

INDEX

S. No.	Description	Page
1	Index	1
2	Information and instructions for contractors for e-tendering	3
3	List of documents to be scanned and uploaded	5
4	C.P.W.D – 6 for e-Tendering	6
5	CPWD – 7	10
6	Acceptance	12
7	Performa of Schedules	14
9	General Rules & Directions	19
10	Salient / Mandatory requirement for tender	22
11	General Terms & Conditions	25
12	Additional Conditions	31
13	Special Conditions for Civil Component of Work	47
14	Special conditions for Steel reinforcement	51
15	Particular Specifications for Civil Component of Work	62
16	Form of Bank Guarantee for Performance Guarantee/Security Deposit	73
17	Receipt of deposition of original EMD	75
18	Form H & Form I	76 & 77
19	List of machinery, tools & plants to be deployed by the contractor at site as & when required.	84
20	List of preferred make for civil works	85
21	Part C	93
22	Schedule of quantities for Civil Work	111
23	Schedule of quantities for Electrical Work	124
24	Template for quoting rate	132

Check List for Contractors for Online Submission of Tenders:

1. Tender shall be witnessed at specified page of tendered documents at the time of drawing agreement with the successful bidder.
2. The tender/tenders containing conditions contrary to those specified in this document shall be summarily rejected.
3. In schedules of quantities appended to the tender documents, the rates in terms of overall percentage above or below the total estimated amount put to tender must be filled both in figures and in words on specified page of tender document.
4. It may be noted that in the present contract 10CA is not applicable.
5. The contractor/ agency shall quote the rate keeping in view that they have to give an undertaking before award of work that "they will install/ arrange field testing instruments and essential T&P, technical representatives specified in the tender document/specification.
6. It will be mandatory to first refer any dispute related to execution of this work to the conciliator. Contractor or department can only seek arbitration if not satisfied with the decision of the conciliator. This should be read along with provisions of clause 25 of GCC 2023 for construction works duly amended & modified with corrections up to date of submission of tender.

Information and Instructions for contractors for e-tendering forming part of NIT and to be posted on website

The Executive Engineer, C.P.W.D., Rajkot – 360001 (Gujarat), (Ph. No. 0281-2440931 Email Id: - eercd.cpwd@gov.in) on behalf of the President of India invites online percentage rate bids from approved and eligible contractors of CPWD enlisted in appropriate class (B&R/Composite) for the following work: -

NIT No.	Name of work & location	Estimated cost put to bid	Earnest Money	Stipulated Period of Completion of work	Last date & time of submission of bid, original EMD, copy of receipt for deposition of original EMD and other Documents as specified in the press notice	Date of time of opening of bid
	3	4	5	6	7	8
28/EE/RAJKOT/2026-27	Renovation of 05 No. Type III Quarters and 01 No Type II Quarters at SBRC, Rajkot	₹ 67,87,135/- CIVIL - ₹ 58,45,661/- Ele - ₹ 9,41,474/-	₹ 1,35,743/-	06 (Six) Months	Up to 3.00 pm On 16-10-2026	Up to 3.30 pm On 16-10-2026

- 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.
- Information and instructions for bidders posted on website shall form part of bid document.
- The 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 the contract to be complied with and other necessary documents can be seen and downloaded from website <https://etender.cpwd.gov.in> or www.cpwd.gov.in free of cost.
- But the bid to be submitted after deposition of original EMD either in the office of Executive Engineer inviting bids or division office of any Executive Engineer, CPWD within the period of bid submission and uploading the mandatory scanned documents such as Insurance Surety Bonds, Account Payee Demand draft or Banker's Cheque or Fixed Deposit Receipts or/and Bank Guarantee including e- Bank Guarantee (for balance amount as prescribed) from any of the Commercial Bank towards EMD in favour of Executive Engineer as mentioned in NIT, receipt for deposition of original EMD to division office of any Executive Engineer (including NIT issuing EE/AE), CPWD and other documents as specified.
- Those contractors who are not registered or have not updated their profile on the website mentioned above, are required to get registered/update their profile beforehand. The necessary training materials including the videos with step to step process are available on download section of <https://etender.cpwd.gov.in>

6. The intending bidder must have valid class-III digital signature certificate with encryption key (combo type) to perform any operations/ transactions on the e-tendering portal / website and the bidder should download and install the e M-signer on their system as per instructions available on download section of <https://etender.cpwd.gov.in>.
7. On opening date, the contractor can login and see the bid opening process. After opening of bids, he will receive the competitor bid sheets.
8. Contractor can upload documents in the form of JPG format and PDF format.
9. Contractor must ensure to quote rate in the prescribed column (s) meant for quoting rate in figures appears in **yellow** color and the moment rate is entered, it turns **sky blue**.

In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0". Therefore, if any cell is left blank and no rate is quoted by the bidder, the rate of such item shall be treated as "0" (ZERO).

However, if a tenderer quotes nil rates against each item in item rate tender or does not quote any percentage above/below on the total amount of the tender or any section / sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.

10. The tenderer (s) shall associate with himself, specialized agencies of the appropriate eligibility for components of specialized nature of items / work of major component listed below individually. Such works shall be got executed only through associated agencies specialized in these fields. If the tenderer (s) himself fulfils the eligibility criteria laid down for associated specialized agencies, and he wants to execute work himself then he will have to satisfy Engineer-in-Charge that he himself had carried out such specialized similar work of required magnitude during last 7 years directly without subletting and take written approval before commencing with the work. The tenderer (s) whose tender is accepted shall indicate the name(s) of his associated specialized agencies those fulfilling the eligibility criteria laid down below as early as possible and within 60 days of award of work for the approval of the Engineer-in-charge whose decision shall be final and binding.
- 11.

S. No.	Specialized work(s)/ Item of work (s)	Eligibility Criteria of Associated Agencies
A	Major Work (CIVIL)	The agency shall associate specialized agencies, who have satisfactorily completed three works each measuring not less than quantity equal to 40% of area of work of corresponding specialized item, or two works each measuring not less than quantity equal to 60% of area of work of corresponding specialized item or one specialized work measuring not less than quantity equal to 80% of area of work of corresponding specialized item during the last seven years ending on the last day of the month previous to the one in which the tenders are invited. In case the contractor himself meets the criteria given here above, he may execute the work on his own.
1	Water proofing treatment	

List of Documents to be scanned and uploaded by intending Bidders within the period of Bid submission: (in JPG or PDF format)

I.	Insurance Surety Bond, Demand Draft/Account Payee Banker's Cheque /FDR/Bank Guarantee of any commercial Bank against EMD.
II.	Enlistment Order of the Contractor.
III.	Copy of Receipt for deposition of original EMD issued from division office of any Executive Engineer, CPWD (Including NIT issuing EE.)
IV.	GST Registration Certificate if already obtained by the Bidder. If the Bidder has not obtained GST registration as applicable, then, he shall scan and upload the following undertaking along with bid documents. "If work is awarded to me, I/We shall obtain GST registration certificate , as applicable, within one month from the date of receipt of award letter or before release of any payment by CPWD, whichever is earlier, failing which I/We shall be responsible for any delay in payments which will be due towards me/us on a/c of the work executed and/or for any action taken by CPWD or GST Department in this regard".
V.	Form-H: Affidavit for Non-Black Listing (Affidavit to be furnished on a "Non Judicial" Stamp paper worth Rs. 200.00) Date of affidavit to be furnish should be after date of uploading of this tender.
VI.	Form-I : Affidavit shall be furnished on a 'Non-judicial' stamp paper of ₹ 200/- (scanned copy of the notarized affidavit shall be uploaded at the time of submission of bid)
VII.	ERP (Enterprise Resource Planning) training certificate issued through LMS of ERP of either himself or his authorized representative through any of the CPWD Regional Training Institutes at Delhi, Mumbai, Chennai and Kolkata, National CPWD Academy (NCA) Ghaziabad Training arranged by Graduates of ERP "Train the Trainers Programme" conducted by NCA, Ghaziabad or through any other special training arranged by ERP Unit of CPWD Note: The bid uploaded without attaching the certificate of ERP Training will not be considered for opening of Technical Bid and such bids will be REJECTED.
VIII.	Any other document as specified in the NIT.

CPWD-6 FOR e-Tendering

Percentage rate bids are invited on behalf of President of India from approved and eligible contractors of CPWD for the work of:

Renovation of 05 No. Type III Quarters and 01 No Type II Quarters at SBRC, Rajkot

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. The work is estimated to cost **₹ 67,87,135/-**. This estimate, however, is given merely as a rough guide.
2. Agreement shall be drawn with the successful bidders on prescribed Form No. **CPWD 7** (or other Standard Form as mentioned) which is available as a Govt. of India Publication and also available on website **www.cpwd.gov.in**. Bidders shall quote his rates 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 06 (Six) Months from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.
4. (i) The site for the work is available.
(ii) The architectural and structural drawings shall be made available in phased manner, as per requirement of the same as per approved program of completion submitted by the contractor after award of work.
5. The 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 the contract to be complied with and other necessary documents except Standard General Conditions of Contract Form can be seen on website <https://etender.cpwd.gov.in> or www.cpwd.gov.in free of cost.
6. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.
7. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of bid as notified.
8. Earnest Money in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee including e-Bank Guarantee (for balance amount as prescribed) from any of the Commercial Banks (drawn in favour of Executive Engineer, Rajkot Central Division, C.P.W.D., Rajkot) shall be scanned and uploaded on the e-Tendering website within the period of bid submission. The original EMD should be deposited either in the office of Executive Engineer inviting bids or division office of any Executive Engineer, CPWD within the period of bid submission. The EMD receiving Executive Engineer (including NIT issuing EE/AE) 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.

A part of earnest money is acceptable in the form of bank guarantee also. In such case, minimum 50% of earnest money or ₹ 20 lac, whichever is less, shall have to be deposited in shape prescribed above, and balance may be deposited in shape of Bank Guarantee including e- Bank Guarantee of any Commercial bank having validity for a period of 90 days or more from the last date of receipt of bids which is to be scanned and uploaded by the intending bidders.

The earnest money given by all the tenderers except the lowest tenderer shall be refunded immediately after the expiry of stipulated bid validity period or immediately after acceptance of the successful bidder, whichever is earlier. However, in case of two three bid system, earnest money

deposit of bidders unsuccessful during technical bid evaluation etc. should be returned within 30 days of declaration of result of technical bid evaluation.

