @ vsnl.com, Website – <a href="http://www.cera-india.com">www.cera-india.com</a> (b) M/s Madhusudan Ceramics, (c) M/s Neycer (d) M/ s Hindustan Sanitary Ware, Industries, (e) M/s Johnson Peddars(f) Parry ware
15.	GI FITTINGS	Any make conforming to IS-1538 (Part I to XXIII) 1976 with ISI mark.
16	SANITARY FITTINGS	(a) M/s Neycer Kermag (Standard),(b) M/s Phenoweld Polymer Pvt Ltd sakiVihar, Lake road Mumbai-400 072, (c) M/s Hindustan Sanitary ware Industries, (d) M/s Parry Ware (superline), (e)M/s EID Parry (I) Ltd, Chennai Website – <a href="http://www.eparryware.com">www.eparryware.com</a> (f) M/s Cera (1 <sup>st</sup> Quality) E. Mail – cera @ vsnl.com, Website – <a href="http://www.cera-india.com">www.cera-india.com</a> , (g) M/s Neycer, (h) M/s Khediar Pottery Works (Khediar)

**PARTICULAR SPECIFICATIONS**

Ser No	ITEM	MAKES/MANUFACTURERS
17.	WATER CLOSET -VITREOUS CHINA	(a) CERA (b) M/s Hindustan Sanitary Ware (c) Parryware (d) Prayag (e) Neyveli Ceramics (Neycer)
18.	FANCY BIB TAP STOP VALVES AND PILLER TAPS	(a) Jaguar (b) M/s Sona (c) M/s Leader (d) M/s Zoloto (e) M/s Sieco (f) M/s Prima
19.	GI PIPE & GI ELBOW (ISI MARKED)	(a) Swastik (b) Prakash (c) Zenith (d) Jindal (e) Tata (f) BST (g) Indian tube Company (h) GST (Gujrat Steel Tube)
20.	PVC/HDPE PIPES AND FITTINGS (SWR GRADE)	a) Infra b) Supreme c) Amoghplast Pvt Ltd (for fitting only) d) Prince e) Astron Plastic (f) Kisan (g) Finolex (h) Reliance
21.	HDPE WATER TANKS / PVC WATER STORAGE TANK (ISI MARK)	a) Sintex (b) Infra (c) M/s AshishPlast (d) M/s Rotex (e) Polycon
22.	STAINLESS STEEL SINK	(a) Blue Star for Anupam Industries, (b) Nirali (of M/s Joyti Industries, Mumbai) or other equivalent (ISI marked)
23.	CEMENT BASED PAINT	(a) M/s Snowcem Bombay, (b) M/s Colourcem Bombay, (c) M/s Silvocem, (d) M/s Durocem, (e) M/s Aquacem, (f) M/s Decocem, (g) M/s Super Snowcem
24.	SYNTHETIC ENAMEL PAINT	(a) M/s Shalimar Super lac, (b) M/s Asian Paints, (c) M/s Apcolite (Asian), (d) M/s Johnson Nicholson Calcutta, (e) M/s Berger, (f) M/s Goodlac Nerolac Paint Ltd
25.	WOOD PRIMER PINK	(a) M/s Asian Paint (Wood Orite), (b) M/s Shalimar (Shalimar Wood Primer), (c) M/s Jenson & Nicholson (Pink wood Primer), (d) M/s Goodlac Nerolac (Durelac wood Primer)
26.	GLASS (PLAIN & TINTED)/ MIRRORS	(a) M/s Atul Brand, Bombay, (b) M/s TATA/MODI Float/ Hindustan Pilkington Glass Works/Saint Gobind/Triveni Float Glass, (b) M/s Swastik Bombay, (c) M/s Modi
27.	PUTTY	(a) M/s Bright Bombay, (b) M/s S & S Industries Gujrat, (c) M/s FPG Limited, 6-1-79 Lakdikapul, Hyd-500 004, (d) M/s Shalimar, (e) M/s Parshuram Kodiyar Gujrat, (f) M/s Gold Mohar, (g) M/s Atul Dyes & Chemicals
28.	PVC SEAT AND COVER FOR EWC AND FLUSHING CISTERNS	(a) Commander (b) Slimline (Parryware)
29.	PGI sheets / CGI sheets / Galvalume sheets	(a) JSW (b) TATA (c) Jindal (d) National steel & Agro Industries
30.	MS / SS Pipes	(a) TATA (b) Jindal
31.	Water proofing membrane	(a) STP Ltd (b) Texas India Limited (c) M/s Pidilite Industries Limited (d) Tiki Tar Sanos (India) Pvt Limited (e) IWL India Limited (f) Asian Paint Ltd

