

PART-A

Name of Work: **Renovation of Toilet attached to Conference Hall -I, II & III in Dr.BR. Ambedkar block at NIRD&PR Campus RajenderaNagar,Hyderabad.**

NATIONAL INSTITUTE OF RURAL DEVELOPMENT & PANCHAYATI RAJ
(Ministry of Rural Development, Government of India)
Rajendranagar – Hyderabad 500 030

NOTICE INVITING e-BID

The **Executive Engineer, National Institute of Rural development & Panchayati Raj Hyderabad** on behalf of Director General, NIRD&PR Hyderabad invites online **Percentage Rate Bid** from approved and eligible contractors of **CPWD(Buildings & Roads category), MES, Railway and State PWD** in Single bid system for the following work:-

NIT No. 10 /EE/CMU/2022-23

Name of Work:- Renovation of Toilets attached to Conference Hall –I, II & III in Dr.BR.Ambedkar Block at NIRD&PR Campus RajenderaNagar, Hyderabad.

Estimated Cost Put to Tender : Rs. **10,07,013/-**

Earnest Money : Rs. **20,000/-**

Period of completion : **120days** (Restricted)

Last time and date of submission of online bid: 15:00 hours on **07.02.2023**

The bid forms and other details can be obtained from the website <https://eprocure.gov.in/eprocure/app> Further modification or change of dates, if any, can be seen in the above stated tender web site.

**Executive Engineer,
CMU,NIRD&PR,Hyderabad**

FORMATION AND INSTRUCTIONS FOR BIDDERS FOR e-TENDERING
FORMING PART OF BID DOCUMENT AND TO BE POSTED ON WEBSITE
(Applicable for inviting open bids)

The **Executive Engineer, CMU, NIRD&PR, Hyderabad** on behalf of Director General, NIRD&PR Hyderabad invites online **Percentage Rate Bid** from approved and eligible contractors of **CPWD (Buildings & Roads category), MES , RAILWAY AND STATE PWD** in Single bid system for the following work:-

Sl.No.	Description	Details
1	NIT No.	10 /EE/CMU/HYDERABAD /2022-23
2	Name of Work & Locations	Renovation of Toilets attached to Conference Hall – I,II&III in Dr.Br. Ambedkar Block at NIRDPR Campus RajenderaNagar,Hyderabad.
3	Estimated Cost Put to Bid	Rs.10,07,013/-
4	Earnest Money (EMD)	Rs.20,000/-
5	Period of Completion	120 days (Restricted)
6	a. Last date & time for submission of original EMD with,Executive Engineer CMU.	Up to 15:00 Hours on 07.02.2023
	b.Last date & time for uploading the Receipt of Deposition of EMD and other documents as specified in the NIT.	Up to 15:00 Hours on 07.02.2023
	c. Last date of online submission of bid	Up to 15:00 Hours on 07.02.2023
7	Time & date of online opening of documents	Up to 15:00 Hours on 07.02.2023
8	Time & date of opening of Online Financial Bids to be opened after verification of EMD.	Up to 15:00 Hours on 07.02.2023
9 (a)	Submission of hard copies of EMD.	The original EMD should be deposited either in the office of Executive Engineer, CMU, NIRD&PR, Hyderabad within the period of bid submission(including NIT issuing EE).
(b)	Enlistment order, Affidavit, Undertaking and other Documents to Division Office by the Lowest Tenderer .	To be submitted during office hours within a week from the date of opening of Financial Bid. In case the last day happens to be closed holiday, these documents shall be submitted on the next working day.

1. The intending bidder must read the terms and conditions of CPWD-6 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
2. Information and Instructions for bidders posted on website shall form part of bid document.
3. The contractor submitting the bid should read the schedule of quantities, Special conditions, additional conditions, particular specifications and other terms and conditions given in the NIT and drawings. The bidder should also read the General Conditions of

Contract for CPWD Works 2020 Maintenance works with all correction slips issued up to the last date for submission of bid, which is available as Government of India Publication. However, provisions included in the bid document shall prevail over the provisions contained in the standard form. The set of drawings and NIT will be available with the **Executive Engineer, CMU, NIRD&PR, Hyderabad**. The contractor should also visit the site of work and acquaint himself with the site conditions before tendering. The following conditions, which already form part of the tender conditions, are specially brought to his notice for compliance while filling the tender. They are requested to comply with the following instructions.

4. Tenders with any condition including that of conditional rebates shall be rejected. Such tenders shall not be entered in the tender opening register at the time of opening of tender.
5. The successful tenderer shall be required to submit a Performance Guarantee of 3% (Three Percent) of the tendered amount within 7 days of issue of letter of intent. This period can be further extended by Engineer-in-Charge up to a maximum period of 7 days on the written request of the contractor subject to payment of late fee @ 0.1% per day of Performance Guarantee amount.
6. **GST on all materials as well as GST on Work Contract etc., or any other taxes** applicable in respect of this contract shall be payable by the Contractor. Percentage rate quoted by him shall be inclusive of such taxes, levies etc and Government will not entertain any claim for reimbursement whatsoever in respect of the same. **The percentage rates of the contract shall be inclusive of all taxes and levies and nothing extra shall be paid. Further the percentage rate quoted by the contractor shall be inclusive of labour welfare Cess and the same shall be recovered from the contractor's bills and will be remitted by the department.**
7. Bid Document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of contract to be complied by the contractor whose bid may be accepted and other necessary documents can be seen in the office of the EE, CMU, NIRD&PR, HYDERABAD between hours of 11.00 AM and 4.00 PM from **31.01.2023 to 07.02.2023** every day except on Second Saturday, Sunday and public Holidays or can be seen on website <https://eprocure.gov.in/eprocure/app> in free of cost.
8. The bid can only be submitted after deposition of original EMD either in the office of Executive Engineer, NIRD&PR, Hyderabad inviting bids within the period of bid submission **(including NIT issuing EE)** and uploading the mandatory scanned documents such as Demand Draft or Pay order or Banker's Cheque or Deposit at call Receipt or Fixed Deposit Receipts and bank Guarantee of any Scheduled Bank towards EMD in favour of Executive Engineer as mentioned in NIT, receipt for deposition of original EMD to division office of Executive Engineer, CMU, NIRD&PR and other documents as specified.
9. Contractor can upload documents in the form of JPG format and PDF format.
10. (a) Contractor must ensure to quote his tender percentage for the Estimated Cost. The column meant for quoting percentage in figures appears in yellow colour and When the moment percentage is entered, it turns sky blue.
In addition to this, while selecting the designated cell if the cell is left blank the

Tender shall be treated as invalid.

- b) Contractor should quote the percentage above or below accurate to two places of decimal or zero percentage only. The column should not be kept blank; otherwise the tender shall be treated as INVALID.
 - c) The Contractor should indicate the correct name of his firm in the schedule of quantities in the column specified for the same.
11. The bidder should either himself meet the eligibility conditions for the specialized Civil and E&M works as above or otherwise he will have to associate an agency meeting the eligibility requirements for specialized Civil and E&M works after award of work and has to submit details of such agency(s) conforming eligibility conditions as defined in the bid document to the Executive Engineer of concerned component at least two months in advance from taking up specific component. Names of the agency(s) to be associated shall be approved by the Engineer-in-Charge of concerned component.
 12. Applicants are advised to keep visiting the above mentioned web-sites from time to time (till the deadline for bid submission) for any updates in respect of the tender documents, if any. Failure to do so shall not absolve the applicant of his liabilities to submit the applications complete in all respects including updates thereof, if any. An incomplete application may be liable for rejection.
 13. The Earnest Money in the form of Demand Draft or Pay Order or Banker's Cheque or Deposit at Call Receipt or Fixed Deposit Receipt drawn in favour of **"NIRD&PR,rajendranagar,Hyderabad"** shall be scanned and uploaded to the e- tendering website within the period of bid submission.

The original EMD should be deposited either in the office of Executive Engineer, CMU,NIRD&PR,Hyderabad, within the period of bid submission. The EMD receiving Executive Engineer (including NIT issuing EE).

14. This work requires engaging more than 20 nos. of labours / workers and therefore all necessary licenses such as Labour license, EPFO and ESI, BOCW welfare registration etc., shall be taken by contractor within the time limits as prescribed under Clause 1 of Schedule- 'F'.
15. The document to be physically submitted shall be page numbered and each page shall be signed by authorized signatory.
16. Contractor shall not divert any advance payments or part thereof for any other purpose other than needed for completion of the contracted work. All advance payments received as per terms of the contract (i.e. mobilization, secured against materials brought at site, secured against plant & machinery and / or for work done during interim stages, etc.) are required to be re-invested in the contracted work to ensure advance availability of resources in terms of materials, labour, plant & machinery needed for required pace of progress for timely completion of work.
17. If any information furnished by the applicant is found to be incorrect at a later stage, he shall be liable to be debarred from tendering/taking up of works in EE,CMU,NIRD&PR,Hyderabad. The department reserves the right to verify the particulars furnished by the applicant independently.
18. The department reserves the right to accept or reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criterion.
19. Any dispute arising out of this tender including dispute related to encashment of any Bank Guarantee/ FDR etc., shall be subject to the jurisdiction of courts of Telangana State only.

**Executive Engineer,
CMU, NIRD&PR
Hyderabad.**

List of Documents to be scanned and uploaded within the period of bid submission:

- (i)** Demand Draft/Pay order or Banker's Cheque/ Deposit at Call Receipt/ FDR /Bank Guarantee of any Scheduled Bank against **EMD in favor of "NIRD&PR,rajendranagar,Hyderabad**
- (ii)** Enlistment Order of the Contractor.
- (iii)** Valid GST Registration for work contract.
- (iv)** If the bidder has not obtained GST registration in the state in which the work is to be taken up, or as required by GST authorities, then in such a case the bidder shall scan and upload following under taking with the bid document. **"If work is awarded to me, I/We shall obtain GST registration certificate of the state, in which work is to be taken up, within one month from date of receipt of award letter or before release of any payment by NIRD&PR, whichever is earlier, failing which I/We shall be responsible for any delay in payments which will be due towards me/us on account of the work executed and/or for any action taken by NIRD&PR or GST department in this regard."**

Note: The Postal address of **Executive Engineer, CMU, NIRD&PR, RAJENDERA NAGAR, HYDERABAD** may be noted as below for correspondence and **submission of Physical documents.**

**Executive Engineer,
CMU, NIRD&PR,Hyderabad.**

**GOVERNMENT OF INDIA
NATIONAL INSTITUTE OF RURAL
DEVELOPMENT AND PANCHAYT RAJ
NOTICE INVITING e-TENDER**

The Executive Engineer, CMU, HYDERABAD on behalf of Director General, NIRD&PR invites online **Percentage Rate Composite Bids** from approved and eligible contractors of **CPWD(Building and Roads Category), Railway, Mes and State PWD** in Single bid system for the following work:- “Repairs and Renovation of Attached Toilet at Conference Hall – I,II&III”

1. The enlistment of the contractors should be valid on the last date of submission of bids.

In case the last date of submission of bid is extended, the enlistment of contractor should be valid on the original date of submission of bids.

- 1.1 The work is Estimated to Cost **Rs.10,07,013/-**. This estimate, however, is given merely as a rough guide.
 - 1.1.1 The authority competent to approve NIT for the combined cost and belonging to the major discipline will consolidate NITs for calling the bids. He will also nominate Division which will deal with all matters relating to the invitation of bids. For composite bid, besides indicating the combined estimated cost put to bid, should clearly indicate the estimated cost of each component separately. The eligibility of bidder will correspond to the combined estimated cost of different components put to bid.
2. Agreement shall be drawn with the successful Tenderer on prescribed Form No. CPWD 7 which is available at Govt. of India Publication and also available on website <http://eprocure.gov.in/eprocure/app>. Tenderer shall quote his Percentage rate as per various terms and conditions of the said form which will form part of the agreement.
3. The time allowed for carrying out the work will be **120 days (Restricted)** from the date of start as defined in schedule ‘F’ or from handing over of the site, whichever is later.
4. The tender document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents except Standard General Conditions of Contract Form can be seen free of cost from website <http://eprocure.gov.in/eprocure/app>.
The standard publications like General Conditions of Contract 2020 for Maintenance works, Delhi Schedule of Rates 2021 for Civil & ~~Delhi Schedule of Rates 2018 for E & M~~, CPWD Specification 2019 and CPWD specification (E & M) and Delhi Analysis of Rates 2021 for Civil with amendments / correction slips up to the last date of submission of tender can be seen free of cost from website <http://eprocure.gov.in/eprocure/app>.

5. After submission of the tender the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.
6. While submitting the revised bid, contractor can revise the percentage rate any number of times but before last time and date of submission of tender as notified.
7. Earnest Money in the form of Demand Draft or Pay order or Banker's Cheque or Deposit at Call Receipt or Fixed Deposit Receipt (**drawn in favors of NIRD&PR ,RAJENDERA NAGAR, Hyderabad**) shall be scanned and uploaded to the e-Tendering website within the period of bid submission. The original EMD should be deposited either in the office of Executive Engineer, CMU, NIRD&PR inviting bids within the period of bid submission. The EMD receiving Executive Engineer (including NIT issuing EE) shall issue a receipt of deposition of earnest money deposit to the bidder in a prescribed format (enclosed) uploaded by tender inviting EE in the NIT.

This receipt shall also be uploaded to the e-tendering website by the intending bidder up to the specified bid submission date and time.

A part of earnest money is acceptable in the form of bank guarantee also. In such case, minimum 50% of earnest money or Rs.12 lakhs, whichever is less, shall have to be deposited in shape prescribed above, and balance may be deposited in shape of Bank Guarantee of any scheduled bank having validity for 3 months or more from the last date of submission of bids which is to be scanned and uploaded by the intending bidders.

8. Copy of Enlistment Order and other documents as specified in the press notice shall be scanned and uploaded to the e-Tendering website within the period of bid submission. However, certified copy of all the scanned and uploaded documents as specified in **e- notice** shall have to be submitted physically by the lowest bidder only within a week in the office of tender opening authority.
9. **The bid submitted shall become invalid if:**
- (i) The bidder is found ineligible.
 - (ii) The bidder does not up loaded all the documents (**including GST registration / under taking as applicable**) as stipulated in the bid document.
 - (iii) If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the lowest tenderer in the office of tender opening authority.
 - (iv) If a tenderer does not quote any percentage above/ below on the total amount of the tender, the tender shall be treated as invalid and will not be considered as lowest.
 - (v) Bids on which any of the prescribed conditions is not fulfilled or any condition including that of conditional rebate is put forth by the bidders.
 - (vi) The lowest bidder does not deposit certified copy of all the scanned and uploaded documents as specified in **e- notice** within a week of **opening of tender** in the office of tender opening authority.
10. The contractor whose tender is accepted, will be required to furnish performance guarantee **at specified percentage** of the tendered **amount as mentioned in Schedule 'E'** and within the period specified in Schedule F. This guarantee shall be in the form of **Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt or Bank Guarantee** of any Commercial Bank.

In case the contractor fails to deposit the said Performance guarantee within the period as indicated in Schedule 'F', including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor. In case of forfeiture of earnest money as above, the tenderer shall not be allowed to participate in the retendering process of the work. The Earnest Money deposited along with tender shall be returned after receiving the aforesaid performance guarantee

11. Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidders shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and local conditions and other factors having a bearing on the execution of the work.
12. The competent authority on behalf of the Director General does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidders shall be summarily rejected.
13. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable for reject.
14. In case of Non submission of Hard copies within stipulated time by the lowest bidder and or any discrepancy is noticed between the documents as uploaded at the time of submission of the bid online and hard copies as submitted physically in the office of Executive Engineer, then the bid submitted shall become invalid and the NIRD &PR shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said Earnest Money as aforesaid. Further the tenderer shall not be allowed to participate in the tendering process of the work.
15. The competent authority on behalf of Director General Reserves to himself the right of accepting the whole or any part of the bid and the bidders shall be bound to perform the same at the rate quoted.

16. No Engineer of Gazetted Rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the prior permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found at any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the bid or engagement in the contractor's service.
17. The bid for the works shall remain open for acceptance for a period of Ninety (90) days from the date of opening of bids, if any bidder withdraws his bid, or makes any modifications in the terms and conditions of the bid which are not acceptable to the department within 7 days after last date of submission of bid, then the NIRDPR shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the earnest money absolutely irrespective of letter of acceptance for the work is issued or not. if any bidder withdraws his bid, or makes any modifications in the terms and conditions of the bid which are not acceptable to the department after expiry of 7 days after last date of submission of bid, then the NIRDPR shall, without prejudice to any other right or remedy, be at liberty to forfeit 100% of the earnest money absolutely irrespective of letter of acceptance for the work is issued or not. Further the bidders shall not be allowed to participate in the rebidding process of the work.
18. This notice inviting Bid shall form a part of the contract document. The successful bidder/contractor, on acceptance of his bid by the Accepting Authority shall within 15 days from the stipulated date of start of the work, sign the contract consisting of:-
 - a) The Notice Inviting Bid, all the documents including additional conditions, specifications and drawings, if any, forming part of the bid as uploaded at the time of invitation of bid and the percentage quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.
 - b) Standard C.P.W.D. Form 7 or other Standard C.P.W.D. Form as applicable.
19. The person/persons whose tender(s) may be accepted (herein after called the contractor) shall permit NIRDPR at the time of making any payment to him for work done under the contract to deduct a sum at the rate of 2.5% of the gross amount of each running and final bill till the sum deducted will amount to security deposit of 2.5% of the tendered value of the work. Such deductions will be made and held by Government/Nird&PR deposit by way of Security Deposit unless he/they has/have deposited the amount of Security at the rate mentioned above in cash or in the form of Government Securities of fixed deposit receipts. In case a fixed deposit receipt of any Bank is furnished by the contractor to the Government/NIRD&PR as part of the security deposit and the Bank is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor

shall forthwith on demand furnish additional security to the Government/NIRD&PR to make good the deficit.

All compensations or the other sums of money payable by the contractor under the terms of this contract may be deducted from, or paid by the sale of a sufficient part of his security deposit or from the interest arising there from, or from any sums which may be due to or may become due to the contractor by Government on any account whatsoever and in the event of his Security Deposit being reduced by reason of any such deductions or sale as aforesaid, the contractor shall within 10 days make good in cash or fixed deposit receipt tendered by the State Bank of India or by Scheduled Bank or Government Securities (if deposited for more than 12 months) endorsed in favor of the Engineer-in-Charge, any sum or sums which may have been deducted from, or raised by sale of his security deposit or any part thereof. The security deposit shall be collected from the running bills of the contractor at the rates mentioned above.

20. **The intending bidders are required to update their profile in e-tender portal and to upload their bids well in advance of last date of submission of tender.**
21. In case of reduction in scope of work no claim on account of reduction in value of work, loss of expected profit, consequential overheads etc. shall be entertained.
22. The bidder has not been black listed by any State/Central Department or PSU or Autonomous bodies.
- 23. For Composite Bids**
 - 23.1 The Executive Engineer in charge of the major component will call bids for the composite work. The cost of bid document and Earnest Money will be fixed with respect to the combined estimated cost put to tender for the composite bid.
 - 23.2 The bid document will include following three components:
 - Part A:- CPWD-6, CPWD-7 including schedule A to F for the major component of the work, Standard General conditions of contract for CPWD 2020 for Construction works as amended/modified upto the date of submission of bid.
 - Part B: - General/Specific conditions, specifications and schedule of quantities applicable to major component of the work.
 - Part C:- Schedule A to F for minor component of the work , General/ Specific conditions, specifications and schedule of quantities applicable to minor components (s) of the work.
 - 23.3 The bidder must associate with himself, agencies of the appropriate class eligible to bid for each of the minor component individually.
 - 23.4 The eligible bidders shall quote rates for all items of major competent as well as for all items of minor components individually.
 - 23.5 After acceptance of the tender by competent authority, the EE in charge of major component of the work shall issue letter of award on behalf of the Director General, NIRD&PRHyderabad. After the work is awarded, the main contractor will have to enter into one agreement with EE
 - 23.6 Entire work under the scope of composite bid including major and all minor components shall be executed under one agreement.
 - 23.7 Security Deposit will be worked out separately for each component corresponding to the tendered cost of the respective component of works.
 - 23.8 The main contractor has to associate agency(s) for minor component(s) conforming to eligibility criteria as defined in the bid document and has to submit detail of such agency(s) to Engineer-in-charge of minor component(s) within prescribed time. Name of the agency(s) to

be associated shall be approved by Engineer-in-charge of minor component(s).

- 23.9 In case the main contractor intends to change any of the above agency/agencies during the operation of the contract, he shall obtain prior approval of Engineer-in-charge of minor component. The new agency/agencies shall also have to satisfy the laid down eligibility criteria. In case Engineer-in-charge is not satisfied with the performance of any agency, he can direct the contractor to change the agency executing such items of work and this shall be binding on the contractor.
- 23.10 The main contractor has to enter into agreement with contractor(s) associated by him for execution of minor component(s). Copy of such agreement shall be submitted to EE in charge of each minor component as well as to EE in charge of major component. In case of change of associate contractor, the main contractor has to enter into agreement with the new contractor associated by him.
- 23.11 Running payment for the major component shall be made by EE of Major discipline to the main contractor. Running payment for minor components shall be made by the Engineer-in-charge of the discipline of minor component directly to the main contractor.
- 24.11(A) The composite work shall be treated as complete when all the components of the work are complete. The completion certificate of the composite work shall be recorded by Engineer-in-charge of major component after record of completion certificate of all other components.
- 24.12 Final bill of whole work shall be finalized and paid by the EE of major component. Engineer(s) in charge of minor components will prepare and pass the final bill for their component of work and pass on the same to the EE of major component for including in the final bill for composite contract.

**NATIONAL INSTITUTE OF RURAL
DEVELOPMENT AND PANCHAYAT RAJ**

STATE: TELANGANA STATE.
BRANCH: BUILDINGS & ROADS

ZONE: Region - Hyderabad

COMPOSITE PERCENTAGE RATE TENDER & CONTRACT FOR WORKS

**Tender for the work of: Renovation of Toilets Attached To Conference Hall –I,II&III
in Dr.BR.Ambedkar Block at NIRDPR Campus, Rajenderanagar ,Hyderabad**

- i)** To be submitted online by **15.00 Hrs on 07.02.2023** through website <http://eprocure.gov.in/eprocure/app>.
- ii)** To be opened in presence of qualified tenderers/ their authorized representatives who may be present at **15:30 Hrs on 09.02.2023** .in the office of **Executive Engineer.CMU,NIRD&PR Hyderabad**
- iii)**
- iv)** Agency:..... (Contractor)

Designation:-**Executive Engineer, CMU,NIRD&PR,Hyderabad**

TENDER

I/We have read and examined the notice inviting tender, schedule, A, B, C, D, E & F Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, clauses of contract, Special conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

I/We hereby tender for the execution of the work specified for the Director General within the time specified in Schedule 'F' viz., schedule of quantities and in accordance in all respect with the specifications, designs, drawing and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of contract and with such materials as are provided for, by, and in respect of accordance with, such conditions so far as applicable.

We agree to keep the tender open for **Ninety**

(90) days from the due date of its opening and not to make any modification in its terms and conditions.

I/We have desosited EMD for the prescribed amount in the office of Executive Engineer,CMU,NIRD&PR,Hydera bad as per the bid document.

A copy of earnest money deposit receipt of prescribed amount deposited in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee (as prescribed) issued by a Commercial Bank, is scanned and uploaded (strike out as the case may be). If I/We, fail to furnish the prescribed performance guarantee within prescribed period. I/We agree that the said President of India or his successors, in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely.

Further, if I/We fail to commence work as specified, I/We agree that Director General or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely. The said Performance Guarantee shall be a guarantee to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form.

Further, I/We agree that in case of forfeiture of Earnest Money & Performance Guarantee as aforesaid. I/We shall be debarred for participation in the re-tendering process of the work.

I/WE undertake and confirm that eligible similar work(s) has /have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then I/We shall be debarred for tendering in NIRD&PR in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

I/We hereby declare that I/We shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information/derived there from to any person other than a person to whom I/We am/are authorized to communicate the same or use the information in any manner prejudicial to

Dated: Signature of Contractor

Witness: Postal Address

Address:

Occupation:

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of the President of India for a sum of Rs. _____ (Rupees _____)

The letters referred to below shall form part of this contract Agreement:

-(a)

(b)

(c)

For & on behalf of Director General, NIRD&PR.

Signatures

Designation:

Dated: _____

SCHEDULES

SCHEDULE 'A' Schedule of Quantities for Civil (Enclosed)

SCHEDULE 'B' Schedule of materials to be issued to the Contractor

S.No	Description of Item	Quantity	Rates in figures & words at which the material will be charged to the contractor	Place of Issue
1	2	3	4	5
-NIL-				

SCHEDULE 'C'

Tools and plants to be hired to the contractor

S.No	Description	Hire charges per day	Place of Issue
1	2	4	5
-NIL-			

SCHEDULE 'D'

Extra schedule for specific requirements / documents for the work, if any

-NIL-

SCHEDULE 'E'

Reference to General Conditions of contract: **GCC 2020 for Maintenance works** modified & corrected up to the last date of submission of bid.

Name of Work: Renovation of Toilets Attached to Conference Hall –I,II&III in Dr.BR.Ambedkar Block NIRDPR Campus, Rajendarnagar,Hyderabad

1.1. Estimated Cost Put to Bid : Rs.10,07,013/-

1.2. Earnest money : Rs.20,000/-
(To be returned after receiving Performance Guarantee)

1.3. Performance Guarantee : 3% of Accepted Tendered Value
(As per OM No.F.9/4/2020-PPD dt: 30.12.2021 issued by Ministry of Finance, Department of Expenditure,Procurement PolicyDivision North Block, New Delhi)

1.4. Security Deposit : 2.5% of accepted tendered value

SCHEDULE 'F'**General Rules & Directions:**

Officer inviting tender	Executive Engineer, CMU,NIRD&PR Hyderabad
Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clauses 12.2 & 12.3	Hyderabad or successor thereof. See below under Clause 12

Definitions

2(v) Engineer-in-Charge	Executive Engineer, CMU, NIRD&PR, HYDERABAD, Hyderabad or successor thereof.
2(viii) Accepting Authority	Executive Engineer, CMU, NIRD&PR- Hyderabad or successor thereof.
2(x) Percentage on cost of materials and labour to cover all overheads and profits.	15.00%
2(xi) Standard schedule of Rates	DSR 2021 with correction slips up to date
2(xii) Department	Central Public Works Department.
9(ii) Standard CPWD contract Form	GCC 2020 for Maintenance works, CPWD Form 7 as amended up to last date of submission of bid.

Clause I

- | | |
|--|---------------|
| (i) Time allowed for submission of performance Guarantee, Programme Chart (Time and Progress) | 7 days |
| (ii) Maximum allowable extension with late fee at 0.1% per day of performance Guarantee amount beyond the period as provided in (i) above | 7 days |

Clause 2

Authority for fixing compensation under clause-2.

**DIRECTOR GENERAL /TECHNICAL
COMMINTEE, NIRD&PR Hyderabad or
successor thereof.**

Clause 5

Number of days from the date of issue of letter of acceptance for reckoning date of start

**7 days or date of handing over
: of site whichever is later**

Mile stone(s) as per table given below

TABLE OF MILESTONE (S)			
Time Period allowed for Completion of Work: -120 days(Restricted)			
Sl. No.	Milestone Programme	Time Allotted (From date of start)	Amount to be withheld in case of non-achievement of milestone
1	Full Bid Amount.	120Days	In the event of not achieving the necessary progress as assessed from the running payments, 1.25% of the tendered value of work will be withheld for failure of each milestone
2			
3			
4	Full Bid Amount.	120 days	

Note: 1. The amount so withheld may be released, if specifically requested by the contractor, on submission of Bank Guarantee in prescribed proforma.

Authority to decide:

- (i) Extension of time : Executive Engineer, CMU, NIRD&PR, Hyderabad
- (ii) Rescheduling of mile stones: Executive Engineer, CMU, NIRD&PR, Hyderabad
- (iii) Shifting the date of start in case of: Executive Engineer, CMU, NIRD&PR, Hyderabad
- (iv) delay in handing over of site Hyderabad or successor thereof.

Clause 5.1**(a) Schedule of Handing over site.****(b)**

Part	Portion of site	Description	Time period for handing over reckoned from date of issue of letter of intent.
Part A	Portion without any hindrance.		7 days
Part B	Portions with encumbrances		Nil
Part C	Portions dependant on work of other agencies.		Nil

(b) Schedule of issue of Designs.

Part	Portion of Design	Description	Time period for issue of design reckoned from date of receipt of tenders.
A	Structural designs (civil)		--NA--
B1	Portions of Architectural drawings to be issued		
B2	Portions of E&M Designs to be issued		

Clause 7

Gross work to be done together with net

Payment / adjustment of advances for

Material collected, if any since the last

Such payment for being eligible to

Interim payment

: **Not Applicable**

Clause 7 A

No Running Account Bill shall be paid for

the work till the applicable labour licenses,

registration of contractor with EPFO, ESIC and BOCW

Welfare Board, whatever applicable are submitted

by the contractor to the Engineer-in-charge.

: **NA**

Clause 8A Failure in submission of completion plans: NA

(Internal and external Civil & Electrical services)

Clause 10A

List of testing equipments to be provided by the contractor at site

: **Applicable as per Annexure -VII.**

Clause 10 B (ii)

Whether clauses 10 B (ii) shall be applicable

: **Applicable**

Clause 10C

: **Applicable**

Components of labour expressed as percent of value of work: 25%

Clause 10CA

: **Applicable**

Price index for cement, Steel Reinforcement bars and structural steel as issued by DG, CPWD as valid on the last stipulated date of receipt of tenders including extension if any.

Sl. No	Materials covered under this Clause	Base price and its corresponding period of all the materials covered under clause 10CA* excluding GST (in Rupees)	Month & Year	Nearest Materials (Other than cement, reinforcement bars, the structural steel and POL) for which All India whole sale Price Index to be followed.
1	Cement (OPC) 43 grade	Rs.5469/- per MT	September -2022	---
2	Cement (PPC)	Rs.4922/- per MT	September -2022	---
3	Steel Reinforcement – TMT 500 D – for all dia	Rs.71200/- per MT	September -2022	---
4	Structural Steel	Rs.73040/- per MT	September -2022	---

*** Includes Cement component used in RMC brought at site from outside approved RMC plant, if any**

*** OPC cement shall be used for all items, in case of use of PPC Cement necessary cost adjustments shall be made.**

Clause 10CC

: **Not Applicable**

Clause 10 CC to be applicable in contracts with stipulated period of completion exceeding the period

Schedule of component of other Materials, Labour etc. for price escalation :

Component of civil (except materials covered under clause 10CA) /Electrical construction, value of work.