9. Copy of Enlistment Order and certificate of work experience and other documents as specified in the notice inviting e-tender shall be scanned and uploaded on the e-Tendering website within the period of bid submission. However, certified copy of all the scanned and uploaded documents as specified in e-tender notice shall have to be submitted by the lowest bidder within a week physically in the office of tender opening authority. Online bid documents submitted by intending bidders shall be opened only of those bidders, who has deposited EMD with any division of CPWD and other documents scanned and uploaded are found in order.

The bid submitted shall be opened at **03:30 PM on 16-10-2026**

The bid submitted shall become invalid and e-Tender processing fee (if applicable) shall not be refunded if:

- (i) The bidder is found ineligible.
 - (ii) The bidder does not upload scanned copies of all the documents 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 bidder in the office of bid opening authority.
 - (iv) If a tenderer does not quote any percentage above/below on the total amount of the tender or any section/sub head, the tender shall be treated as invalid and will not be considered as lowest tenderer.
10. The contractor whose bid is accepted will be required to furnish performance guarantee at specified percentage of the ECPT and tendered amount whichever is higher 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 from any of the Commercial Banks in accordance with the prescribed form. 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. The earnest money deposited along with bid shall be returned after receiving the aforesaid performance guarantee. The contractor whose bid is accepted will also be required to furnish either copy of applicable licenses/ registrations or proof of applying for obtaining labour licenses, registration with EPFO, ESIC and BOCW Welfare Board including Provident Fund Code No. If applicable and also ensure the compliance of aforesaid provisions by the sub-contractors, if any engaged by the contractor for the said work within the period specified in Schedule F.

11. The description of the work is as follows:

Renovation of 05 No. Type III Quarters and 01 No Type II Quarters at SBRC, Rajkot

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. The 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 of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.

12. The competent authority on behalf of the President of India 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 rejection.
14. The competent authority on behalf of President of India 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.
15. The contractor shall not be permitted to bid for works in the CPWD Circle (Division in case of contractors of Horticulture/Nursery category) responsible for award and execution of contracts, in which his near relative is posted a Divisional Accountant or as an officer in any capacity between the grades of Superintending Engineer and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any gazetted officer in the Central Public Works Department or in the Ministry of Housing and Urban Affairs. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department.
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 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 bids for the work shall remain open for acceptance for a period of 30 (thirty) days from the actual date of opening of bids.**

Further

(i) If any tenderer withdraws his tender or makes any modification in the terms & conditions of the tender which is not acceptable to the department within 7 days after date of submission of bids, then the Government 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.

(ii) If any tenderer withdraws his tender or makes any modification in the terms & conditions of the tender which is not acceptable to the department after expiry of 7 days after last date of submission of bids, then the Government 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.

(iii) In case of forfeiture of earnest money as prescribed in para (i) and (ii) above, the bidders shall not be allowed to participate in the rebidding process of the same 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 rates 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 intending bidders are required to update their profile in CPWD e-tender portal and to upload their bids well in advance of last date of submission of tender. Any issue related to updating profile/uploading tender can be resolved through the concerned Executive Engineer/Assistant Engineer (Ph. No. 0281-2440931 Email Id: - eercd.cpwd@gov.in) or ERP helpline no. 18001803286 or e-mail Id cpwd.support@techmahindra.com. The e- tendering bidders are also advised not to wait to raise any issues till the last date of submission of bid in their own interest.
20. **Price Preference to SC/ST individual contractor:**
- As cost of the work is more than 6.2 lakhs, this section is not applicable.

**GOVERNMENT OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT**

State	Gujarat	Zone	Gandhinagar
Branch	B & R	Division	Executive Engineer, CPWD, Rajkot

Percentage Rate Tender & Contract for Works

Tender for the work of-

Renovation of 05 No. Type III Quarters and 01 No Type II Quarters at SBRC, Rajkot To be uploaded / submitted by tenderers up to **15:00 on 16-10-2026** on CPWD web site.

To be opened in the presence of bidders or their authorized representative who may be present at **15:30 hours on 16-10-2026** in the office of The Executive Engineer, CPWD, Rajkot (Gujarat).

TENDER

I/We have read and examined the notice inviting Bid, 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 condition of contract and all other contents in the bid document for the work.

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

I/We agree to keep the bid open for Thirty (30) days from the actual date of opening of bid and not to make any modification in its terms and conditions.

I/We have deposited EMD for the prescribed amount in the office of concerned Executive Engineer 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 President of India or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said 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 of the tender form.

Further, I/We agree that in case of forfeiture of Earnest Money or 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 the Department, then I/We shall be debarred for tendering in CPWD in future forever. Also, if such a violation comes to the notice of the 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 the safety of the State.

Dated _____ *

Signature of Contractor _____ *

Postal Address _____ *

Witness: ** _____

Address: ** _____

Occupation: ** _____

Telephone No. _____ *

Fax _____ *

E-Mail _____ *

(*) To be filled in by the Contractor

(**) To be filled in by the Witness

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
 `.....

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

- (a)
- (b)
- (c)

India

For & on behalf of the President of

Signatures

Designation

Dated

Modification in GCC 2023 (Construction work)

Modifications made in various clauses of General Condition of Contract Construction work 2023 issued under OMs as per following details as well as those modifications in GCC issued till the previous day of last day of submission of tender shall form an integral part of the agreement.

Sl. No.	OM No.	Date
1.	DG/CON/CONSTRUCTION 2023/02	14/11/2023
2.	DG/CON/CONSTRUCTION 2023/03	06/12/2023
3.	DG/CON/CONSTRUCTION 2023/04	08/12/2023
4.	DG/CON/CONSTRUCTION 2023/05	08/02/2024
5.	DG/CON/CONSTRUCTION 2023/06	01/03/2024
6.	DG/CON/CONSTRUCTION 2023/07	01/03/2024
7.	DG/CON/CONSTRUCTION 2023/08	06/03/2024
8.	DG/CON/CONSTRUCTION 2023/09	01/04/2024
9.	DG/CON/CONSTRUCTION 2023/10	03/06/2024
10.	DG/CON/CONSTRUCTION 2023/11	03/06/2024
11.	DG/CON/CONSTRUCTION 2023/12	09/10/2024
12.	DG/CON/CONSTRUCTION 2023/13	29/10/2024
13.	DG/CON/CONSTRUCTION 2023/14	03/01/2025
14.	DG/CON/CONSTRUCTION 2023/15	31/01/2025
15.	DG/CON/CONSTRUCTION 2023/16	10/02/2025
16.	DG/CON/CONSTRUCTION 2023/17	03/03/2025

The contractors are advised to visit the CPWD site and update themselves about the modifications in the GCC construction work 2023.

Proforma of Schedules

(Separate Performa for Civil, Elect. & Hort. Works in case of Composite Tenders)

Schedule 'A'

Schedule of quantities: Page No. 105 to 131.

Schedule 'D'

Extra schedule for specific requirement for the work: - As attached in this tender document.

Schedule 'E'

Reference to General Conditions of contract –

General Conditions of Contract 2023 for construction work as modified and corrected up to previous day of last date of submission of the tender

Name of Work	Renovation of 05 No. Type III Quarters and 01 No Type II Quarters at SBRC, Rajkot
Estimated cost of the work	₹ 67,87,135/- [CIVIL- ₹ 58,45,661/- Electrical ₹9,41,474/-]
Earnest money	₹ 1,35,743/-
Performance Guarantee	5% of ECPT or Contract Amount whichever is higher and Additional Performance Guarantee equivalent to different between 80% amount of ECPT and quoted amount if quoted bid amount is lesser then 80% of ECPT
Security Deposit	2.5% of tendered amount

SCHEDULE 'F'

GENERAL RULES & DIRECTIONS:

Officer inviting tender	Executive Engineer, CPWD, Rajkot or his successor there of
Price preference to SC/ST individual contractor is valid up to the last date of submission of tender.	

Definitions:

2(vi)	Engineer-in-Charge	Executive Engineer, CPWD, Rajkot or his successor there of
2(viii)	Accepting Authority	Executive Engineer, CPWD, Rajkot or his successor there of
2(x) (a)	Percentage on cost of materials and labour to cover all overheads and profits	15%
2(x) (b)	Standard Schedule of Rates: Civil Items of Work:	DSR 2023 with up-to-date correction slips issued up to previous day of last date of submission of tender
2(xi)	Department:	Central Public Works Department
9(ii)	Standard CPWD contract Form:	C.P.W.D. FORM 7 of General Conditions of Contracts 2023 for construction work, modified and corrected up to previous day of last date of submission of bid.

Clause 1

(i)	Time allowed for submission of Performance Guarantee, programme chart (Time and progress) and applicable labour licenses, registration with EPFO, ESIC and BOCW welfare board or proof of applying thereof from the date of issue of letter of acceptance.	7 days
(ii)	Maximum allowable extension with late fee @ 0.1% per day of Performance Guarantee amount beyond the period as provided in (i) above	3 days

Clause 2

Authority for fixing compensation under clause 2	Executive Engineer, CPWD, Rajkot or his successor thereof
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Clause 5

Number of days from the date of issue of letter of acceptance for reckoning date of start.	10 days
Time allowed for execution of work	06 (Six) Months

Milestone(s) as per table given below:

Sr. No.	Description of Milestone (Financial)	Time allowed in days (from date of start)	Amount to be withheld In case of non achievement of mile stone
1	1/8 th (of the whole work)	1/4 th (of the whole time)	In the event of not achieving the necessary progress as assessed from the running payment, 1.25% of the tender value of work will be withheld for failure of each mile stone.
2	3/8 th (of the whole work)	1/2 nd (of the whole time)	
3	3/4 th (of the whole time)	3/4 th (of the whole time)	
4	Full work	Full time	

(i) Authority to convey the decision of shifting of milestone and extension of time	Executive Engineer, CPWD, Rajkot or his successor there of
(ii) Authority to decide rescheduling of milestone and extension of time	Executive Engineer, CPWD, Rajkot or his successor there of
(iii) Authority to decide shifting of date of start in case of delay in handing over of site	Executive Engineer, CPWD, Rajkot or his successor there of

Clause 5.1 (iv)	Recovery per week for delay in submission of Time and progress chart and monthly progress report	₹ 2,000/-
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Proforma of schedule of handing over of site

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	Entire site	10 th day
Part B	Portion with encumbrances	Nil	NA
Part C	Portions dependent on work of other agencies	Nil	NA

Schedule of issue of drawings

Part	Portion of site	Time Period for issue of drawings reckoned from date of issue of letter of intent
Part A	Architectural Drawings	On the day of start of the work
Part B	Structural Drawings	On the date of start of individual activity
Part C	E&M Drawings	within 15 days of submission of drawings by the contractor.