43. **LIST OF DRAWINGS:** NIL.44. **LIST OF BUILDINGS:** NIL

SIGNATURE OF CONTRACTOR

DATE :

AGE (Contracts)

For Accepting Officer

**PARTICULAR SPECIFICATIONS****CEMENT**

1.1 The cement required for the work under the contractor 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 requirement mentioned in the drawings, SSR, IS Specifications as amended and particular specifications given hereinafter.

1.2 Type of cement for subject work to be procured and incorporated in work shall be ordinary Portland cement grade 43 in accordance with IS-8112 of 1989 unless otherwise mentioned of higher grade in structural drawings forming part of tender documents.

1.3 **SOURCE OF PROCUREMENT:** -

(a) The cement supplied by the contractor shall be procured from the main producers of cement. However where estimated requirements of cement for this work is less than 1200 bags, the Contractor can procure cement from the authorized distributors / dealers of approved firms but the contractor will have to submit test certificates of the batch issued by the main producers. The particulars of the main manufacturers 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 purchases of cement shall be verified by the site staff and GE.

(b) The following are the main producers of cement :-

(I) ACC (II) GRASIM INDUSTRIES LTD (III) ULTRA TECH CEMENT  
(IV) THE INDIA CEMENT LTD (V) DALMIA CEMENT (VI) ANDHRA CEMENT LTD  
(VII) CENTURY CEMENTS (VIII) SAURASHTRA CEMENT (IX) BINANI CEMENT  
(X) MADRAS CEMENT (XI) MANGALAM CEMENT (XII) BIRLA CORPN LTD (CEMENT DIVISION)  
(XIII) ORIENT CEMENT (XIV) LAFARGE CEMENT (XV) SHREE CEMENT  
(XVI) JK CEMENTS (XVII) JAYPEE REWA CEMENT (XVIII) AMBUJA CEMENT (XIX) LAKSHMI CEMENT  
(XX) RAJASHREE CEMENT (XXI) MODI CEMENT LTD (XXII) ZUARI CEMENT

(c) **TYPE AND GRADE OF CEMENT** :- The cement to be used in the work shall be ordinary portland cement, grade 43 conforming to IS 8112 -1998

(d) The contractors shall furnish the particulars of the manufacturers/suppliers of cement alongwith the date of manufacturer to the Garrison Engineer for every lot of cement separately. The cement so brought shall be fresh and in no case older than 60 days from the date of manufacture. The document in support of the purchase of cement shall be verified by the Garrison Engineer. Before placing the order for supply of cement by the contractor, he shall intimate the GE regarding name of manufacturer, quantity of cement etc. proposed to be procured from the approved list of manufacturer. 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 50 Kg. Only, subject to tolerance given in clause 9.2.2.1 and Annx "B" of IS 8112 of 1989.

1.3 **TESTING OF CEMENT:**

A. The contractor shall submit the manufacturer's test certificate in original or attested copy alongwith test sheet giving the result of each physical test as applicable 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 test for hydraulic cement as per IS-4031.
- (c) Method of chemical analysis of hydraulic cement as per 4032-1985.

**PARTICULAR SPECIFICATIONS**

The test certificate and test sheet shall be furnished with each batch of manufacturer. The Engineer-in-Charge shall record these details in the cement acceptance register to be maintained by him which will be signed by JE (Civil), EIC, GE and the contractors as given in the format hereinafter for verification.