Xm : **NA**

Component of Labour -

expressed as percent of total value of work. Y. : **NA**

Clause 11

Specification to be followed for execution of work. Vol-II with upto date correction slips : **CPWD Specifications 2019 Vol.I and**

Clause 12

Type of work : **Construction Work**

12.2 & 12.3 Deviation limit beyond which Clauses 12.2 & 12.3 shall apply for building work

: **100%(Hundred percent)**

Clause 16

Competent Authority for deciding reduced rates: **EXECUTIVE ENGINEER, CMU, NIRD&PR, Hyderabad or successor thereof.**

Clause 18

List of mandatory machinery, tools & plants to be deployed by the contractor at site

: **As per Annexure -VIII**

Applicable as per Nature of work**Clause 19 C**

: Executive Engineer, CMU,NIRD&PR,Hyderabad is Authority to decide penalty for each default.

Clause 19 D

: Executive Engineer, CMU,NIRD&PR,Hyderabad is authority to decide penalty for each default.

Clause 19 G

: Executive Engineer, CMU,NIRD&PR,Hyderabad is authority to decide penalty for each default.

Clause 19 K

: Executive Engineer, CMU,NIRD&PR,Hyderabad is Authority to decide penalty for each default.

Clause 32 Requirements of Technical Representative (s) and Recovery Rates: APPLICABLE FOR ABOVE 5.00 LAKHS WORKS

Sl. No	Requirement of Technical Staff		Minimum experience (Years)	Designation	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 32 (i)	
	Qualification	Number			Figures (per Month)	Words
	(For Major + Minor Component)(to be employed from the date of commencement of the work).					
1	Graduate Engineer or Diploma Engineer	1	2 or 5 respectively	Project Planning/ Quality/ Billing Engineer	Rs.15,000/- per month per person	Rupees Fifteen thousand only.

Clause 38

(i) (a) Schedule / statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rates 2021 printed by C.P.W.D with correction slips issued up to date.

(ii) Variations permissible on theoretical quantities.

(a) Cement for works with estimated cost put

to tender not more than Rs. 5 lakhs : 3% plus /minus

and for works with estimated cost put to : 2% plus/min

to tender more than 5 lakhs

b) Bitumen for all works : 2.5% plus only & nil on minus Side

(c) Steel Reinforcement and structural : 2% plus/min
steel sections for each diameter,
section and category

(d) All other materials : Nil

RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION

Sl. No.	Description of Item	Rates in figures and words at which recovery shall be made from the contractor	
		Excess beyond permissible variation	Less use beyond the permissible variation
1.	Cement	Not applicable	Rs. 5469/- per MT
2.	Steel reinforcement (a) Primary Manufacturer	Not applicable	Rs.71200/- per MT

**Executive Engineer,
CMU,NIRD&PR, Hyderabad.**

ANNEXURE I

**On non-judicial stamp paper of minimum Rs.100/-
(Guarantee offered by Bank to NIRD&PR in connection with the execution of
Contracts)FORM OF BANK GUARANTEE FOR EARNEST MONEY DEPOSIT /
PERFORMANCE
GUARANTEE/SECURITY DEPOSIT/MOBILIZATION ADVANCE**

1. Whereas the Executive Engineer.....(name of division).....NIRD&PR on behalf of the Director General (hereinafter called "The Government") has invited bids under(NIT number).....dated.....for..... (name of work) The Government has further agreed to accept irrevocable Bank Guarantee for Rs.....(Rupees.....only) valid up to.....(date)*as **Earnest Money Deposit** from(name and address of contractor).....hereinafter called "the contractor") for compliance of his obligations in accordance with the terms and conditions of the said NIT.

OR**

- Whereas the Executive Engineer.....(name of division)....., NIRD&PR on behalf of the Director General (hereinafter called "The Government ") has entered into an agreement bearing number.....with.....(name and address of the contractor)... (hereinafter called " the Contractor") for execution of work.....(name of work)..... The Government has further agreed to accept an irrevocable Bank Guarantee for Rs.....(Rupees.....only) valid up to.....(Date).....as **Performance Guarantee/Security Deposit/Mobilization Advance** from the said Contractor for compliance of his obligations in accordance with the terms and conditions of the agreement.
2. We,.....(indicate the name of bank).....(hereinafter referred to as "the Bank"), hereby undertake to pay to the Government an amount not exceeding Rs.(Rupeesonly) in demand by the Government within 10 days of the demand.
3. We,.....(indicate the name of the Bank),do hereby undertake to pay the amount due and payable under this guarantee without any demur, merely on a demand from the Government stating that the amount claimed is required to meet the recoveries due to or likely to be due from the said Contractor. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.....(Rupees only)
4. We,.....(indicate the name of the Bank) , further undertake to pay the Government any money so demanded notwithstanding any dispute or dispute raised by the contractor in any suit or proceeding pending before any Court or Tribunal, our liability under this Bank Guarantee being absolute and unequivocal . The payment so made by us under this Bank Guarantee shall be a valid discharge of our liability for payment there under and the Contractor shall have no claim against us for making such payment.
5. We,.....(indicate the name of the Bank), further agree that the Government shall have the fullest liberty without our consent and without affecting in any manner our obligation here under to vary any of the terms & conditions of the said agreement or to extended time of performance by the said contractor 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 and to forbear or enforce any of the terms & conditions relating to the said agreement and we shall not be relived from our liability by reasons of any such variation or extension being granted to the said Contractor or for any forbearance , act of omission on

the part of the Government or any indulgence by the Government to the said Contractor or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

- 6. We, (indicate the name of the Bank), further agree that the Government at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor at the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee the Government may have in relation to the Contractor's liabilities.
- 7. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.
- 8. We, (indicate the name of the Bank), undertake not to revoke this guarantee except with the consent of the Government in writing.
- 9. This Bank Guarantee shall be valid up to Unless extended on demand by the Government. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs.(Rupees.....Only) and unless a claim in writing is lodged with us within the date of expiry or extended date of expiry of this guarantee, all our liabilities under this guarantee shall stand discharged.

Date:.....

Witnesses :

- 1. Signature Authorized Signatory
Name and Address

Name
Designation
Staff Code No.
Bank Seal
- 2. Signature
Name and Address

* Date to be worked out on the basis of validity period of 90 days where only Financial Bids are invited and 180 Days for Two / Three Bid system from the date of submission of tender.

** In Paragraph 1, strike out the portion not applicable. Bank Guarantee will be made either for earnest money or for Performance Guarantee/Security Deposit/Mobilization Advance, as the case may be.

Sample letter for Acceptance of tender**By REGISTERED POST**

No.

Dated,

To

(Name and Address of the contractor)

Subject: (Name of work as appearing in the tender for the work).

Dear Sir(s)

Your tender for the work mentioned above has been accepted on behalf of the Director General at your tendered / negotiated tender amount of Rs.....(Rupees.....) which is% below / above the estimated cost of Rs.....(Rupees.....)

1. You are requested to submit the performance guarantee of Rs. (Rupees.....) within 7 days of issue of this letter. The Performance Guarantee shall be in any of the prescribed form as provided in Clause - I of the General Condition of Contracts for CPWD Works and shall be valid up to On receipt of prescribed performance guarantee necessary letter to commence the work shall be issued and site of work shall be handed over to you thereafter.
2. Please note that the time allowed for carrying out the work as entered in the tenderdays, will be reckoned from days subject to maximum allowable extension under Clause 1(ii), from the date of issue of this letter.

Yours faithfully,

Executive Engineer
CMU, NIRD&PR.
For & on behalf of Director General

Sample letter for Commencement of works

By Registered Post

No.

Date:

To

(Name and Address of the contractor)

Subject: (Name of work as appearing in the tender for the work).

Ref: 1. Performance guarantee submitted by you vide your letter
No Datedfor above work.

2. This office letter of intent/ acceptance of tender No.....dt.....

Dear Sir(s)

1. In continuation to the letters referred above, you are requested to attend this office to complete formal agreement within 15 days from stipulated date of start.
2. You are requested to contact the Assistant Engineer, (complete address) for taking possession of site and starting the work on or before days from the date of letter of acceptance of tender. Please note, that the time allowed for carrying out the work as entered in the tender () days, will be reckoned from to days subject to maximum allowable extension under Clause 1(ii), from the date of issue of acceptance letter

Yours faithfully,**Executive Engineer
CMU, NIRD&PR.****For & on behalf of Director General**

**GUARANTEE FOR REMOVAL OF
DEFECTS AFTER COMPLETION IN RESPECT OF WATER PROOFING WORKS.**

The agreement made this _____ day of _____ two thousand and _____ between _____ son of _____ of _____ (Hereinafter called the Guarantor of the one part) and the Director General NIRD&PR (hereinafter called the Government of the other part).

WHEREAS this agreement is supplementary to a contract (here in after called the contract), dated _____ and made between the GUARANTOR of the ONE part and the GOVERNMENT of the other part, whereby the contractor, interalia, undertook to render the buildings and structures in the said contract recited completely water and leak- proof.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the effect that the said structures will remain water and leak-proof **FOR FIVE** years to be reckoned from the date after the maintenance period prescribed in the contract.

NOW THE GUARANTOR hereby guarantees that water proofing treatment given by him will render the structures completely leak- proof and the minimum life of such water proofing treatment shall be **FIVE years** to be reckoned from the date after the maintenance period prescribed in the contract:

Provided that the Guarantor will not be responsible for leakage caused by earthquake or structural defects or misuse of roof or alteration and for such purpose:

- (i) Misuse of roof shall mean any operation which will damage proofing treatment like chopping of firewood and the things of same nature which might cause damage to the roof
- (ii) Alteration shall mean construction of an additional storey or a part of the roof or construction adjoining to existing roof whereby proofing treatment is removed in parts.
- (iii) The decision of the Engineer-in-charge with regard to cause of leakage shall be final.

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

That if the Guarantor fails to execute the waterproofing or commits breach there under, then the Guarantor will indemnify the principal and his successors against all loss,

damage, cost, expense or otherwise which may be incurred by him by reason of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and/or damage and/or cost incurred by the Government, the decision of the Engineer-in-charge will be final and binding on the parties.

IN WITNESS WHERE-OF these presents have been executed by the obligor_____ and by_____ and for and on behalf of the DIRECTOR GENERAL on the month and year first above written.

SIGNED, sealed and delivered by (OBLIGOR) in the presence of.

- 1.
- 2.

Signed for and on behalf of the DIRECTOR GENERAL by _____ in presence of:

- 1.
- 2.

INTERRITY PACT

To,

Sub: NIT No: EE/CMU/NIT/222-223/10

for the work of : **Renovation of Toilets Attached to Conference Hall -I,II&III in Dr.BR. Ambedkar Block NIRDPR Campus Rajenderanagar,Hyderabad.**

Dear Sir,

It is here by declared that NIRDPR is committed to follow the principle of transparency, equity and competitiveness in public procurement.

The subject Note Inviting Tender (NIT) is an invitation to offer made on the condition that the Bidder will sign the integrity Agreement, which is an integral part of tender/bid documents, failing which the tender/bidder will stand disqualified from the tendering process and the bid of the bidder would be summarily rejected.

This declaration shall form part and parcel of the integrity Agreement and signing of the same shall be deemed as acceptance and signing of the integrity Agreement on behalf of the NIRDPR.

Yours faithfully

**Executive Engineer ,
CMU,NIRD&PR,
Hyderabad**

Annexure-V**Guarantee To Be Executed By Contractors For Removal Of Defects After Completion In Respect Of Aluminum Doors, Windows, Ventilators Work and Curtain/Structural Glazing work.**

The agreement made this _____ day of _____ two thousand _____ between _____ son of _____ (hereinafter called the Guarantor of the one part) and the DIRECTOR GENERAL NIRD&PR (hereinafter called the Government of the other part).

WHEREAS THIS agreement is supplementary to a contract (hereinafter called the Contract) dated _____ and made between the GUARANTOR OF THE ONE part and the Government on the other part. Where by the contractor inter alia, undertook to render the work in the said contract recited structurally stable leak proof and sound material, workmanship, anodizing, coloring, sealing.

AND WHEREAS THE GUARANTER agreed to give a guarantee to the effect that the said work will remain structurally stable, leak proof and guaranteed against the faulty material and workmanship defective anodizing coloring and finishing for **two years** to be reckoned from the date after the maintenance period prescribed in the contract.

NOW THE GUARANTOR hereby guarantees that the work executed by him will remain structurally stable leak proof and guaranteed against faulty material and workmanship defective anodizing and coloring for the minimum life of **two years** to be reckoned from the date after the maintenance period prescribed in the contract.

The decision of the Engineer-in-charge with regard to case of defect shall be final.

During the period of guarantee the guarantor shall make good all defects and in case of any defect to the satisfaction of Engineer-in-charge at his cost and shall commence the work for such rectification within seven days from the date of issue of the notice from the Engineer-in-charge calling upon him to rectify the defects failing which the work shall be got done by department or by some other contractor at guarantors cost and risk. The decision of the Engineer-in-charge as to the cost, payable by the Guarantor shall be final and binding.

That if Guarantor fails to make good all the defects, commits breach there under then the guarantor will indemnify the Principal and his successors against all loss, damage, cost, expense or otherwise which may be incurred by him by reason of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement.

As to the amount of loss and / or damage and / or cost incurred by the Government the decision of the Engineer-in-charge will be final and binding on the parties.

IN WITNESS WHEREOF these present have been executed by the Obligator _____ and by _____ for and on behalf of the PRESIDENT OF INDIA on the day, month and year first above written.

SIGNED SEALED AND delivered by OBLIGATOR in the presence of:-

- 1.
- 2.

SIGNED FOR AND ON BEHALF OF THE DIRECTOR GENERAL NIRD&PR by _____ in presence of:-

- 1.
- 2.

Annexure-VI**FIELD TESTING EQUIPMENT AND INSTRUMENTS TO BE PROVIDED BY THE CONTRACTOR AT HIS OWN COST****A. Testing Equipment at Field Laboratories (Minimum numbers specified against each of them)(ABOVE ONE CRORE WORKS/MAJOR WORKS)**

1. Balances
 - a) 7Kg to 10 kg capacity, semi-self indicating type- Accuracy 10 gm
 - b) 500 gm capacities, semi-self indicating type- Accuracy 1 gm
 - c) Pan balance- 5kg capacity- Accuracy 10 gms
2. Ovens- electronically operated, thermostatically controlled upto 110°C to 10°C.
3. Sieves as per IS 460-1962.
 - i) IS sieves - 450mm internal dia, of sizes 100mm, 80mm, 63mm, 50mm, 40mm, 25mm, 20mm, 12.5mm, 10mm, 6.3mm and 4.75mm complete with lid and pan.
 - ii) IS sieves - 200mm internal dia (brass frame), consisting of 2.36mm, 1.18mm, 600 microns, 425 microns, 300 microns, 212 microns, 150 microns, 90 microns, 75 microns with lid and pan.
4. Sieve shaker capable of 200mm and 450 mm dia sieves, manually operated with timing switch assembly.
5. Equipment for slump test-slump cone, steel plate, tamping rod, steel scale, scoop.
6. Dial gauges, 25mm travel- 0.01mm/division least count - 2 nos.
7. 100 tonnes compression testing machine, hydraulically operated.
8. Graduated measuring cylinders 200 ml capacity – 3 Nos.
9. Enamel trays (for efflorescence test for bricks)
 - (i) 300 mm x 250 mm x 40 mm - 2 Nos.
 - (ii) Circular plates of 250mm dia - 4 Nos.
10. Concrete cube moulds 15 x 15 x 15cm - 60 Nos.
11. Vicats Apparatus for testing consistency of cement.
12. Cement Mortar cube Moulds -> 50 sqcm area – 12 Nos.
13. Pumps and pressure gauges for hydraulic testing of fires.

(B) FIELD TESTING INSTRUMENTS

1. Steel tapes-3m
2. Vernier calipers – 2 Nos.
3. Micrometer screw 25mm gauge- 2 Nos..
4. A good quality plumb bob – 3 Nos..
5. Spirit level, minimum 30cms long with 3 bubbles for horizontal vertical.
6. Wire gauge (circular type) disc.
7. Foot rule
8. Long Nylon thread
9. Dynamic penetrometer.
10. Magnifying glass.
11. Screw driver 30cms long
12. Ball pin hammer, 100 gms
13. Plastic bags for taking samples.
14. Moisture meter for timber.
15. Rebound Hammer for testing concrete.
16. Earth resistance tests (for Part – C).
17. Meggar (for Part – C)
18. Concrete thermometers.

Annexure-VII**Minimum required T&P to be owned/taken on lease by the Contractor****(This list is only indicative and not exhaustive)(ABOE ONE CORE OR MAJOR WORKS)**

Sl. no.	Activity	Detail of T&P	Qty.
1	Earth work	a)Earth moving equipment like JCB	1 Nos.
		b)Earth rammers	1 Nos
2	Concrete work	a)Concrete hopper mixer	1 Nos.
		b) Plate vibrator	1 Nos.
		c)Needle vibrator	1 Nos.
		d)Reversible drum mixer (Digital)- 6 cum/per hour	1 Nos.
3	Building work	a) Bar cutting machine	1 Nos.
		b) Hydraulic Bar bedding machine	1 Nos.
		c) Wood thickness planer machine	1Nos.
		d) Drilling machine	1 No.
		e) Steel shuttering plates i/c Steel scaffolding, adjustable telescopic props, Adjustable spans	120 Sqm
		f) Grinding / polishing machines	2 Nos.
		g) Builders Hoist	2 Nos.
		h) DG set 65 kva	1 Nos.
4	Transportation	Truck & Tippers	3 Nos.
5	Dewatering	Diesel and electrical pumps	2 Nos.
6	Pneumatic Equipments	Air Compressor	1 No.
7	Survey	(a) Electronic Total station instrument	2 Nos.
		(b)Auto level with leveling staff	2 Nos.
8		Welding Machine	2 Nos.
9		Any other Machinery required for completion of work as per direction of Engineer - in - charge.	

NOTE:

1. The contractor has to establish within 21 days from the award of work a field laboratory at site including all necessary equipments and skilled manpower for the **Field Tests as indicated in the tender document** this own cost to have proper quality control. **Rs.1,000/-** per day shall be recovered from the contractor for any delay beyond the specified period. If contractor fails to establish lab within additional period of 15 days, the Engineer in Charge shall initiate action as deemed fit under relevant clauses of the agreement.
2. A site laboratory with temporary structure of minimum 25 sqm area may be fabricated at site by the contractor for accommodating above instruments and for conducting of various tests for which no extra payment shall be made to the contractor.
3. One sample keeping room of minimum area of 20 sqm should also be fabricated at site for keeping various material brought by the contractor at site and approved by the Engineer in charge. No extra payment on account of this shall be made to the contractor.
4. All the above structures should be decent looking and shall be fabricated as per direction of Engineer in charge.
5. All the above structure shall be demolished after completion of work and the dismantled material shall be the property of the contractor.

GOVERNMENT OF TELANGANA
DEPARTMENT OF MINES AND GEOLOGY::HYDERABAD

Letter No.1247095/P/2021

Dated:16.04.2022

From
Director of Mines & Geology (FAC),
2nd Floor, Myhome Sarovar Plaza,
Opp: Secretariat, Hyderabad.

To
The Chief Engineer,
(P.W.D) Central Public works
Department, Kendriya Sadan, Sultan
Bazar, HYDERABAD.

Sir,

Sub:- Mines & Minerals - Amendments to Telangana Minor Mineral
Concession Rules, 1966 - Enhancement of Seigniorage Fee
and introduction of Permit Fee - Orders Communicated - Reg.

Ref:- 1.G.O.Ms.No.18, Ind. & Com. (M.I) Dept., dated 31.03.2022.
2.G.O.Ms.No.21, Ind. & Com. (M.I) Dept., dated 31.03.2022.

I invite attention to the subject & references cited. Through the
reference 1st cited, the State Government enhanced the Seigniorage Fee on
Minor Minerals.

Through the reference 2nd cited, the State Government introduced
Permit Fee payable alongwith seigniorage fee in addition to Seigniorage Fee,
DMF & SMET at the rate of 0.8 times of Seigniorage Fee for all Minor
Minerals except Colour Granite, Black Granite & ordinary Sand and at the
rate of 0.4 times of Seigniorage Fee for Colour Granite and Black Granite.

In view of the above, it is requested to issue necessary instructions to
all the Govt. Engineering/Consuming Depts. for remittance/deduction of
enhanced Seigniorage Fee alongwith Permit Fee on Seigniorage Fee for the
Minor Minerals consumed by the Engineering Departments w.e.f. 01.04.2022
for on-going projects, approved projects but yet to be ground and projects
under pipeline in the following Head of Accounts:

Sl No	Item	Head of Account (Treasury)
1	Seigniorage Fee	0853-102-02
2	Permit Fee	0853-102-81

Further, any clarification by the circle or District Heads of Govt.
Engineering Departments on remittance of Enhanced Seigniorage Fee and
payment of Permit Fee may contact concerned District Assistant Directors of
Mines & Geology.

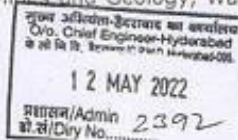
Yours faithfully
Sd/- M Venkateshwarlu
for Director of Mines & Geology

స.క.కె.	అ.స.క.కె.	అ.స.క.కె.	అ.స.క.కె.
AAO	S.O.	EE(CMI)	CE
<i>M/11/4/22</i>			<i>K. Venkateshwarlu</i>

//Attested//

M. Venkateshwarlu
for Director of Mines and Geology

Copy to the Director, Directorate of Works & Accounts, AC Guards,
Hyderabad for information and necessary action.
Copy to all Asst. Directors of Mines and Geology in the State for information
and necessary action.
Copy to the Deputy Director of Mines and Geology, Warangal, Hyderabad &
Nizamabad for information.



**GOVERNMENT OF TELANGANA
ABSTRACT**

**Mines and Minerals - Rules - The Telangana Minor Mineral concession Rules, 1966
Revision of Seigniorage Fee - Amendment - Notification - Orders - Issued.
INDUSTRIES AND COMMERCE (MINES.I) DEPARTMENT**

G.O. Ms No.18,

Dated: 31.03.2022
Read the following

- 1) G.O.Ms.No.67, Industries & Commerce (M.I) Dept., dt.26.09.2015.
- 2) G.O.Ms.No.16, Industries & Commerce (M.I) Dept., dt.16.03.2016.
- 3) From the Director of Mines and Geology, Hyderabad Letter. No.1247095/P/2021, dated:22.09.2021.

ORDER:

The Director of Mines and Geology, Telangana, by above reference 3rd read above, has stated that as per Section 15 (3) of Mines and Mineral (Development and Regulation) Act, 1957 (MMDR, 1957), Seigniorage Fee has to be revised every three years. The Director also stated that no revision of Seigniorage Fee has been done in past six years and the last revision was done on 26.09.2015 for Schedule-I Minor Minerals and 16.03.2016 for Schedule III Minor Minerals.

1. Hence, the Director has proposed revision of Seigniorage Fee and requested the Government to issue necessary amendments to Schedule I and Schedule III under Rule 10 of Telangana State Minor Mineral Concession Rules, 1966.
2. After careful examination of the proposal of the Director of Mines and Geology, Telangana, it is hereby decided to accept the revision of Seigniorage Fee.
3. Accordingly, the following notification shall be published in the Extra- Ordinary Issue of the Telangana State Gazette.

NOTIFICATION

In exercise of the powers conferred by Sub-Section (1) of Section 15 of the Mines and Minerals (Development and Regulation) Act, 1957 (Central Act No.67 of 1957), the Governor of Telangana hereby makes the following amendments to the Telangana Minor Mineral Concession Rules, 1966.

AMENDMENTS

In the said rules, for Schedule I and Schedule III under Rule 10, the following shall be substituted.

**SCHEDULE - I
RATES OF SEIGNIORAGE FEE**

Sl. No.	Name of the Minor Mineral	Rate of Seigniorage fee per Metric Tonne (MT)(In Rupees)
1.	Building Stone,Rough Stone / Boulders,Road Metal and Ballast and Manufactured Sand (M - Sand)	65
2.	Dimensional Stone used for Kerbs & Cubes	130
3.	Lime Kankar/Limestone	The rate of royalty as applicable to Lime stone (other than LD Grade) in respect of major Mineral as per the 2nd Schedule of the Mines & Minerals (D & R) Act, 1957.
4.	Marble	130
5.	Mosaic chips	58
6.	Morrum/Gravel & Ordinary Earth	20
7.	Ordinary Sand	27
8.	Shingle	22
9.	Chalcedony Pebbles	65
10.	Fullers Earth / Bentonite	195
11.	Shale / Slate	195
12.	Rehmatti	32
13.	Limestone slabs	130
14.	Brick Earth used in the manufacture of Bricks including Magalore Tiles.	Rs. 7800/- per kiln per annum.
	Granite Useful for cutting and polishing	
	i) Black Granite	
15	a)Gangsaw (above 270x above 150CM)	1361/3900 MT/M3
	b) below Gangsaw	1043/2990 MT/M3
	ii)Colour granite	
	a)Gangsaw (above 270x above 150CM)	1128/2900 MT/M3
	b)below Gangsaw	980/2600 MT/M3

SCHEDULE- III
RATE OF DEAD RENT

Sl. No.	Name of the Minor Mineral	Rate of Seigniorage Fee per Metric Tonne (MT) (In Rupees)
1	Agate	156
2	Ball Clay	78
3	Barytes	780
4	Calcareous	97
5	Calcite	91
6	Chalk	104
7	China Clay	78
8	Clay (Others)	52
9	Corundum	78
10	Diaspore	351
11	Dolomite	130
12	Dunite or Pyroxenite	52
13	Felsite	143
14	Feldspar	97
15	Fireclay (including plastic, pipe, lithomargic and natural pozzolanic clay)	65
16	Fuchsite Quartzite	91
17	Gypsum	91
18	Jasper	156
19	Kaolin	78
20	Laterite	130
21	Limekankar	123
22	Mica	2600
23	Ochre	45
24	Pyrophyllite	234
25	Quartz	78
26	Quartzite	78
27	Sand (Others)	78
28	Shale	169
29	Silica Sand	78
30	Slate	169
31	Steatite or Talc or Soapstone	390

4. These orders will come effect from 01st April 2022.
5. The Director of Mines & geology, Telangana, shall take necessary action accordingly.
6. This order is issues with the concurrence of finance Department vide their U.Ono.2012-A/89/EBS.VII/I & C/2021, dated 22.09.2021.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF TELANGANA)

SOMESH KUMAR

CHIEF SECRETARY TO GOVERNMENT &
PRINCIPAL SECRETARY TO GOVERNMENT (MINES & GEOLOGY)(FAC)

To

The Commissioner of Printing, Stationary & Stores Purchase (Ptg. Wing) Hyderabad.

(He is requested to publish the above Notification in the Extra-Ordinary issue of Telangana Gazette, and arrange to send 500 copies of the same to Government in Industries & Commerce (M.I) Department).

The Director of Mines and Geology, Telangana State, Hyderabad.

(He is requested to furnish the Telugu version of the Notification direct to the Commissioner, Printing Stationary & Store Purchase (Ptg. Wing), Hyderabad).

Director of Mines and Geology, Telangana State, Hyderabad

The Vice Chairman & Managing Director, Telangana State Mineral Development Corporation Ltd., Hyderabad.

All the District Collectors/Additional Collectors in the State of Telangana.

The Municipal Administration and Urban Development Department

The Irrigation & CAD department.

The Transport, Roads & Buildings Department.

The Panchayat Raj & Rural Department.

The Revenue Department.

The Director General of Police, Hyderabad.

The Commissioner of Rural Development , Hyderabad.

The Commissioner of Transport , Hyderabad.

The Commissioner of Panchayat Raj , Hyderabad.

The Director, Ground Water Department.

The Member- Secretary, Telangana State Pollution Control Board, Hyderabad

The Engineer-in-Chief, Irrigation Department.

Copy to:

The Secretary to Government, Ministry of Mines, GoI

The Law Department

The Finance Department

The P.S. to Principal Secretary to Hon'ble Chief Minister.

P.S. to Hon'ble Minister MA & UD.

P.S. to Hon'ble Minister for Panchayat Raj & Rural Department.

P.S. to Hon'ble Minister Irrigation

P.S. to Chief Secretary and Principal Secretary to Government, Industries & Commerce (Mines) Department.

The Joint Directors/ Deputy Directors/ Assistant Directos of Mines and Gelogy through the Director of Mines & Gelogy, Hyderabad.

The General Administration (Cabinet) Department.

//FORWARDED :: BY ORDER//

SECTION OFFICER

GOVERNMENT OF TELANGANA
ABSTRACT

Mines and Minerals - Rules - The Telangana Minor Mineral concession Rules, 1966 -
Levy of Permit Fee on Minor Minerals - Amendment - Notification - Orders - Issued.

INDUSTRIES & COMMERCE (MINES.I) DEPARTMENT

G.O.Ms.No.21,

Dated:31.03.2022

Read the following:

From the Director of Mines and Geology, Hyderabad Letter
No.1247095/P/2021, dated: 22.09.2021.

ORDER:

The Director of Mines and Geology, Telangana, has submitted proposal in the reference read above and stated that, there is no fee levied at the time of issuance of permit and proposed to levy Permit Fee in addition to the Seigniorage Fee, DMF and SMET when permit is issued for transportation of extracted minerals at the rate of 0.8 times of Seigniorage fee for all minor minerals except Colour Granite, Black Granite and Ordinary Sand and 0.4 times of Seigniorage fee for Colour Granite and Black Granite irrespective of the mode of grant of lease.

2. The Director of Mines and Geology, Telangana has requested the Government to issue necessary amendments to Rule 4 and Rule 34(2) of Telangana State Minor Mineral Concession Rules, 1966 to this effect.