Clause 6

Computerized Measure Book (CMB) / Electronic Measurement Book (EMB)

Mode of Measurement	CMB
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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.	Rs 7.50 Lakhs
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Clause 7A

Whether Clause 7A shall be applicable	Yes, applicable
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Clause 8

Competent Authorities to inspect and issue part / final completion certificate	Engineer-in-Charge
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Clause 8A

Authority to decide compensation on account if contractor fails to submit completion plans	Engineer-in-Charge
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Clause 10 A

List of testing equipment to be provided by the contractor at site lab.	As per list given at page 27 of this document.
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Clause 10 B (ii)

Whether clause 10 B(ii) shall be applicable	No
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Clause 10 C

Applicable

Component of labour expressed as percentage of value of work	25%
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Clause 10 CC

Applicable/Not applicable	NOT Applicable in this work
Clause 10CC to be applicable in the contracts	12 Months

with stipulated period of Completion exceeding the period shown in next column	
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Sr. No.	Relevant Component of Material / Labour for price escalation.	Percentage of total value of work
1.	Component of Cement	NIL
2.	Component of Labour	
3.	Civil Component of other Construction Materials	
4.	Electrical and Mechanical (E&M) Component of Construction Materials	
5.	Component of POL (Diesel)	
6.	Reinforcement Steel bars / TMT bars (low alloy steel) / Structural Steel (including strands and cables)	
	Total	NIL

Clause 11

Specifications to be followed for execution of work	CPWD Specifications for works-2019 Vol. I & II, with up-to-date correction slips issued up to previous day of submission of tender for items of building works, and Particular Specifications included in this tender document. (Hereinafter called specifications)
Building Information Modeling (BIM) is applicable	NO

Clause 12.2 (c)

Deviation limit beyond which clause 12.2 (c) shall apply for all the items	100%
(i) Deviation Limit beyond which clauses 12.2(c) shall apply for foundation work (except items mentioned in earth work subhead in DSR and related items)	100%
(ii) Deviation Limit for items mentioned in earth work subhead in DSR and related items	

Clause 16

Competent Authority for Deciding reduced rates	Chief Engineer, CPWD, Gandhinagar or his successor thereof
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Clause 18

List of mandatory machinery, tools & plants to be deployed by the contractor at site.	As given at page 84 of this document.
Clause 19 C Authority to decide penalty for each default	Engineer-in-charge

Clause 19 D

Authority to decide penalty for each default	Engineer-in-charge
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Clause 19 G

Authority to decide penalty for each default	Engineer-in-charge
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Clause 19 K

Authority to decide penalty for each default	Engineer-in-charge
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Clause 25

Conciliator	Special Director General (Mumbai) or his successor thereof
Arbitrator Appointing Authority	Chief Engineer, CPWD, Gandhinagar or his successor thereof

Place of Arbitration	Gandhinagar
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Clause 32

Requirement of Technical Representative (s) and Recovery Rate						
Sl. No.	Requirement of Technical Staff		Minimum experience (Years)	Designation of Technical Staff	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of Clause 32	
	Qualification	Number (of major + minor component)			Figures	Words
1	Graduate Engineer /Diploma Engineer	1 (Civil Engineering)	2 or 5 respectively	Project Manager Cum Planning/ quality/Site/billing Engineer	15,000/- Per Month per Person	Fifteen Thousand Per Month

Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers. Diploma holders with minimum 10 years' relevant experience with a reputed construction co. can be treated at par with Graduate Engineers for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50% of requirement of degree engineers.

Minimum Recovery for not deploying building information model profession	N.A. in this case
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Clause 38

(i)	Schedule/ statement for determining theoretical quantity of cement and bitumen on the basis of DSR-2023 with up-to-date correction slips.	DSR-2023 with correction slips up to previous day of last date of submission of tender.
(ii)	Variations permissible on theoretical quantities:	
(a)	Cement for works with estimated cost put to tender not more than ₹ 25 Lakh.	3% plus/minus
	For works with estimated cost put to tender more than ₹ 25 Lakh.	2% plus/minus
(b)	Bitumen all works	2.5% plus only and Nil on minus side
(c)	Steel reinforcement and structural steel sections for each diameter, section and category.	2% plus/ minus
(d)	All other materials	Nil

RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION:

S. No.	Description of item	Rates in figures and works at which recovery shall be made from the Contractor	
		Excess beyond permissible variation	Less use beyond permissible variation Rate per M.T. (₹)
1.	Cement a) Ordinary Portland Cement (OPC)	NA	-
2.	Cement b) Portland Pozzolana Cement (PPC)	NA	-

General Rules and Directions

1. All work proposed for execution by contract will be notified in a form of invitation to tender published digitally and can be seen and downloaded from website <https://etender.cpwdw.gov.in> free of cost. This form will state the work to be carried out, as well as the dated of submitting and opening tenders and the time allowed for carrying out the work, also the amount of earnest money to be deposited with the tender, and the amount of the security deposit and Performance guarantee to be deposited by the successful tenderer and the percentage, if any, to be deducted from bills. Copies of the specifications, designs and drawings and any other documents required in connection with the work signed for the purpose of identification by the officer inviting tender shall also be open for inspection by the contractor at the office of officer inviting tender during office hours.
2. In the event of tender being submitted by a firm, it must be signed separately by each partner thereof or in the event of the absence of any partner, it must be signed on his behalf by a person holding a power of attorney authorizing him to do so, such power of attorney to be produced with the tender, and it must disclose that the firm is duly registered under the Indian Partnership Act 1952.
3. Receipts for payment made on account of work, when executed by a firm, must also be signed by all the partners, except where contractors are described in their tender as a firm, in which case the receipts must be signed in the name of the firm by one of the partners, or by some other person having due authority to give effectual receipts for the firm.
4. Applicable for Item Rate Tender only (CPWD-8).

The rate(s) must be quoted in decimal coinage. Amounts must be quoted in full rupees by ignoring fifty paise and considering more than fifty paise as rupee one.

In case the lowest tendered amount (worked out on the basis of quoted rate of Individual items) of two or more contractors is same, then such lowest contractors may be asked to submit sealed revised offer quoting rate of each item of the schedule of quantity for all sub sections/sub heads as the case may be, but the revised quoted rate of each item of schedule of quantity for all subsections / subheads should not be higher than their respective original rate quoted already at the time of submission of tender. The lowest tender shall be decided on the basis of revised offer.

If the revised tendered amount (worked out on the basis of quoted rate of individual items) of two or more contractors received in revised offer is again found to be equal, then the lowest tender, among such contractors, shall be decided by draw of lots in the presence of SE of the circle, or CE of the zone EE (s) in-charge of major & minor component (s) (also DDH in case Horticulture work is also included in the tender), and the lowest contractors those have quoted equal amount of their tenders.

In case of any such lowest contractor in his revised offer quotes rate of any item more than their respective original rate quoted already at the time of submission of tender, then such revised offer shall be treated in valid. Such case of revised offer of the lowest contractor or case of refusal to submit revised offer by the lowest contractor shall be treated as withdrawal of his tender before acceptance and 50% of his earnest money shall be forfeited.

In case all the lowest contractors those have same tendered amount (as a result of their quoted rate of individual items), refuse to submit revised offers, then tenders are to be recalled after forfeiting 50 % of EMD of each lowest contractor.

Contractor, whose earnest money is forfeited because of non - submission of revised offer, or quoting higher revised rate (s) of any item (s) than their respective original rate quoted already at the time of submission of his bid shall not be allowed to participate in the retendering process of the work.

5. Applicable for Percentage Rate Tender only (CPWD-7)

In case of Percentage Rate Tenders, contractor shall fill up the usual printed form, stating at what percentage below / above (in figures as well as in words) the total estimated cost given in Schedule of Quantities at Schedule-A, he will be willing to execute the work. The tender submitted shall be treated as in valid if: -

- I. The contractor does not quote percentage above/below on the total amount of tender or any section/subhead of the tender.
- II. The percentage above / below is not quoted in figures & words both on the total amount of tender or any section / sub head of the tender.
- III. The percentage quoted above / below is different in figures & words on the total amount of tender or any section/sub head of the tender.

Tenders, which propose any alteration in the work specified in the said form of invitation to tender, or in the time all owed for carrying out the work, or which contain any other conditions of any sort including conditional rebates, will be summarily rejected.

In case the lowest tendered amount (estimated cost $\pm$ amount worked on the basis of percentage above/below) of two or more contractors is same, such lowest contractors will be asked to submit **revised price bid online quoting** percentage above/below on estimated cost of tender including all sub sections/sub heads as the case may be on **the revised template which has been sent to them by the Tender inviting Authority (TIA)**, but the revised percentage quoted above/below on tendered cost or on each sub section/ sub head should not be higher than the percentage quoted at the time of submission of tender. The lowest tender shall be decided on the basis of revised offers.

In case any of such contract or refuses to submit revised offer, then it shall be treated as withdrawal of his tender before acceptance and 50 % of earnest money shall be forfeited.

If the revised tendered amount of two or more contractors received in revised offer is again found to be equal, the lowest tender, among such contractors, shall be decided by draw of lots in the presence of SE of the circle, or CE of the zone EE (s) in-charge of major & minor component (s) (also DDH in case Horticulture work is also included in the tender), & the lowest contractors those have quoted equal amount of their tenders.

In case all the lowest contractors those have quoted same tendered amount, refuse to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD of each contractor. Contractor(s), whose earnest money is forfeited because of non-submission of revised offer, shall not be allowed to participate in there-tendering process of the work.

6. The officer inviting tender or his duly authorized assistant, will open tenders in the presence of any intending contractors who may be present at the time.
7. The officer inviting tenders shall have the right of rejecting all or any of the tenders and will not be bound to accept the lowest or any other tender.
8. The receipt to fan accountant or clerk for any money paid by the contractor will not be considered as any acknowledge mentor payment to the officer inviting tender and the contractor shall be responsible for seeing that he procures a receipt signed by the officer inviting tender or a duly authorized Cashier.
9. In the case of Item Rate Tenders, only rates quoted shall be considered. Any tender containing percentage below/above the rates quoted is liable to be rejected. Rates quoted by the contractor in item rate tender in figures and words shall be accurately filled in so that there is no discrepancy in the rates written in figures and words. However, if a discrepancy is found, the rates which correspond with the amount worked out by the contractor shall unless otherwise proved be taken as correct. If the amount of an item is not worked out by the contractor or it does not correspond with the rates written either in figures or in words, then the rates quoted by the contractor in words shall be taken as correct. Where the rates quoted by the contract or in figures and in words tally, but the amount is not worked out correctly, the rates quoted by the contract or will unless otherwise proved be taken as correct and not the amount. In event no rate has been quoted for any item (s), leaving

space both in figure(s), word (s), and amount blank, it will be presumed that the contractor has included the cost of this / these item (s) in other items and rate for such item (s) will be considered as zero and work will be required to be executed accordingly. However, if a tenderer quotes nil rates against each item in item rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer and earnest money deposited shall be forfeited.