B. The contractor shall however, organize setting time and a compressive strength test of cement through designated laboratory on sample 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 10 days 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 site within 24 hours. Seven-day strength test will be relied upon to accept the lot of cement to commence the work. 28 days compressive strength test will be final criteria to accept or reject the lot.

C. The GE shall carry out independent testing as per the test mentioned in '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, CME, Regional research laboratories, Zonal laboratories as per IS-3535-1986 (Method of sampling hydraulic cement) and IS-4031-1985 (Method of physical test for hydraulic cement) and IS-4032-1985 (Method of chemical analysis of hydraulic cement). The decision as to where the testing of cement is to be done shall be taken by the GE. The contractor shall bear requisite charges for transportation of samples to the approved laboratories, cost of cement sample and testing charges. 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.

D. The random samples as per relevant IS shall be selected by the GE before carrying out testing. 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.

1.4 **TESTING CHARGES;** 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.

A. The contractor shall be required to set up adequate testing facilities at site to entire satisfaction of Garrison Engineer for conducting setting time test and compressive strength test as per IS codes referred to herein before the samples collected from the lot brought at site. The tests shall be carried out jointly within 7 days of receipt of cement at site. These tests can alternatively be carried out at the Zonal Laboratory or any other recognized Laboratory so designated by GE. The entire cost of testing shall be borne by the contractor irrespective of the fact that the results are satisfactory or not. Recovery at the under mentioned rates shall be made for tests carried out in Zonal Laboratory of MES :-

- (a) Setting Time : Rs. 100/- per test per sample of Cement.
- (b) Compressive strength for : Rs. 300/- per sample of three cubes  
Sample of three cubes

1.5. The contractor shall submit original purchase vouchers 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 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 the Garrison Engineer duly authenticated and with cross reference to the consignment/control number recorded in the Cement Acceptance Register. The cement Acceptance Register shall be signed by the Junior Engineer (Civil), Engineer-in-Charge, GE and the contractor. The contractor shall maintain schedule of supply of cement for each consignment. Cement when

**PARTICULAR SPECIFICATIONS**

tested as per IS 4031, initial setting time shall not be less than 30 minutes and final setting time shall not be more than 600 minutes.

A. The Accepting Officer may order a board of officers for random check of cement and verification of connected documents during the currency of contract.

1.6. **STORAGE/ACCOUNTING & PRESERVATION OF CEMENT:**

A. Cement shall be stored in covered godown over dry platform at least 20 cm high in such a manner as to prevent deterioration due to moisture or intrusion of foreign matter. In case of store room. The stack should be at least 20 cm away from floors and walls. The stacking of cement shall be done as specified in relevant IS. The storage accounting and preservation of cement supplied by the contractor shall be done per standard engineer practice till the same is incorporated in the work and the cost of the same shall be deemed to be included in the unit rates/amount quoted by the tenderer. The Engineer-in-Charge shall inspect once a day to verify that cement lying at site is stored, accounted, preserved and maintained as per norms. The cement shall be stored so as to differentiate each tested & untested consignment separately with distinct identifications. 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.

B. Staking 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 12 bags. The maximum width of each stack shall be 3.0 m. If the stack is to be more than 7 or 8 bags high, the bags shall be arranged in header and stretcher fashion, i.e. alternately lengthwise and cross wise so as to tie the piles together and lesser the danger of topping over.

(d) Adequate space shall be kept between two stacks.

C. Cement godown shall be provided with two locks on each door. The key of one lock of each door shall remain with the E-I-C 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 accordingly 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 reasons, the same shall be removed from the cement godown on 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.

D. The contractor shall procure the cement timely as required in accordance with CPM, chart agreed between GE and the contractor. The contractor will forfeit his right to demand extension of time if the supply of cement got delayed due to his failure in placing order in time to the manufacturer.

E. 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 Appx '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 specifically indicated otherwise.