3. After careful examination of the proposal of the Director of Mines and Geology, Telangana, it is hereby decided to levy Permit Fee in addition to the Seigniorage Fee, DMF and SMET, at the rate of 0.8 times of Seigniorage fee for all minor minerals except Colour Granite, Black Granite & Ordinary Sand and at the rate of 0.4 times of Seigniorage fee for Colour Granite and Black Granite on the lease holders/permit holders, irrespective of the mode of grant of lease, duly amending the Rule 4 and Rule 34(2) Telangana Minor Mineral Concession Rules, 1966.

4. Accordingly, the following Notification will be published in an Extra-Ordinary Issue of Telangana State Gazette.

NOTIFICATION

In exercise of the powers conferred by Sub-Section (1) of Section 15 of the Mines and Minerals (Development and Regulation) Act, 1957 (Central Act 67 of 1957), the Governor of Telangana hereby makes the following amendments to the Telangana Minor Mineral Concession Rules, 1966.

AMENDMENTS

In the said Rules, in Rule-4, after clause (j), the following clauses shall be added, namely

(k) 'Permit Fee' means the amount payable by the lease holder/permit holder at the time of grant of permit.

(ii) In Rule-34, Sub-Rule (2) the following shall be inserted after the words "payment of seigniorage fee"

"along with permit fee at the rate of 0.8 times of Seigniorage fee for all minor minerals except Colour Granite, Black Granite & Ordinary Sand and at the rate of 0.4 times of Seigniorage fee for Colour Granite and Black Granite, irrespective of the mode of grant of lease"

[P.T.O]

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5. These orders will come into effect from 01st April, 2022.
6. The Director of Mines & Geology, Telangana, shall take necessary action accordingly.
7. This order is issued with the concurrence of Finance Department vide their U.O.No.2012-A/89/EBS.VII/I&C/2021, dated:22-09-2021.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF TELANGANA)

SOMESH KUMAR
CHIEF SECRETARY TO GOVERNMENT &
PRINCIPAL SECRETARY TO GOVERNMENT (MINES & GEOLOGY)(FAC)

To
The Commissioner of Printing, Stationary & Stores Purchase (Ptg. Wing) Hyderabad.
(He is requested to publish the above Notification in the Extra -Ordinary issue of Telangana Gazette, and arrange to send 500 copies of the same to Government in Inds. & Comm. (M.I) Dept.,).
The Director of Translation, Telangana, Hyderabad.
(He is requested to furnish the Telugu version of the Notification direct to the Commissioner, Printing, Stationary & Stores Purchase (Ptg. Wing), Hyd.
The Director of Mines and Geology, Telangana State, Hyderabad.
The Vice Chairman & Managing Director, Telangana State Mineral Development Corporation Ltd., Hyderabad.
All the District Collectors/ Additional Collectors in the State of Telangana.
The Municipal Administration and Urban Development Department.
The Irrigation & CAD Department.
The Transport, Roads & Buildings Department.
The Panchayat Raj & Rural Development Department.
The Revenue Department.
The Director General of Police, Hyderabad.
The Commissioner of Rural Development, Hyderabad.
The Commissioner of Transport, Hyderabad.
The Commissioner of Panchayat Raj, Hyderabad
The Director, Ground Water Department.
The Member-Secretary, Telangana State Pollution Control Board, Hyderabad.
The Engineer-in-Chief, Irrigation Department.
Copy to :
The Secretary to Government, Ministry of Mines, Govt of India.
The Law Department.
The Finance Department.
P.S. to Principal Secretary to Hon'ble Chief Minister.
P.S. to Hon'ble Minister MA&UD
P.S. to Hon'ble Minister for Panchayat Raj & Rural Development.
P.S. to Hon'ble Minister for Irrigation.
P.S. to Chief Secretary and Prl Secy. to Govt, Ind & Com(Mines) Department.
The Joint Directors/Deputy Directors/Assistant Directors of Mines and Geology through the Director of Mines & Geology, Hyderabad.
The General Administration (Cabinet) Department.
Sc/Sf

//FORWARDED:: BY ORDER//

SECTION OFFICER

PART - B
CIVIL COMPONENT

SPECIAL CONDITIONS AND PARTICULAR SPECIFICATIONS FOR CIVIL WORK
SPECIAL CONDITIONS

- 1) The work shall be carried out as per CPWD Specifications 2019 Vol. I & II with upto date correction slips, particular specifications, structural drawings and as per instruction of Engineer-in-charge.
- 2) Unless otherwise specified in the schedule of quantities, particular specifications or CPWD specifications (subject to the order or preference) the rates tendered by the tenderer shall be all inclusive and nothing extra over and above the schedule of quantity shall be payable on this account.
- 3) Wherever any reference to any Indian Standards occurs in the documents relating to this contract, the same shall be inclusive of all amendments issued thereto or revisions thereof, if any, upto the date of receipt of tenders.
- 4) The Contractors are advised to inspect and examine the site and its surroundings and satisfy themselves with the nature of site, the means of access to the site, the constraints of space for stacking material / machinery, labour etc., constraints put by local regulations, if any, weather conditions at site, general ground / subsoil conditions etc. or any other circumstances which may affect or influence submission of their bids. The site is available for work. The contractor shall carry out survey of the work area, at his own cost, setting out the layout and fixing of alignment of the building as per architectural and structural drawings in consultation with the Engineer-in-charge and proceed further ensuring full structural continuity and integrated and monolithic construction. Any discrepancy between the architectural drawings and actual layout at site shall be brought to the notice of the Engineer-in-charge.
- 5) The Contractor shall, if required by him, before submission of the bid, inspect the drawings in the Office of the **Executive Engineer, CMU,NIRD&PR,Hydera bad**., The department shall not bear any responsibility for the lack of knowledge and also the consequences, thereof to the Contractor. The information and data shown in the drawings and mentioned in the bid documents have been furnished, in good faith, for general information and guidance only. The Engineer-in-Charge, in no case, shall be held responsible for the accuracy thereof and/or interpretations or conclusions drawn there from by the Contractor and all consequences shall be borne by the Contractor. No claim, whatsoever, shall be entertained from the Contractor, if the data or information furnished in bid document is different or in-correct otherwise or actual working drawings are at variance with the drawings available for inspection or attached to the bid document. It is presumed that the Contractor shall satisfy himself for all possible contingencies, incidental charges, wastages, bottlenecks etc. likely during execution of work and acts of coordination, which may be required between different agencies. Nothing extra shall be payable on this account.
- 6) The nomenclature of the item given in the schedule of quantities gives in general the work content but is not exhaustive i.e. does not mention all the incidental works required to be carried out for complete execution of the item of work. The work shall be carried out, all in accordance with true intent and meaning of the specifications and the drawings taken together, regardless of whether the same may or may not be particularly shown on the drawings and/or described in the specifications, provided that the same can be reasonably inferred there from may be several incidental works, which are not mentioned in the nomenclature of each item but will be necessary to complete the item in all respect. All these

incidental works / costs which are not mentioned in item nomenclature but are necessary to complete the item shall be deemed to have been included in the rates quoted by the contractor for various items in the schedule of quantities. No adjustment of rates shall be made for any variation in quantum of incidental works due to variation / change in actual working drawings. Also, no adjustment of rates shall be made due to any change in incidental works or any other deviation in such element of work (which is incidental to the items of work and are necessary to complete such items in all respects) on account of the directions of Engineer-in-Charge. Nothing extra shall be payable on this account.

- 7) The contractor shall give to the local body, police and other authorities all necessary notices etc. that may be required by law and obtain all requisite licenses for temporary obstructions, enclosures etc. and pay all fees, taxes and charges which may be leviable on account of these operations in executing the contract. Proper temporary barricading by fencing with G.I. sheets, shall be carried out by the contractor at the start of work as per direction of Engineer-in-charge in order to physically define the boundaries of the site earmarked for EMRS work for restricted entry to only those involved in the work and also to prevent any accidents, at the same time without causing any inconvenience to the traffic and the users of the handed over buildings in the adjacent plots. It shall be done by providing, erecting, maintaining temporary protective barricading of minimum 3.0 meters in height, made in panels, with each panel having MS frames / MS scaffolding pipes of suitable size and stiffness, with 24 gauge thick GI corrugated sheet or suitably stiffened plain GI sheet fixed on frames. Such panels shall be suitably connected to each other for stability with nuts and bolts, hooks, clamps etc. and fixed firmly to the ground at about 2 metres spacing, for the entire duration till completion of the work. He shall also provide and erect temporary protective barricades within the plot, if required, to prevent any accident. It shall be dismantled and taken away by the Contractor after the completion of work at his own cost with the approval of the Engineer-in-charge. Nothing extra shall be payable on this account.
- 8) The contractor shall take all precautions to avoid accidents by exhibiting necessary caution boards day and night. In case of any accident to labours/ contractual staff the entire responsibility will rest on the part of the contractor and any compensation under such circumstances, if becomes payable, shall be entirely borne by the contractor.
- 9) The work shall generally be carried out in accordance with the "CPWD Specifications 2019 Vol.I & II with upto date Correction clips, additional/ Particular Specifications, Architectural/ Structural drawings and as per instructions of Engineer-in charge. Any additional item of the work, if taken up subsequently, shall also conform to the relevant CPWD Specifications as mentioned above. Working (both Architectural and Structural) drawings will be released progressively to the contractor commensurate to the construction schedule approved by Engineer-in-charge.
- 10) The several documents forming the tender are to be taken as mutually complementary to one another. Detailed drawings shall be followed in preference to small scale drawings and figured dimensions in preference to scale dimensions.
- 11) In case of any difference or discrepancy between the description of items as given in the schedule of quantities, particular specifications for individual items of work (including special conditions) and I.S. Codes etc., the following order of preference shall be observed.
 - i. Description of items as given in Schedule of quantities
 - ii. Particular specifications

- iii. Special conditions
 - iv. Tender drawings attached
 - v. CPWD Specifications including correction slips issued upto the last date of uploading/ submission of tender.
 - vi. General Conditions of Contract for CPWD works including correction slips issued upto the last date of uploading/submission of tender.
 - vii. Indian Standards Specifications of B.I.S.
 - viii. ASTM, BS, or other foreign origin codes mentioned in tender document.
 - ix. Manufacturer's specifications and as decided by the Engineer-in-Charge.
 - x. Sound Engineering practices or well established local construction practices.
 - xi. "In the event of any variation / discrepancy in the drawings, specifications and tender documents etc. the decision of the Engineer in charge shall be final binding, and conclusive on the contractor and in the case the contractor have any doubt and the same should be got clarified immediately from the Engineer in charge and no claim of the contractor shall be entertained thereafter. **Moreover, the agency is not allowed to take benefit out of any clerical / grammatical mistake in the standard clauses / Schedule of Quantities / Specifications etc. being used in the agreement**".
12. The works to be governed by this contract shall cover delivery and transportation upto destination, safe custody at site, insurance, erection, testing and commissioning of the entire work.
- a. The works to be under taken by the contractor shall inter alia include the following:
 - (i) Preparation of detailed SHOP drawings and AS BUILT drawings wherever applicable.
 - (ii) Obtaining of Statutory permissions wherever applicable and required.
 - (iii) Pre - commissioning tests as per relevant standard specifications, code of practice, Acts and Rules wherever required.
 - (iv) Warranty obligation for the equipment and / or fittings / fixtures supplied by the contractor.
 - b. Contracator shall provide all the shop drawings or layout drawings for all the coordinated services before starting any work or placing any order for any of the services etc. These shop drawings / layout drawings shall be got approved from Engineer - in - charge before implementation and this shall be binding on the contractor. The contractor shall submit material submittals along with material sample for approval of Engineer - in - Charge prior to delivery of material at site.
 - c. All the hidden items such as water supply lines, drainage pipes, conduits, sewers etc. are to be properly tested as per the design conditions before covering and their measurements in computerized measurements book duly test checked shall be deposited with Engineer in charge or his authorized representative, prior to hiding these items.
13. The work shall be carried out in accordance with the approved Architectural structural drawings & service drawings to be issued from time to time by the Engineer-in- charge. Before commencement of any item of work the contractor shall correlate all the relevant structural drawings, Specifications etc. issued for the work and satisfy himself that the information available from there is complete and unambiguous. The figure and written dimension of the drawings shall be superseding the measurement by scale. The discrepancy, if any, shall be brought to the notice of the Engineer-in- charge before execution of the work. The contractor

alone shall be responsible for any loss or damage occurring by the commencement of work on the basis of any erroneous and or incomplete information and no claim whatsoever shall be entertained by the department on this account.

14. The delay caused on account of non-timely action by the contractor in resolution of the differences whatsoever shall not be considered as valid ground for extension of time unless otherwise accepted by Engineer- in-charge.
15. Unless otherwise provided in the Schedule of quantities, the rates tendered by the contractor shall be all inclusive and shall apply to all heights, lifts, leads and depths of the building and nothing extra shall be payable to him on this account. Payment for centering, shuttering, however, if required to be done for floor heights greater than 3.5m shall be admissible at rates arrived in accordance with clause 12 of the agreement if not already specified.
16. The contractor shall take instructions from the Engineer-in-Charge regarding collection and stacking of materials at suitable place. No stacking of materials or excavated earth or building rubbish shall be stacked on areas where other buildings, roads, services and compound walls are to be constructed. The stacking shall take place as per stacking plan. However, if any change is required, the same shall be done with the approval of Engineer-in-Charge.
17. The Contractor shall bear all incidental charges for Cartage, storage and safe custody of materials, if any, issued by department as well as to those materials also arranged by the contractor.
18. Any cement slurry added over base surface (or) for continuation of concreting for better bond is deemed to have been built in the execution of work and nothing extra shall be payable or extra cement considered in consumption on this account.
19. The contractor shall make his own arrangements for water and for obtaining electric connections if required and make necessary payments directly to the State Govt. departments concerned. Contractor shall get the water tested from laboratory approved by the Engineer-in-charge at regular interval as per the CPWD Specifications 2019. All expenses towards collection of samples, packing, transportation etc. shall be borne by the contractor.
20. Work shall normally be done in a single shift/day. However if the work is required to be executed in more than one shift in a day for meeting the time lines, the Contractor with prior approval of the Engineer-in-charge, shall have to make necessary arrangements for the same and all costs towards the same shall be deemed to have been included in the quoted rates.

21. PREVENTION OF NUISANCE AND POLLUTION CONTROL

The contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the owners, tenants or occupiers of adjacent properties and to the public in general and to prevent any damage to such properties from pollutants like smoke, dust, noise. The contractor shall use such methodology and equipment so as to cause minimum environmental pollution of any kind during construction and minimum hindrance to road users and to occupants of the adjacent properties or other services running adjacent/near vicinity. The contractor shall make good at his cost and to the satisfaction of the Engineer-in-charge, any damage to roads, paths, cross drainage works or public or private property whatsoever caused due to the execution of the work or by traffic brought thereon by the contractor. All waste or superfluous materials shall be carried away by the contractor, without any reservation, entirely to the satisfaction of the Engineer-in-charge.

22. Utmost care shall be taken to keep the noise level to the barest minimum so that no Disturbance as far as possible is caused to the nearby occupants/users of building(s), if any.

23. SECURITY AND TRAFFIC ARRANGEMENTS

In the event of any restrictions being imposed by the Security agency of Client Department / CPWD/ Hyderabad Traffic or any other local authority having jurisdiction in the area on the working or movement of labour/ material, the contractor shall strictly follow such restrictions and nothing extra shall be payable to him on such accounts. The loss of time on these accounts, if any, shall have to be made up by augmenting additional resources whatever required.

For the safety of all labour directly or indirectly employed in the work the contractors shall, in addition to the provision of CPWD safety code and directions of the Engineer-in-Charge, make all arrangements to provide facility as per the provision of Indian Standard Specifications (Codes) listed below & nothing extra shall be paid on this account.

- | | | |
|------|-----------------|---|
| i. | IS 3696 Part I | Safety Code for scaffolds and ladders. |
| ii. | IS 3696 Part II | Safety Code for scaffolds and ladders Part II ladders. |
| iii. | IS 764 | Safety Code for excavation work. |
| iv. | IS 4138 | Safety Code for working in compressed air. |
| v. | IS 7293 | Safety Code for working with construction machinery. |
| vi. | IS 7969 | Safety Code for storage and handling of building materials. |
| vii. | IS 4130 | Safety code for demolition of buildings. |

24. The contractor is required to make his own arrangements to provide huts for labourers as is acceptable to local bodies /client and nothing extra shall be paid on this account. He shall make his own arrangements for stores, field office etc. Before bidding, he shall visit the site and assess the manner in which he is able to arrange the above facilities. The Engineer-in-charge shall in no way be responsible for any delay on this account and no claim, whatsoever, on this account shall be entertained.
25. No payment shall be made for any damage caused by rain, snowfall, flood or any other natural calamity, whatsoever during the execution of the work. The contractor shall be fully responsible for any damage to the govt. property and the work for which payment has been advanced to him under the contract and he shall make good the same at his risk and cost. The contractor shall be fully responsible for safety and security of his material, T&P/Machinery brought to the site by him.
26. The contractor shall construct suitable godowns, yard at the site of work for storing all other materials so as to be safe against damage by sun, rain, damages, fire, theft etc. at his own cost and also employ necessary watch and ward establishment for the purpose at his cost.
27. All materials obtained from contractor shall be got checked by the representative of Engineer-in-Charge on receipt of the same at site before use.
28. The contractor shall be responsible for the watch and ward/guard of the buildings, safety of all fittings and fixtures including all equipments, services provided by him against pilferage and breakage during the period of Installations and thereafter till the building is physically handed over to **the Client Department**. No extra payment shall be made on this account and no claim shall be admissible on this account.

29. The contractor shall keep himself fully informed of all acts and laws of the Central & State Governments, all orders, decrees of statutory bodies, tribunals having any jurisdiction or authority, which in any manner may affect those engaged or employed and anything related to carrying out the work. All the rules & regulations and bye-laws laid down by Collector / Telangana State Govt. and any other statutory bodies shall be adhered to, by the contractor, during the execution of work. The contractor shall also adhere to all traffic restrictions notified by the local authorities. All statutory taxes, levies, charges (including water and sewerage charges, charges for temporary service connections and / or any other charges) payable to such authorities for carrying out the work, shall be borne by the Contractor. The water charges (for municipal water connection as well as tanker water) shall be borne by the contractor. Also, if the contractor obtains water connection for the drinking purposes from the municipal authorities or any other statutory body, the consequent sewerage charges shall be borne by the contractor. The Contractor shall arrange to give all notices as required by any statutory / regulatory authority and shall pay to such authority all the fees that is required to be paid for the execution of work. He shall protect and indemnify the Department and its officials & employees against any claim and /or liability arising out of violations of any such laws, ordinances, orders, decrees, by himself or by his employees or his authorized representatives. Nothing extra shall be payable on these accounts. The fee payable to statutory authorities for obtaining the various permanent service connections and Occupancy Certificate for the building shall be borne by the Department.
30. For works below ground level the contractor shall keep that area free from water. If dewatering or bailing out of water is required the contractor shall do the same at his own cost and nothing extra shall be paid except otherwise provided in the items of Schedule of Quantities.
31. The contractor shall make all necessary arrangements for protecting works already executed from rains, fog or likewise extreme weather conditions and for carrying out further work, during monsoon including providing and fixing temporary shelters, protections etc. Nothing extra shall be payable on this account and also no claims for hindrance shall be entertained on this account.
32. The contractor will take reasonable precautions to prevent his workman and employees from removing and damaging any flora (plant/vegetation) from the project area.
- 33. SETTING OUT**
- (i) The contractor shall carry out survey of the work area, at his own cost, setting out the layout of building in consultation with the Engineer-in-charge & proceed further. Any discrepancy between in the drawings and actual layout at site shall be immediately brought to the notice of the Engineer-in-charge. It shall be responsibility of the contractor to ensure correct setting out of alignment. Total station survey instruments only shall be used for layout, fixing boundaries, and centre lines, etc., Nothing extra shall be payable on this account.
- (ii) The contractor shall establish, maintain and assume responsibility for grades, lines, levels and benchmarks. He shall report any errors or inconsistencies regarding grades, lines, levels, dimensions etc to the Engineer-in-charge before commencing work. Commencement of work shall be regarded as the contractor's acceptance of such grades, lines, levels, and dimensions and no claim shall be entertained at a later date for any errors found.
- (iii) If at any time, any error appears due to grades, lines, levels and benchmarks during the progress of the work, the contractor shall, at his own expense rectify such error, if so

required, to the satisfaction of the Engineer-in-charge. Nothing extra shall be payable on this account.

- (iv) Though the site levels are indicated in the drawings the Contractor shall ascertain and confirm the site levels with respect to benchmark from the concerned authorities. The Contractor shall protect and maintain temporary/ permanent benchmarks at the site of work throughout the execution of work. These benchmarks shall be got checked by the Engineer-in-Charge or his authorized representatives. The work at different stages shall be checked with reference to bench marks maintained for the said purpose. Nothing extra shall be payable on this account.
- (v) The approval by the Engineer-in-charge, of the setting out by the contractor, shall not relieve the Contractor of any of his responsibilities and obligation to rectify the errors/ defects, if any, which may be found at any stage during the progress of the work or after the completion of the work.
- (vi) The contractor shall be entirely and exclusively responsible for the horizontal, vertical and other alignments, the level and correctness of every part of the work and shall rectify effectively any errors or imperfections therein. Such rectifications shall be carried out by the Contractor at his own cost to the entire satisfaction of the Engineer- in-charge.
- (vii) The amount quoted by the Contractor are deemed to be inclusive of site clearance, setting out work (including marking of reference points, center lines of buildings), construction and maintenance of reference bench mark(s), taking spot levels, construction of all safety and protection devices, barriers, barricading, signage, labour safety, labour welfare and labour training measures, preparatory works, working during monsoon, working at all depths, height and location etc. and any other incidental works required to complete this work. Nothing extra shall be payable on this account.

34. TOOLS AND PLANTS

The contractor should deploy constructions equipment required for the proper and timely execution of the work. Nothing extra shall be paid on this account.

No tools and plants including any special T&P etc. shall be supplied by the department and the contractor shall have to make his own arrangements at his own cost. No claim of hindrance (or any other claim) shall be entertained on this account.

Removal of machinery, tools & equipment shall be allowed to be moved away from the site only when, in written opinion of Engineer - in - Charge, the same are no longer required at site of work.

35. SCAFFOLDING

Wherever required for the execution of work, all the scaffolding shall be provided and suitably fixed, by the contractor. It shall be provided strictly with steel double scaffolding system, suitably braced for stability, with all the accessories, gangways, etc. with adjustable suitable working platforms to access the areas with ease for working and inspection. Single scaffolding system is strictly prohibited and shall invite necessary action. It shall be designed to take all incidental loads. It should cater to the safety features for workmen. Nothing extra shall be payable on this account. It shall be ensured that no damage is caused to any structure due to the scaffolding.

36. The contractor shall do proper sequencing of the various activities by suitably staggering the activities so as to achieve early completion. The contractor is to deploy adequate equipment, machinery and labour as required for the completion of the entire work within the stipulated period as specified. Also ancillary facilities shall be provided by contractor commensurate with requirement to complete the entire work within the stipulated period. Nothing extra shall be payable on this account. Adequate number/sets of equipment in working condition, along with adequate stand-by arrangements, shall be deployed during entire construction period. It shall be ensured by the contractor that all the equipment, Tools & Plants, machineries etc. provided by him are maintained in proper working condition at all times during the progress of the work and till the completion of the work. Further, all the constructional tools, plants, equipment and machineries provided by the contractor, on site of work or his workshop for this work, shall be exclusively intended for use in the construction of this work and they shall not be shifted/ removed from site without the permission of the Engineer-in-charge.

37. ROYALTY

Royalty/Seigniorage Fee at the prevalent rates shall be deducted from the Bills payable to the Contractor, as per G.O. No. Ms.No. 18 dated 31.03.2022 issued by Industries and Commerce (M.I) Department, Government of Telangana state and issued by DM&G, Hyderabad Lr No 1247095/P/2021 dated 16.04.2022 (copy enclosed along with tender document), or as per consequent/latest G.O. if any, issued by the Government of Telangana State, on all materials such as boulders, metals, all sizes stone aggregates, brick aggregates, coarse and fine sand, moorum, river sand/ Manufactured sand, gravels and bajri etc. collected by him for the execution of the work. The rates quoted by the contractor shall be inclusive of such Royalty and taxes etc. and nothing extra shall be payable on this account.

38. PRESERVATION AND CONSERVATION MEASURES

- (i) Existing drains, pipes, cables, over-head wires, sewer lines, water lines and similar services, if any, encountered in the course of the execution of work shall be protected against the damage by the contractor at his own expense. In case the same are to be removed and diverted, expenditure incurred in doing so shall be payable to the contractor. The contractor shall work out the cost, get the same approved by Engineer-in-charge before taking up actual execution. The contractor shall not store materials or otherwise occupy any part of the site in a manner likely to hinder the operation of such services.
- (ii) All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on project location during excavation/ construction shall be the property of the Government, and shall be dealt with as per provisions of the relevant Act..The contractor will take reasonable precaution to prevent his workmen or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer-in-charge of such discovery and carry out the official instructions of Engineer-in- charge for dealing with the same, till then all work shall be carried out in a way so as not to disturb/damage such article or thing.

39. RESPONSIBILITY OF CONTRACTOR

- (i) He shall protect and indemnify the **NIRD&PR** and its officials & employees against any claim and /or liability arising out of violations of any such laws, ordinances, orders, decrees, by himself or by his employees or his authorized representatives. Nothing extra shall be payable on these accounts.

(ii) The fee payable to statutory authorities for obtaining the various permanent service connections and Building Use Certificate for the building shall be borne by the **Client**.

(iii) The Contractor shall assume all liability, financial or otherwise in connection with this contract and shall protect and indemnify the **NIRD&PR** from any and all damages and claims that may arise on any account. The Contractor shall indemnify the Department **NIRD&PR** against all claims in respect of patent rights, royalties, design, trademarks- of name or other protected rights, damages to adjacent buildings, roads or members of public, in course of execution of work or any other reasons whatsoever, and shall himself defend all actions arising from such claims and shall indemnify the Department in all respect from such actions, costs and expenses. Nothing extra shall be payable on this account.

40. SUPERVISION OF WORK

The contractor shall depute Site Engineer & skilled workers as required for the work. He shall submit organization chart along with details of Engineers and supervisory staff. It shall be ensured that all decision making powers shall be available to the representatives of the contractor at work site itself to avoid any likely delays on this account. The contractor shall also furnish list of persons for specialized works to be executed for various items of work. The contractor shall identify and deploy key persons having qualifications and experience in the similar and other major works, as per the field of their expertise. If during the course of execution of work, the Engineer-in-charge is of the opinion that the deployed staff is not sufficient or not well experienced; the contractor shall deploy more staff or better-experienced staff at site as mentioned in the bid document to complete the work with quality and within stipulated time limit.

41. SPECIALIZED AGENCIES

Any specialized component of work in the project, for which expertise is lacking with the main contractor the same, shall be carried out in association with a specialized agency to be approved by the Engineer-in-charge.

42. RATES

(i) The amount quoted by the Contractor are deemed to be inclusive of site clearance, setting outwork, profile, setting lay out on ground, establishment of reference bench mark(s), installing various signage, taking spot levels, with total station, construction of all safety and protection devices, compulsory use of helmet and safety shoes, and other appropriate safety gadgets by workers, imparting continuous training for all the workers, barriers, preparatory works, construction of clean, hygienic and well ventilated workers housings in sufficient numbers, working during monsoon or odd season, working beyond normal hours, working at all depths heights, lead, lift, levels and location and any other unforeseen but essential incidental works required to complete this work. Nothing extra shall be payable on this account and no extension of time for completion of work shall be granted on these accounts.

(ii) The amount quoted by the tenderer is inclusive of all taxes and levies including GST and nothing extra shall be payable.

(iii) Ancillary and incidental facilities required for execution of work like labour camp, stores, fabrication yard, offices for Contractor, watch and ward, temporary structure for plants and machineries, water storage tanks, installation and consumption charges of temporary electricity, telephone, water etc .required for execution of the work, liaison and pursuing for obtaining various No Objection Certificates from local bodies etc., protection works, and for taking samples etc. during execution or any other activity which is necessary (for execution of work and as directed by Engineer-in-Charge), shall be deemed to be included in **amount** quoted by the Contractor. Nothing extra shall be payable on these accounts. Before start of the work, the Contractor shall submit to the Engineer-in-Charge, a site / construction yard layout, specifying

areas for construction, site office, positioning of machinery, material yard, cement and other storage, steel fabrication yard, site laboratory, water tank, etc.

For completing the work in time, the Contractor might be required to work in two or more shifts (including night shifts). No claim whatsoever shall be entertained on this account, notwithstanding the fact that the Contractor may have to pay extra amounts for any reason, to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour and other statutory bodies regulations and the agreement entered upon by the Contractor with them. All material shall only be brought at site as per program finalized with the Engineer-in- Charge. Any pre-delivery of the material not required for immediate consumption shall not be accepted and thus not paid for.

43. SAFETY MEASURES

- i) **WARNING/ CAUTION BOARDS:** All temporary warning / caution boards / glow signage display such as "Construction Work in Progress", "Keep Away", "No Parking", Diversions & protective Barricades etc. shall be provided and displayed during day time by the Contractor, wherever required and as directed by the Engineer-in-Charge. These glow signage and red lights shall be suitably illuminated during night also. The Contractor shall be solely responsible for damage and accident caused, if any, due to negligence on his part. Also he shall ensure that no hindrance, as far as possible, is caused to general traffic during execution of the work. This signage shall be dismantled & taken away by the Contractor after the completion of work, only after approval of the Engineer - in - Charge. Nothing extra shall be payable on this account.
- ii) **SIGN BOARDS:** The Contractor shall provide and erect a display board of size and shape as required and paint over it, in a legible and workman like manner, the details about the salient features of the project, as required by the Engineer-in-Charge. The Contractor shall fabricate and put up a sign board in an approved location and to an approved design indicating name of the project, Client/Owner, Engineer-in-charges, Structural Consultants, Department etc. besides providing space for names of other Contractors, Sub-Contractors and specialized agencies within 15 days from issue of award letter. Nothing extra shall be payable on this account. In case of non-compliance/delay in compliance in this, a penalty @ Rs. 500/- per day will be imposed which will be recovered from the immediate next R/A Bill of the Contractor.
- iii) Necessary protective and safety equipment such as helmet, safety shoes, gloves etc shall be provided to the Site Engineer, Supervisory staff, labour and technical staff of the contractor by the Contractor at his own cost and to be used at site.**
- iv) No inflammable materials including P.O.L shall be allowed to be stored in huge quantity at site. Only limited quantity of P.O.L may be allowed to be stored at site subject to the compliance of all rules / instructions issued by the relevant authorities and as per the direction of Engineer-in- Charge in this regard. Also all precautions and safety measures shall be taken by the Contractor for safe handling of the P.O.L products stored at site. All consequences on account of unsafe handling of P.O.L shall be borne by the Contractor.
- v) The issue of construction safety & standards has gained utmost importance in recent times. This subject is to be dealt with in an integrated manner with an approach to developing and establishing a safety culture at work sites. Broadly, its components are:
 - b) Creating awareness
 - c) Education
 - d) Training

- e) Implementation
- f) Enforcement measures.