10. In case of percentage Rate Tenders only percentage quoted shall be considered. Any tender containing item rates is liable to be rejected. Percentage quoted by the contractor in percentage rate tender shall be accurately filled in figures and words, so that there is no discrepancy.
11. In Percentage Rate Tender, the tenderer shall quote percentage below / above (in figures as well as in words) at which he will be willing to execute the work. He shall also work out the total amount of his offer and the same should be written in figures as well as in words in such a way that no interpolation is possible. In case of figures, the word '₹' Should be written before the figure of rupees and word 'P' after the decimal figures, e.g. '₹ 2.15P' and in case of words, the word 'Rupees' should precede, and the word 'Paisa' should be written at the end.
12. The Contractor whose tender is accepted, will be required to furnish Performance Guarantee of 5% (Five Percent) of ECPT or Contract Amount whichever is higher and Additional Performance Guarantee equivalent to different between 80% amount of ECPT and quoted amount if quoted bid amount is lesser then 80% of ECPT within the period specified in Schedule F. This guarantee shall be in the form of cash (in case guarantee amount is less than ₹ 10,000/-) or Deposit at call receipt of any scheduled bank / Banker's cheque of any scheduled bank / Demand Draft of any scheduled bank / Pay order of any scheduled bank (in case guarantee amount is less than ₹1,00,000/-) or Government Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank.
13. The contractor whose tender is accepted will also be required to furnish by way of Security Deposit for the fulfilment of his contract, an amount equal to 2.5% of the tendered value of the work. The Security deposit will be collected by deductions from the running bills as well as final bill of the contractor at the rates mentioned above. The Security amount will also be accepted in cash or in the shape of Government Securities. Fixed Deposit Receipt of a Scheduled Bank or will also be accepted for this purpose provided confirmatory advice is enclosed.
14. On acceptance of the tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the Engineer-in-Charge shall be communicated in writing to the Engineer-in-Charge.
15. GST or any other tax applicable in respect of inputs procured by the contractor for this contract shall be payable by the Contractor and Government will not entertain any claim whatsoever in respect of the same. However, component of GST at time of supply of service (as provided in CGST Act 2017) provided by the contract shall be varied if different from that applicable on the last date of receipt of tender including extension if any.
16. The contractor shall give a list of both gazetted and non-gazetted C.P.W.D. employees related to him.
17. The tender for composite work includes, in addition to building work, all other works such as sanitary and water supply installations drainage installation, electrical work, horticulture work, roads and paths etc.

Salient / Mandatory Requirements for the Tender

1. The Bidder is advised to read and examine the bid documents for the work and the set of drawings available with Engineer-in-charge. He should inspect and examine the site and its surroundings by himself before submitting his tender.
2. Separate schedule of quantity is included in this tender for civil and electrical items of work. If the bidder wants to offer any unconditional rebates on his rates, the same should also be offered in the respective components of civil and electrical schedule separately. The contractor shall quote the percentage rates in figures and words accurately so that there is no discrepancy in rates written in figures and words.
3. Time allowed for the execution of work is 06 (Six) Months.
4. The contractor(s) shall submit a detailed program of execution in accordance with the master program/milestone within ten days from the date of issue of award letter.
5. Quality of the project is of utmost importance. This shall be adhered to in accordance with the provisions of CPWD specifications and guidelines given in the relevant paras.
6. Cement shall be arranged by the contractor himself.
7. Steel Reinforcement shall be arranged by the contractor himself.
8. Contractor shall make his own arrangements for electricity and water required for execution of the work
9. The contractor has to engage specialized agencies for specialized items of works such as water proofing, aluminum works, structural glazing, PVDF, ACP and other specialized items as mentioned in the tender documents. Only those specialized agencies/firms who have satisfactorily executed works as per criteria given in these tender documents during last seven years are eligible for the specialized works-

Approval of the specialized agencies for each specialized work shall be obtained from the Engineer-in-Charge within one month of award of work. Even if, such specialized items of work shall be executed by the specialized agencies, the work shall be deemed to be executed by the tenderer for all purposes and the responsibility of the quality of items of works executed etc. shall continue to be that of the tenderer only.
10. Contractor has to deploy required Plant and machinery on the project. The minimum number of plant and machinery to be deployed by him is indicated at Page No. 80. In case the contractor fails to deploy the plant and machinery whenever required and as per the direction of the Engineer-in-charge, he (Engineer-in-charge) shall be at liberty to get the same deployed at the risk and cost of the contractor.
11. The contractor shall submit the running bills in the shape of the computerized MB in pages of A-4 size as per the standard format of department and shall act as per clause 6of CPWD-7 forming an integral part of the agreement.

12. Contractor has to provide reinforcement cover blocks made of approved proprietary prepacked free flowing mortars of high early strength.

The Contractor shall deploy T&P, Plant and Equipment required for execution of work within contract period. Schedule of deployment of the equipment shall be as per requirement of work for completion of work as per work program within stipulated time and contractor himself shall be responsible for their efficient use avoiding any idling. No damages / compensation shall be payable on account of idle Manpower, Labor, T&P, Plant and Equipment and Loss of Profit etc. for whatsoever reason, not even for delay in work due to justified hindrances.

LIST OF MINIMUM EQUIPMENT TO BE PROVIDED IN THE FIELD-TESTING LABORATORY BY THE CONTRACTOR AT HIS OWN COST

Name of Equipment	Numbers
Oven – Electrically operated, thermostatically controlled, range up to 200 C sensitivity 1 C	1 No.
Platform balance 300 kg capacity	1 No.
Balance 20 kg capacity-self indicating type	1 No.
Electronic Balance 5 kg capacity accuracy 0.5 gm	1 No.
Water bath-electrically operated and thermostatically controlled with adjustable Shelves, sensitivity 1 C	1 No.
Thermometers: Mercury-in-glass thermometer range 0 to 250 C Mercury-in-steel thermometers with 30 cm Stem, range up to 300 C for bituminous work	1 No.
Kerosene or gas stove or electric hot plate	1 No.
Glass wares, spatulas, wire gauzes, Steel scales, measuring tape, casseroles, Karahis, enamelled trays of assorted sizes, Pestle-mortar, porcelain dishes, gunny bags, Plastic bags, chemicals, digging tools like Pickaxes, shovels etc.	As required
Auto level and Staff	1 No.
Graduated Glass Cylinder	1 No.
Measuring jars 100ml, 200ml, 500ml	1 No. each
Verniers calipers 12" & 6"	1 No.
Digital Micrometer least count 0.01 mm	1 No.
Screw Gauge 0.01mm – 10mm,	1 No.
Extra Bottom plates for 15cm cube mold	3 Nos.
Standard Vibration table for cubes	02 Nos.
Dial gauges 25 mm travel- 0.01 mm/division least count	1 No.

- The above list is only indicative but not exhaustive. Contractor shall mobilize and install the above listed T&P and other T&P as per need of work at site one week before actual requirement.
- Any of the above listed T&P which in view of engineer in charge are no more required at site can be removed with the permission of engineer-in-charge.
- Not more than 90% tests for material shall be performed at site lab with above stated equipment's., At least 10% testing of materials shall be got done from external laboratories. However, for the tests to be carried out by the external laboratories, the contractor shall supply free of charge all the materials required for testing, including transportation. If the tests which were to be conducted in the site laboratory are conducted in other laboratories for any the reasons the cost of such tests shall be borne by the contractor.
- All expenditure on account of testing of materials including packaging, sealing, transportation,

loading, unloading etc. and testing charges shall be borne by the contractor.

5. Other Laboratories: -

The contractor shall arrange carrying out all tests required under the agreement through the laboratory as approved by the Engineer-in-Charge and shall bear all charges in connection therewith including charges for testing for all materials.

6. Testing of materials in any Govt. Lab / Public Undertaking Lab/IIT or NIT lab/Government Engineering College may be allowed by the Engineer in charge. However, The representatives of the department shall be at liberty to inspect the testing facilities at site and conduct testing at random in consultation with Engineer in charge. The contractor shall provide all necessary facilities for the purpose. The laboratory shall be equipped, inter alia, with the equipment mentioned in the list given in this tender document.

7. Sample of building materials fittings and other articles required for execution of work shall be got approved from the Engineer-in-Charge. Articles manufactured by companies of repute and approved by the Engineer-in-Charge shall only be used. Articles bearing BIS certification mark shall be used in case the above are not available, the quality of samples brought by the contractor shall be judged by standards laid down in the relevant BIS specifications. All materials and articles 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.
8. 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.
9. BIS marked materials except otherwise specified shall be subjected to quality test at the discretion of the Engineer-in-Charge besides testing of other materials as per the specifications described for the item/materials. Wherever BIS marked materials are brought to the site of work, the contractor shall if required, by the Engineer-in-Charge furnish manufacturers test certificate to establish that the material produced by the contractor for incorporation in the work satisfies the provisions of BIS codes relevant to the material and/or the work done.
10. The contractor shall procure all the materials in advance so that there is sufficient time for testing and approval of the materials and clearance before use in the work.
11. All materials brought by the contractor for use in the work shall be got checked from the Engineer-in-Charge or his authorized representative of the work on receipt at site before use.
12. The contractor shall be fully responsible for the safe custody of the materials brought and stored at site even if the materials are in double lock and key system.
13. The Stone aggregates, stone, sand shall be brought from any quarries subject to the said materials are in conformity with the specifications to be followed and applicable in the work.
14. The day-to-day receipt and issue accounts of different grade/brand of cement shall be maintained separately in the standard proforma by the Jr. Engineer-in-Charge of work and which shall be duly signed by the contractor or his authorized representative.
15. The contractor shall render all help and assistance in documenting the total sequence of this project by way of photography, slides, audio-video recording etc. Nothing extra shall be payable to the

contractor on this account. However, cost of photographs, slides, audio/ videography etc shall be borne by the department.

16. Separate cement registers showing the receipt of the OPC and PPC shall be maintained at site. The contractor shall construct separate go downs for storage of OPC & PPC at site and nothing extra on this account shall be payable.
17. Cement from the store (made at site of the work) shall not be used for factory made items and those not manufactured at site.
18. In case there is any variation in frequency of testing as given in the list of mandatory tests and that in the specifications applicable in the work, higher of the two frequencies of testing shall be adopted.