**PARTICULAR SPECIFICATIONS**

F. In case the 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.

1.7. **MEASUREMENTS AND PAYMENT OF CEMENT ;**

A. The entire quantity brought at site 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.

B. The payment shall only be allowed after production of original purchase vouchers, certified copies of test certificates from the manufacturer for each consignment and results of testing carried out in laboratory on receipt of cement (7 days compressive test) are found satisfactory after testing as specified hereinbefore. Cement shall be paid as material lying at site as per 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 (Contracts)

For Accepting Officer



**PARTICULAR SPECIFICATIONS****CEMENT SUPPLY AND ACCEPTANCE FORM**

Contract No : \_\_\_\_\_

Name of Work : \_\_\_\_\_

Control No : \_\_\_\_\_ Dated : \_\_\_\_\_

**Details of purchase**

i) Particulars of Manufacturer : \_\_\_\_\_

ii) Details of supplier (if any) : \_\_\_\_\_

**Details of test certificate**

i) No and date : \_\_\_\_\_

ii) Particulars of issuing authority : \_\_\_\_\_

SI No	Nomenclature	IS ref	Sampling as per IS-3535-1980	Physical test as per IS-4031	Chemical analysis as per IS-4032	Remarks
1	2	3	4	5	6	7

- 
- As ordered

**Remarks with Signature**

JE

Engineer-in-Charge

Contractor

Accepted/Rejected

Remarks of GE / Inspecting Officer / CWE

Tele : 2412822

**e-procure**

Military Engineer Services  
Garrison Engineer Nasik Road  
AOP Complex, Near AOP Gate  
P.O. Gandhinagar  
Nasik – 422 006

8936 / / E8

Nov 2022

M/s \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**PROVN OF TRAINING INFRASTRUCTURE ALONGEITH TRG SHED AND HARDSTANDING  
FOR STUDENT OFFRS AT ARMY CAN BASE, NASIK.**

Dear Sir(s),

1. Tender documents for the above mentioned work to be downloaded from [www.eprocuremes.gov.in](http://www.eprocuremes.gov.in) Technical bid (cover-1) and financial bid (cover-2) to be uploaded online as per the date mentioned in NIT or website. Technical bid (cover-1) will be opened as per the date mentioned in website for evaluation of applications. The date of opening of price bid (cover-2) will be informed online to the selected applicants.

2 Information/documents (forming part of this contract) mentioned here in below are not enclosed with these documents. These are available for perusal in the offices of the GE Nasik Road:-

- (a) IAFW-2249 (1989 Print ) - General Conditions of contracts including errata & amendments
- (b) Schedule of Minimum fair wages - As per latest Government of India Notification.

3 Whether the documents mentioned in Para 2 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 uploading the tender and no claim whatsoever on this account shall be entertained.

4. MES will provide water supply at point/points marked in the site plan.

5. Sales Tax/turn over tax on works contract, Workers Welfare fund tax, Value Added Tax (VAT) levied by state Government shall not be reimbursed to the contractor and the contractor's quoted rates shall deemed to include all taxes and duties including recovery of income tax and sales tax / Turn over tax on works contract which is deductible at source.

6 Conditional tender is not acceptable to the Government.

(a) The tenderer is not permitted to make any condition or alteration or insertion in the tender documents other than the amendments issued by the Department. The applicability of amendment issued by the Department remains hold good irrespective of the amendment carried out by the tenderer in their offer.

(b) Any condition/stipulation/insertion etc without showing it in the tenderer's tender forwarding letter will not be accounted during scrutiny and the effect shall be ceased in case the tender is accepted.

(c) You are requested to ensure that all errata/amendments/ issued prior to the due date are accounted in your offer.

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7. Instructions for filling and submission of tenders are also enclosed herewith for strict compliance. This letter and the instructions shall form part of the contract and shall be returned duly signed along with the tender documents.

8. (a) For the contractors who are not enlisted with the MES / who are enlisted but have not executed the Standing Security Bond :-

(i) The amount of "Earnest Money" for the work shall be furnished in the prescribed form along with technical bid (cover-1).

(ii) Earnest money shall be submitted along with the tender in one of the following norms

(a) Deposit at call Receipt from any scheduled bank drawn in favour of GE Nasik Road.

(b) Receipt of treasury challan, the amount being credited to the Revenue deposit of GE Nasik Road. Tenderers shall note that no other form of earnest money is acceptable.