All workers of contractor and associate agencies, invariably and at all the times, must follow all safety norms, adopt safe construction practices and use all required safety gadgets in their working throughout the project duration.

- vi) The contractor shall issue **Photo Identity Cards** with unique numbers containing salient information of workers for the labour & his staff.
- vii) The contractor shall monitor and achieve the objectives of construction safety continuously, progressively and through affirmative action, and shall oversee implementation of safety program over the entire construction period.

44. QUALITY ASSURANCE

- i) Contractor shall have to engage well-experienced skilled labour and deploy modern T&P and other equipment to execute the work. For completing the work in time, the Contractor might be required to work in two or more shifts (including night shifts). No claim whatsoever shall be entertained on this account, not with-standing the fact that the Contractor may have to pay extra amounts for any reason, to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour and other statutory bodies regulations and the agreement entered upon by the Contractor with them. All material shall only be brought at site as per program finalized with the Engineer-in- Charge. Any pre-delivery of the material not required for immediate consumption shall not be accepted and thus not paid for.
- ii) The contractor shall ensure quality construction in a planned and time bound manner. Any sub-standard material / work beyond set out tolerance limit shall be summarily rejected by the Engineer-in-charge & contractor shall be bound to replace / remove such sub-standard / defective work immediately. If any material, even though approved by Engineer-In-Charge is found defective or not conforming to specifications shall be replaced / removed by the contractor at his own risk & cost.
- iii) In addition to the supervision of work, NIRD&PR Engineers/ department officials shall also be carrying out regular and periodic inspection of the ongoing activities in the work and deficiencies, shortcomings, inferior workmanship pointed out by them shall be communicated by NIRD&PR engineers to the contractor. Upon receipt of instructions from Engineer in Charge these are also to be made good by necessary improvement, rectification, replacement up to his complete satisfaction. Special attention shall be paid towards line and level of internal and external plastering, exposed smooth surface of RCC members by providing fresh shuttering plates, rubberized linings to all the shuttering joints, accurate joinery work in wooden doors and windows, thinnest joints in stone/ tiling / cladding work, non-hollowness in floor and dado tiles work, protection of scratches over flooring by impounding layer of plaster of Paris, water tight pipe linings, absence of hollow vertical joints in brick masonry, proper compaction of filled up earth etc. to achieve an Institution of International standards and up keeping of quality assurance shall be of paramount importance, as such.

own Quality Assurance procedures for basic materials and such items, to be followed during the execution of the work, for approval of the Engineer-in-Charge.

- iv) The contractor shall at his own cost submit samples of all materials sufficiently in advance and obtain approval of Engineer-in-Charge. The materials to be used in actual execution of the work shall strictly conform to the quality of samples approved by the Engineer-in-Charge and nothing extra shall be paid on this account. The acceptance of any sample or material on inspection shall not be a bar to its subsequent rejection, if found defective.
- v) All materials and fittings brought by the contractor to the site for use shall conform to the samples approved by the Engineer-in-charge which shall be preserved till the completion of the work. The Contractor shall submit PO's of the all the materials to NIRD&PR, prior to bringing them to site. Any Material brought to site without submission of PO to NIRD&PR shall be rejected. If a particular brand of material is specified in the item of work in Schedule of Quantity, the same shall be used after getting the same approved from Engineer-In-Charge. Wherever brand /quality of material is not specified in the item of work, the contractor shall submit the samples as per suggested list of brand names given in the tender document / particular specifications for approval of Engineer-In-Charge. For all other items, materials and fittings of ISI Marked shall be used with the approval of Engineer-In-Charge. Wherever ISI Marked material / fittings are not available, the contractor shall submit samples of materials / fittings manufactured by firms of repute conforming to relevant specifications or IS codes and use the same only after getting the approval of Engineer-In-Charge.

vi) SPECIAL CONDITION FOR HARDWARE AND SANITARY WARES:

- a) Engineer - in - charge will take a decision regarding model numbers of equivalent Door/Window hard ware/ Sanitary ware at the time of execution, in case the material, from the manufacturer whose model number is mentioned, is not available. However, in case, the equivalent model so approved, is cheaper than the model already mentioned in item /. Approved makes list, the price adjustment will be made based on the difference in market rate. In case, the rate of subsequently approved model is more, no extra payment will be made on this account.
- b) The following procedure should be followed in case of removal of rejected / Sub-standard materials from the site of work.
 - i) Whenever any material brought by the contractor to the site of work is rejected, entry thereof should invariably be made in the site order book under the signature of the AE/JE giving approximate quantity of such materials.
 - ii) As soon as the material is removed, a certificate to that effect may be recorded by the AE/JE against the original entry, giving the date of removal, mode of removal i.e. whether by truck, carts or by manual labour. If removal is by truck, the registration number of the truck should be recorded.

viii) SAMPLE OF MATERIALS:

- i) All materials and fittings brought by the contractor to the site for use shall conform to the samples approved by the Engineer - in - Charge which shall be preserved till the completion of the work. If a particular brand of material is specified in the item of work in Schedule of Quantity, the same shall be used after getting the same approved from Engineer in charge. Wherever brand / quality of material is not specified in the item of work, the contractor shall submit the samples as pper **List of Approved makes given**

in the tender document for approval of Engineer in charge. For all other times, ISI Marked Materials and fittings shall be used with the approval of Engineer in charge. Wherever ISI marked material / fittings are not available, the contractor shall submit samples of materials / fittings manufactured by firms of repute conforming to relevant specifications or IS codes for the approval of Engineer – in – Charge.

- ii) The contractor shall procure and provide all the materials from the manufacturers /suppliers as per the list attached with the tender documents, as per the item description and particular specifications for the work. The equivalent brand for any item shall be permitted to be used in the work, only when the specified make is not available . This is , however subject to documentary evidence produced by the contractor for non – availability of the brand specified and also subject to independent verification by the Engineer – in – charge. In exceptional cases, where such approval is required, the decision of Engineer – in – charge as regards equivalent make of the material shall be final and binding on the contractor. No claim, whatsoever, of any kind shall be entertained from the Contractor on this account. Nothing extra shall be payable on this account. Also, the material shall be procured only after written approval of the Engineer – in – charge.
- iii) To avoid delay, contractor should submit samples / as stated above well in advance so as to give timely orders for procurement. If any material, even though approved by Engineer – in – charge is found defective or not conforming to specifications shall be replaced / removed by the contractor at his own risk & cost. Samples including brand / quality of materials and fittings to be used in the work shall be got approved from the Engineer – in charge, well in advance of actual execution and shall be preserved till the completion of the work.
- iv) BIS marked materials except otherwise specified shall also be subjected to quality test besides testing of other materials as per the specifications described for the item / material. Wherever BIS marked materials are brought to the site of work, the contractor shall, furnish manufacturer’s test certificate or test certificate from approved testing laboratory to establish that the material procured by the contractor for the incorporation in the work satisfies the provisions of specifications relevant to the material and / or the work done.
BIS marked items (except cement & steel for which separate provisions have been made) required on the work shall be got tested, for only important tests, which govern the quality of the product, as decided by the Engineer – in – charge. The frequency of such tests (except the mandatory test) shall be 5% of the frequency as specified in BIS. For mandatory test, frequency shall be as specified in the CPWD specifications.
- v) For certain items, if frequency of tests is neither mentioned in the CPWD specifications nor BIS, then tests shall be carried out as per directions of Engineer – in – charge.
- ix) The Contractor shall procure and provide all the materials from the manufacturers / suppliers as per the list attached with the tender documents, as per the item description and particular specifications for the work. The equivalent brand for any item shall be permitted to be used in the work, only when the specified make is not available. This is, however, subject to documentary evidence produced by the contractor for non-availability of the brand specified and also subject to independent verification by the Engineer-in-Charge. In exceptional cases, where such approval is required, the decision of Engineer-in-Charge as regards equivalent make of the material shall be final and binding on the Contractor. No

claim, whatsoever, of any kind shall be entertained from the Contractor on this account. Nothing extra shall be payable on this account. Also, the material shall be procured only after written approval of the Engineer-in-Charge. All materials whether obtained from Govt. stores or otherwise shall be got checked by the Engineer-in-Charge or his authorized supervisory staff on receipt of the same at site before use.

- x) The contractor has to establish field laboratory at site including all necessary equipment for field tests as given in Schedule 'F'. All the relevant and applicable standards and specifications shall be made available by the contractor at his cost in the field laboratory. The contractor shall designate one of his technical representatives as Quality Assurance Engineer, who shall be responsible for carrying out all mandatory field/laboratory tests. The contractor shall also provide adequate supporting staff at his cost for carrying out field tests, packaging and forwarding of samples for outside laboratory tests and for maintaining test records.
- xi) All expenditure to be incurred for testing of samples e.g. packaging, sealing, transportation, loading, unloading etc., including testing charges shall be borne by the Contractor.

In case of concrete and reinforced concrete work also the contractor shall be required to make arrangement for carrying out compression strength tests at his own cost. He shall render all assistance for the preparation of cubes, safe custody of the same, proper curing and carriage upto the laboratory where the test is to be performed.

- xii) All the hidden items such as water supply lines, drainage pipes, conduits, sewers etc. are to be properly tested as per the design conditions before covering and their measurements in computerized measurement book duly test checked shall be deposited with Engineer in charge or his authorized representative, prior to hiding these items.
- xiii) The work should be planned in a systematic manner so that chase cuttings in the walls, ceilings and floors is minimized. Wherever absolutely essential, the chase shall be cut using chase cutting machines. Chases will not be allowed to be cut using hammer / chisel. The electrical boxes should be fixed in walls simultaneously while raising the brick work. The contractor shall ensure proper co-ordination of various disciplines viz., building works, sanitary & water supply & electrical installations etc.
- xiv) Water tanks, taps, sanitary, water supply and drainage pipes, fittings and accessories should conform to bylaws and municipal body / corporation where CPWD Specifications are not available. The contractor should engage licensed plumbers for the work and get the materials (fixtures/fittings) tested by the Municipal Body/Corporation authorities wherever required at his own cost.

- xv) The contractor shall have to execute guarantee bonds in respect of water proofing works, Aluminium doors windows & ventilators work, Curtain/Structural Glazing works as per Performa enclosed.
- xvi) The Contractor shall arrange electricity at his own cost for testing of the various electrical installations as directed by Engineer-in-Charge and for the consumption by the contractor for executing the work. Also all the water required for testing various electrical installations, fire pumps, wet riser / fire fighting equipments, fire sprinklers etc. and also testing water supply, sanitary and drainage lines, water proofing of underground sump, overhead tanks, water proofing treatment etc. shall be arranged by the contractor at his own cost. Nothing extra shall be payable on this account.

45. TEMPORARY WATER/ ELECTRICITY/ TELEPHONE CONNECTION

- i) Arrangement of temporary telephone connection, water and electricity required by Contractor, shall be made by him at his own cost and also necessary permissions shall be obtained by him directly from concerned authorities, under intimation to the Department. Also, all initial cost and running charges, and security deposit, if any, in this regard shall be borne by him. The Contractor shall abide by all the rules/ bye laws applicable in this regard and he shall be solely responsible for any penalty on account of violation of any of the rules/byelaws in this regard. Nothing extra shall be payable on this account.
- ii) The Contractor shall be responsible for maintenance and watch and ward of the complete installation and water / electricity meter and shall also be responsible for any pilferage, theft, damage, penalty etc. in this regard. The Contractor shall indemnify the Department against any claim arising out of pilferage, theft, damage, penalty etc. whatsoever on this account. Nothing extra shall be payable on this account.
- iii) The Department shall in no way be responsible for either any delay in getting electric and/or water and/or telephone connections for carrying out the work or not getting connections at all. No claim of delay or any other kind, whatsoever, on this account shall be entertained from the Contractor. Also contingency arrangement of stand-by water & electric supply shall be made by the Contractor for commencement and smooth progress of the work so that work does not suffer on account of power failure or disconnection or not getting connection at all. No claim of any kind whatsoever shall be entertained on this account from the Contractor. Nothing extra shall be payable on this account.

46. CLEANLINESS OF SITE

- (i) The contractor shall not stack building material/ malba/ muck on the land or road of the local development authority or on the land owned by others, as the case may be. So the muck, rubbish etc. shall be removed periodically as directed by the Engineer-in-charge, from the site of work to the approved dumping grounds as per the local byelaws and regulations of the concerned authorities and all necessary permissions in this regard from the local bodies shall be obtained by the contractor. Nothing extra shall be payable on this account. In case, the Contractor is found stacking the building material / malba as stated above, the Contractor shall be liable to pay the stacking charges/penalty as may be levied by the local body or any other authority and also to face penal action as per the rules, regulations and bye-laws of such body or authority. The Engineer -in- Charge shall be at liberty to recover, such sums due but not paid to the concerned authorities on the above counts, from any sums due to the Contractor including amount of the Security Deposit and performance guarantee in respect of this contract agreement.

- (ii) The contractor shall take instructions from the Engineer-In-Charge regarding collection and stacking of materials at any place. No excavated earth or building rubbish shall be stacked on areas where other buildings, roads, services and compound walls are to be constructed.
- (iii) The site of work shall be always kept clean due to constraints of space and to avoid any nuisance to the users of buildings in the adjacent plots. The Contractor shall take all care to prevent any water-logging at site. The waste water, slush etc. shall not be allowed to be collected at site. It may be

directly pumped into the creek with prior approval of the concerned authorities. For discharge into public drainage system, necessary permission shall be obtained from relevant authorities after paying the necessary charges, if any, directly to the authorities. The work shall be carried out in such a way that the area is kept clean and tidy. All the fees/charges in this regard shall be borne by the Contractor. Nothing extra shall be payable on this account.

50 INSPECTION OF WORK

In addition to the provisions of relevant clauses of the contract, the work shall also be open to inspection by Senior Officers of CPWD/CTE and their representatives. The contractor shall at times during the usual working hours and at all times at which reasonable notices of the intention of the Engineer-in-charge or other officers as stated above to visit the works shall have been given to the contractor, either himself be present to receive the orders and instructions or have a responsible representative duly accredited in writing, to be present for that purpose.

51 REFUND OF PERFORMANCE GUARANTEE

The performance guarantee for the work shall be refunded to the contractor soon after the completion of the entire construction works under this agreement and recording of the completion certificate for such agreement and submission of completion plans as constructed and subjected to submission of performance guarantee for Schedule II items as mentioned above.

52 . GENERAL CLARIFICATIONS

- i) Wherever any reference to any Indian Standards occurs in the documents relating to this contract, the same shall be inclusive of all amendments issued thereto or revisions thereof, if any, upto the previous day of last date of submission of bids.

- ii) Unless otherwise specified in the schedule of quantities, the amount quoted shall be considered, as inclusive of pumping out or bailing out water, if required throughout the construction period for which no extra payment shall be made. This shall also include water encountered from any source such as rains, floods, sub soil water table being high and/or due to any other cause whatsoever.
- iii) All stone aggregate and stone ballast shall be of hard stone variety to be obtained from approved quarries.
- iv) The sand, Coarse/manufacture sand/Pulverized Stone sand/ crushed stone sand should be obtained from approved sources. The same shall be clean and sharp angular grit type. The sand shall be screened before using, if required. If the sand brought to site is dirty, it must be washed in clean water to bring the sand to the required specifications. Nothing extra shall be payable on this account.
- v) The amount quoted for this work, shall unless clearly specified otherwise, include cost of all operations and all inputs of labour, material, T & P, scaffolding, wastages, watch and ward, other inputs, all incidental charges, all taxes, cess, GST, duties, levies etc. required for execution of the work.

53 DE-WATERING

- i) De-watering required, if any, shall be done conforming to BIS Code IS: 9759 (guide lines for de-watering during construction) and / or as per the specifications approved by the Engineer-in-Charge. Design of an appropriate and suitable dewatering system shall be the Contractor's responsibility. Such scheme shall be modified / augmented as the work proceeds based on fresh information discovered during the progress of work, at no extra cost. At all times during the construction work, efficient drainage of the site shall be carried out by the Contractor and especially during the laying of plain cement concrete, taking levels etc. The Contractor shall also ensure that there is no danger to the nearby properties and installations on account of such lowering of water table. If needed, suitable precautionary measures shall be taken by the Contractor. Also the scheme of dewatering adopted shall have adequate built in arrangement to serve as stand-by to attend to repair of pumps etc. and disruption of power / fuel supply. Nothing extra shall be payable on this account.
- ii) In trenches where surface water is likely to get into cut / trench during monsoons, a ring bund of puddle clay or by any other means shall be formed outside, to the required height, and maintained by the Contractor. Also, suitable steps shall be taken by the Contractor to prevent back flow of pumped water into the trench. Nothing extra shall be payable on this account.

54 INSURANCE POLICIES

Before commencing the execution of work, the Contractor shall, without in any way limiting his obligations and liabilities, insure at his own cost and expense against any damage or loss or injury, which may be caused to any person or property, at site of work. The Contractor shall obtain and submit to the Engineer-in-Charge proper Contractor All Risk Insurance Policy for an amount equivalent to contract value for this work, with Engineer-in- Charge as the first beneficiary. The insurance shall be obtained in joint names of Engineer-in-Charge and the Contractor (who shall be second beneficiary). Also, he shall indemnify the Department from any liability during the execution of the work. Further, he shall obtain and submit to the Engineer-in-Charge, a third party insurance policy for maximum Rs.10 lakh

for each accident, with the Engineer-in-Charge as the first beneficiary. The insurance shall be obtained in joint names of Engineer-in-Charge and the Contractor (who shall be second beneficiary). The Contractor shall, from time to time, provide documentary evidence as regards payment of premium for all the Insurance Policies for keeping them valid till the completion of the work. The Contractor shall ensure that Insurance Policies are also taken for the workers of his Sub-Contractors / specialized agencies also. Without prejudice to any of its obligations and responsibilities specified above, the Contractor shall within 10 days from the date of letter of acceptance of the tender and thereafter at the end of each quarter submit a report to the Department giving details of the Insurance Policies along with Certificate of these insurance policies being valid, along with documentary evidences as required by the Engineer-in-Charge. No work shall be commenced by the Contractor unless he obtains the Insurance Policies as mentioned above. Also, no payment shall be made to the Contractor on expiry of insurance policies unless renewed by the Contractor. Nothing extra shall be payable on this account. No claim of hindrance (or any other claim) shall be entertained from the contractor on these accounts.

55 Applicable Permits

- i. The contractor(s) shall give to the Municipality, police and other authorities all necessary notices etc. that may be required by law and obtain all requisite licenses for temporary obstructions, enclosures etc. and pay all fee, taxes and charges which may be levied on account of these operations in executing the contract. He shall make good any damage to the adjoining property whether public or private and shall supply and maintain lights either for illumination or for cautioning the public at night.
- ii. The contractor shall ensure that applicable permits mandated by the local bodies and in case warranted for this work are obtained as required under the Applicable Laws.

PARTICULAR SPECIFICATIONS

- 1.1 In case of items not covered by the CPWD specifications referred to above, or particular specifications attached, reference shall be made to appropriate latest IS codes and the decision of the Engineer-in-Charge shall be final and binding on the contractor.
- 1.2 Wherever any reference to any Indian Standard specification occurs in the documents relating to this contract the same shall be inclusive of all amendments issued there to or revisions thereof if any, upto the date of receipt of tenders.
- 1.3 The work shall be executed and measured as per metric dimensions given in the schedule of quantities, drawings etc., (F.P.S units wherever indicated are for guidance only).
- 1.4 All stone aggregate and stone ballast shall be of hard stone variety to be obtained from approved quarries or any other source to be got approved by the Engineer-in-charge.

Fine Aggregate:-

- (i) The fine aggregate to be used for all items except in plastering work, shall be with Pulverized Stone Sand/ Crushed Stone Sand (Manufactured Sand) and shall be obtained from only approved sources. For Plastering Work, River Sand shall be used which shall be clean and sharp angular grit type. The sand shall be screened before using, if required. If the sand brought to site is dirty, it must be washed in clean water to bring the sand to the required specifications. Nothing extra shall be payable on this account.
 - (ii) The contractor should find out the approved source/quarries at his end. To find out the approved source/quarries is the responsibility of contractor.
 - (iii) Fine Aggregate to be used for cement concrete work i/c RCC, mortar for masonry and plaster work shall be of standard quality and shall be obtained from a source to be got approved from the Engineer-in-Charge and screened as required. It shall be clean and sharp angular grit type. In case of non availability of crushed stone sand, the agency may be permitted at the discretion of Engineer-in Charge to use river/quarry sand on their request on production of adequate proof of non availability of the same, provided it conforms to grading and other requirements given in CPWD specifications. The change in sand type or source would require revision of Mix Design of Concrete from the approved laboratories such as IIT Hyderabad/ JNTU Hyderabad/ NCCBM Hyderabad or any other laboratory approved by DG /Technical Commite, for which nothing extra shall be paid. In case of use of crushed stone sand, all necessary precautions for CC work, RCC work, masonry work, and all other related works shall be taken by the agency as per relevant CPWD specifications and BIS codes without any extra cost. Nothing extra shall be paid for using river/quarry sand in place of crushed stone sand.
- 1.5 Before taking up the finishing work such as Flooring, Plastering, sample unit of toilet, room etc, contractor shall prepare full-scale sample for large-scale repetitive items and get approved from Engineer-in-Charge before taking up for execution on large scale.

- 1.6 The contractor shall get the samples of various materials, fittings to be used in work approved well in advance from the Engineer-in-Charge before placing orders.
- 1.7 The contractor shall produce all the materials in advance so that there is sufficient time for testing and approving of the material and clearance of the same before use in work.
- 1.8 The structural and architectural drawings shall at all times be properly correlated before executing any work. In case of any discrepancy in the items given in the schedule of quantities appended with the tender and Architectural drawings relating to the relevant item, the former shall prevail unless otherwise given in writing by the Engineer-in-Charge.
- 1.9 The information and details given in the Architectural & Structural drawings, preliminary soil investigation report and mentioned herein and also elsewhere in the tender documents are being furnished for general information and guidance only. The Department in no case shall be held responsible for the inaccuracy thereof or any interpretation/ or conclusion drawn from them by the contractor.
- 1.10 The percentage rate quoted by the contractor / agency shall be inclusive of mobilization to site all necessary machineries and equipments, furnishing, handling, storing, installation including placing, cutting holes, splicing, driving, re-driving, bailing out water, pulling out and removal of the temporary earth retaining structure / strutting etc. from site and other machineries, equipments, instrumentations etc. men ,materials etc. , other incidental to works, for execution of work, with all safety measures as required for the execution of construction work for safety of surrounding existing buildings structures, parked / moving vehicles, equipments and machines etc. as per direction of Engineer-in-charge.

2.0 R.C.C.WORKS:

- 2.1 In respect of projected balconies, projected slabs at roof level and projected verandah, the payment for the RCC work shall be made under the item of RCC slabs. The payment for centering and shuttering of such items shall similarly be paid under the item of centering and shuttering of RCC slab.
- 2.2 Any cement slurry added over base surface or for continuation of concreting for better bond is deemed to have been in built in the items and nothing extra shall be payable nor any extra cement shall be considered in cement consumption on this account.

Wherever concrete is found with less than required quality as per acceptance criteria, repairs to concrete shall be made. Honeycombed areas and loose pockets shall be repaired by grouting using Portland cement Mortar/ Polymer Modified Cement Mortar/ Epoxy Mortar after chipping loose concrete in appropriate manner. In areas where concrete is found below acceptance criteria and defects are not apparently visible on surface, injecting approved grout in appropriate proportion using epoxy grout/acrylic polymer modified cement slurry made with shrinkage compensating cement/ plain cement slurry etc. shall be resorted to for repairs. Repair to concrete shall be done till satisfactory results are obtained

as per the acceptance criteria by retesting of the repaired areas. If satisfactory results are not obtained, dismantling and relaying of concrete shall be done. Nothing extra shall be payable over and above the agreement item for executing such rectification works.

3.0 BRICK WORK

- 3.1 The brickwork shall be carried out with good quality fly ash cement bricks of class designation 7.5. The physical properties shall conform to those of Fly Ash cement bricks as per CPWD Specifications.
- 3.2 The rate shall also include for leaving chases / notches for dowels / cramps for all kinds of cladding to come over brick work.
- 3.3 Brick work provided around shaft or lift walls or around slab cutouts shall be measured in the brick for corresponding floor level. Nothing extra shall be paid on this account.

4.0 FLOORING:

- 4.1 All work in general shall be carried out as per CPWD Specifications (Volume 1) 2019 with up-to-date correction slips.
- 4.2 Whenever flooring is to be done in patterns of tiles and stones, the contractor shall get samples of each pattern laid and approved by the Engineer-in-charge before final laying of such flooring. Nothing extra shall be payable on this account.
- 4.3 Different stones / tiles used in pattern flooring shall be measured separately as defined in the nomenclature of the item and nothing extra for laying pattern flooring shall be paid over and above the quoted rate. No additional wastage, if any, shall be accounted for any extra payment.
- 4.4 Samples of flooring stones/ Tile (Kota/ Marble/ Granite/ Ceramic tiles/ Vitrified tiles etc.) shall be deposited well in advance with the Engineer-in-Charge for approval. The sizes of stones for flooring shall be of a size not less than 600mmx600mm or as approved by Engineer-in-Charge. Approved samples should be kept at site with the Engineer-in-Charge and the same shall not be removed except with the written permission of Engineer-in-Charge. No payment whatsoever shall be made for these samples.
- 4.5 The Marble/ Kota/ Granite or any other stone shall be fully supported by the details establishing the quarry and its location or source.
- 4.6 The rate of items of flooring is inclusive of Providing Sunken Flooring in Bathrooms, Kitchen, W.C., etc. and nothing extra on this account is admissible.
 - a. Chasing of required width and thickness shall be made in brick work at skirting location so as to flush the external surface of skirting with internal plastering. No extra payment towards making chases in brick work at skirting shall be made and the same is presumed to be inclusive of rate quoted for the item of providing and fixing skirting.
 - b. Single piece of granite stones shall be used for staircase, treads / risers and nothing extra shall be paid in this account.

- c. Proper gradient shall be given to flooring for toilets, verandah, kitchen, courtyard etc. so that the wash water flows towards the direction of floor trap. Any reverse slope if found, shall be made good by the contractor by ripping open the floor/grading concrete and nothing shall be paid for such rectifications.
- d. The flooring and skirting will be executed as per pattern shown in the Architectural drawings and as per approval of Engineer-in-Charge and nothing extra shall be payable on this account.
- e. The rate shall include the cost of all materials and labour involved in all the operations. Nothing extra shall be paid for use of cut/sawn stone/ tiles in the work.

f. Vitrified Tile Flooring

- 4.12.1 The tiles shall be of approved make and shall generally conform to Table 12 of IS15622. The full body Vitrified tiles of specified sizes shall be used & sample of tiles shall be got approved from the Engineer-in-Charge. The Mandatory tests for vitrified tiles shall be got done as per CPWD Specifications (volume-1)/relevant BIS Code.
- 4.12.2 The vitrified tiles shall be as specified in the item. The tiles shall be of specified colours as shown in the drawings or as approved by Engineer-in-Charge and will be laid in pattern as per architectural drawings. Nothing extra shall be paid for laying tiles in specific pattern. The tiles shall be of first quality of approved make.

5.0 WATER SUPPLY AND SANITARY INSTALLATIONS:

- 5.1 The centrifugally cast (spun) iron S&S pipe, Hub less pipes and G.I pipe / CPVC Pipes/ SWR Pipes wherever necessary shall be fixed to RCC columns, beams etc. with steel dash fastener and nothing extra shall be paid for this.
- 5.2 The contractor shall be responsible for the protection of the sanitary and water supply fittings and other fittings and fixtures against pilferages and breakage during the period of installation and thereafter until the building is handed over.
- 5.3 The fixing and jointing of vertical CI/SCI pipes/Stacks shall be done on MS brackets as per TECHNICAL CIRCULAR No. 20 Dated 16-04-2013, issued by SE (QA), CSQ, CPWD, New Delhi. A copy of Sketch / Figure showing Fixing Details of Vertical Pipes / Stacks is attached. The piping stack shall be installed at least 50mm, away from the finished / plastered shaft wall. The Item of Brackets and Clamps shall be paid for separately. From floor traps to outside CI fittings only single piece connection pipe shall be used.

6.0 WATER PROOFING TREATMENT

6.1 IN SUNKEN/DEPRESSED FLOOR SLABS

6.1.1 INTEGRAL WATER PROOFING TREATMENT

- 6.1.1.1 The specification given for the roof surface shall apply for treatment of sunken floor slabs except that instead of brick bats, well burnt brick aggregates of about 40 mm, size shall be used and rounding and tapering at junctions of floor and beam/wall shall be done to a height of 300 mm, The finishing layer of 20 mm. thick cement mortar and

cement slurry shall be continued on the vertical surfaces for the entire sunken portion. The finished surface shall be true to line/ level and gradient as specified and of the required thickness.

6.1.1.2 Water proofing treatment shall be cured for 10 days.

6.1.1.3 Before the water proofing treatment is done it shall be ensured that the outlet pipes are properly fixed and the gap between the wall and pipes are properly filled with brick/stone aggregate and cement mortar admixed with proprietary water proofing compound and grouted with cement slurry admixed with proprietary water proofing compound by injection process.