General Terms and Conditions

The order of preference regarding applicability of various specification and special condition shall be as given below:

- 1.1 Nomenclature of items as per schedule of quantities.
- 1.2 Particular specification and special condition, if any.
- 1.3 CPWD specifications.
- 1.4 Architectural Drawings
- 1.5 Indian standard specifications of B.I.S.
- 1.6 Sound Engineering Practice

A reference made to any Indian Standard specification in these documents, shall imply to the latest version of that standard. Including such revision/amendments as issued by the bureau of Indian standard up to last date of receipt of tenders. The contractor shall keep at his own cost all such publications of relevant Indian standard applicable to the work at site.

If there are varying or conflicting provisions made in any document forming part of the contract, the Engineer – in - Charge shall be the deciding authority with regard to the intention/interpretation of the tender and his decision shall be final and binding on the contractor.

1. Except for the items, for which particular specifications are given or where it is specifically mentioned otherwise in the description of items in the schedule of quantities the work shall generally be carried out in accordance with the specifications mentioned under clause 11 of schedule F of proforma of schedule of this tender document and instructions of Engineer-in-Charge. Wherever applicable specifications are silent the latest IS codes/specification shall be followed.
2. Unless otherwise provided in the Schedule of Quantities/Specifications, the rates tendered by the contractor shall be all inclusive and shall apply to all heights, lifts, leads and depths of the work and nothing extra shall be payable to him on account of the same. Extra payment for centring/shuttering, if required to be done for heights greater than 3.5 m shall however be

admissible at the rates arrived at in accordance with clause 12 of the agreement, if not already specified.

3. Quality of work is of paramount importance. Contractor shall have to engage well experienced skilled labour and deploy modern T&P and other equipment to execute the work. Many items like stone masonry & stone cladding works, stone flooring, structural glazing, PVDF coating aluminium composite panel and other specialized flooring work, Woodwork will specially require engagement of skilled workers having experience particularly in execution of such items. **Besides the contractor shall ensure use of potable water for work. For this the agency, if required, may arrange installation of RO plant at Site. However, no extra payment for such arrangement shall be made and it will be inclusive in rates quoted by the agency.**
4. The contractor (s) shall inspect the site of work before tendering and acquaint himself with the site conditions and no claim on this account shall be entertained by the department.
5. The contractor(s) shall get himself acquainted with nature and extent of the work and satisfy himself about the availability of materials from kiln or approved quarries for collection and conveyance of materials required for construction.
6. The contractor (s) shall study the soil investigation report for the site, available in the office of the Engineer-in-Charge and satisfy himself about complete characteristics of soil and other parameters of site. However, no claim on the alleged inadequacy or incorrectness of the soil data shall be entertained.
7. The tenderer shall see the approaches to the site. In case any approach from main road is required by the contractor, the same shall be made good, improved and maintained by the contractor at his own cost. No payment shall be made on this account.
8. 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 leviable 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 light and other illumination on for cautioning the public at night.
9. The contractor shall take all precautions to avoid accidents by exhibiting necessary caution boards day and night speed limit boards red flags, red lights and providing barriers. He shall be responsible for all dangers and incidents caused to existing/ new work due to negligence on his part. No hindrances shall be caused to traffic during the execution of the work.
10. Contractor shall provide permanent benchmarks and other reference points for the proper execution of work and these shall be preserved till the end of work. All such reference points shall be in relation to the levels and locations, given in the Architectural and plumbing drawings.
11. The contractor shall make his own arrangement for obtaining electric connection(s) if required and make necessary payments directly to the department concerned.
12. Other agencies doing works related with this project may also simultaneously execute their works and the contractor shall afford necessary facilities for the same. The contractor shall leave such necessary holes, openings etc. for laying/burying in the work, pipes cables, conduits, clamps, boxes and hooks for fan clamps etc. as may be required for the other agencies. Nothing extra over the Agreement rates shall be paid for doing these.
13. Some restrictions may be imposed by the security staff etc. on the working and for movement of labour, materials etc. The contractor shall be bound to follow all such restrictions/instructions and nothing extra shall be payable on account of the same.
14. The contractor shall fully comply with all legal orders and directions of the Public or local authorities or municipality and adhere by their rules and regulations and pay all fees and charges for which he may be liable in this regard. Nothing extra shall be paid/reimbursed for the same.
15. The building work shall be carried out in the manner complying in all respects with the requirements of the relevant bylaws and regulations of the local body under the jurisdiction of

which the work is to be executed or as directed by the Engineer-in-charge and nothing extra shall be paid on this account.

16. The contractor shall give a performance test of the entire installation(s) as per standing specifications before the work is finally accepted by making his own arrangements for water supply, electricity etc. and nothing extra whatsoever shall be payable for the same.
17. If as per local Municipal regulations, huts for labour are not to be erected at the site of work; the contractor shall be required to provide such accommodation at a place as is acceptable to the local body and nothing extra shall be paid on this account.
18. In case of items for which abbreviated nomenclature is not available in the aforesaid publication and also in case of extra and substituted items for which abbreviated nomenclature are not provided for in the agreement, full nomenclature of item shall be reproduced in the measurement books and bill forms for running account bills.
19. For the purpose of recording measurements and preparing running account bills, the abbreviated nomenclature indicated in the publications Abbreviated Nomenclature of Items of DSR 2023 shall be accepted. The abbreviated nomenclature shall be taken to cover all the materials and operations as per the complete nomenclature of the relevant items in the agreement and relevant specifications.
20. For the final bill, however, full nomenclature of all the items shall be adopted in preparing abstract in the measurement books and in the bill forms.
21. It shall be ensured by the contractor that no electric live wire is left exposed or unattended to avoid any accidents in this regard.
22. The structural and architectural drawings shall at all times be properly co-related before executing any work. However, in case of any discrepancy in the item 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.
23. The contractor shall maintain in perfect condition, all portions executed till completion of the entire work allotted to him. Where however phased delivery of work is contemplated these provisions shall apply separately to each phase.
24. The entire royalty at the prevalent rates shall have to be paid by the contractor on all the boulders, metals, shingle sand etc. collected by him for execution of the work, directly to the Revenue authority or authorized agents of the State Government concerned or the Central Government, as the case may be.
25. The contractor shall prepare an integrated programme chart for the execution of work, showing clearly all activities from the start of work to completion, with details of manpower, equipment and machinery required for the fulfilment of the programme within the stipulated period or earlier as indicated in the mile stones under clause 5 of the contract and submit the same for approval to the Engineer-in-Charge within ten days of the award of the contract.
26. If it appears to the Engineer-in-Charge that the actual progress of work does not conform to the approved programme referred above the contractor shall produce a revised programme showing the modifications to the approved programme to ensure completion of the work within the stipulated time for completion.
27. The submission for approval by the Engineer-in-Charge of such programme or the furnishing of such particulars shall not relieve the contractor of any of his duties or responsibilities under the contract. This is without prejudice to the right of Engineer-in-Charge to take action against the contractor as per terms and conditions of the agreement.
28. If the work is carried out in more than one shift or during night, no claim on these accounts shall be entertained.
29. Existing drains, pipes, cables, over-head wires, sewer lines, water lines and similar services encountered in the course of the execution of work shall be protected against the damage by the

contractor at his own expense. 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.

30. The contractor shall be responsible for the watch and ward/guard of the buildings, safety of all fittings and fixtures including sanitary and water supply fittings and fixtures provided by him against pilferage and breakage during the period of installations and thereafter till the building is physically handed over to the department. No extra payment shall be made on this account.
31. Any cement slurry added over base surface for continuation of concreting for better bond is deemed to have been built in the items and nothing extra shall be payable for extra cement considered in consumption on this account.
32. The contractor shall take instructions from the Engineer-in-charge for stacking of materials. No excavated earth or building materials etc. shall be stacked / collected in areas where other buildings, roads, services, compound walls etc. are to be constructed.
33. Any trenching and digging for laying sewer lines/water lines/cables etc. shall be commenced by the contractor only when all men, machineries and materials have been arranged and closing of the trench(s) thereafter shall be ensured within the least possible time.
34. The contractor shall bear all incidental charges for cartage, storage and safe custody of materials brought at site for bona fide use on the work and shall construct suitable godown, yards at the site of work for storing all materials to prevent deterioration and damage by sun, rain, dampness, fire, theft etc. at his own cost and also employ necessary watch and ward establishment for the purpose, at his own cost.
35. The contractor shall submit for the approval of Engineer-in-Charge names of specialized agencies of repute along with their technical capacity proposed to be engaged by him, who must have executed satisfactorily works of value as specified in mandatory conditions.
36. The works shall be carried out in accordance with the Architectural drawings and structural 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 architectural and structural drawings issued for the work and satisfy himself that the information available thereof is complete and unambiguous. 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 executing by the commencement of work on the basis of any erroneous and or incomplete information.
37. Other agencies will also simultaneously execute and install the works of electrification, air conditioning, lifts, firefighting etc. for this work and the contractor shall provide necessary facilities for the same. The contractor shall leave such recesses, holes openings etc. as may be required for the electric, air-conditioning and other related works (for which inserts, sleeves, brackets, conduits base pinion, clamps etc. shall be supplied free of cost by the department unless otherwise specifically mentioned) and the contractor shall fix the same at time of casting of concrete, stone work & brick work, if required and nothing extra shall be payable on this account.
38. All materials brought at site shall be got checked by the Engineer-in-Charge or his any authorized supervisor staff on arrival at site and before use.
39. The contractor shall conduct work so as not to interfere with or hinder the progress or completion of the work being performed by other contractor(s) or by the Engineer-in-Charge and shall as far as possible arrange his work and shall place and dispose of the materials being used or removed so as not to interfere with the operations of other contractor or he shall arrange his work with that of the others in an acceptable and coordinated manner and shall perform it in proper sequence to the complete satisfaction of others.
40. All Architectural drawings given in the tender other than those indicated in nomenclature of items are only indicative of the nature of the work and materials/fixings involved unless and otherwise specifically mentioned. However, the work shall be executed in accordance with the drawings duly approved by the Engineer-in-Charge.