(iii) Technical bid (cover-1) uploaded by an un-enlisted contractor, if not accompanied by acceptable form of earnest money, shall be treated as non-bonafide and shall be rejected.

9. The bidder shall download price bid from e-procurement portal and enter his rates in figures only in the financial bid (cover-2) and upload the same

10. In case the tenderer has to revise/modify the rates quoted in the price bid, he may do so only by resubmitting the price bid (cover-2)

Yours faithfully,

SIGNATURE OF CONTRACTOR

DATE :

AGE (Contracts)

For Accepting Officer

INSTRUCTION FOR FILLING UP AND SUBMISSION OF TENDER

1.0 (a) The bidder shall submit his application along with requisite documents in (cover-1) and quoted bid / quoted tender in (cover-2) in the form of E-tendering at [www.eprocuremes.gov.in](http://www.eprocuremes.gov.in) on or before date and time of submission of documents as indicated in appendix 'A' to NIT or as subsequently amended through corrigendum / amendments.

(b) The documents shall be opened on or after the prescribed date and time fixed for opening of tender as mentioned in Appendix 'A' to NIT.

(c) The bidder shall submit original copy of his application, DD/BC, MOU and other documents as uploaded in (cover-1) before the schedule date and time of opening of bid in the Office of Commander Works Engineers Onslow Road, Deolali-422401.

1.1 In case of tenders for specialist works like air conditioning, refrigeration, Earnest money shall be deposited before submission of tenders.

1.2 Facilities for execution of Bank Guarantee for certain purpose are available to the contractors as detailed hereinafter :-

(a) Security Deposit/Additional Security Deposit for individual works covering the contract period and maintenance period of one year thereafter.

(b) Retention Money for payment of running account.

## 2.0 EARNEST MONEY

2.1 (a) Tenders issued to contractors who are not enlisted with MES/who are enlisted but have not executed the SS Bond. (b) Earnest Money as indicated in Appendix 'A' to Notice of Tender in one of following forms shall be submitted

i) Deposit at call receipt from the Scheduled Bank in favour of GE as indicated in Appendix 'A' to Notice of Tender.

ii) Receipt Treasury Challan the amount credited to the Revenue Deposit in favour of GE as indicated in Appendix 'A' to Notice of Tender.

**Note:** Earnest Money in the form of Cheque/Bank Guarantee etc., will not be accepted

## 2.2 NON SUBMISSION OF EARNEST MONEY WILL RENDER THE TENDERER AS NON BONA FIDE AND CONSEQUENTLY IGNORED

2.2.1 INDIVIDUAL SECURITY DEPOSIT :- The amount of individual Security Deposit would be the amount calculated with reference to the tendered cost as per the scale laid down by the MES for the calculation of earnest money enhanced by 25 % subject to a maximum of Rs.18,75,000/-.

2.3 TENDERS ISSUED TO CONTRACTORS WHO ARE ENLISTED AND HAVE LODGED THE SSD BUT OF A LOWER CLASS :- The amount of 'Additional Security Deposit' for the work in case of the tender is accepted will be notified by the Accepting Officer. The amount of additional security deposit would be the difference between the individual security deposit calculated with reference to the 'TENDERED COST' as per the scale laid down by the MES for calculation of Earnest Money enhanced by 25 % and the "Standing Security Deposit" lodged. Refer condition 22 of IAFW-2249.

## 3 POWER OF ATTORNEY

3.1 The tender should be accompanied by a certified true copy of the power of attorney of the signatory to the documents. If the tender is submitted on behalf of a firm, it must be signed by all partners or some person holding valid power of attorney from all partners constituting the firm. The person signing the tender on behalf of another partner or on behalf of a firm shall attach the tender a proper power of attorney duly executed in his favour by such other persons or by all the partners stating that he has authority to bind such other person or the firm, as the case may be in all matters pertaining to the contract including arbitration clause.