6.1.2 MEMBRANE WATER PROOFING TREATMENT

6.1.2.1 The work in general shall be carried out as per CPWD Specifications or / as per Manufacturer's Specifications. The Applicators authorized by the manufacturers shall only be engaged in the work.

6.1.2.2 Before the water proofing treatment is done it shall be ensured that the outlet pipes are properly fixed and the gap between the wall and pipes are properly filled with brick/stone aggregate and cement mortar admixed with proprietary water proofing compound and grouted with cement slurry admixed with proprietary water proofing compound by injection process.

6.2 ON TERRACE/ROOF/BALCONIES ETC

6.2.1 The work in general shall be executed as per Manufacturers Specifications or CPWD Specifications as applicable.

6.2.2 Total quantity of the water proofing compound required shall be arranged only after obtaining the prior approval of the Engineer in Charge in writing. Materials shall be kept under double lock and key and proper account of water proofing compound used in the work shall be maintained. It shall be ensured that the consumption of the compound is as per specified requirements.

6.2.3 The finished surface after water proofing treatment for floor in sunken portion shall have minimum slope of 1 in 48 unless otherwise decided by the Engineer in Charge.

6.2.4 Before commencement of treatment on floor surface, it shall be ensured that outlet drain/spouts have been fixed and the spout openings have been eased and rounded off properly for easy flow of water.

6.2.5 Contractor shall associate himself with anyone of the specialist firms relating to the water proofing treatment with the approval of Engineer in charge.

6.2.6 **Water proofing treatment of all types of work: The Contractor(s) shall submit for the approval of the Engineer-in-Charge, the names of specialized agencies, of repute along with their technical & financial capability proposed to be engaged by him within three months from the date of award who have executed satisfactorily at least one similar work of equal or more magnitude or two similar works of minimum 50% magnitude (Financial) of water proofing items in the agreement during the last seven years.**

6.3 **Guarantee for water proofing works:**

Five years guarantee bond in prescribed proforma (**Annexure-IV Page 34-35**) attached herewith shall be submitted by the contractor which shall also be signed by both the specialized agency and the contractor to meet their liability/liabilities under the guarantee bond. However, the sole responsibility of above efficiency of water proofing treatment shall rest with the building contractor. Separate guarantee bonds shall be submitted by the contractor for different type of water proofing works. **Additional 5% (five percent) of the cost of water proofing work (other than Security Deposit mentioned in schedule E) shall be retained as security deposit** and the amount so withheld would be released after **five** years from the date of expiry of defects liability period under the agreement, if the performance of the work done is found satisfactory. If any defect is noticed during the guarantee period, it shall be rectified by the contractor within 7(**seven**) days of receipt of intimation of defects pointed out, and if not attended within the specified period, the same will be got done from other Agency/Agencies at the risk and cost of contractor. While attending to the rectification work, the Contractor is responsible to restore and make good any collateral damages likely to occur, to its original specifications. The cost of executing these contiguous works while attending the rectification works shall be borne by the contractor. The security deposit against this item of work shall be in addition to the security deposit mentioned elsewhere in contract form.

7.0 **CONDITIONS FOR CEMENT AND STEEL REINFORCEMENT:**

Contractor has to procure Cement and Steel and has to produce manufacturers test certificate and challan for each lot of Cement & Steel Reinforcement procured at site.

7.1 **CEMENT:-**

The contractor shall procure Ordinary Portland Cement (OPC) 43 grade conforming to IS: 8112 as required in the work from reputed manufacturers of cement such as ACC, Ultratech, Shree Cement, Ambuja, Jaypee Cement, Vikarm, Centuary, J.K. Cement, Chettinad, Penna Cement, Bharati cement, Nagarjuna, and Maha or. Supply of cement shall be taken in 50kg bags bearing manufacturer's name and ISI marking. Samples of cement arranged by the contractor shall be taken by the Engineer-in-Charge and got tested in accordance with provisions of relevant BIS codes. In case test results indicate that the cement arranged by the contractor does not conform to the relevant BIS codes, the same shall stand rejected and shall be removed from the site by the contractor at his own cost within a week's time of written order from the Engineer-in-Charge to do so. If the contractor uses Puzzolona

Portland Cement (PPC) in lieu of Ordinary Portland cement (OPC) necessary cost adjustment shall be made. The cement of approved make as aforesaid in 50 kg bag bearing manufacturer's name and ISI marking, along with manufacturer's test certificate for each lot shall be procured by the contractor. It shall be noted that, if the contractor uses higher grade of cement, nothing extra shall be paid.

- a) IS:456-2000 Code of Practice for Plain and Reinforced Concrete (as amended upto date) shall be followed in regard to Concrete Mix Portion and its production as under:
 - i. The concrete mix design shall be done as "Design Mix Concrete" as prescribed in clause-9 of IS 456 mentioned above.
 - ii. Concrete shall be manufactured in accordance with clause 10 of above mentioned IS:456 covering quality assurance measures both technical and organizational, which shall also necessarily require a qualified Concrete Technologist to be available during manufacture of concrete for certification of quality of concrete.
- b) Minimum M30 grade of RMC/BMC concrete shall be used in all structural elements of RCC, both in load bearing and framed structure.
- c) While using OPC for structural concrete work, no further admixing of fly ash shall be permitted, unless otherwise specified in the item.

7.2 The Supply of cement shall be taken in 50Kg bags bearing manufacturer's name, batch No. and ISI marking, samples of cement shall be taken by the Engineer-in-Charge or his authorized officer in the presence of the contractor or his authorized representative and got tested in accordance with provisions of relevant BIS codes. In case test results indicate that the sample cement does not conform to the relevant BIS codes, the same shall stand rejected and shall be removed from the site of work by the contractor at his own risk and cost within a week's time of written order from the Engineer-in-Charge to do so. and no payment what so ever may be paid to the contractor in this regard.

7.3 The contractor shall supply free of charge the cement required for testing including its Transportation to testing laboratories. **The cost of tests shall be borne by the Contractor.**

7.4 The cement shall be brought at site in bulk supply of approximately 50 tones or as decided by the Engineer-in-Charge.

7.5 The cement godown of the capacity to store a minimum of 2000 bags of cement shall be constructed by the contractor at site of work for which no extra payment shall be made.

7.6 Double lock provision shall be made to the door of the cement godown. The keys of one lock shall remain with the Engineer-in-charge or his authorized representative and the keys of the other lock shall remain with the contractor. The contractor shall be responsible for the watch and ward and safety of the cement godown. The cement shall facilitate the inspection of the cement godown by the Engineer-in-charge at any time.

7.7 The Cement shall be got tested by the Engineer-in-charge and shall be used on the work only after satisfactory test results have been received. The contractor shall supply free of charge the cement required for testing.

7.8 The actual issue and consumption of cement on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of cement shall be worked out as per procedure prescribed in clause 38 of the contract and shall be governed by conditions laid there in. In case the cement consumption is less than theoretical

consumption including permissible variation, recovery at the rate so prescribed shall be made. In case of excess consumption no adjustment need to be made.

- 7.9** The Cement brought to site and cement remaining unused after completion of work shall not be removed from site without written permission of the Engineer-in-charge.
- 7.10. The damaged cement shall be removed from the site immediately by the contractor on receipt of a notice in writing from the Engineer-in-charge. If he does not do so within 3 days of receipt of such notice, the Engineer-in-charge shall get it removed at the cost of the contractor.

8.0 STEEL REINFORCEMENT:

- 8.1** The contractor shall procure IS marked TMT bars of various grades from the steel Manufactures such as SAIL, TATA, RINL, JSPL,JSW Orany other Manufacturers approved by Spl.DG(SR), CPWD, Chennai from time to time. Only corrosion resistant steel rebars shall be used.
- 8.2** For reinforced cement concrete or pre-stressed concrete works, the reinforcement bars shall consist of the following grades conforming to IS:1786 : 2008 (Indian Standard specification for high strength deformed steel bars and wires for concrete reinforcement): Fe 415, Fe 415D, Fe 415S, Fe 500D, Fe 500S and Fe 550D.
- 8.3** The contractor shall obtain manufacture's certificate stating the process of manufacture, chemical composition and test sheet giving result of each mechanical test applicable to the material purchased and submit it to the Engineer in charge. Each test certificate shall indicate the number of the cast to which it applies, corresponding to the number or identification mark to be found on the material.
- 8.4** The Engineer in charge or his authorized officer shall get each consignment tested for both chemical composition and physical properties (including bend and re-bend test) as specified in IS:1786 from NABL accredited laboratory or any Governemnt Laboratory.
- 8.5** Samples shall also be taken and got tested by the Engineer-in-Charge as per the provisions in this regard in relevant BIS codes. In case the test results indicate that sample of steel does not conform to BIS codes, the same shall stand rejected and shall be removed from the site of work by the contractor at his own risk and cost within a week's time from written orders from the Engineer-in-Charge to do so and no payment whatsoever in this regard shall be made by the Department.
- 8.6** The steel reinforcement shall be brought to the site in bulk from manufacturers along with test certificate of each lot supply of 10 tonnes or more or as decided by the Engineer-in-Charge.
- a. The steel reinforcement shall be stored by the contractor at site of work in such a way as to prevent distortion & corrosion and nothing extra shall be paid on this account. Bars of different sizes and lengths shall be stored separately to facilitate easy counting and checking.
- b. For checking nominal mass, tensile strength, bend test, re-bend test etc. specimen Ofsufficient length shall be cut from each size of the bar at random at frequency not less than that specified below.

Size of bar	For consignment below 100 tonnes	For consignment over 100 tonnes
Under 10 mm. dia Consignment of 25	one sample for each tones or part thereof	one sample for each consignment of 40 tones or part thereof
10mm to 16 mm. dia Consignment of 35	one sample for each tones or part thereof	One sample for each consignment of 45 tones or part thereof
Over 16 mm. dia Consignment of 45	one sample for each tones or part thereof	One sample for each consignment of 50 tones or part thereof

- c. The contractor shall supply free of charge the steel required for testing including its transportation to testing laboratories. **The cost of tests shall be borne by the Contractor.**
- d. **The actual issue and consumption of steel on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of steel shall be worked out as per procedure prescribed in clause 38 of the contract and shall be governed by conditions laid therein. In case the consumption is less than theoretical consumption including permissible variations leading to under designing of the structure, the work shall be summarily rejected, otherwise recovery at the rate so prescribed shall be made after ensuring structural soundness and stability. In case of excess consumption no adjustment need to be made.**
- e. The Steel brought to site and steel remaining unused shall not be removed from site without the written permission of the Engineer – in – Charge.
- 8.12. The contractor shall furnish to the department all the purchase invoices for cement and Steel for every consignment.
- 8.13. The contractor should use factory made round type cover blocks for all RCC works to avoid displacement of bars in any directions and to ensure proper cover.

9. TOOLS AND PLANTS.

The necessary T&P shall be deployed by the contractor as required to facilitate and ensure the work to be completed smoothly within the stipulated scheduled time.

10.R.C.C. WORK (DESIGN MIX CONCRETE)

The term machine batched, machine mixed and machine vibrated design mix cement concrete used in the document shall mean the concrete produced in fully automatic concrete batching & mixing plant, placed in position by the concrete pump and vibrated by surface vibrator/ needle vibrator/ plate vibrator, as the case may be to achieve the required strength and durability.

Before start of RCC work concrete Mix Design shall be got done by the contractor from a NABL accredited laboratory/ IIT/ NIT/JNTU laboratory with the approval of Engineer-in-Charge. The RCC Work shall be carried out as per the Mix Design approved by the Engineer-in-charge.No concreting shall be done until the mix design is approved.

GENERAL:-**INGREDIENT**

- i) Coarse Aggregate: - As per CPWD Specifications
 Fine Aggregate: - As per CPWD Specifications.
 Water: - As per requirements laid down in IS 456-2000 and CPWD specifications.
 Cement: Cement arranged by the contractor will be OPC (in bags) conforming to IS: 8112.
- ii) Admixture: - Type of Admixture shall be got approved from Engineer-in-Charge. Admixtures of approved quality shall be mixed with concrete to achieve the desired workability within specified water cement ratio. The admixture shall conform to IS: 9103. The chloride content in the admixture shall satisfy the requirement of BS: 5075. The total amount of chlorides in the admixture mixed concrete shall also satisfy the requirements of IS : 456-2000
- iii) The contractor shall not be paid anything extra for admixture required for achieving desired workability without any change in specified water cement ratio for RCC / CC work.
- iv) Grade of concrete:- The characteristic compressive strength of various grades of Concrete shall be given as below:-

Sl. No	Grade Designation	Compressive strength on 15cm cubes min 7 days (N/mm ²)	Specified characteristic compressive strength at 28 days (N/mm ²)	Minimum cement content * (Kg per cum)	Maximum water cement ratio
(i)	M-25	As per mix Design	25	330	0.50
(ii)	M-30	As per mix Design	30	350	0.45
(iii)	M-10	As per mix Design	10	220	0.60

The Concrete mix will be designed for minimum workability as specified in para 7 of IS-456-2000

- v) WORKABILITY OF CONCRETE (UNLESS OTHERWISE SPECIFIED ELSEWHERE OR AS DECIDED BY ENGINEER IN CHARGE.

Placing Conditions	Degree of Workability	Slump (mm)
(1)	(2)	(3)
Lightly reinforced sections in slabs, beams, walls, columns	Low	25-75
Heavily reinforced section in slabs, beams, walls, columns.	Medium	50-100
Pumped concrete	Medium	75-100

- vi) The recommended values of slump for various members to confirm IS 456
- vii) In the designation of concrete mix letter M refers to the mix and the number to the specified characteristic compressive strength of 15 cm - Cube at 28 days expressed in N/mm².
- viii) The concrete design mix with or without admixture will be carried out by the Contractor and got tested by any reputed approved NABL accredited laboratory/ university as per direction of Engineer-In-Charge.

For such approval various ingredients for mix design as submitted by contractor shall be sent to the lab/ test houses through the Engineer-In-Charge of the project and got it tested in approved laboratories as may be decided by the Engineer-in-charge. Sample aggregate sent shall be preserved at site by the department. For each different set of coarse aggregates & Fine aggregates, fresh design shall be done and got approved by the Department. The admixture if used by contractor shall be at his own cost without any extra payment.

- x) * Note: **The Cement content means ordinary Portland cement of 43 grade.**

- xi) In case of change of source or characteristic properties of the ingredients used in the concrete mix during the work, a revised laboratory mix design report conducted in approved Lab. by Engineer-In- Charge shall be submitted by the contractor as per the direction of the Engineer in charge.

- xii) In case of failure of batching plant and **site conditions warrants for smooth progress of work, RMC of suitable design mix may be allowed with the written permission of Engineer-in-charge, and with no claim of extra cost from the contractor.**

11 APPROVAL OF DESIGN MIX

- (i) The mix design for a specified grade of concrete shall be done for a target mean compressive strength $T_{ck} = F_{ck} + 1.65s$
 Where F_{ck} = Characteristic Compressive Strength at 28 days
 s = Standard deviation which depends on degree of quality

control.

- (ii) The degree of quality control for this work is “good” for which the standard deviation (s) obtained for different grades of concrete shall be as per IS relevant IS Standards/ Codes.
- (iii) Out of the six specimen of each set, three shall be tested at seven days and remaining three at 28 days. The preliminary tests at seven days are intended only to indicate the strength to be attained at 28 days.

12. CHARGES FOR DESIGN MIX

- (i) All cost of mix designing and testing connected therewith including charges payable to the laboratory shall be borne by the Contractor.

13. DESIGN MIX CONCRETE FROM FULLY AUTOMATIC COMPUTERISED CONCRETE BATCHING AND MIXING PLANT

13.1 The contractor shall bring Ready Mix Concrete from approved RMC plants as mentioned in the list showing preferred Brands/ Manufacturers/Makes enclosed in this NIT. The contractor has to produce text of MOU proposed to be entered between purchaser (the contractor) and supplier (R.M.C. plant) to the Engineer-in-charge. The Engineer-in-charge shall give approval in writing. The contractor shall draw the MOU with approved RMC plant owner / company and submit to Engineer-in-charge within a week of such approval. The contractor will not be allowed to purchase ready mixed concrete without completion of above stated formalities for use in this project.

- a. Notwithstanding the approval granted by Engineer-in-charge in aforesaid manner, the contractor shall be fully responsible for quality of concrete including input control, transportation and placement etc.
- b. In case of site batched design mix cement concrete plant is installed, the capacity of batching and mixing plant is shall be 30 cum/hour with minimum 2 Nos. of Transit mixer and concreting pump alongwith other necessary equipments required for doing concrete work without any hindrance.

13.4 The Engineer-in-charge will reserve right to inspect at any such stage and reject the concrete if he is not satisfied about quality of product. The contractor should therefore draw MOU / agreement with RMC owner / company very carefully keeping all terms and conditions / specifications forming a part of this tender document.

- (i) The Engineer-in-charge reserves the right to exercise control over the ingredients, water and admixtures purchased, stored and to be used in the concrete including conducting of tests for checking quality of materials, recordings of test results and declaring the materials fit or unfit for use in production of mix.
- (ii) Calibration check of the RMC/BMC.
- (iii) Weight and quantity check on the ingredients, water and admixtures added for batch mixing.
- (iv) Time of mixing of concrete.

- (v) Testing of fresh concrete, recordings of results and declaring the mix fit or unfit for use. This will include continuous control on the workability during production and taking corrective action.

13.5 For exercising such control, the Engineer-in-charge shall periodically depute his authorized representative at the RMC/BMC plant. It shall be responsibility of the contractor to ensure that all necessary equipment manpower & facilities are made available to E-in-C and/ or his authorized representative at RMC/BMC plant.

13.6 Ingredients, admixtures & water declared unfit for use in production of mix shall not be used. A batch mix found unfit for use shall not be loaded into the truck for transportation.

13.7 All required relevant records of RMC/BMC shall be made available to the Engineer-in-charge or his authorized representative. The E-in-C shall, as required, specify guidelines & additional procedures for quality control & other parameters in respect of materials and production & transportation of concrete mix, which shall be binding on the contractor & the RMC plant.

(i) **Proportioning Concrete**

In proportioning cement concrete, the quantity of both cement and aggregates shall be determined by weight. The cement shall be weighed separately from the aggregates. Water shall either be measured by volume in calibrated tanks or weighed. All measuring equipment shall be maintained in a clean and serviceable condition. The amount of mixing water shall be adjusted to compensate for moisture content in both coarse and fine aggregates. The moisture content of aggregates shall be determined in accordance with IS: 2386 (Part III). Suitable adjustments shall also be made in the weights of aggregates to allow for the variation in weight of aggregates due to variation in moisture content.

14. Production of Concrete

The concrete shall be RMC/BMC produced in a central batching and mixing plant with, computerized printing for contents and admixture dosage. The batching plant shall be fully automatic. Automatic batcher shall be charged by devices which, when actuated by a Single starter switch will automatically start the weighing operation of each material and stop automatically, when the designated weight of each material has been reached. The batching plant shall have automatic arrangement for dispensing the admixture and shall also be capable of discharging water in more than one stage. A print out from the batching plant for every lot shall be submitted. A batching plant essentially shall consist of the following components: Separate storage bins for different sizes of aggregates, silo for cement; and water storage tank.

Batching equipment Mixers Control panels Mechanical material feeding and elevating arrangements

The Contractor shall arrange for inspection of automatic batching plant within seven days of issue of letter of award to facilitate inspection and approval of same by Engineer-In-Charge. Nothing extra will be paid for this.

The compartments of storage bins for aggregates shall be approximately of equal size. The cement compartment shall be centrally located in the batching plant. It shall be watertight and provided with necessary air vent, aeration fittings for proper flow of cement & emergency cement cut off gate. The aggregate and sand shall be charged by

power operated centrally revolving chute. The entire plant from mixer floor upward shall be enclosed and insulated. The batch bins shall be constructed so as to pass by self-cleansing during drawdown. The batch bins shall in general conform to the requirements of IS :4925.

The batching equipment shall be capable of determining and controlling the prescribed amounts of various constituent materials for concrete accurately i.e. water, cement, sand, individual size of coarse aggregates etc. The accuracy of the measuring devices shall fall within the following limits.

Measurement of Cement	±2% of the quantity of cement in each batch
Measurement of Water	±3% of the quantity of water in each batch
Measurement of Aggregate	±3% of the quantity of aggregate in each batch
Measurement of Admixture	±3% of the quantity of admixture in each batch

i. Mixing Concrete

The mixer in the batching plant shall be so arranged that mixing action in the mixers can be observed from the operator's station. The mixer shall be equipped with a mechanically or electrically operated timing, signaling and metering device which will indicate and assure completion of the required mixing period. The mixer shall have all other components as specified in IS: 4925.

ii. Transportation, Placing and Compaction of Concrete.

- a) Mixed concrete from the batching plant shall be transported to the point of placement by transit mixers or through concrete pumps or steel closed bottom buckets capable of carrying 6 cum concrete. In case the concrete is proposed to be transported by transit mixer, the mixer speed shall not be less than 4 rev/ min. of the drum nor greater than a speed resulting in a peripheral velocity of the drum as 70 m / minute at its largest diameter. The agitating speed of the agitator shall be not less than 2 rev / min. nor more than 6 rev / min. of the drum. The number of revolutions of the mixing drum or blades at mixing speed shall be between 70 to 100 revolutions for a uniform mix, after all ingredients, have been charged into the drum. Unless tempering water is added, all rotation after 100 revolutions shall be at agitating speed of 2 to 6 rev / min. and the number of such rotations shall not exceed 250. The general construction of transit mixer and other requirements shall conform to IS: 5892.
- b) In case concrete is to be transported by pumping, the conduit shall be primed by pumping a batch of mortar / thick cement slurry through the line to lubricate it. Once the pumping is started, it shall not be interrupted (if at all possible) as concrete standing idle in the line is liable to cause a plug. The operator shall ensure that some concrete is always there in the pump-receiving hopper during operation. The lines shall always be maintained clean and shall be free of dents.
- c) Materials for pumped concrete shall be batched consistently and uniformly. Maximum size of aggregate shall not exceed one-third of the internal diameter of the pipe. Grading of

aggregate shall be continuous and shall have sufficient ultra fine materials (materials finer than 0.25mm). Proportion of fine aggregates passing through 0.25mm shall be between 15 & 30% and that passing through 0.125 mm sieve shall not be less than 5% of the total volume of aggregate. When pumping long distances and through hot weather, set-retarding admixtures may be used. Admixtures to improve workability can be added. Suitability of concrete shall be through pumping shall be verified by trial mixes and by performing pumping tests.

iii PREPARATION OF MIXES AS PER APPROVED DESIGN MIX AND CONDUCTING CONFIRMATORY TEST AT FIELD LAB.

- a) The contractor shall make the cubes of trial mixes as per approved Mix design at site laboratory for all grades, in presence of Engineer in charge using sample of approved materials proposed to be used in the work prior to commencement of concreting and get them tested in his presence to his entire satisfaction for 7 days and 28 days. Test cubes shall be taken from trial mixes as follows.

For each mix, a set of six cubes shall be made from each of the three consecutive batches. Three cubes from each set of six shall be tested at age of 7 days and remaining three cubes at age of 28 days. The cubes shall be made, cured, transported and tested strictly in accordance with specifications. The average strength of nine cubes at age of 28 days shall exceed the specified target mean strength for which design mix has been approved, the evaluation of test results will be done as per IS : 456-2000.

15. WORK STRENGTH TEST TEST SPECIMEN

Work strength test shall be conducted in accordance with IS: 516 on random sampling. Each test shall be conducted on six specimens, three of which shall be tested at 7 days and remaining three at 28 days. Additional samples shall be prepared, if required, as per direction of Engineer in charge for testing samples cured by accelerated method as described in IS : 9103.

16. TEST RESULTS OF SAMPLE

The test results of the sample shall be the average of the strength of three specimens. The individual variation shall not be more than + - 15 percent of the average. If more, the test results of the sample are invalid. 90% of the total tests shall be done at the laboratory established at site by the contractor and remaining 10% in the laboratory of Government Engineering colleges, or in any other approved laboratory as directed by the Engineer-in-charge.

17. STANDARD FOR ACCEPTANCE

- i) Standard of acceptance shall be same as specified in clause 16 of IS 456-2000.
- ii) In order to keep the floor finish as per direction of Engineer-in-charge and as per Architectural drawings and to provide required thickness of the flooring as per specification, the level of top surface of RCC shall be accordingly adjusted at the time of its centering, shuttering and casting for which nothing extra shall be paid to the contractor.

18. Ultrasonic Pulse Velocity Method of Test for RCC

- (i) The underlying principle of assessing the quality of concrete is that comparatively higher velocities are obtained when the quality of concrete in terms of density, homogeneity and uniformly is good. The consistency of the concrete as regards its general quality gets

established. In case of poorer quality lower velocities are obtained. If there are cracks, voids or flaws inside the concrete which come in the way of transmission of pulse, lower velocities are obtained.

- (ii) The quality of concrete in terms of uniformity, incidence or absence of internal flaws, cracks and segregation etc. indicative of the level of workmanship employed, can thus be assessed using the guidance given in table below, which have been evolved for characterizing the quality concrete in structure in term of the ultrasonic pulse velocity.

Velocity criterion for Concrete Quality Grading.

Sl. No.	Pulse velocity by Cross Probing	Concrete Quality Grading
1	Above 4.5	Excellent
2	4.5 to 3.5	Good
3	3.5 to 3.0	Medium
4	Below 3.0	Doubtful

Note : In Case of “doubtful” quality it may be necessary to carry further tests.

- iii) Pulse velocity method of test of concrete is to be conducted for CPWD works as a routine test. The acceptance criteria as per the above table will be applicable which is as per IS 13311 (part-1): 1992. From the above “Good” and “Excellent” grading are acceptable and below these grading the concrete will not be acceptable.
- iv) 5% of the total number of RCC members in each category i.e. beam, column, slab and footing may be tested by UPV test method for establishing quality of concrete. It is suggested that test be conducted on RCC beam near joint with column, on RCC column near joint with beam, on RCC footings and rafts. On RCC rafts a suitable grid can be worked out for determining number of tests. In addition doubtful areas such as honeycombed locations, locations, where continuous seepage is observed, construction joints and visible loose pockets will also be tested.
- v) The test results are to be examined in view of the above acceptance criteria “Good” and “Excellent” and wherever concrete is found with less than required quality as per acceptance criteria, repairs to concrete will be made. Honeycombed areas and loose pockets will be repaired by grouting using Portland Cement Mortar/Polymer Modified Cement Mortar /Epoxy Mortar ,etc. after chipping loose concrete in appropriate manner. In areas where concrete is found below acceptance criteria and defects are not apparently visible on surface, injecting approved grout in appropriate proportion using epoxy grout /acrylic Polymer modified cements slurry made with shrinkage compensating cement / plain cement slurry etc will be resorted to for repairs.(refer relevant chapters from CPWD Hand Book on Repairs and Rehabilitation of RCC Buildings).Repair to concrete will be done till satisfactory results are obtained as per the acceptance criteria by retesting of the repaired area. If satisfactory results are not obtained dismantling and relaying of concrete will be done.

19. MEASUREMENT

As per CPWD specifications.

20. TOLERANCES

As per CPWD specifications

21. RATE:-

- i) The rate includes the cost of materials and labour involved in all the operations described above except for the cost of centering, shuttering and reinforcement, which will be paid for separately.
- ii) In case of actual average compressive , strength being less than specified strength which shall be governed by Para ‘ Standard of Acceptance” as above the rate payable shall be worked out accordingly on the basis of analysis.
- iii) In case of rejection of concrete on account of unacceptable compressive strength, governed by Para ‘Standard of Acceptance’ as above, the work for which samples have failed shall be redone at the cost of contractors. However, the Engineer in charge may order for additional tests (like cutting cores, ultrasonic pulse velocity test, load test on structure or part of structure etc) to be carried out at the cost of contractor to ascertain if the portion of structure wherein concrete represented by the sample has been used, can be retained on the basis of results of individual or combination of these tests. The contractor shall take remedial measures necessary to retain the structure as approved by the Engineer in charge without any extra cost. However, for payment, the basis of rate payable to contractor shall be governed by the 28 days cube test results and reduced rates shall be regulated in accordance with Para 5.4.13 of CPWD specification 2019,Vol.- I.
- iv) As per general engineering practice, level of floors in toilet / bath, balconies, shall be kept 12 to 20mm or as required, lower than general floors shuttering should be adjusted accordingly. The landing level of mumty / Staircase cabin shall be Kept one riser level higher than adjoining slab level so as to accommodate water proofing treatment over terrace slab. In case of kitchen slab the portion of floor trap below kitchen platform be kept at lower level as per drawings. Nothing extra is payable on this account.
- v) For the execution of centering and shuttering, the contractor shall use propriety “Reebole” chemical mould release agent of FOSROC or equivalent as shuttering oil as approved by Engineer-in-charge and nothing extra shall be paid on this account.

22. COVER/SPACER BLOCK

The contractor shall provide approved type of support for maintaining the bars in position and ensuring required spacing and correct cover of concrete to reinforcement as called for in the drawings, spacer blocks of required shape and size. Chairs and spacer bars shall be used in order to ensure accurate positioning of reinforcement. Spacer blocks shall be cast well in advance with approved proprietary pre-packed free flowing mortars of high early strength and same colour as surrounding concrete,Pre-cast cement mortar/concrete blocks/ blocks of polymer shall not be used as spacer blocks unless specially approved by the Engineer-in-charge, rate of RCC items is inclusive of cost of such cover blocks.

23. ALUMINIUM WORK

Two years guarantee bond in prescribed proforma (**Annexure-V**) attached herewith shall be submitted by the contractor which shall also be signed by both the specialized agency and the contractor to meet their liability/liabilities under the guarantee bond. However, the sole responsibility of above efficiency of Aluminum Work shall rest with the building contractor. An amount of 5% of the value of aluminium work shall be recovered from Running account / Final bills as additional security and for defects of aluminium work.