41. Samples of all materials and fittings to be used in the work in respect of brand manufacturer and quality 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. Articles bearing BIS certifications mark shall only be used unless no manufacturer has got BIS mark for the particular material. Any material/fitting whose sample has not been approved in advance and any other unapproved material brought by the contractor shall be immediately removed as soon as directed.
42. The rates for all items of work shall unless clearly specialized otherwise include cost of all labour, material tools and plants and other inputs involved in the execution of the item.
43. The contractor (s) shall quote all-inclusive rates against the items in the schedule of quantities and nothing extra shall be payable for any of the conditions and specifications mentioned in the tender documents unless specifically specified otherwise.
44. Unless otherwise specified in the schedule of quantities the rates for all items shall be considered as inclusive of pumping/baling out water, if necessary, for which no extra payment shall be made. This condition include water from any source such as inflow of flood, surface and sub-soil water etc. and shall apply to the execution in any season.
45. The rates for all items in which the use of cement is involved is inclusive of charges for curing.
46. The foundation trenches shall be kept free from water while works below ground level are in progress.
47. The work shall be executed and measured as per metric dimensions given in the schedule of quantities, drawings etc. (FPS units wherever indicated are for guidelines only).
48. Payment for items of “RCC work”, brick work and concrete work above different floor shall be made at the rates provided for those items. For operation of these rates, the floor level shall be considered as top of the main structural slab in that floor viz. top of RCC slab in main room and not top of any sunk or depressed floor for lavatory slabs.
49. The rates of items of flooring are inclusive of providing sunk flooring in Bathrooms, kitchen, etc. and nothing extra on this account shall be payable.
50. The contractor shall provide at his own cost suitable weighing, surveying, levelling and measuring equipment's as may be necessary at site for checking. All such equipment's shall be got calibrated in advance from the reputed laboratory suggested by the Engineer-in-Charge. Nothing extra shall be payable on this account.
51. On completion of work, the contractor shall submit at his own cost four prints of “as built” drawings to the Engineer-in-Charge within 30 days of completion of work. These drawings shall have the following information: -
 - a. Route of all piping and their diameters including soil waste pipes & vertical stacks.
 - b. Ground and invert levels of all drainage pipes together with locations of all manholes and connections up to outfall.
 - c. Route of all water supply lines with diameters, location of control valves, access panels etc.
52. Submission of copy of all test registers, Materials at site register along with each alternate Running Account Bill and Final Bill shall be mandatory. These registers should be duly checked by AE (P) in Division office and receipts of register should also be acknowledged by Account Officer by signing the copies and register to confirm receipt in Division office.
53. If all the test registers and hindrance register is not submitted along with each alternate R/A bill & Final Bill, it will be responsibility of EE & AAO that no payment is released to the contractor.
54. Frequency of Testing: All mandatory tests shall be carried out as per frequency and procedure prescribed in CPWD specification/particular specifications given in this tender document and as and when directed by the Engineer-in-Charge.
55. Secured Advances

- 55.1 Secured Advances on the security of Bonafide materials brought at site shall be made in accordance with the provision of clause 10 B (i) of the GCC 2023 for construction works.
- 55.2 However, Bonafide materials on which secured advance have been given shall be incorporated/incorporation started on the work within 3 months of payment of secured advance. Such secured advance shall be recovered in full from the next payment made to the contractor.
- 56. Recycling, Reuse and Management of C&D Waste**
- 56.1 Fly ash bricks/blocks of recycled C&D Waste/AAC blocks are to be used mandatorily in masonry work for non-structural members.
- 56.2 20 % recycled sand and 20% recycled aggregate conforming to IS: 383-2016 may be used in non-structural elements.
- 56.3 RMC plants shall be mandated for using 20 % recycled sand and 20% recycled aggregate conforming to IS: 383-2016 in RMC supply for non-structural elements.
- 56.4 Precast tiles manufactured by using 20% of recycled materials from C&D plants containing recycled sand and aggregate conforming to IS: 383-2016.
- 56.5 RMC plant will be approved which have MoU/ agreement with the C&D waste processing plant, for use of recycled coarse and fine aggregates conforming to IS: 383-2016 in the manufacturing of lean concrete.
- 56.6 For sand filling (e.g. sand filling under floors, behind retaining walls, approach roads etc.), only manufactured sand obtained from C&D waste processing plant conforming to IS: 383-2016 will be used.
- 56.7 CC blocks, Paver blocks, Kerb Stones, Concrete tiles on footpaths etc. to be used in the works, will utilize recycled materials obtained from C&D waste processing plants conforming to IS: 383-2016.
- 56.8 For cement plaster, the manufactured sand obtained from C&D waste processing plant conforming to IS: 383-2016 will be used.
- 56.9 Quarterly demands should be shared in advance with operators for planning and scheduling plant operations by the contractors. This is issued with the approval of DG CPWD. d&6
57. The Contractor shall give the Engineer-in-charge on the 4th day of each month, a progress report along with pictorial photographs (softcopies as well as hard copies) of the work done during the previous month. The progress of work will be reviewed periodically by the Engineer-in charge with the contractor and short falls, if any, sorted out. The contractor shall there upon take such action as may be necessary to bring back his work to schedule without additional cost to the department.

Note 1: The special conditions detailed above are in addition to general/ other/ additional conditions as specified elsewhere in tender document.

Note 2: Nothing extra shall be paid on account of these special conditions.

ADDITIONAL CONDITIONS

1. Except for the items, for which Particular Specifications and detailed specifications are given herein or where it is specifically mentioned otherwise in this bid document, the work shall generally be carried out in accordance with the CPWD Specifications (Civil, E&M, Horticulture, etc. - hereinafter to be collectively referred to as 'CPWD Specifications') mentioned in Schedule F. Wherever CPWD Specifications are silent, the latest BIS Codes/Specifications, National Building Code-2016, MoRTH Specification, Manufacturers Specifications, Sound Engineering practices or well-established local construction practices as decided by the Engineer in charge shall be followed.
2. **Discrepancies and Order of Precedence in Contract Documents:**
As mentioned in this tender document.
 - 2.1 **Reporting Discrepancies:**
 - 2.1.1 If there is any discrepancy or conflict in the contract documents or between sections, the Contractor shall bring this to the notice of the Engineer in charge. The Engineer in charge will clarify the discrepancy, and their decision shall be final, binding, and conclusive. The Contractor shall execute the work without any dispute following this decision, and no claims regarding this issue will be entertained at any point of time.
 - 2.1.2 If the Contractor fails to bring the discrepancy or conflict to the notice of the Engineer in charge and proceeds with the work based on the approved Good for Construction (GFC) drawings, any claims raised by the Contractor regarding the discrepancy after the work's completion will not be entertained under any circumstances.
 - 2.1.3 Any changes in the scope of work or execution of additional works carried out by the Contractor without prior notification to and approval from the Engineer in charge will result in such claims being disallowed in the future. The Contractor is responsible for obtaining formal approval before proceeding with any deviations or additional work.
 - 2.2 **Resolution of Discrepancies:**
 - 2.2.1 If any variation or discrepancy arises among the various sections of the contract documents (e.g., drawings, specifications, codes, regulations, standards, etc.), the Contractor shall immediately notify such discrepancies to the Engineer in charge. **The richer provisions or the decision of the Engineer in charge will be final, binding, and conclusive.**
 - 2.2.2 No claim by the Contractor will be entertained after the Engineer in charge has clarified the issue. The Contractor shall not take advantage of clerical, grammatical, or typographical errors in the documents, including the Schedule of Quantities, Specifications, or any other provisions
 - 2.3 **Dimensions and Drawings:**
 - 2.3.1 In case of discrepancies in dimensions (e.g., Length, Width, Height) mentioned in different contract documents, the dimensions shown on the drawings will prevail.
 - 2.3.2 Detailed drawings shall take precedence over smaller-scale drawings.
 - 2.3.3 Figured dimensions shall take precedence over scaled dimensions.

Mutual Complementarity: All documents forming part of the contract shall be considered mutually complementary. Any requirement in one document is deemed to be required across all

documents unless explicitly excluded.

Language Discrepancies: If there is any conflict or difference between the Hindi version and the English version of any condition in the contract, the English version shall prevail.

Authority on Conflicting Provisions: In case where conflicting or varying provisions exist in this document, interpretation given by the Chief Engineer, Gandhinagar or successor thereof shall be final and binding on the Contractor.

Errors in Description or Quantities:

- i. Any error in description, quantity or rate in the Schedule of Quantities, or any omission from the same, shall not invalidate the contract or relieve the Contractor from executing the work as per the drawings, specifications, and the other contract documents.
- ii. The Contractor remains obligated to complete the works irrespective of such discrepancies.

Reference to Indian Standards:

- i. Any reference to Indian Standard Specifications (IS) shall imply the latest version of that standard, including all revisions and amendments issued by the Bureau of Indian Standards up to previous day of last date of submission of tenders.
- ii. The Contractor on his own expenses shall ensure that all relevant specifications, publications of the BIS/MoRTH applicable on the work are available at site office.

Finality of Engineer in charge's Decision:

- i. The Engineer in charge's decisions regarding the interpretation of the contract, discrepancies, or any other ambiguities in the documents, specifications, or works will be final and binding on the Contractor. Any doubts or queries should be communicated immediately to the Engineer in charge and no claims or disputes shall be entertained after clarification given by the Engineer in charge.

3. General Conditions

- 3.1 The safety and security of the completed buildings including all fixtures and fittings will be the responsibility of the contractor till these are handed over to the client department. After completion of the work, the handing / taking over process may take time. Nothing extra shall be payable on this account.
- 3.2 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.
- 3.3 Any dispute arising out of this tender including dispute related to encashment of any Bank guarantee/e-bank guarantee/FDR etc. shall be subject to the jurisdiction of courts of Gandhinagar only.
4. **Site Condition: The tenderer shall acquaint himself with the site of work and see the approaches to the site. In case any approach from main road is required at site or existing approach is to be improved and maintained for cartage of materials by the contractor, the same shall be provided, improved and maintained by the contractor at his own cost.**

5. Precautionary Measures:

- 5.1 Contractor shall take all precautionary measures to avoid any damage to adjoining property. All necessary arrangements shall be made at his own cost. **The contractor shall take all precautions to prevent his workmen and employees from removing and damaging any Flora (plant/vegetation) from the campus / site.**

- 5.2 The contractor shall take all precautions to avoid accidents by exhibiting necessary caution boards day and night, speed limit boards, red flags, red lights and providing barriers. He shall be responsible for all damages and accidents caused to work due to negligence on his part. No hindrances shall be caused to traffic, during the execution of the work. In case of any accident of the labourers / contractual staff, the entire responsibility will rest on the contractor and any compensation under such circumstances, if becomes payable, shall be entirely borne by the contractor.
- 5.3 The contractor, his authorized representative, workmen etc. shall strictly observe orders pertaining to fire precautions prevailing in the area.
- 5.4 The work is to be executed for **SB, Rajkot** the owner department. The Contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the occupants of the adjacent properties and to the public in general. The Contractor shall take all care, as not to damage any other adjacent property in the campus or other services running adjacent to the plot. **If any damage is done, to any property of the owner department the same shall be made good by the Contractor at his own cost and to the entire satisfaction of the Engineer in charge. The Contractor shall use such methodology and equipment for execution of the work, so as to cause minimum environmental pollution of any kind during construction, to have minimum construction time and minimum inconvenience to occupants and also to the occupants of the buildings on the adjacent plot and public in general, etc. He shall make good at his own cost and to the entire 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. Failing to which the damage to the owner department property will be made good by the Engineer in charge at the risk and cost of the contractor. The risk and cost amount will be recovered from the next Running account bill of the contractor.** Further, the Contractor shall take all precautions to prevent any pollution of streams and waterways. All waste or superfluous materials shall be carted away by the Contractor, entirely to the satisfaction of the Engineer in charge. 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 occupants / users of adjoining buildings. No claim whatsoever on account of site constraints mentioned above or any other site constraints not specifically stated here, shall be entertained from the Contractor. **Therefore, the Contractors are advised to visit the site and get firsthand information of site constraints. Accordingly, they should quote their tenders. Nothing extra shall be payable on this account.**

6. General Cleanliness of the Site and Stacking & Storage of Materials

- 6.1 The site of work shall be always kept clean in general strictly adhering to approved job layout and Green building parameters. The Contractor shall take all care to prevent any water-logging at site. The waste water shall not be allowed to be collected at site. It may be directly pumped into the public drainage system with prior approval of the concerned authorities. For discharge into public drainage system, necessary permission shall be obtained from concerned 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.
- 6.2 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, compound wall, services etc are to be constructed.