3.2 Even in case of firm which have already granted power of attorney to an individual authorising him to sign tenders and contract documents on behalf of the firm and in pursuance of which tenders are being signed by such person as a routine fresh power of attorney duly executed in his favour by all the partners of the firm stating specifically that the person has authority to bind such partners of the firm, as the case may be to the condition relating to arbitration clause should be submitted with the tender unless such authority has already been given to the person concerned by the firm.

## INSTRUCTION FOR FILLING UP AND SUBMISSION OF TENDER (CONTD..)

3.3 Power of attorney shall be executed as indicated below:-

- (a) In the case of an individual, power of attorney shall be executed by the proprietor/principal i.e. contractor himself.
- (b) In the case of partnership concern, power of attorney shall be executed by all partners.
- (c) In the case of company, power of attorney shall be executed in accordance with the constitution of the company.

4.0 BLANK

#### 5.0 GENERAL INSTRUCTIONS FOR COMPLIANCE

5.1 The contractor shall employ only Indian Nationals after verifying their antecedents and loyalty. Attention is also drawn to special condition 24 & 25 of IAFW –2249, General Conditions of Contracts.

5.2 The department may issue amendments/errata to the tender documents before due date of submission of tenders. The tenderer is required to read the tender document in conjunction with amendments, if any, issued by the department.. In case the amendments/errata issued are incorporated by the tenderer in the body of the tender they shall not be considered and the amendments/errata to tender documents as issued by the department shall only hold good.

5.3 In the event of lowest tenderer revoking his offer or revising his rates upward / offering voluntary reduction, after opening of 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, shall be notified to the tenderer for depositing the amount through MRO. Issue of tender to such Contractors shall remain suspended till the aforesaid amount equal to the earnest money is deposited in Govt Treasury. In addition, such tenderer and his related firm shall not be issued the tender in second call or subsequent calls. No other disciplinary/administrative action shall be taken against such tenderers. On revocation or upward revision of offer by lowest tenderer, next lowest offer shall not be accepted, instead re-tendering shall be resorted to in transparent and fair manner. Reduction offered by the tenderer on the freak high rates referred for review shall not be treated as voluntary reduction.

SIGNATURE OF CONTRACTOR

DATE :

AGE (Contracts)

For Accepting Officer

**GUARANTEE BOND FOR PERFORMANCE SECURITY DEPOSIT****( to be used by approved Scheduled Banks )**

1. In consideration of the President of India (hereinafter called "The Government") having agreed to exempt..... (Hereinafter called "The said Contractor(s)") from the demand, under the terms and condition of an Agreement dated..... made between.....and.....for..... (hereinafter called "The said Agreement"), of performance Security Deposit for the due fulfillment by the said Agreement, on production of a Bank Guarantee for Rs ..... (Rupees.....only), we..... Bank Ltd. (hereinafter referred to as "the Bank") do hereby undertake to pay to the Government an amount not exceeding Rs..... against any loss or damage caused to or suffered or would be caused to or suffered or would be caused to or suffered by the Government by reason of any breach by the said Contractor(s) of any of the terms or condition contained in the said Agreement.

2. We..... Bank Ltd. do hereby undertake to pay the amount due and payable this guarantee without any demur, merely on a demand from the Government stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Government by reason of any breach by the said contractor(s) of any of the terms of conditions contained in the said Agreement or by reason of the Contractor's (s) failure to perform the said Agreement. Any such a demand made on the Bank shall be conclusive as regards the amount due and payable and by the Bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs ..... .

3. We ..... Bank Ltd. further agree that guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the Government under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharge or till ..... (Office/Department), Ministry of ..... certified that the terms and condition of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharge the guarantee, unless or claim under this guarantee is made to us in writing on or before the ..... we shall be discharged from all liability under this guarantee thereafter.

4. We ..... Bank Ltd. further agree with the Government that the Government shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and condition of the said Agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Government against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act of omission on the part of the Government or any indulgence by the Government to the said Contactor (s) or any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

5. We ..... Bank Ltd. lastly undertakes not to revoke this guarantee during its currency except with the previous consent of the Government in writing.

Date the ..... day of .....20.....  
for ..... Bank Ltd.