- i. The material for the work shall be procured from the approved manufacturer as per the list attached with the tender documents. The Contractor shall procure and submit samples of various materials to be used in the work for the approval of Engineer-in-Charge and no work shall commence before such samples are approved. Samples of un-anodized as well as polyester powder coated aluminum sections, microwave cured EPDM gaskets, glass, stainless steel screws, anchor fasteners, hardware and any other material or components requiring approval of samples, in opinion of Engineer-in-Charge, shall be submitted for the approval as mentioned above. The above samples shall be retained as standards of materials and workmanship.
- ii. The Contractor shall prepare the shop drawings for the aluminum windows giving details of the various aluminum sections, microwave cured EPDM gaskets, cleats, anchor fasteners, hardware, sealants, glass etc. and submit the same for the approval of Engineer-in-Charge.
- iii. Only after the approval of the samples and the shop drawings by the Engineer-in-Charge, the Contractor shall procure the material for the work. All materials brought to the site by the Contractor, for use in the work, as well as fabricated components shall be subject to inspection and approval by Engineer-in-Charge. The Contractor shall produce manufacturer's test certificates for any material or particular batch of materials supplied by him.
- iv. The Contractor shall prepare a finished sample of the aluminum window along with glazing panel and fittings etc. for approval of workmanship and material. Nothing extra shall be payable on this account.
- v. Aluminum sections to be used for various works shall be appropriate to meet technical, structural, functional and aesthetic considerations. The polyester powder coating shall be carried out in an approved factory / workshop as specified in the tender documents.

vi. Fabrication

All joints shall be accurately fabricated and be hairline in appearance. The finished surface shall be free from visible defects. All the aluminum windows/ ventilators /doors shall be factory made and shall be brought to site for assembly and fixing.

All hardware used shall conform to the relevant specifications and as per samples approved by the Engineer- in-Charge. Design, quality, type, number and fixing of hardware shall be generally in accordance with architectural drawings and as approved by the Engineer-in-Charge before use.

All doors, windows, ventilators and glazing etc. shall be made water tight with microwave cured EPDM gaskets and weather silicone sealants to the satisfaction of the Engineer-in-Charge, for which nothing extra shall be payable.

The frames shall be strictly as per Architectural drawings, the corners of the frame being fabricated to the true right angles. Both the fixed frames and openable shutter frames shall be fabricated out of sections cut to required length, mitered and mechanically jointed for satisfactory performance. All members shall be accurately machine milled and fitted to form hairline joints. The jointing accessories such as aluminum cleats, stainless steel screws etc.

shall not to cause any bi-metallic reaction by providing separators, wherever required. 6.5 Vertical members of the aluminium frame work shall be embedded in the floors, wherever required, by cutting and making good of the floor.

24. FIXING OF ALUMINIUM FRAME WORK

The screws used for fixing fixed aluminium frames of the aluminium windows to masonry walls / RCC members and aluminium members to other aluminium members shall be of stainless steel of approved make and quality and of stainless steel grade 304. Threads of machine screws used shall conform to requirement of I.S. 4218.

For the aluminium windows, the gap between the aluminium frames and the R.C.C / Masonry and also any gaps in the various sections shall be filled with weather silicone sealant DC 795 of Dow Corning or equivalent in the required bite size, to ensure water tightness including providing and fixing backer rod, wherever required. The weather silicone sealant shall be of such approved colour and composition that it would not stain or streak the masonry / R.C.C. work. It should not sag or flow and shall not set hard or dry out under any conditions of weather and shall be tooled properly. The weather silicone sealant shall be used as per the manufacturer's specifications and shall be of approved colour and shade. Any excess sealant shall be removed / cleared. Nothing extra shall be payable for the above.

Fixing of glass panes shall be designed in such a way that replacing damaged / broken glass panes is easily possible without having to remove or damage any members or interior finishing materials.

Stainless steel adjustable heavy duty friction hinges and the aluminium handles for the open able side hung windows shall be of "Earl Bihari" Ebco, make or equivalent as approved by the Engineer-in-Charge. 2 nos. friction hinges shall be provided per shutter.

25. PROTECTIONS AND CLEANING:

All glass panes shall be retained within aluminium framing by use of exterior grade microwave cured EPDM gaskets. Use of glazing or caulking compounds around the perimeter of glass will not be permitted. There shall be no whistling or rattling. Before installation of glass, Contractor shall ensure the following:

All glazing rebates shall be square, to plumb, true to plane, dry and free from dust.

Glass edge shall be clean and cut to exact size and grounded Low 'E' - Heat strengthened glass of specified thickness in doors, windows, ventilators and fixed glazing etc. shall be of approved make and standard quality conforming to C.P.W.D. Specifications.

3 mm thick glass panes shall be provided for openings not exceeding 0.5 sqm. For openings exceeding 0.5 sqm in area, 5.0 mm thick glass panes shall be provided unless specified otherwise.

**PREFERRED MAKE OF MATERIALS
(FOR CIVIL WORKS)**

NOTE: -

A List of Preferred Brand Names of Various Materials / Products are shown below for usage in execution of Work. However, Approved equivalent material of any other Specialized Companies / Firms may also be used , in case it is established that the Brands Specified below are not available in the market and subject to Approval of the alternate Brand by the Engineer In charge.

It must be ensured, in general, that all materials to be used in the works shall bear BIS Certification mark. In cases where for a particular material/product, BIS Certification Mark is not available, then the material proposed to be procured can be used subject to the condition that it should conform to CPWD Specifications and relevant BIS codes. In such cases written approval of the Engineer-in - Charge shall be obtained before use of such material in their works.

The list given below does not absolve the Executing Agency from their responsibility for using these products. It is only after, they are satisfied about the quality and performance, and the products shall be used. To achieve this, proper check on the quality of the product, actually to be used, should be exercised.

List of Approved materials for (Civil)			
Sl. No.	Material Description	Material	
		Brand	Makes *
1	AAC Blocks	A B Dinesh	A B Dinesh
		Areocon	HIL
		Bilt	Bilt
		Ecorex	Ecorex
		Fastbuilt	Fastbuilt
		Kncrete	Koncrete
		NCL	NCL VEKA Ltd.
		Nucon	Green Way building materials India Pvt. Ltd.
		Renacon	Renaatus Procon Pvt. Ltd.
		Ultratech "XTRALITE"	M/s. Ultratech Cements Ltd.
		Siporex	SIPOREX
Xtralite	Ultra Tech Cement Ltd		
2	Acoustic Insulation	Anutone	Anutone Acoustics Ltd.
		Himalyan Accoustics	Himalyan Accoustics
		Kanuf	Knauf Gypsum India Pvt. Ltd.
		Lloyd Insulation	Lloyd Insulation (India) Ltd.
		Saint Gobain Gyproc	Saint Gobain Gyproc India
		Twingerinsul	U.P. Twiga fiber glass ltd.

3	Actativ polypropylene (APP) Modified water proof membrane	Ardex endure	Ardex endure
		Bitumat Co Ltd	Bitumat Co Ltd
		Ferrous crete	Ferrous Crete (India) Pvt Ltd
		Hydrotech ltd	Hydrotech ltd
		Pidilite	Pidilite industries
		STP	Shalimar tar products
4	Acrylic emulsion	Asian Tractor Premium emulsion	Asian paint
		Berger (BISM)	Berger Paints
		Dulux (Super Cover)	ICI Dulux
		Nerolac (Beauty Gold)	Nerolac
5	Acrylic smooth exterior paint	Apex (ACE)	Asian Paints
		Berger	Berger
		Dulux	ICI duLux
		Nerolac	Nerolac
		Nippon	Nippon
6	Acrylic Distemperm	SURFA	M/s.Surfa Coats (India) Pvt. Ltd., Bangalore.
7	Acrylic textured plaster	Apex Duracast	Asian Paints
		Asian paints	Asian Paints
		Heritage	Heritage Rajkamal Group
		Nerolac	Nerolac
		Spectrum paints	Spectrum paints Ltd.
8	Acrylic exterior Texture	Akzonobel	Akzonobel
		Asian paints	Asian paints
		Berger	Berger paints India ltd
		Ebco	Ebco
		Nerolac	Nerolac paints Ltd.
9	Adhesive	Asian Paints	Asian Paints
		CICO	CICO Industries
		Dunlop	India Tyre & Rubber Co (India) Ltd.
		Finical	Pidilite Industries
		Proofex of Adhesive	FOSROC India
		Sika	Sika India Pvt. Ltd
		Vamorganic	Vamorqanic Ltd.
10	Adhesive for AAC Block/Tiles	Ardex Endura/Gold star	Ardex Endura
		Ferrous Crete	Ferrous Crete (India) Pvt Ltd
		Tile Adhesive Plus	Berger Paints
		Ultra tech	Ultra tech cement ltd
11	Air transfer grills	Cool grills	Cool grills, Pune
		Systemair India	Systemair India Pvt Ltd.

12	Air release valve	Kartar	Kartar valves private Ltd.
		Kirloskar	Kirloskar brothers Ltd.,
		RBM	AFS Ltd
13	Aluminium doors/windows sections	Bhoruka	Bhoruka Aluminium Ltd.,
		Hindalco	Hindalco Industries Ltd..
		Hydro	Hydro Extrusion
		INDAL	Indian Aluminium Ltd.,
		Jindal	Jindal Aluminium Ltd ,
		Omalco Extrusion	Omalco Extrusion Pvt Ltd.
		Padmavati Exrusion	Padmavath Extrusion Private Ltd.
14	Aluminium system/ Anodised Aluminium fittings for doors/windows	Bhoruka	Bhoruka Aluminium Ltd.,
		Define	Define Overseas Pvt. Ltd.
		Everite	Everite Agencies
		Hardima	Hardima sales corporation
		Jyothi	Jyothi industries
		Kawneer	Kawnear India
		Schueco	Schueco India Pvt. Ltd.,
		Sigma	Sigma Corporation
15	Aluminium composite panels	Alpolic	Alpolic
		Alstone	Alstone
		Alstrong	Alstrong
		Alex panel	M/s Alex Panels
		Alucobond	3A composites India Pvt Ltd.
		Aludecor	M/S Aludecor lamination Pvt ltd.
		Eurobond	M/S Euro panel products Pvt ltd.
		Eurobond	Eurobond pvt Ltd.
		Hynadecor	Hynadecor
		Reynobond	Reynobond
16	Aluminium framework	MFE (MIVAN)	(MIVAN)
		MFS	MFS
		S-form	S-form
17	Anchor/ SS Stone Cladding Clamps/ Dash fasteners	Anchor	Anchor Ltd.
		BOSCH	BOSCH Ltd.
		Canon	Canon
		Fischer	Fischer India
		Helfen	Helfen Gmbh
		Hilti	Hilti India Pvt. Ltd.
		Nutech	Nutech Concrete Products Pvt. Ltd.
		Trixel	Axel India Pvt. Ltd.
Wurth	Wuerth India Pvt. Ltd.		

18	Anti corrosive bit mastic paint	Bergar	Berger paints India Ltd
		Bituminous black	Asian Paints
		Shalimar	Shalimar paints India Ltd.
19	Butt Hinges openable window shutters	Alu Alpha	Alu Alpha India
		Dorma	Dorma India Pvt. Ltd.
		Dorset	Dorset Industries Pvt. Ltd.
		Earit Bihari	Earit Bihari India Pvt. Ltd.
		Hafela	Hafele India Pvt. Ltd.
		Helix	Helix India
20	Bamboo Wood Flooring and wall paneling.	AMITEX	AMITEX Enterprises, Delhi.
		Eco green Flooring	Jupiter Traders Bangalore.
		Epitome Bamboo wood Products	Mutha Industries Pvt.,Ltd., Mumbai.
		Floor India	Flooring India Company, Panipat, Haryana.
		FLOSTO Tanks	Devi Polymer Pvt.,Ltd., Chennai.
		VIVANTA	VIVANTA Enterprises, Mumbai.
21	Cement OPC / PPC	Ambuja Cement	Ambuja Cements Ltd.
		ACC	ACC Cements Ltd
		Bharathi	Bharathi Cement Corporation Ltd.
		Birla	Birla Corporation Ltd
		Century Cement	Birla Gold Cement
		Chettinad	Chettinad Cements Corporation Ltd
		Coromandal	India Cements Ltd.
		Dalmia	Dalmia Cement Bharat Ltd.
		Jaypee Cement	Jaypee Cement Ltd
		J.K. Cement	J.K. Cement Pvt. Ltd.
		Konark Cement	Konark Cement
		Maha Cement	Myhome Industries Pvt. Ltd.
		Penna Cement	Penna Cement Industries Ltd.
		Ramco	Ramco
		Shree Cement	Shree Cement
		Ultra Tech	Ultra Tech Cement Ltd
		Zuari	Zuari Cement Limited
		Nagarjuna Cement	M/s. NCL Industries Ltd, Secunderabad.
SAGAR CEMENTS	M/s.Sagar Cements Limited, Hyderabad.		
NU VISTA / INFRACEM	M/s. NU VISTA Ltd., (Formerly M/s. Emami Cements Limited),		

			Bhubaneswar.
22	Cement Concrete Parking Tiles	Dazzle	Dazzle Designer tiles Pvt Ltd
		Eurocon	Eurocon tiles india
		Hindustan tiles	Hindustan tiles, Ranchi Pune
		NTC	NTC Parking tiles
		NITCO	NITCO Ltd
		Poddar	Poddar Udyog
		Ultra	Ultra tile private Ltd
		CEMTECH	M/s. Cemtech Tiles, Uppal, Hyderabad.
23	Cement based wall putty	Altek	NCL Alltek & seccold Ltd.
		Ardex Endura	Ardex Endura India Pvt. Ltd.
		Asian paints	Asian paints Ltd
		Berger	Berger
		Birla Wall Care	Birla Cements Ltd.,
		Ferrous Crete	Ferrous Crete (India) Pvt. Ltd
		J.K wall putty	J.K. Cement Ltd
24	Cement Board	Bison	Bison Group
		Everest	Everest Techno polis
25	Cement Primer	Asian paints	Asian Paints
		Berger	Berger paints India Ltd.
		JK Primaxx	JK Cement Ltd
26	Centrifugal Hubless Cast Iron Pipe & Fittings	Kapilansh	Kapilansh Dhattu Udyog (P) Ltd.
		NECO	Jayaswal NECO Ltd.
		Raj (RPMF)	Raj Pattern Makers and Founders Pvt.,Ltd.
		SKF	Singhaliorn Foundary Pvt.,Ltd.
		BIC	M/s. Bengal Iron Corporation, Kolkata.
27	Centrifugally (Spun) cast Iran	Electrosteel	Electrosteel castings Ltd.
		Jindal	Jindal saw Ltd.
		Kesoram	Kesoram Industries ltd.
		Lanco / Sripipes	Electrosteel castings Ltd.
28	Centrifugally Caste (Spun) Iron Soil Pipe	Bengal Iron Corporation	Bengal Iron Corporation
		HEPCO	HEPCO
		Kapilash	Kapilash Dhatu Udyog (P) Ltd.
		Neco	Jayaswal Neco Ltd
		RPMF	Raj Pattern Makers and Founders Pvt. Ltd
		SKF	SKF industries
29	Chemical water proofing	BASF	BASF India Ltd.

	system	Dr. Fixit	Pidilite industries
		Ferrous Crete	Ferrous Crete (India) Pvt Ltd.
		Fosroc	Fosroc India
		Latex shield 2K/Tank shield PW	Berger Paints Ltd.
		MC- Bauchemie	MC- Bauchemie India Ltd.
		Perma construction Aid	Perma construction Aid Pvt Ltd
		Sika	Sika India
		Smart Care	Asian Paints Ltd.
		Sunanda speciality coating	Sunanda speciality coating Pvt Ltd.
30	Chloropyriphos	DURSBANTCT	DE-NOCIL Ltd.
		HILBAN	Hindustan Insecticides Ltd.
		NOBAN	Chemtts Wets & Flows Pvt. Ltd
		PIRAMID	AMVAC AGRI RASAYAN Pvt. Ltd.
		Premise Agenda	Bayer Ltd.
		Sarups Pest Control	Sarups Pest Control Ltd.
31	CI double flange sluice valve	BURN	BURN
		IVS	Indian Valves Private Ltd.
		Kartar	Kartar valves private Ltd. ,
		Kirloskar	Kirtoskar brothers Ltd. ,
		Leader	leader valves Ltd ,
		RBM	AF-S LL,
		Zoloto	Zoloto Industries
32	CI double flangad non raturrn valve	Fluidtech	Fluidtech
		Kirloskar	Kirloskar Brothers Ltd.
		Zoloto	Zoloto Industries
33	CI Manhole cover	BIC	Bengal iron corporation
		HEPCO	HEPCO India
		Neco	Jayaswal Neco Ltd..
		RPMF	M/s Raj Pattern Makers & Founders Pvt. Ltd.
		SKF	SKF Industries
34	Clamp, Rebar, Chemical fastener	Fischer	Fischer India
		Hilti	Hilti India Pvt.Ltd.
		Wurth	Wuerth
35	C.P.Brass Fittings	CERA	M/s Cera Sanitaryware Ltd.
		ESS Bathsense & Royal	Asian Paints Ltd.
		Hindware	HSIL Ltd.
		Jaquar	Jaquar Group
		Johnson	Prism Johnson Ltd.
		KEROVIT	M/s Kajaria Ceramic Limited

		Kingston	Kingston Brass India Pvt., Ltd.
		MARC	MARC Sanitation Pvt.Ltd.
		Parryware	Parryware Sanitaryware
36	CPVC pipes and fittings	Ashirwad	Ashirwad PVC Pipes
		Astral	Astral Polytechnik Ltd..
		Birla Aerocon	HIL Ltd.
		Finolex	Finolex Industries Ltd.
		PRAYAG	M/s. Prayag Polymers Pvt. Ltd.
		Flowgard	Flowgard
		Prince	Prince Pipes and fittings Ltd.,
		Supreme	Supreme Industries Ltd.
		Truflo	HIS Ltd.
		AKG	M/s. AKG Extrusions Pvt. Ltd.
		SENTINI	M/s. Sentini Flopipes India Pvt. Ltd., Hyderabad.
		Birla Hil Pipes	M/s. Hil Ltd.
		SUDHAKAR	M/s. Sudhakar Irrigation Systems Pvt. Ltd.
		DEC	M/s. DEC Industries Pvt. Ltd., Hyderabad.
37	Concealed tower bolt	Alu Alpha	Alu Alpha India
		Dorma	Dorma India Pvt. Ltd.
		Dorset	Dorset Industries Pvt. Ltd.
		Ingersolrand	Ingersolrand (India) Ltd.
38	Crystal line water proofing compounds	KRYTON	M/s.Kryton Buildmat Co. Pvt. Ltd., Gurugram, Haryana.
39	CC Kerb Stone	CEMTECH	M/s. Cemtech Tiles, Uppal, Hyderabad.
40	Damp Proof material	ACCO Proof	ACC Cements Ltd
		Asian Paints smart care damp proof	Asian Paints Ltd.
		BASF	BASF India Ltd.
		CICO	CICO Industries
		Dr. Fixit	Pidilite Industries
		Duraseal	Apurva India Pvt. Ltd.
		Ferrous Crete	Ferrous Crete (India) Pvt. Ltd.
		Fosroc	Fosroc Chemicals India Pvt. Ltd.
		Impermo	Snowcem Paints
		MAPEI	MAPEI Construction Products India P Ltd
		MYK	MYK LATICRETE India Pvt. Ltd.
		PIDILITE	Pidilite Industries

		SIKA	Sika India Pvt. Ltd.
		Weather Coat Roof Guard	Berger Paints India Ltd.
41	DI Fittings	Electro steel	Electro steel
		Jindal	Jindal
		Kapilansh	Kapilansh
		Keshoram	Keshoram
		Tata Ductura	Tata Ductura
42	DI Pipes	Electrosteel	Electrosteel
		Jindal	Jindal
		Keshoram	Keshoram
		Tata Ductura	Tata Ductura
43	Engineered wood floor	Amstrong	Amstrong flooring
		Mikasa Real wood floors	Green Lam Industries
		New wood	Naw Wood India Ltd
		Pergo	Red floor India
		Werner	Dura floor wemer GmbH
44	EPDM Gaskets	Ame Rubber	Ame Rubber industries Pvt Ltd
		Anand	Anand NVI-I products (P) Ltd.,
		Bohra	Bohra rubber Pvt Ltd..
		Hanu	Hanu Industries
		Roop	Roop Polimers Ltd.,
45	EPDM water proofing Membrane	Ferrous Crete	Ferrous Crete (India) Pvt Ltd
		Fosroc	Fosroc India
		Pidilite	Pidilite Industries
		Smart care	Asian paints
		STP	Shalimar tar products
46	Epoxy	Ardex	Ardex Endura Ltd.
		Asian paints	Asian paints
		CICO Poxy	CICO Technologies Ltd.
		Ferrous Crete	Ferrous Crete (India) Pvt Ltd.
		Fosroc	Fosroc India
		Shalibons	Shalimar tar products
47	Epoxy Paint	Ardex Endura	Ardex Endura India Pvt. Ltd.
		Asian epoxy	Asian Paints
		Berger	Berger paints India Ltd.
		Nerolac	Nerolac
		Shalimar	Shalimar paints India Ltd.
		STP Ltd.	Shalimar Tar Products

48	Epoxy tile joint cements	Ardex Endura	Ardex Endura India Pvt. Ltd
		BASF	BASF India Ltd.
		Ferrous Crete	Ferrous Grete (India) Pvt. Ltd
		Fosroc	Fosroc indd
		Laticrete	MYK Laticrete India
49	Expansion Joint Bitumen board	Dura Board HD100	Supreme Industries
		DURAFILL	Supreme Industries
		STP	Shalimar Tar Products
50	Exterior Emulsion Paint	SURFA	M/s. Surfa Coats (India) Pvt. Ltd., Bangalore.
51	False Ceiling	Aerolite	Andhra Polymers Pvt. Ltd./Aerolite Industnas Pvt. Ltd.
		Armstrong	Armstrong Wond Indusvies
		Diamond (GRG Tiles)	Diamond International Inex Pvt. Ltd.
		Gridsquare	Gridsquare Ceilings
		Gypframe steel	British Gypsum
		Knauf	Knauf Gypsum India Pvt. Ltd.
		Lloyd	Lloyd Insulation (India } Ltd
52	False ceilings Members (Perimeter, Ceiling section, intermediates, angles etc.,)	Aerolite	Andhra Polymers Pvt. Ltd./Aerolite Industries Pvt. Ltd
		Anutone	Anutone Accoustics Ltd.
		Armstrong	Amstrong World Industries
		Gridsquare	Gridsquare Ceilings
		Hunter Dougals	Hunter Dougals
		Knauf	Knauf Gypsum India Pvt. Ltd.
		Saint Gobain Gyproc	Saint Gobain Gyproc India
		USG Boral	USG Boral
53	False Floor	Access floor sytem	Access Floor system
		Hewetson	Hewetson India
		Kebao	Inner Space (Distributors)
		PINNACLE	PINNACLE
		Unifloor	Unifloor India Ltd.
		Unitile	Unitile office systems Pvt. Ltd.
54	Fire Rated hardware / Fire Rated Smoke check doors (MS/Wooden)	Backers FS	Backers FS
		Dorma	Dorma India Pvt. Ltd.
		Dorset	Dorset Industries Pvt. Ltd.
		Geze	Geze GMBH
		ASES (Agni Suraksha)	M/s. ASES Security Pvt. Ltd.
		Ingersolrand	Ingersolrand (India) Ltd.
		ASES (Agni Suraksha)	M/s. ASES Security Pvt. Ltd.,

			Ghaziabad.
55	Fire rated glass	Contra Flam / Pyroswiss of Saint Gobain	Saint Gobain India Pvt. Ltd.
		Pilkinton	Pilkinton India
		Promat	Promat Fire & Insulation (P) Ltd.
		Pyran of Schott	Schott glass India Pvt. Ltd.
56	Fire retardant paint	Akzonobel	Dulex Akzonobel Paints
		Asian paints	Asian Paints
		Hilti	Hilti India Pvt. Ltd.
		Jotun	Jotun paints
		STPL Ltd.	STPL Ltd.
57	Fire Smoke Seal	Atroflame	Atroflame ltd.
		Hilti	Hilti India Pvt. Ltd.
		Promat	Promat Fire & Insulation (P) Ltd.
		Raven	Raven Global
58	Float Glass (Tansparent)	Saint Gobain	Saint Gobain India Pvt. Ltd.
		Asahi	Asahi India Glass ltd.
		SISECAM	M/s.Sisecam Flat Glass India Pvt. Ltd.
		Pilkinton	Pilkinton India
		Modiguard	Gujarat Guardian Ltd.
		Gold Plus	M/s. Gold Plus Glass Industry Ltd., New Delhi.
59	Float Valve (Ball valve)	Arco	Arco valve Pvt ltd
		IBP	IBP industries
		Leader	Leader valve Ltd
		Prayag	Prayag Polymers Pvt Ltd.
		Zoloto	Zoloto industries
60	Floor spring (For non DSR Items)	Dorma	Donna India Pvt Ltd.
		GEZE	GEZE GmbH
		Ingersolrand	Ingersolrand India Pvt Ltd
		OZONE	Ozone Hardware.
61	Flushing Cistern	Bath sense	Asian Paints
		CERA	CERA Sanitary ware Ltd.,
		Hindware	HSIL Ltd,
		Jaquar	Jaquar Group
		Kohler	Kohler
		Parryware	ROCA Bath Pvt. Ltd.,
Somany	Somany		
62	Fly ash cement bricks	Concerned CE/SE's will approve based on local availability.	

63	FRP Door Frames shutter	Ambieance	Ambieance
		Cactus	Cactus
		Duroplast	Duroplast Extrusion pvt ltd.
		Jain doors Pvt. Ltd.	Jain doors Pvt. Ltd.
		Jayna	Jain wood industries
		Meena fibre glass	Meena fibre glass
		Polyline	Polyline
64	Friction stay hinges	Earl Bihari	Earl Bihari Pvt. Ltd.
		KINLONG	Kinlong Industriss
65	FRP covers	Everlast Composites	Everlast Composites Pvt.,Ltd.
		Fibrocast	Fibrocast FRP cover manufacturer
		Thermodrain	Poly products (I) Pvt.,Ltd.
66	Fibre Reinforced Elastomeric Liquid Waterproofing Membrane	KRYTON	M/s. Kryton Buildmat Co. Pvt. Ltd., Gurugram, Haryana.
67	FLUX – Polycarbonate Panel	DPI – FLUX	M/s. DPI Day lighting Pvt. Ltd., Gurugram, Haryana.
68	Galvolume sheet for roofing, cladding, sandwich panel	Bhushan	Bhushan steel
		Essar	Essar Group
		JSW	JSW
		Llyod metal craft	Llyod Insulation
		Tata Blue Scope	Tata Blue Scope
69	Galvanising	Jenco	Jenco Group
		Karamtara	Karamtara Engineering Pvt.,Ltd.
		Steel lite	Galvanized Steel Ltd.
70	G I Pipe fittings	HB	HB Industries
		ICS	Sgree samarth Englnears
		Surya	Surya Roshni Ltd.
		TATA	TATA Steel Ltd.,
		Unik	Unik malleable
		Zoloto	Zoloto Industfiea
71	G.I. Pipes	HISSAR	HISSAR
		Jindal	Jindal Pipes Ltd.,
		Surya	Surya Roshni Ltd.
		TATA	TATA Steel Ltd.,
		Zenith	Zenith Birla (India) Ltd.
72	Glass door hardware	Classic	Classic Hardware
		Dorma	Dorma India Pvt. Ltd.
		Dorset	Dorset Industries Pvt. Ltd.

		Geze	Geze GMBH
		Godrej	Godrej
		Hafele	Hafele India Pvt. Ltd.
		Kich	Kich Architectural Products Ltd.
		Ozone	Ozone Hardware
		Squash	Squash glass doors
73	Glass mosaic tiles	Birla White	Birla Corportion Ltd.
		Bisazza	Bisazza Italy
		Coral	Coral tiles
		Italia	Tie italia mosaic Pvt Ltd
		JK White	JK Cement ltd.
		Mridul	Mridut tiles
		Paljadto	Palladto Mosaics
		PAVIT (Eco Tile)	PAVIT Ceramics Pvt Ltd.
74	Glazed Ceramic tiles (Also wall tiles)	Aparna	Vitero Tiles
		AGL	Asian Granite India Ltd.
		CERA	CERA Sanitaryware Ltd
		Jonson	Prism Jonson Ltd.
		Kajaria	Kajaria Ceramic Ltd.
		NITCO	NITCO Ltd.
		Oasis	M/s Oasis Vitriified Pvt.Ltd.
		Orient Bell	Orient Bell Ltd.
		RAK	RAK Ceramic India Pvt. Ltd.
		Somany	Somany Ceramic Ltd.
		Varmora Granito	Varmora Granite Granite Pvt. Ltd.
		Vitero	Vitero Tiles Floor and Wall Tile Manufactures India
		Ultra	Ultra Ltd.
		NAVEEN	M/s. Murudeshwar Ceramics Ltd., Bangaluru.
75	GRC Jali & Tile	Ecovision	Ecovision Industries Pvt ltd.
		Mahesh GRC	Mahesh Prefab Pvt Ltd.
		Terrafirma	Terrafirma GRC Industries
		Unistone	Unistone Interiors Pvt.,Ltd.
76	GRP/SMC Panel Tank (New product in the market performance is yet to be established)	AMITEX	AMITEX Enterprises, Delhi.
		FLOSTO Tanks	Devi Polymer Pvt., Ltd., Chennai.
		PIPECO Tanks	PIPECO Tanks
		VIVANTA	VIVANTA Enterprises, Mumbai.
77	Grout / Non shrink grout	Asian Paints - Smart casre	Asian Paints Pvt. Ltd.
		Ardex	Ardex Endura Adhesive India Pvt.