- 6.3 For construction works which are likely to generate malba / rubbish, contractor shall dispose of malba, rubbish & other unserviceable materials and wastes at his own cost to the notified/specified dumping ground and under no circumstances these shall be stacked / dumped even temporarily, outside the construction premises.
- 6.4 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.

7. **Setting Out**

- 7.1 The contractor shall establish, maintain and assume responsibility for grades, lines, levels, and bench marks. He shall report any errors or inconsistencies regarding grades, lines, levels, dimensions 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.
- 7.2 The Contractor shall carry out a survey of the work area, at his own cost, setting out the buildings in consultation with the Engineer in Charge & proceed further. Any discrepancy between the architectural drawings and the actual layout at the site shall be brought to the notice of the Engineer in Charge. It shall be the responsibility of the Contractor to ensure correct setting out of alignment. Total station survey instruments only shall be used for layout, fixing boundaries, and center lines, etc., along with the Theodolites. Nothing extra shall be payable on this account.
- 7.3 If at any time, any error in the respect of setting out appears during 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.
- 7.4 The contractor shall ascertain himself site levels with respect to GTS benchmark from the concerned authorities. The contractor shall construct a permanent bench mark and other reference points at the site of work and maintain those throughout the execution of the work. These benchmarks/reference points shall be got checked by the Engineer in Charge or his authorized representatives. The work at different stages shall be checked with reference to stated points maintained for the intended purpose. Nothing extra shall be payable on this account.
- 7.5 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 obligations 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.
- 7.6 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 instructions and satisfaction of the Engineer in Charge.

8. **Electricity & Telephone Connections**

- 8.1 Arrangement of temporary telephone connection, electricity required by the Contractor for execution of the work including testing, commissioning of all the civil as well as E&M works/installations shall be made by him at his own cost. Necessary permissions shall be obtained by him directly from concerned authorities, under intimation to the Department. All initial costs, 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 / bye-laws in this regard. Nothing extra shall be payable on this account.

- 8.2 The contractor shall obtain environmental and pollution clearance for the diesel generators. Nothing extra shall be paid on this account.
- 8.3 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. Security deposit for the work shall be released only after No Dues Certificates are obtained from CPWD authorities and also from the local Authorities from whom temporary electric/water/telephone connection have been obtained by the Contractor. Nothing extra shall be payable on this account.
- 8.4 **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 arrangements of stand-by water & electrical 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.
9. Scaffolding & Staging
- 9.1 Wherever required for the execution of work, all the scaffolding shall be provided and suitably fixed by the contractor. **The scaffolding 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. Scaffolding shall be sufficient and suitable 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 during erection and dismantling of scaffolding.
10. **Co-ordination with Other Agencies**
- 10.1 The Contractor shall conduct his work in a manner that does not interfere with or hinder the progress of the work being performed by other Contractors or by the Engineer in Charge. As far as possible, the Contractor shall arrange his work and placement to avoid interference with the operations of other Contractors, and shall coordinate his work with that of others in an acceptable and coordinated manner, performing it in proper sequence.
- 10.2 Other agencies may simultaneously execute their works. The Contractor shall coordinate with other agencies and provide all necessary facilities to them. The Contractor shall leave recesses, holes, openings, trenches, etc., as required for related works inserts, sleeves, brackets, conduits, base plates, clamps, etc., as specified elsewhere in the contract, shall be provided and fixed at the time of casting of concrete, stone work, and brick work, if required. No extra payment shall be made for this.
- 10.3 The contractor shall resolve all the disputes with other agencies and contractors on his own. The Engineer in Charge shall not act as an intermediary or arbitrator. The Contractor shall indemnify the Department against any claims arising from such disputes.
11. **Procurement of Materials**
- 11.1 All materials shall be brought to the site as per the program finalized with the Engineer in Charge.
- 11.2 The Contractor shall procure required materials in advance to allow sufficient time for testing and approval before use in the work.

12. **Protection of Existing Services & buildings and Materials**

- 12.1 Existing drains, pipes, UG cables, over-head wires, sewer lines, water lines and similar services encountered in the course of the execution of work shall be protected against the damage by the contractor at his own expense. **Contractor should take all safety precautions to prevent any accident or untoward incident in case the High Voltage service lines are passing through / by the side of the site and Nothing extra is payable on this account.** 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. In case temporary supporting of such services is required to facilitate the work, the same shall be done by the contractor at no extra cost.
- 12.2 In case the existing services are to be shifted permanently, then before dismantling the existing services, alternate/diversion of service lines has to be laid by the contractor so that there is no interruption in use of existing services. The contractor has to plan the alternate suitable route for diversion/shifting of service lines and get the same approved from the Engineer in charge before starting shifting of services. Nothing extra shall be paid except the payment of dismantling and laying of new service lines as per conditions of contract.
- 12.3 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 legislation. 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.
- 12.4 The contractor shall be responsible for the watch and ward / guard of the buildings, safety of all fittings and fixtures provided by him against pilferage and breakage till the building is physically handed over to the client department. No extra payment shall be made on this account.
- 12.5 The contractor shall be fully responsible for the safe custody of materials brought by him/ issued to him even though the materials may be under double lock key system.

13. **Rates and other conditions for payment**

The rates quoted by the Contractor are deemed to be inclusive of the following:

- 13.1 Site clearance, setting out work, profile, establishment of reference bench mark(s), taking spot levels, construction of all safety and protection devices, barriers, barricading, signages, labour safety, welfare & training measures, preparatory works, working during monsoon, working at all depths, height, lead, lift and location etc., until / unless specified otherwise, implementation of Green building norms to achieve desired Green Rating etc. and any other incidental works required to complete this work and making the buildings and service installation functional. Nothing extra shall be payable on this account.
14. Any legal or financial implications resulting out of disposal of earth shall be sole responsibility of the contractor. Nothing extra over the schedule shall be paid on this account.
15. Any cement slurry added over base surface (or) for continuation of concreting for better bond is deemed to have been built in the items.
16. The percentage quoted by the tenderer, shall be inclusive of all taxes including GST and levies applicable in respect of this contract shall be payable by the contractor and Government will not entertain any claim whatsoever in respect of the same.

17. 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 / MC etc. 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. It is clarified that the extra sewerage charges (one time charges for commencement of work) required to be paid to the Municipal Corporation / other statutory bodies shall be paid by the department and need not be considered 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. All statutory taxes, levies, charges (including GST, 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 Contractor shall arrange to give all notices as required by any statutory / regulatory authority and obtain all requisite licenses wherever required and shall pay to such authority all the fees that are 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.**

18. Royalty at the prevalent rates Seigniorage fee shall have to be paid by the contractor **on all the boulders, stone aggregate, brick aggregate, shingle, coarse or fine sand, earth, gravel, bajri etc.** collected by him for the execution of the work, directly to the competent Revenue Authority. Further, the contractor will submit proof of payment of full royalty to the competent authority. Nothing extra shall be payable on this account.
19. The Contractor shall assume all liability, financial or otherwise in connection with this contract and shall protect and indemnify the Department from any and all damages and claims that may arise on any account. The Contractor shall indemnify the Department 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.
20. The Contractor shall make all necessary arrangements for protecting from rain or likewise extreme weather conditions, the work already executed and for carrying out the further work, during monsoon including providing and fixing temporary shelters, protections etc. No hindrance will be considered on account of normal monsoon rains as the period of completion mentioned in the schedule-F of the tender document is inclusive of rainy season. Nothing extra shall be payable on this account.
21. In case of flooding of site on account of rain or any other cause and any consequent damage, whatsoever, no claim financially or otherwise shall be entertained notwithstanding any other provisions elsewhere in the contract agreement. Also, the Contractor shall make good, at his own cost, the damages caused, if any. Further, no claims for hindrance shall be entertained on this account.