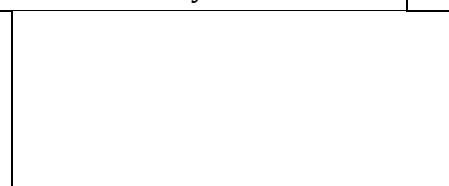
			Ltd.
		BASF	BASF India Ltd.
		CICO	CICO Industries
		Dr. Fixit	Pidilite Industries
		Ferrous Crete	Ferrous Crete (India) Pvt. Ltd.
		Fosroc GP2	FOSROC India
		Fugabella, Porcelana	Kerakoll India Pvt. Ltd.
		Home shield super grout	Berger Paints India Limited.
		LATA POXY	MYK LATICRETE India Pvt. Ltd.
		MYK Schomburg	MYK Arments Range of products
		SIKA	Sika India Pvt.Ltd.
		Weber	Saint Gobain India Pvt. Ltd.
		DEC	M/s. DEC Industries Pvt. Ltd., Hyderabad.
78	Gun metal Valves	Audco	L&T Valves
		Leader	leader valves Ltd ,
		Sant	Sant Valaves Pvt. Ltd.
		Zoloto	Zolota Industries
79	Gypsum Board	Armstrong	Armstrong world Industries
		Gyproc Saint Gobain	Saint Gobain Gyprock India Ltd.
		Lafarge	Lafarge Gypsum India Pvt. Ltd.
		USG Boral board	USG Board India (P) Ltd.
80	Gypsum plaster	Ferrous crete (Ferro-500, Gypsum) Plaster)	Ferrous crete manufacturers
		Gyproc Saint Gobain (Elite 90)	The Saint-Gobain group
		Ultra tech	Ultra Tech Cement Ltd.
81	Heat resistant tiles on terrace	ABC Ceramics	ABC Ceramics
		Endura	Johnson India
		Johnson	Johnson India
		Somany	Somany Ceramic Tiles
		Swastik	Swastik Tiles
		Thermatek	Thermatek
82	High Desity (HDF) Prelaminated board	Armstrong	Armstrong world industries Ltd.
		Green ply	Green Ply Industries Ltd.
		Pergo	Red Floor India
83	High end exterior Texture	Allura/ Graniza range	Asian paints
		Berger	Berger paints India ltd
		SKK Brand	SKK Ltd
84	Hydraulic door closers/ Floor springs	Dorma	Dorma India Pvt. Ltd.
		Dorset	Dorset Industries Pvt. Ltd.

		Everite	Everite agencies		
		Godrej	Godrej locking solution & systems		
		Hardwyn	Hardwyn hardware		
		MAGNUM KIT	Mukund Overseas		
85	Interlocking Concrete Paver Blocks / CC Paver Blocks	Basant Betons	Basant Betons		
		BHARAT (NILSON)	Bharat		
		Dazzie	Dazzle Designer tiles Pvt Ltd		
		Hindustan tiles	Hindustan tiles, Ranchi Pune		
		NITCO (ROCKARD)	NITCO		
		REGENCY	Regency		
		Shree	Shree Bharat Paver blocks		
		Ultra	Ultra tile private Ltd		
		Vyara Tiles	VYARA Tiles Pvt. Ltd. / Surat		
		Any alternative tiles as approved by CE/SE based on local availability.			
		CEMTECH	M/s.Cemtech tiles, Uppal, Hyderabad.		
86	Interior Emulsion Paints	SURFA	M/s. Surfa coats (India) Pvt.Ltd., Bangalore.		
87	Laminate, Laminate wooden flooring	Archid ply	Archid ply industries ltd.		
		A1 Teak	A1 Teak Products Pvt.,Ltd.		
		Century	Centuray laminates		
		Decolam	Decolam India Pvt. Ltd.		
		Formica	Formica Laminates (India) Pvt. Ltd.		
		Green Lam	Green lam Industries Ltd.		
		KANCHAN PLY	M/s Vidya Ply & Board Pvt. Ltd		
		SISECAM	M/s.Sisecam Flat Glass India Pvt. Ltd.		
		Kitmica	Kitply Industries Ltd.		
		Merino	Merino laminates		
		Royal touche	Royal touche laminates		
		Sonear	Sonear Laminates		
		Sunmica	Sunmica Industries		
88	Linoleum sorts flooring	Armstrong	Armstrong flooring India Pvt. Ltd.		
		Forbo	Forbo Flooring India Pvt. Ltd.		
		Gerflor	Gerflor flooring		
89	Locks & Latches	Dorset	Dorset Industries Pvt. Ltd.		
		Godrej	Godrej locking solution & systems		
		Hafele	Hafele India Pvt. Ltd.		
		Harrison	Harrison locks		
		Hitech	Globe Locks India		
		Helix	Helix India		

		Link	Link Locks
		Plaza	Bharat lock House
		Yale	ASSA ABOLOY India (P) Ltd.
90	Masking Tapes	3M	3M
		Roop	Roop Polymer Ltd.
		Sun	Sun
		Wonder polymer	Wonder Tape Industries
91	Melamine Polish	Asian paints	Asian paints
		Melamine Gold Wudfin	Pidilite industries
		Polycure	Polycure Malaysia
92	Mechanical coupler for reinforcement	Dextra	Dextra India Pvt Ltd.
		Sanfield	Sanfield India Ltd.
		Alchemica	Alchemica Ltd.
		Ardex Endura	Ardex Endura Ltd.
		Asian paints	Smart care water proofing products
93	Membrane water proofing system	BASF	BASF India Ltd.
		Dr. Fixit	Pidilite industries
		Ferrous Crete	Ferrous Crete (India) Pvt Ltd.
		Hydro tech	Hydro tech Ltd.
		MYK Schomburg	MYK Arments range of products
		STP Ltd	Shalimar tar products
		Texsa	Texsa India Ltd.
94	Metalic / Steel Fire Door	Godrej	Godrej Security Solutions
		Kenwood	Kenwood Ply & Board
		MPP Schodders	MPP Technology Pvt. Ltd.
		NAVAIR	NAVAIR International Pvt. Ltd.
		Promot	Promot fire & Insulation (P) Ltd.
		Shakthi Hormann	Shakthi Hormann Pvt. Ltd.
		Signumfire Protection	Signumfire Protection pvt. Ltd.
Sukri	Sukri Fire Doors Pvt. Ltd.		
95	Metal Deck Sheet	Essar	Essar Steel Ltd.
		JSW	JSW Structural Metal Decking Ltd
		SAIL	SAIL
		TATA	TATA steel
96	Mild Steel Butt Hinges/ Piano hinges	Amit	Lovely metal Industries Pvt. Ltd.
		Deepak	Deepak
		Garg	D.P. Garg & Company
		Jolly	Jolly Engineering works
		Jyoti	Jyoti Architectural Pvt. Ltd.

		Saswat	Saswat
		Supreme	Supreme Industries
		Swift	Swift screws
97	Mirror	AIS Mirror	Asahi India Glass Ltd.
		Atul	Autl Glass Industries Ltd.
		Modi Guard	Gujarat Guardian Ltd
		Saint Gobain	Saint Gobain Glass India Ltd.,
		SISECAM	M/s.Sisecam Flat Glass India Pvt. Ltd.
		Gold Plus	M/s. Gold Plus Glass Industry Ltd., New Delhi.
98	Modular kitchen/ wardrobes/Hardware and Accessories	Evoke	Evoke
		Godrej	Godrej & Boyce co
		Sleek	Asian Paints
		Spacewood	Spacewood
99	M.S. Pipe, Tubes	Apollo	Appolo Tubes Ltd.
		JINDAL	JSW
		Kalinga	Kalinga Tubes Ltd.
		SAIL	SAIL
		Surya	Surya Roshi Ltd.
		TISCO	TATA STEEL
100	Multy walled polycarbonate roofing sheets	Danapalon	Danapal Light architecture
		Lexan GE	GE lexan
101	Non Asbestos Sheets	Everest	Everest Industries
		HIL	HIL Ltd.
		RAMCO	RAMCO Industries Ltd.
102	Non Metallic Fire door	Godrej	Godrej Security Solutions
		Kenwood	Kenwood Ply & Board
		NAVAIR	NAVAIR International Pvt. Ltd.
		Promot	Promat Fire & Insulation (P) Ltd.
103	Non Metallic floor surface hardness	BASF	BASF India Ltd
		CICo	CICO Technologies ltd
		Fosroc	Fosroc India
		Hardonite	Hardonite
		Ironite	Ironite
		Pidilite	Pidilite Industries ltd
		Sika	Sika India
104	Oil Bound Distemper	Berger (BISOM)	Berger Paints

		Dulux (Maxilite)	Dulux
		MG Polyplast	Nerolac
		Tractor Aqalock	Asian Paint
105	Overdeck insulation with extruded polystyrene board (XPS board)	Dowcorning	Dowcorning
		Owen scorning	Owen scorning
		Supreme Petrochemical Ltd.	Supreme Petrochemical Ltd.
106	Panel Doors/Wire mesh Door shutters /Fire proof doors	Jain doors	Jain Door Pvt. Ltd.
		NCL	Nagarjuna
107	PE-AL-PE Composite Pipes	Kitec	Kitec Industries (India) Pvt. Ltd.
108	Pink primer/Primer	Berger	Berger Paints
		Dulex	ICI dutax
		Nerolac	Nerolac Kansia Nerolac Pains Ltd.
		Nippon	Nippon
		Wood primer	Asian paint
		SURFA	M/s. Surfa Coats (India) pvt. Ltd., Bangalore.
109	Plasticiser & Super Plasticiser	BASF	BASF India Ltd.
		Chryso-HP/ Delta / Optima	Chryso India Pvt. Ltd.
		CICO	CICO Industries
		Contrament, Power flow	MC Bauchemie (India) Pvt. Ltd.
		Conplast SP 430	FOSROC India
		MYK Schomburg	MYK Arments Range of products
		Plastiment, Sikament	Sika India Pvt. Ltd.
		Smart Care Techno Plast/Smart care maximo plast.	Asian Paints Limited
		Sunanda Chemicals	Sunanda Chemicals Ltd.
110	Plastic Encapsulated Foot Rest	Accurate Buildcon	Accurate Buildcon company
		KGM	KGM Exports
		KK India	KK Manhole and gratings Co Pvt Ltd.
111	Play Equipments	Koochie Play	Koochie Play systems Pvt ltd.
		Play world systems	Play world systems India.
112	Ply wood (commercial Ply for general purpose)	AAMODA	M/s. Jai Dayal Plywood Pvt.Ltd., Hyderabad.
113	Ply wood (Marine Grade - BWP Ply)	AAMODA	M/s. Jai Dayal Plywood Pvt.Ltd., Hyderabad.
		BLACK COBRA	M/s.Punjab Plywood Industries, Yamunanagar, Haryana.
114	Post tensioning System	BBR	BBR (India) Pvt. Ltd.
		CRUX	Crux Processing systems Pvt. Ltd.
		Ultracon	Ultracon Structural Systems Pvt. Ltd.



		VSL	VSL India pvt. Ltd.
115	Poly carbonate Sheet	Alcox	Hindeggan Alcox Ltd.
		Danapalan	Danapal Light architecture
		GE Lexon	GE Silicones
		MG Polyplast	MG Polyplast
116	Polycarbonate Convex mirrors, Rubbarised road hump	Unique safety solutions	Unique safety solutions
117	Poly sulphide sealant	Dr. Fixit	Pidilite industries
		Ferrous Crete	Ferrous Crete (India) Pvt Ltd.
		Fosroc	Smart care sealant
		MYK Schomburg	MYK Arments range of products
		Pidilite	Pidilite Industries
		STP Ltd	Shalimar tar products
		Techseal	Choksey chemical Pvt ltd.
		Tuff seal	Bondit construction chemical
118	Polyethylene backer rod	Supreme	Supreme Industries
119	Polyurea Ultra	BASF	BASF
		Ferrous	Ferrous Crete (India) Pvt Ltd
		Pidilite	Pidilite Industries
		SIKA	SIKA India
		Smart care	Asian paints
120	Powder coating	Akzonoble	Akzonoble Coating Ltd.
		Berger	Berger Paints India Ltd.
		Jotun	Jotun Group
121	Powder & PVDF Processer	Aura International	Aura International Pvt.,Ltd.
		MJ coaters	MJ Coaters Pvt.,Ltd.
		SP Coating	SP Architectural Coating Pvt.,Ltd.
122	Prelaminated particle board Exterior Grade	Archid ply	Archid Ply Industries Ltd.
		Associate	Associate Décor Limited
		Centuary	Centuary MDF
		Ecoboard	Ecoboard Industries Ltd.
		Green Lam	Green lam Industries Ltd.
		Kitlam	Kit Ply Industries Ltd.
		Merino	Marino laminates
		Novapan	GVK Novapan Industries Pvt. Ltd.
		TESA Action Co.	TESA Action Co.
		Heritage	M/s. DECO MICA Limited, Ahmadabad.



123	Premium Acrylic smooth exterior Paint with silicon additives	Berger	Berger
		Dulux	ICI dulux
		Nerolac	Nerolac
		ULTIMA	Asian paint
124	PTMT/PVC sanitary fittings, bibcocks, pillar cock Angle valve,	PEARL	Precision Products
		Prayag	Prayag Polymers (P) Ltd
		Supreme	Supreme industries
125	PT Strands	DP Wires	DP Wires Ltd.
		TATA wiron	TATA STEEL LTD.
		Usha Martin	Usha Martin Ltd.
126	PVC Doors and Frames	Ambieance	Ambieance
		Accucel	Accura Polytech Pvt. Ltd.
		Duroplast	Duroplast extrusion Pvt. Ltd.
		Encraft	Encraft India Pvt. Ltd.
		Plastic Wood	Plastic Wood
		Polyline	Polyline extrusion Pvt. Ltd.
		Rajshri	Rajshri Productions Pvt. Ltd.
		Sintex	Sintex Plastic technology Ltd.
		VEKA	M/s NCL Veka Ltd.
		DEC	M/s. DEC Industries Pvt. Ltd., Hyderabad.
		RAJSRHRI	M/s. Rajshri Plastiwood Pithampur, M.P.
127	PVC / HDPE water storage tanks	Sintex	Sintex Plastic technology Ltd.
		Supreme	Supreme Industries Ltd.
		Vectus	Vectus Industries Ltd.
128	PVC Perforated Pipes	Akash Enterprises	Akash Enterprises
		Rex Polyextrusion	Rex Polyextrusion ltd.
		Supreme	Supreme industries.
		Zenplas Pipes	Zenplas Pipes Pvt ltd.
129	PVC flooring	Armstrong	Armstrong world Industries
		Ger flor	Ger flor flooring
		LG Hausys	LG Hausys
130	PVDC coating	Akzonoble	Akzonoble Coating Ltd.
		Valspar	Valspar India Coating Corporation Ltd.
131	PU Coating (UV resistant Liquid Applied coating)	BASF	BASF
		Fosroc	Fosroc India
		Pidilite	Pidilite industries
		PU Roof Koat	Berger Paints Ltd



		SIKA	SIKA India
		Smart care	Asian paints
132	PU Enamel Metallic Paints on MS Structure & Epoxy paints (Premium Quality)	Akzonobel	Akzonobel
		Asian paints	Asian paints
		Berger	Berger paints India Ltd.
		MRF	MRF paints
		SKK	SKK ltd
133	Raised / Cavity flooring	Access Floor systems	Access Floor Systems
		Tate	Tate
		Uni floor	Uni floor India
		Unitile	Unitile India
		Zt floor	Zt floor Pvt.,Ltd
134	RCC Pipes / Precast concrete pipes (RCC hume pipes)	Indian Hume Pipes	Indian Hume Pipe Ltd.,
		Jain & Co	Jain spun pipes Co.,
		Lakahmi Sood & Sood	Lakshmi Sood & Sood Pipa Co.
		Madurai spun pipe	Madura spun pipe company
		Vishnu	Vishnu Spun Pipes.
		DEC	M/s. DEC Industries Pvt. Ltd., Hyderabad.
135	Ready mix cement plaster	Ferrous Crete	Ferrous Crete (India) Pvt. Ltd.
		Gyproc plasters	Saint Gobain Gyproc India
		Ramco super plaster melamine	Ramco super plaster melamine
		Read Plast	Ultratech cements Ltd
		Ultra tech	Ultra tech Cement Ltd
136	Red Oxide Zinc Chromate primer	Berger	Berger Paints
		Dulex	ICI dulex
		High performance yellow metal primer	Asian Paint
		Nerolac	Nerolac
		Nippon	Nippon
137	Reflective glass , High performance glass	Asahi	Asahi India Glass ltd.
		Glaverbel	Glaverbel India
		Modifloat	Gujarat Guardian Ltd.
		Pilkinton	Pilkinton India
		SISECAM	M/s.Sisecam Flat Glass India Pvt. Ltd.
		Saint Gobain	Saint Gobain India Pvt. Ltd.
138	RMC plants (Ready Mix Concrete)	ACC	ACC Cements Ltd
		A B Dinesh	A B Dinesh Concrete India Pvt., Ltd.
		Aparna	Aparna Ready Mix concrete



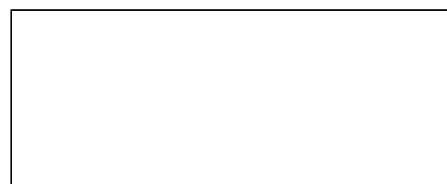
		Lafarge	Lafarge India Pvt. Ltd.
		NUVOCO	Nuvoco Vistas Corporation Ltd.
		RB Ready Mix	RB Ready Mix
		RDC	RDC Concrete (India) Pvt.Ltd.
		RMC (India)	RMC (India) Pvt. Ltd.
		Plants at – Autonagar, Gajuwaka & Atchutapuram @ Visakhapatnam. Plants at – Ankireddy Palem, Kolanukonda @ Guntur.	M/s. Sarvani Industries Pvt. Ltd., Guntur.
		Ultra Tech	Ultra Tech Cement Ltd
139	Rockwool/Glass wool insulation	Liyod Insulation	Liyod Insulation ltd.
		Supreme	Supreme Industries ltd.
		Twiga fiber	Twiga fiber glass ltd
140	Sandwich PUF panelled roofing sheets	Advent	Advent concrete vision
		BASF	BASF
		Danapalan	Danapal Light architecture
		Essar	Essar Group.
		Fosroc	Fosroc
		GE Plastic	GE Silicones
		GE Plastic	GE Silicones
		JINDAL MECTEC/ JINDAL	Mectec Pvt Ltd
		LEXAN	LEXAN Ltd
		Liyod Insulation	Liyod Insulation (India) ltd
		Lloyd Insulation	Lloyd insulation (India) Ltd
		Pidilite	Pidilite Industries ltd
		Smart care	Asian paints
		Supreme	Supreme ltd
141	Sensor based Auto flush systems	AOS System	AOS System
		Grohe	Grohe
		Hindware	HSIL Ltd
		Jaquar	Jaquar Group
		Kochier	Kochier
		Parryware	Parryware Sanitary ware
		TOTO	TOTO ltd.
142	SFRC Cover and grating	Nu-TEC	Nu-Tech concrete products (P) Lld.,
		KK	KK Manhole and gratings Co Pvt Ltd.,
		Kutty	Kutty Industries
143	Shear Stud/ Connector	KOCO	KOSTER & CO
144	Silicon coating	BASF	BASF India Ltd.
		Dow Corning	Dow corning Indd



		GE	GE Silicones
		Wacker	Wacker silicones
145	Silicon Gaskets	Sree Geurev	Sree Gaurav Rubber products
146	Solar studs/ Median markers	3M	3M Science
		Avery Dennison	Avery Donnison India Pvt Ltd.
		Nikkalite	Nippon carbide Industires (USA)
147	Spider patch fittings for structural glazing	Dorma	Dormakaba
		hafele	Hafele Ltd.
		Kich	Kich india
		Ozone	Ozone Ltd.
		Sevax	Saint Gobain Glass India ltd.
148	Spray applied Readymade plaster/ Gypsum plaster	Buildon	Buildon
		Ferrous Crete	Ferrous Crete (India) Pvt Ltd.
		Gyproc cute 100	Gyproc India.
		Ultratech	Ultratech cement ltd.
149	Spun cast iron fittings	Neco	JayaSwal Neco Ltd
		Kartar	Kartar valves private Ltd. ,
		Electrosteel	Electrosteel
		Kapilansh Centrifugal	Kapilansh Dhatu Udyoo (P)Ltd.
		SKF brand	SINGHALIRON FOUNOARY Pvt. Ltd.
150	Spun cast iron covers & gratings	Jagannath	Sri Jaqannath iron Foundry Pvt. Ltd
		Kapilansh Centrifugal	Kapilansh Dhatu Udyoo{P)Ltd.
		Neco	Jayaswal Neco Ltd
		SKF brand	SINGHALIRON FOUNOARY Pvt. Ltd.,
151	Stainless Steel / Stainless Steel Pipes	Ark Product Pvt. Ltd.	Ark Product Pvt. Ltd.
		Connect	Connect Ltd.
		Jindal	JSW
		KINGSTON	KINGSTON
		Salem	SAIL
		SAIL	SAIL
		DEC	M/s. DEC Industries Pvt. Ltd., Hyderabad.
152	Stainless Steel screws	Alloy	Alloy Ltd.
		Atul	Atul fasteners Ltd.
		GKW	GKW Limited
		Helix	Helix India
		Kundan	Kundan Industries Ltd.
		Nettlefold	Nettlefold Screws
		Pooja	Pooja Steel Corporation
153	Stainless steel Butt	Dorma	Dorma India Pvt. Ltd.



	hinges	Helix	Helix India
		Prayag	Prayag Polymers (P) Ltd.
		Ozone	Ozone Hardware
154	Stainless steel friction hinges	Earl Bihari	Earl Bihari India Pvt. Ltd.
		EBCO	EBCO
		Hetich	Hetich India
		Haffle	Haffle India Pvt. Ltd.
		ROTO	ROTO Frank Asia
		Securistyle	Securityle India Pvt. Ltd.
155	Stainless steel Bolts, washers, nuts	Atul	Atul fasteners Ltd.
		Hilti	Hilti India Pvt. Ltd.
		Kundan	Kundan Industries Ltd.
		Pooja	Pooja Steel Corporation
156	Stainless steel pressure plate screws	Atul	Atul fasteners Ltd.
		Dorset	Dorset Industries Pvt.Ltd.
		Kundan	Kundan Industries Ltd.
		Pooja	Pooja Steel Corporation
157	Stainless Steel Kitchen sink	CERA	M/s Cera Sanitaryware Ltd.
		Diamond	Pheonix Appliances Pvt. Ltd.
		Franke	Franke India Ltd.
		Futura	Futura Kichen Sinks India Pvt. Ltd.
		Hindware	HSIL Ltd
		Jhonson	Prision Jhonson Ltd.,
		Jindal	Centuary polytech
		Joyna	Joyna
		Navkar	Shri Navkar Metals Ltd
		Nilkanth	Nilkant
		PRAYAG	M/s. Prayag Polymers Pvt. Ltd.
		Nirali	Jyoti (India) Matel Industries Pvt Ltd
		Silver Shine	Blue stone sanitary Industries Pvt. Ltd.
DEC	M/s. DEC Industries Pvt. Ltd., Hyderabad.		
158	Steel Windows/ Pressed steel frames	Accucel	Accura polytech Pvt ltd.
		Madhu industries	Madhu industries, San Harvic, NCL
		NCL	NCL Industries
		San Harvic	San Harvic
159	Structural Steel	APL	Apollo Tubes Ltd
		JSPL	JSPL
		JSW	JSW



		SAIL	SAIL
		TISCO	TATA STEEL
		VIZAG	RINL
160	Structural sealant	Asian paints	Smart care sealant
		BASF	BASF India Ltd.
		Dow corning	Dow corning india
		Fosroc	Fosroc India
		GE	GE silicones
		STP Ltd.	Shalimar tar products
		Wacker	Wacker silicones
161	Synthetic enamel Paint	Berger	Berger Paints
		Dulex	ICI dulex Ltd
		Premium gloss enamel	Asian paint Ltd
		Nerolac	Nerolac Paints Ltd
		Nippon	Nippon Paint India Ltd.
		SURFA	M/s. Surfa Coats (india) Pvt. Ltd., Bangalore.
162	Synthetic Carpet tiles	Hollitex	Hoilitex carper tilas
		Standard Carpets	Standard Carpets
		TOLI	TOLI Corporation
163	Synthetic Sports Flooring	Armstrong	Armstrong flooring
		Gerflor	RMG Polyvinyl India Ltd.
		LG Wondorfloor	LG Hausys India
164	SWR PVC Pipes & fittings	Astral	Astral poiYTECHNIK Ltd.
		Finolex	Finolex Industries Ltd .
		Flowgard	Ashirwad PVC Pipes
		Nandi	Nandi pipes Pvt., Ltd.
		Prince	Prince Pipes and fittings
		Sudhakar	Sudhakar PVC Pipes
		Supreme	Supreme Industries Ltd.
SENTINI	M/s.Sentini Flopipes India Pvt. Ltd., Hyderabad.		
165	Swell able water stop	KRYTON	M/s. Kryton Buildmat Co. Pvt Ltd., Gurugram, Haryana.
166	Tempered reflective/ clear glass	Asahi	Asahi India Glass Ltd.
		FUSO	FUSO Glass India Pvt. Ltd.
		Gurind	Gurind India
		Imapct Safety	Impact Safety glass works Pvt. Ltd.
		Modiguard	Gujarat Guardian Ltd.
		Pilkington	Pilkington India Pvt. Ltd.
		Saint Gobain	Saint Gobain India Pvt. Ltd.



167	Thermal Insulation treatment	Asian	Asian Paints Ltd.
		Elastospray	BASF
		Pidilite	Pidilite Industries
		Rock India Pvt. Ltd	Rock India Pvt. Ltd
		Weather Kool & Seal	Berger Paints India Ltd.
168	TMT Bars	JSW	JSW Steel Ltd.
		SAIL	Steel Authority of India Ltd.
		TISCO	TATA STEEL LTD.
		VIZAG	Rastriya Inspat Nigam Ltd.
169	Tinted and Coated glass	Gold Plus	M/s. Gold Plus Glass Industry Ltd., New Delhi.
170	UPVC -UGD /UGD Pipes and Fittings.	Sentini	M/s. Sentini floppies India Pvt. Ltd., Hyderabad.
		SUDHAKAR	M/s. Sudhakar Polymers Pvt. Ltd.
		AKG	M/s. AKG Extrusions Pvt. Ltd.
		DEC	M/s. DEC Industries Pvt. Ltd., Hyderabad.
171	UPVC (SWR) Pipes and fittings (Rain water pipes)	AKG	AKG
		Astral	Astral polytechnik Ltd.
		Ashirwad	Aahirwad PVC Pipes
		Finolex	Finales Industries Ltd.
		KSR	KSR
		Prepoly	Premier PVC Industry
		Prince	Pnnce pipes and fittings Ltd.
		Supreme	Supeme industries Ltd.
		SENTINI	M/s. Sentini Flopipes India Pvt. Ltd., Hyderabad.
		AKG	M/s. AKG Extrusions Pvt. Ltd.
		DEC	M/s. DEC Industries Pvt. Ltd., Hyderabad.
172	UPVC doors, door frames and windows	Aluplast	Alu Alpha India
		Duroplast	Duro Plast Extrusion Pvt. Ltd.
		Encraft	Encraft India Pvt. Ltd.
		Fenesta	Fenesta DCM Shriman
		Komarling	Profile India Window Technology Pvt. Ltd.
		LG	LG India Pvt. Ltd.
		RAJSRHRI	M/s. Rajshri Plastiwood, Pithampu, M.P.
		MARCOLINI	M/s Mathura Poly pack Pvt, Ltd.
		Prominace	M/s Prominace Window Systems
		Rehau	Rehau Unlimited Polymer Solutions
		Sintex	Sintex Plastic technology Ltd.



		Venster/ OKOTECH	Aparna Enterprises limited
		VEKA	M/s NCL Veka Ltd.
		Plast One	M/s.Plast one UPVC Profiles Pvt. Ltd., Secunderabad.
173	UPVC Hardware	COAR	COAR
		DNV	DNV Global Pvt.,Ltd.
		HOPPE	HOPPE
		PULSE	LGF SYSMAC (India) Pvt.,Ltd.
174	Vitreous Commodes/ Washbasin	BATHSENSE	Asian paints(Bath division)
		CERA	CERA Sanitaryware Ltd.,
		Hindware	HSIL Ltd.
		Jaquar	Jaquar Group
		Kerovit	M/s Kajaria Ceramic limited
		Kohler	Kohler world Wide
		Parryware	ROCA Bath Pvt. Ltd.,
		Roca	ROCA Bath room products
		RAK Sanitaryware	RAK Sanitaryware
		Somany	Somany Ceramic Ltd.
175	Vitrified paving tiles	Durostone	Ever stone International
		Johnson	Johnson India
		Kajaria	Kajaria Ceramics
		PAVIT	PAVIT Ceramics Pvt. Ltd.
176	Vitrified Tiles	AGL	Asian Granite India Ltd.
		CERA	M/s CERA sanitary ware Ltd.
		Johnson	Prism Johnson Ltd.
		Kajaria	Kajaria Ceramic Ltd.
		Marbitto	Marito tiles
		NITCO	NITCO Ltd.
		Oasis	M/s Oasis Vitrified Pvt.Ltd.
		RAK	RAK Ceramic India Pvt. Ltd.
		Restile	Restile Ceramic Ltd.
		Somany	Somany Ceramic Ltd.
		Varmora Granito	Varmora Granite Pvt. Ltd.
		NAVEEN	M/s.Murudeshwar Ceramics Ltd., Bangaluru.
		Vitero	Aparna Enterprises limited
177	Water Proof Plywood, Commercial ply, Fire retardant ply and Block boards / Shuttering ply	Archidply	Archid Ply Industries Ltd.
		A1 Teak	A1 teak Industries Pvt. Ltd.
		Century ply	Century Flush Doors
		Duroply	Duro Ply Industries Ltd.
		Duroplast	Duroplast



		Dura sleek	Dura sleek
		Grassim ply	Shree Ram Industries
		Green panel	Green panel Industries Lid.
		Green Ply	Green Ply Industries Ltd.
		Jayna ply	Jain Wood Industries
		KANCHAN PLY	M/s Vidya Ply & Board Pvt. Ltd
		Kitply	Kitply Industries Ltd.
		Polyline	Polyline
		AAMODA	M/s. Jai Dayal Plywood Pvt. Ltd., Hyderabad.
		BLACK COBRA	M/s. Punjab Plywood Industries, Yamunanagar, Haryana.
178	Water Proof cement paint	Asian exterior wall primer	Asisn paint
		Berger	Bergar Paints
		Cem Colour	Snowcem Paints
		ICI DULUX	ICI DULUX
		Surfa	Surfactoats (India) Pvt. Ltd.
179	Water supply Valves	ARCO	Arco valves Pvt. Ltd ,
		leader	leader valves Ltd ,
		Nanda	Nanda Miller company
		Zoloto	Zoloto Industries
180	Welding rods	Advani	Advani oerlikon Ltd.
		ESAB	ESAB India Pvt. Ltd.
		ESS, BATHSENSE & Premium Range : Royale	Asian Paints (Bath Division)
		HINDWare	HSIL Ltd.
		Jaquar	Jaquar Group
181	Water supply fixtures like bibcock, Shower panels	Johnson	Prism Jhonson Ltd
		Kerovit	M/s Kajaria Ceramic limited
		Kingston	Kingston brass India
		MARC	MARK Showers
		Metro	Metro sanitations Pvt. Ltd.,
		Parryware	ROCO bath roam products Pvt. Ltd,
		Prayag	Prayag polymers Pvt Ltd ,
		Seiko	Seiko Sanitations
		Watarman	Kewal brothers
182	Water proofing Compound	Accoproof	ACC cement Ltd.
		Alchemica	Alchemica Ltd.
		Ardex Endura	Ardex Endura (India) Ltd.
		Asian Paints	Asian Paints
		CICO	CICO Technologies Ltd.
		Cement Mix Plus/Advanced	Berger Paints India Ltd.



		Latex Plus	
		Dr. Fixit	Pidilite industries
		Ferrous Crete	Ferrous Crete (India) Pvt Ltd.
		Fosroc	Fosroc India
		Impermo	Snoweem paints
		MYK Schomburg	MYK Schomburg range of products
		Penetron	Penetron India Pvt Ltd.
		Shaliplast LW+	STP Ltd
		Sika	Sika India
		KRYTON	M/s. Kryton Buildmat Co. Pvt. Ltd., Gurugram, Haryana.
183	Water stops	Ardex Endura	Ardex Endura Ltd.
		BASF	BASF India Ltd.
		Dr. Fixit	Pidilite industries
		Ferrous Crete	Ferrous Crete (India) Pvt Ltd.
		Hydroswell	Sika India
		Hydrotite	Sika India
184	Water proofing materials/ GP Grouts	Asian paints	Smart care SC GP grout grey
		BASF	BASF
		Care	Care
		Ferrous crete	Ferrous Crete (India) Pvt Ltd
		Home shield Super grout	Berger Paints Ltd.
		Pidilite	Pidilite Industries
		SIKA	SIKA India
185	Weather silicon make and grade	Down corning	Down corning india
		Momentive (GE)	GE silicones
186	White Cement	Birla	Birla Corporation Ltd.
		J.K.	JK Cement Ltd.
		Travancore	Travancore Cements Ltd.
187	Wood Polymer composite material for door frames and shutters, plain/pre laminated boards for wall linings etc.	Alstone	Alstone Industries Pvt., Ltd., Jaipur, Rajasthan.
		Century	M/s Century Ply Boards (I) Limited
		Ecoste	Ecoste wood polymer composite, Delhi.
		Echon	Kumar Arch Tech, Pvt.Ltd., Rajasthan.
		Green ply	Greenply Industries Limited
		Qute	Qute Extractions Pvt.Ltd., Chennai.
		Rajasree	Rajeswari Products Pvt.,Ltd., Madya Pradesh.
188	Wooden Flush door shutters	Archiply	Archiply
		A1 Teak	A1 Teak Products Ltd.



		Century	Century Flush Doors
		Duro Flushdoors	Dura Ply industries Ltd.
		Greenlam	Greenlam Ply Industries Ltd.
		Indian Timber Products	Indian Timber Products
		Jain doors Pvt.Ltd.	Jain doors Pvt.Ltd.
		Jayna Flush Doors	Jain Wood Industries
		Kailash	Kailash Hi Tech Timber Industries India pvt. Ltd.
		KANCHAN PLY	M/s Vidya Ply & Board Pvt. Ltd
		Kenwood	Kenwood Ply & Board
		Kitply	Kitply Industries Ltd.
		Mayur	Mayur Ply industries
		MP Ply wood products	MP Wood products
		National plywood	National plywood
		Raavella door	Raavella Industries (P) Ltd.
		Shakthi	Shree Shakthi Modern Flush doors
		Swatic ply	Swatic ply
		Vidya ply	Vidya ply
		AAMODA	M/s. Jai Dayal Ply wood Pvt. Ltd., Hyderabad.
		BLACK COBRA	M/s. Punjab Plywood Industries, Yamunanagar, Haryana.
		DEC	M/s. DEC Industries Pvt. Ltd., Hyderabad.
189	Laminated sheet	Heritage	M/s. DECO MICA Limited, Ahmadabad.
190	MDF Board	Heritage	M/s. DECO MICA Limited, Ahmadabad.
191	WPC frame of size 90x45 mm for doors & windows.	MAGMA	M/s. SMP IMPEX, Bangalore
192	WPC sheet 28 mm thick for doors & windows.	MAGMA	M/s. SMP IMPEX, Bangalore
193	PVC sheet 5 mm thick for panelling in doors, windows etc.	MAGMA	M/s. SMP IMPEX, Bangalore
194	Precast concrete manhole covers and frames (IS-12592-2002)	DEC	M/s. DEC Industries Pvt. Ltd., Hyderabad.
195	HD PE pipes for water supply (IS 4984-2016)	DEC	M/s. DEC Industries Pvt. Ltd., Hyderabad.
196	Admixute (PC, SNF)	DEC	M/s. DEC Industries Pvt. Ltd., Hyderabad.
197	SBR latex	DEC	M/s. DEC Industries Pvt. Ltd., Hyderabad.
198	Cold rolled closed	DEC	M/s. DEC Industries Pvt. Ltd.,

	Annealed (CRCA) door frames.		Hyderabad.
199	WPC Doors	RAJSRHRI	M/s. Rajshri Plastiwood, Pithampur, M.P.
200	FRP Doors	DEC	M/s. DEC Industries Pvt. Ltd., Hyderabad.
201	Pre-Painted Galvanized iron / Steel doors & Windows	DEC	M/s. DEC Industries Pvt. Ltd., Hyderabad.
202	Wall Putty (White cement based)	DEC	M/s. DEC Industries Pvt. Ltd., Hyderabad.
203	CP water supply fixtures – stop valve & angle Valve	JAYNAM	M/s. Jain Enterprises
204	UPVC pipes for water supply	PRAYAG	M/s. Prayag Polymers Pvt. Ltd.
205	UPVC – SWR pipes & fittings	PRAYAG	M/s. Prayag Polymers Pvt. Ltd.
		Birla Hil Pipes	M/s. Hil Ltd.
206	Plastic Seat & Covers for water closter	PRAYAG	M/s. Prayag Polymers Pvt. Ltd.
207	Plastic flushing Cisterns for water closets & Urinals.	PRAYAG	M/s. Prayag Polymers Pvt. Ltd.
208	Tabular Steel door frames – MS/GI/GP	APL APOLLO CHAUKHAT	M/s. Radha Smelters Pvt. Ltd.
209	Reinforcement Bars as per IS 1786 - 2008	RADHA TMT	M/s. Radha Smelters Pvt. Ltd
210	IoT based building Management System (S.T. Open Protocols)	WIS Spaces	M/s. Wenalytics IoT Solutions Pvt. Ltd.
211	CP Bath Fittings & Accessories	CORONET	M/s. Mohan Metal Industries
		EssEss”ap Royale” and “Bathsense”	M/s. Asian Paints Limited
212	UPVC pipes for water supply	Birla Hil Pipes	M/s. Hil Ltd.
213	Aerocon Panels (Sand Witched)	BIRLA AEROCON	M/s. Hil Ltd.
214	Door & Window Fittings (Aluminium, Mild Steel, Stainless steel & Brass)	CROWN	M/s. Crown Industries.
215	Green Panel Board (HDF Laminates)	Green Panel	M/s. Mohan Metal Industries
216	Pre laminated Board (MDF)	Green Panel	M/s. Mohan Metal Industries

- *Note:** 1. Any other brand as approved by ADG (RH) from time to time.
2. The above list is provisional and subject to product conformity of standards of relevant codes.
3. Any other brand as approved by the ADG (RH) will also become part of the above list.

SCHEDULE OF QUANTITIES

Name Of Work:- **Renovation of Toilets Attached to Conference Hall -I,II & III** in Dr.BR.Ambedkar block at Nird Campus Rajendera Nagar Of Hyderabad.

S.NO.	DSR NO 2021	DESCRIPTION OF ITEM	QTY	UNIT	RATE	AMOUNT
	SH -IV	CEMENT CONCRETE (CAST IN SITU)				
1	4.10	Providing And Laying In Position Cement Concrete Of Specified Grade Excluding The Cost Of Centering And Shuttering - All Work Up To Plinth Level :				
2	4.1.3	Cement Concrte (1:2:4 (1 Cement : 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 20 mm nominal size derived from natural sources)	1.00	CUM	7,365.15	7,365.15
		MASONRY WORK				
1	6.40	Brick work with common burnt clay F.P.S. (non modular) bricks of classdesignation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in :				
2	6.4.10	Cement mortar 1:4 (1 cement : 4 coarse sand)	3.00	CUM	8,512.10	25,536.30
		WOOD AND P. V. C. WORK				
1	9.119	Providing and fixing factory made P.V.C. door frame of size 50x47 mm with awall thickness of 5 mm, made out of extruded 5mm rigid PVCfoam sheet, mitred at corners and joined with 2 Nos of 150 mm longbrackets of 15x15 mm M.S. square tube, the vertical door frame profilesto be reinforced with 19x19 mm M.S. square tube of 19 gauge, EPDMrubber gasket weather seal to be provided through out the frame. Thedoor frame to be fixed to the wall using M.S. screws of 65/100 mm size,complete as per manufacturer's specification and direction of Engineerin-Charge.	45.00	Rm	408.25	18,371.25
	9.12	Providing and fixing factory made panel PVC door shutter consisting offrame made out of M.S. tubes of 19 gauge thickness and size of 19 mmx 19 mm for styles and 15x15 mm for top & bottom rails. M.S. frameshall have a coat of steel primers of approved make and manufacture.M.S. frame covered with 5 mm thick heat moulded PVC 'C' channel ofsize 30 mm thickness, 70 mm width out of which 50 mm shall be flatand 20 mm shall be tapered in 45 degree angle on both side formingstyles and 5 mm thick, 95 mm wide PVC sheet out of which 75mmshall be flat and 20 mm shall be tapered in 45 degree on the inner sideto form top and bottom rail and 115 mm wide PVC sheet out of which 75mm shall be flat and 20 mm shall be tapered on both sides to form lockrail. Top, bottom and lock rails shall be provided both side of the panel.10 mm (5 mm x 2) thick, 20 mm wide cross PVC sheet be provided asgap insert for top rail & bottom rail, paneling of 5 mm thick both sidePVC sheet to be fitted in the M.S. frame welded/ sealed to the styles &rails with 7 mm (5 mm+2 mm) thick x 15 mm wide PVC sheet beadingon inner side, and joined together with solvent cement adhesive. Anadditional 5 mm thick PVC strip of 20 mm width is to be stuck on theinterior side of the 'C' Channel using PVC solvent adhesive etc. completeas per direction of Engineer-in-charge, manufacturer's specification &drawing.				
2	9.120.1	30 mm thick plain PVC door shutters	15.12	SQM	2,455.10	37,121.11
3	9.96	Providing and fixing aluminium sliding door bolts, ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868), transparent or dyed to required colour or shade, with nuts and screws etc. complete :				
4	9.96.1	300x16 mm	6.00	each	260.30	1,561.80
5	9.96.2	250x16 mm	12.00	each	234.90	2,818.80
6	9.97	Providing And Fixing Aluminium Tower Bolts, Isi Marked, Anodised (Anodiccoating Not Less Than Grade Ac 10 As Per Is : 1868) Transparent Or Dyedto Required Colour Or Shade, With Necessary Screws Etc. Complete :				
7	9.97.2	250x10 mm	12.00	each	104.40	1,252.80
8	9.97.4	150x10 mm	24.00	each	75.55	1,813.20
9	9.98	Providing and fixing aluminium pull bolt lock, ISI marked, anodised (anodiccoating not less than grade AC 10 as per IS : 1868) transparent or dyedto required colour and shade, with necessary screws bolts, nut andwashers etc. complete.	12.00	each	89.90	1,078.80
10	9.10	Providing And Fixing Aluminium Handles, Isi Marked, Anodised (Anodiccoating Not Less Than Grade Ac 10 As Per Is : 1868) Transparent Or Dyedto Required Colour Or Shade, With Necessary Screws Etc. Complete :				
11	9.100.1	125 mm	12.00	each	60.05	720.60

S.NO.	DSR NO 2021	DESCRIPTION OF ITEM	QTY	UNIT	RATE	AMOUNT
12	9.100.2	100 mm	24.00	each	53.25	1,278.00
13	9.101	Providing And Fixing Aluminium Hanging Floor Door Stopper, Isi Marked, Anodised (Anodic Coating Not Less Than Grade Ac 10 As Per Is : 1868) Transparent Or Dyed To Required Colour And Shade, With Necessary Screwsetc. Complete.				
14	9.101.2	Twin rubber stopper	6.00	each	62.25	373.50
15	9.147B	Providing and fixing factory made uPVC white colour fixed glazed windows/ventilators comprising of uPVC multi-chambered frame and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), , uPVC extruded glazing beads of appropriate dimension, EPDM gasket, G. Fasteners 100 x 8 mm size for fixing frame to finished wall, plastic packers, plastic caps and necessary stainless steel screws etc. Profile of frame shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicone sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes and silicon sealant shall be paid separately). Variation in profile dimension in higher side shall be accepted but no extra payment on this account shall be made. Note: For uPVC frame, sash and mullion extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable.				
16	9.147B.1	Fixed window / ventilator made of (small series) frame 47 x 50 mm & mullion 47 x 68 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension. (Area upto 0.75 sqm.)	2.70	SQM	7,249.90	19,574.73
		FLOORING				
1	11.37	Providing And Laying Ceramic Glazed Floor Tiles Of Size 300X300 Mm (Thickness To Be Specified By The Manufacturer) Of 1st Quality Conforming To Is : 15622 Of Approved Make In Colours Such As White, Ivory, Grey, Fume Red Brown, Laid On 20 Mm Thick Cement Mortar 1:4 (1 Cement : 4 Coarse Sand), Jointing With Grey Cement Slurry @ 3.3 Kg/Sqm Including Pointing The Joints With White Cement And Matching Pigment Etc., Complete.	46.00	SQM	935.60	43,037.79
		CLADDING WORK				
1	8.20	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing of edges to give high gloss finish etc. complete at all levels.				
2	8.2.2	Granite stone slab of colour black, Cherry/Ruby red				
3	8.2.2.2	Area of slab over 0.50 sqm	6.00	SQM	4,425.35	26,552.10
4	8.30	Providing edge moulding to 18 mm thick marble stone counters, Vanities etc., including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge.				
5	8.3.2	Granite work	20.00	Metre	418.85	8,377.00
6	8.50	Extra for providing opening of required size & shape for wash basin/ kitchen sink in kitchen platform , vanity counter and similar location in marble/ Granite/ stone work, including necessary holes for pillar tapsetc. including moulding, rubbing and polishing of cut edges etc. complete.	9.00	each	808.15	7,273.35
7	8.31	Providing And Fixing 1st Quality Ceramic Glazed Wall Tiles Conforming To Is: 15622 (Thickness To Be Specified By The Manufacturer), Of Approved make, In All Colours, Shades Except Burgundy, Bottle Green, Black Of any Size As Approved By Engineer-In-Charge, In Skirting, Risers Of Steps and Dados, Over 12 Mm Thick Bed Of Cement Mortar 1:3 (1 Cement : 3 Coarse Sand) And Jointing With Grey Cement Slurry @ 3.3 Kg Per Sqm, Including Pointing In White Cement Mixed With Pigment Of matching Shade complete.	120.00	SQM	1,063.45	1,27,614.00

S.NO.	DSR NO 2021	DESCRIPTION OF ITEM	QTY	UNIT	RATE	AMOUNT
FINISHING						
1	13.4	12 mm cement plaster of mix :				
2	13.4.1	1:4 (1 cement: 4 coarse sand)	200.00	SQM	307.25	61,450.00
3	13.91	Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	200.00	SQM	20.85	4,170.00
4	13.80	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	200.00	SQM	123.85	24,770.00
5	13.81	Distemping with 1st quality acrylic distemper, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour.				
6	13.81.2	Two coats	200.00	SQM	90.05	18,010.00
7	13.99	Painting With Synthetic Enamel Paint Of Approved Brand And Manufacture Of Required Colour To Give An Even Shade :				
8	13.99.1	One or more coats on old work	50.00	SQM	86.55	4,327.50
9	14.60	Renewing glass panes, with wooden fillets wherever necessary:				
10	14.6.1	Float glass panes of nominal thickness 4 mm (weight not less than 10kg/sqm)	5.00	SQM	1,351.15	6,755.75
DISMANTLING AND DEMOLISHING						
1	15.23	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.				
2	15.23.1	For thickness of tiles 10 mm to 25 mm	200.00	SQM	60.50	12,100.00
3	15.13	Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 metres lead :				
4	15.13.1	Of area 3 sq. metres and below	15.00	Each	118.30	1,774.50
5	15.56	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	44.00	SQM	45.05	1,982.34
6	15.70	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.				
7	15.7.4	In cement mortar	12.90	CUM	1,698.45	21,910.01
8	15.60	Disposal of building rubbish / malba / similar unserviceable , dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead , for all leads including all lifts involved.	22.90	Cum	219.35	5,023.12
9	15.44	Dismantling G.I. pipes (external work) including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means including stacking of pipes within 50 metres lead as per direction of Engineer-in-charge :				
10	15.44.1	15 mm to 40 mm nominal bore	30.00	metre	124.10	3,723.00
11	15.44.2	Above 40 mm nominal bore	20.00	metre	134.25	2,685.00
SANITARY INSTALLATIONS						
1	17.10	Providing And Fixing Water Closet Squatting Pan (Indian Type W.C. Pan) With 100 Mm Sand Cast Iron P Or S Trap, 10 Litre Low Level White P.V.C. Flushing Cistern, Including Flush Pipe, With Manually Controlled device (Handle Lever) Conforming To Is : 7231, With All Fittings And fixtures Complete, Including Cutting And Making Good The Walls And floors Wherever Required:				
2	17.1.1	White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests	4.00	Each	5,781.35	23,125.40

S.NO.	DSR NO 2021	DESCRIPTION OF ITEM	QTY	UNIT	RATE	AMOUNT
3	17.2	Providing And Fixing White Vitreous China Pedestal Type Water Closet(European Type W.C. Pan) With Seat And Lid, 10 Litre Low Level White.P.V.C. Flushing Cistern, Including Flush Pipe, With Manually Controlleddevice (Handle Lever), Conforming To Is : 7231, With All Fittings Andfixtures Complete, Including Cutting And Making Good The Walls Andfloors Wherever Required :				
4	17.2.1	W.C. pan with ISI marked white solid plastic seat and lid	5.00	Each	5,540.55	27,702.75
5	17.4	Providing and fixing white vitreous china flat back or wall corner typelipped front urinal basin of 430x260x350 mm and 340x410x265 mmsizes respectively with automatic flushing cistern with standard flushpipe and C.P. brass spreaders with brass unions and G.I clampscomplete, including painting of fittings and brackets, cutting andmaking good the walls and floors wherever required :				
6	17.4.1	One urinal basin with 5 litre white P.V.C. automatic flushing cistern	9.00	Each	5,268.85	47,419.65
7	17.7	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brasspillar taps, 32 mm C.P. brass waste of standard pattern, includingpainting of fittings and brackets, cutting and making good the wallswherever require:				
8	17.7.4	Providing and fixing oval shape counter wash basin of premium make as approved by Engineer- in-charge, with necessary fixing arrangement with 15 mm long body Pillar cock of approved make I/C 32 mm C.P brass waste coupling of standard pattern ,including finishing around the counter top with epoxy grout etc ,cutting and making good the walls wherever required etc : white wash basin of size 560X400 mm all complete as per direction of Engineer in charge complete.	6.00	Each	4,377.00	26,262.00
9	17.58	Providing lead caulked joints to sand cast iron/centrifugally cast(spun) iron pipes and fittings of diameter :				
10	17.58.1	100 mm	4.00	EACH	549.65	2,198.60
11	17.58.2	75 mm	6.00	EACH	466.40	2,798.40
12	17.28	Providing and fixing P.V.C. waste pipe for sink or wash basin includingP.V.C. waste fittings complete.				
13	17.28.2	Flexible pipe				
14	17.28.2.1	32 mm dia	4.00	Each	104.35	417.40
15	17.28.2.2	40 mm dia	4.00	Each	104.35	417.40
16	17.77	Providing and fixing M.S. holder bat clamp of approved design to sand cast iron/ cast iron (spun) pipes comprising of M.S. flat bracketsmade of 50x5 mm flat of specified shape, projecting 75 mm outsidethe wall surface and fixed on wall with 4nos, 6mm dia expansionhold fasteners, including drilling necessary holes in brick wall/ CC/RCC surface and the cost of bolts etc. The pipes shall be fixed to thealready fixed brackets with the help of 30 mm x1.6 mm galvanisedM.S. flats of specified shape and of total length 420 mm and shall befixed with M.S. nuts, bolts, & washers of size 25x6 mm, one boltson each side of the pipe.				
17	17.77.1	Total bracket length 580 mm of approved shape and design (for single 100 mm dia pipe)	30.00	EACH	247.95	7,438.50
18	17.35	Providing and fixing soil, waste and vent pipes :				
19	17.35.1	100 mm dia				
20	17.35.1.3	Hubless centrifugally cast (spun) ironpipes epoxy coated inside & outsideIS:15905	36.00	Rm	1,061.25	38,205.00
21	17.35.2	75 mm diameter :				
22	17.35.2.3	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	24.00	Rm	867.55	20,821.20
23	17.38	Providing and fixing bend of required degree with access door, insertionrubber washer 3 mm thick, bolts and nuts complete.				
24	17.38.1	100 mm dia				
25	17.38.1.3	Hubless centrifugally cast (spun) ironepoxy coated inside & outside as per IS:15905	12.00	each	550.80	6,609.60
26	17.38.2	75 mm dia				

S.NO.	DSR NO 2021	DESCRIPTION OF ITEM	QTY	UNIT	RATE	AMOUNT
27	17.38.2.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	8.00	each	440.00	3,520.00
WATER SUPPLY						
1	18.7	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. Internal work - Exposed on wall				
2	18.7.2	20 mm nominal dia Pipes	50.00	Rm	325.10	16,255.00
3	18.7.3	25 mm nominal dia Pipes	50.00	Rm	408.55	20,427.50
4	18.13	Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete :				
5	18.13.1	25 to 40 mm nominal bore	3.00	Each	757.10	2,271.30
6	18.13.2	50 to 80 mm nominal bore	2.00	Each	1,513.70	3,027.40
7	18.49	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 :				
8	18.49.1	15 mm nominal bore	9.00	Each	434.20	3,907.80
9	18.52	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931.				
10	18.52.1	15 mm nominal bore	9.00	Each	594.75	5,352.75
11	18.18	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :				
12	18.18.1	15 mm nominal bore	6.00	Each	348.85	2,093.10
13	18.53	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931				
14	18.53.1	15mm nominal bore	18.00	Each	500.35	9,006.30
15	18.50	Providing and fixing C.P. brass long nose bib cock of approved quality conforming to IS standards and weighing not less than 810 gms.				
16	18.50.1	15 mm nominal bore	1.00	Each	715.05	715.05
17		S&F of 15 mm Stainless steel flexible hose 1.0 m long for hand shower / health faucet with brass nuts	9.00	Each	271.00	2,439.00
18		S&F of 15 mm CP finish brass body health faucet gun	9.00	Each	224.00	2,016.00
REPAIRS TO BUILDING						
1	14.1	Repairs To Plaster Of Thickness 12 Mm To 20 Mm In Patches Of Area 2.5 Sq. Meters And Under , Including Cutting The Patch In Proper Shape, Raking Out Joints And Preparing And Plastering The Surface Of The Walls complete, Including Disposal Of Rubbish To The Dumping Ground, All complete As Per Direction Of Engineer-In-Charge.				
2	14.1.2	With Cement Mortar 1:4 (1 Cement: 4 Coarse Sand)	50.00	Sqm	478.00	23,900.00
3	14.85	Taking out existing wooden door shutter, repair by cutting, painting etc. and refixing of repaired door shutters to existing door frames, including replacement of hinges with screws, etc. as required, all complete as per the direction of the Engineer-in-charge.	8.00	each	325.95	2,607.60
5	14.82	Dismantling W.C. Pan Of All Sizes Including Disposal Of Dismantled materials I/C Malba All Complete As Per Directions Of Engineer-In-Charge.	9.00	Each	110.70	996.30
6	14.84	Dismantling 15 to 40 mm dia G.I. pipe including stacking of dismantled pipes (within 50 metres lead) as per direction of Engineer in-Charge. (a) Internal Work- Exposed on wall	20.00	Rm	2.85	57.00
ROOFING						
1	12.41	Providing And Fixing On Wall Face Unplasticised Rigid Pvc Rain Water pipes Conforming To Is : 13592 Type A, Including Jointing With Sealing Conforming To Is : 5382, Leaving 10 Mm Gap For Thermal Expansion, (I) Single Socketed Pipes.				
2	12.41.2	110 mm	12.00	Rmt	319.75	3,837.00

S.NO.	DSR NO 2021	DESCRIPTION OF ITEM	QTY	UNIT	RATE	AMOUNT
3	12.42	Providing and fixing on wall face unplasticised - PVC moulded fittings/accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion.				
4	12.42.3	Single tee with door				
5	12.42.3.2	110x110x110 mm	1.00	Each	205.45	205.45
6	12.42.5	Bend 87.5°				
7	12.42.5.2	110 mm bend	1.00	Each	132.00	132.00
8	12.42.6	Shoe (Plain)				
9	12.42.6.2	12.42.6.2 110 mm Shoe	1.00	Each	115.95	115.95
10	12.43	Providing and fixing unplasticised -PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length, including cutting brick work and fixing in cement mortar 1:4 (1 cement: 4 coarse sand) and making good the wall etc. complete.				
11	12.43.2	110 mm	2.00	Each	309.50	619.00
NEW TECHNOLOGIES AND MATERIALS						
1	22.25	Providing And Applying Crystalline Mortar By Mixing In The Ratio Of 4.5: 1 (4.5 Parts Crystalline Mortar : 1 Part Water) For The Treatment Of Faulty Construction Joints, Cracks, Tie Rod Holes And Spalled & Honeycombed Surface Of Rcc Underground Structures Like Basement, Water Tanks, Bridge Deck Etc. To Ensure Water Tightness. The Crystalline Mortar Shall Conform To The En 1504-3 Having Compressive Strength Class R4 \geq 45 Mpa And Adhesive Bond Strength Class R3 \geq 1.5 Mpa. The Work Shall Be Carried Out All Complete As Per Specification And The Direction Of The Engineer-In-Charge. The Product Performance Shall Carry Guarantee For 10 Years Against Any Leakage.				
2	22.25.1	For Sealing Cracks And Faulty Construction Joints, Routed out/Making U-Shape Groove Size 25X25Mm And Then primed The Area With Integral Crystalline Slurry @0.05Kg/Running Metre And While The Surface Is Tacky Filled The groove upto surface with Crystalline Mortar @1.50Kg/Running Metre. Once Crystalline Mortar Is touch dry Then Finally Applied Two coats of Integral Crystalline Slurry @0.05Kg/Running Metre Per Coat.	20	RM	469.65	9,393.00
3	26.35	Providing And Injecting Approved Grout In Proportion Recommended By The Manufacturer Into Cracks/Honey-Comb Area Of Concrete/Masonry By Suitable Gun/Pump At Required Pressure Including Cutting Of Nipples After Curing Etc. Complete As Per Directions Of Engineer In Charge.				
4	26.35.1	Stirrer mixed Acrylic Polymer of approved make @ 2% of weight of cement used) modified Cement slurry made with non shrink compound in concrete/RCC work	20	KG	102.85	2,057.00
5	26.78	PROVIDING & APPLYING WEATHER PROOF SEALANT ON OUTER JOINTS OF APPROVED MAKE CONFIRMING TO IS & DIRECTED BY ENGINEER-IN-CHARGE.				
6	26.78.1	Sealant 25mmx10mm at joints	20	Meter	152.50	3,050.00
SUB TOTAL						8,21,818.88
Add for GST @18% instead of 12% with multiplication factor of 1.0633.						52,021.14
						8,73,840.02
Add. Cost Index on DSR Items ((121-105/105)100) = 15.24)%						1,33,173.22
TOTAL						10,07,013.00

**EXECUTIVE ENGINEER,
CMU UNIT, NIRDPR, HYDERABAD**

ABSTRACT OF COST (PERCENTAGE RATE)

Name of Work:		Renovation of Toilets attached to Conference Hall – I,II&III in DR.BR. Ambedkar Block NIRDPR Campus Rajender Nagar Hyderabad.			
NIT No :		10 /EE/CMU/HYDERABAD /2022-23			
Estimated Cost Put to Tender (ECPT) :		Rs.10,07,013/-			
Name of Contractor :					
Sl. No.	Name of Component	Estimated Cost	Percentage above / below or at par the Estimated cost	% in Figures	Total Cost
1	Civil	10,07,013			
	Total	10,07,013			

Important Note:

1. The Estimated Cost Put to Tender has been worked out by taking into consideration the Cost Index of **Hyderabad** [thereby enhancing by **15.24%** for DSR 2021 items and considering the Market Rates for NSR items].

1. The tenderer is required to quote Percentage only above/below or at par on the Estimated Cost to cover all the rates of all the items under the Schedule of Tender. This column should not be left blank; otherwise the tender shall be treated as INVALID.

2. The tender shall be finalised based on percentage quoted by the agency to determine the L1.

3. The agency shall be paid based on the percentage quoted by the agency only.

4. The Percentage shall be typed only in figures upto 2 (two) places of decimal along with algebraic sign.

5. The tenderer shall enable the macros before entering the figures, to be see the quoted percentage and amount in words.

6. If the Percentage quoted both in words and figures are not clear, or if the rate is not quoted in Percentage, the offer will be treated as INVALID

Signature of contractor :

Name

Date

Postal Address

E-mail ID

**Executive Engineer,
CMU,NIRD&PR, Hyderabad.**