22. No payment shall be made for any damage caused by fire, 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. The contractor shall maintain all the work in good condition at his own cost till the completion of the entire work.
23. The ESI and EPF contribution on the part of the employer in respect of this contract shall be paid by the contractor. These contributions on the part of the employer paid by the contractor shall be reimbursed by the Engineer in charge to the contractor on actual basis. The applicable and eligible amount of EPF & ESI shall be reimbursed preferably within 7 days but not later than 30 days after submission of documentary proof of payment to Engineer in charge clearly indicating the names of workmen and their Aadhar numbers duly correlated with the Register of persons employed / Shaller roll register / Wage Register as required under CPWD Contractors Labour Regulations.
24. **Foreign Exchange**
- 24.1 No foreign exchange shall be made available by the Department for importing (purchase) of equipment, plants, machinery, materials of any kind or any other items if required to be carried out during execution of the work. No delay and no claim of any kind shall be entertained from the Contractor, on account of variation in the foreign exchange rate.
- 24.2 The contractors have to quote the corresponding imported items in “Indian Rupees” in the Schedule of Quantities which shall include all incidental charges including freight, taxes including GST, import duties, fluctuations in currency rates. No extra payment will be made over and above the quoted rates.
25. **Tools & Plant**
- 25.1 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.
26. **Water Supply & Sanitary Installations & Testing**
- 26.1 Water tanks, taps, sanitary, water supply and drainage pipes, fittings and accessories should conform to approved manufacturers specifications where CPWD Specifications are not applicable. The contractor should get the materials (fixtures/fittings) tested from approved labs wherever required at his own cost.
- 26.2 The contractor shall give performance test of the entire installation(s) before the work is finally accepted and nothing extra whatsoever shall be payable to the contractor for the test.
27. **RECORDING OF HINDRANCES**
- 27.1 **Hindrance register as per extant rule will be maintained.** Whenever any hindrance comes to the notice of the contractor he should at once bring it to the notice of the Engineer in charge who will resolve the same at the earliest. Hindrances are to be recorded as per the extant instructions of the department.
- 27.2 The Contractor shall apply for EOT if the date of completion is to be extended because of such hindrance.
28. **SECRECY**

- 28.1 The contractor shall take all necessary steps to apprise all the persons employed on any work in connection with the contract that the Indian Official Secrets Act 1923 applies to them & will continue so to apply even after the execution of such works under the contract.
- 28.2 The contractor shall employ only Indian Nationals after verifying their antecedents and loyalty. The contractor shall, on demand submit list of his agents, employees and workmen concerned & shall satisfy as to the bonafide's of such people. **The contractor at his own cost shall get the antecedents of his workmen verified from the jurisdictional Police Station and submit the same to the Engineer in charge. Nothing extra shall be paid on this account.**
- 28.3 The contract is confidential and shall be strictly confined to the contractor's own use (except so far as confidential disclosure to sub-contractors or suppliers as necessary) and to the purpose of the contract.
- 28.4 All documents, copies thereof & extracts there from furnished to the contractor shall be returned to the Engineer in charge on the completion of the work / works or the earlier determination of the contract.
29. **LABOUR AND SECURITY**
- 29.1 The Contractor shall obtain necessary labour license and other requisite licenses from competent authorities
- 29.2 The contractor shall display all permissions, licenses, registration certificates, rate chart and other statements under various labour laws and other regulations applicable to the works at the site office.
- 29.3 The contractors are required to provide such accommodation for workmen as is acceptable to local bodies & Green building norms and nothing extra shall be paid on this account.
- 29.4 Contractor has to follow the security requirements of the campus and obtain necessary entry passes for the labour and vehicles and follow security checks at entry / exit gates, restriction on movement of vehicle, restricted timings of working etc. The Department however shall assist the contractor in obtaining such passes for movement of vehicles and labour. No claim whatsoever shall be entertained on account of delay in entry of vehicles and labour including restrictions in working hours, if there is any.
- 29.5 The contractor & his work people shall observe all relevant rules regarding security promulgated in which work is to be carried out by the Controlling Administrative Authority of the campus/area (hereinafter referred to as "Administrator").
- 29.6 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 withstanding 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.
- 29.7 If the work is carried out in more than one shift or at night, no claim or extra payment on this account shall be entertained.
- 29.8 No movement of material / vehicles out of site of work shall be allowed during night hours unless specific permission is obtained from the Engineer in charge.
- 29.9 In case if a separate entry to the site of work is needed, the contractor has to make all arrangement for making a separate entry gate and barricading of the working area to segregate/separate it from other areas on his own expenses.
- 29.10 In the event of restrictions imposed by the Security agency, CPWD, Traffic or any other 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 the contractor on such accounts. The loss of time on these accounts, if any, shall have to be made

up by augmenting additional resources whatever required. Nothing extra shall be payable on this account.

30. **PROGRESS CHART**

- 30.1 The contractor shall submit a Time and Progress Chart for each mile stone as per clause-5 of the GCC.
- 30.2 **Time and Progress Chart** for the work done during previous month shall be submitted to the **Engineer in charge within the period specified in GCC, failing which recovery as specified at Schedule-F shall be made.** In case no amount is mentioned in schedule-F, the amount will be decided by the Engineer in charge and the same shall be final and binding on the contractor.
- 30.3 The program chart should include the following:
- 30.3.1 Descriptive note explaining sequence of various activities.
- 30.3.2 BAR CHARTS / Project Program Chart prepared in mutually agreed software or in other format decided by Engineer in charge which will indicate resources in financial terms, manpower and specialized equipment for every important stage.
- 30.3.3 Program for procurement of materials by the contractor.
- 30.3.4 Program for arrangement and deployment of skilled as well as unskilled manpower to achieve targeted progress.
- 30.3.5 Program of procurement of machinery / equipment having adequate capacity should commensurate with the quantum of work to be done within the stipulated period. In addition, to achieve the progress of work as per programme, the contractor shall bring at site adequate shuttering material required for cement concrete and RCC works etc. The contractor shall submit shuttering schedule adequate to complete the structure work within the laid down physical milestones.
- 30.3.6 Programme for achieving milestones.
- 30.4 The submission of such programme or such particulars and subsequent approval by the Engineer in charge shall not relieve the contractor of any of the duties or responsibilities under the contract. This is without prejudice to the right of Engineer in charge to take action against the contractor as per terms and conditions of the agreement.

31. **PROGRESS AND MONITORING OF WORK**

- 31.1 The Contractor should submit a monthly progress report to the Engineer in charge by 5th of every month. The progress report shall contain the following, apart from whatever else may be required as specified:
- 31.1.1 Progress chart of the various components of the work that are planned and achieved, for the month as well as cumulative achievement up to the month, with reason for deviations, if any in a tabular format.
- 31.1.2 Construction schedule of the various components of the work through a bar chart for the next three months (or as may be specified by Engineer in charge), showing the micro milestones, targeted tasks and up to date progress. At least 10 digital photographs showing all the parts of construction site along with at least 5 minutes video of executions of different items in soft copy has to be submitted in every monthly progress report.
- 31.1.3 Plant and machinery statement, indicating those deployed in the work.

- 31.1.4 Man-power statement, indicating individually the names of all the staff deployed on the work, their Aadhar numbers along with their designations. Number of skilled workers and unskilled workers deployed on the work and their location of deployment.
- 31.1.5 Financial statement, indicating the broad details of all the running account payment received up to date, such as gross value of work done, advances taken, recoveries effected, amount withheld, net payments details of Cheque payment received, extra / deviations items if any, etc.
- 31.2 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.
- 31.3 The Contractor shall do proper sequencing of the various activities by suitably staggering the activities within various pockets in the plot so as to achieve early completion. The agency may deploy adequate equipment, machinery and labour as required for the completion of the entire work within the stipulated period specified. Besides, ancillary facilities created to execute the work should commensurate with requirement to complete the entire work within the stipulated period. 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 conditions 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 work shop 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.
- 31.4 All material shall only be brought at site as per program finalized with the Engineer in charge.
32. **PROJECT REVIEW MEETINGS**
- 32.1 The contractor, immediately on award of work, shall submit details of his key personnel to be engaged for the work at site. In addition, he shall furnish the Engineer in charge detailed organization involved with the work.
- 32.2 The contractor shall present the programme and status at various review meetings as required.
- 32.3 Monthly Review Meetings: The Chief Engineer or successor will conduct monthly review meetings which shall be attended by Project in charge and the Management Representative along with their associate contractors & specialized agencies executing the E&M works who can take independent decisions along with CPWD, client's representatives. Tentative agenda of the stated meeting shall be-
- 32.3.1 Progress Status/ Material procurement/ Labour deployment
- 32.3.2 Completion Outlook
- 32.3.3 Major hold ups/slippages
- 32.3.4 Assistance required
- 32.3.5 Critical issues / bottlenecks in execution
- 32.3.6 Any decision on queries raised by the Contractor
- 32.3.7 Anticipated cash flow requirement for next two months

33. **ENGAGING SPECIALISED AGENCIES FOR WORKS**

- 33.1 The contractor shall engage specialized agencies having adequate technical capability and experience as specified in the tender document.
- 33.2 In case, the items of work for which specialized agency is to be engaged or the criteria of engaging specialized agencies is not mentioned in the contract document, it shall be decided by the Engineer in charge and his decision shall be final and binding on the contractor.

34. **PREFERRED MAKES (BRANDS) OF MATERIALS:**

- 34.1 Preferred makes (brands) of materials, wherever applicable and in the scope of work, are given in the tender document for guidance. Alternate equivalent makes (brands) may also be used subject to:
- 34.1.1 The contractor shall submit all documents to the satisfaction of the Engineer in charge to prove that the alternate make meets the contract specifications in all respect and is equivalent to the specified make.
- 34.1.2 In case, the equivalent model so approved, is cheaper than the Makes (Brands) 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

35. **SAFETY MEASURES**

- 35.1 The contractor shall follow, to the letter and spirit, safety code laid down in GCC (General condition of contract) for Construction work 2023.
- 35.2 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 through a dedicated & qualified safety manager. Nothing extra shall be paid on this account.
- 35.3 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.

36. **Warning / Caution Boards**

- 36.1 All temporary warning / caution boards / glow signage displays 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.
- 36.2 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.

37. **Sign Boards**

- 37.1 The Contractor shall provide and erect a display board of size and shape as required and paint over it, in a legible and workmanlike manner, the details about the salient features of the project

and other details as required by the Engineer in charge. The sign board shall be erected at approved location.

38. **APPLICABLE PERMITS**

- 38.1 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 including GST 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.
- 38.2 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.

39. **LOCAL BYE-LAWS**

- 39.1 The building work shall be carried out in the manner complying in all respects with the requirements of relevant bye-laws of the local body under the jurisdiction of which the work is to be executed or as directed by the Engineer in charge and nothing extra shall be paid on this account.
- 39.2 Some restrictions may be imposed by the local police etc. on the working time and for movement of labour, materials etc. the contractor shall be bound to follow all such restrictions/instructions and nothing extra shall be payable on this account.
- 39.3 The contractor shall not stack building material / malba on the road or on the land owned by any other authority, as the case may be. In case, the Contractor is found stacking the building material / malba as stated above, he shall be liable to pay the stacking charges as may be levied by local body or authority and also to face penal action as per the rules, regulations and bye-laws of the said body or authority. The Engineer in charge shall be at liberty to recover the 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 or Retention Money in respect of this contract or any other contract.

40. **FINAL TESTING OF THE INSTALLATION**

- 40.1 The Contractor shall demonstrate trouble free functioning of all the Civil and E & M installations and services. The Engineer in charge or his authorized representatives shall carry out final inspection of the various Civil and E & M services and installations. Any defect(s) noticed during demonstration shall be rectified by the Contractor at his own cost to the entire satisfaction of the Engineer in charge. Nothing extra shall be payable on this account.

41. **OCCUPATION CERTIFICATE**

- 41.1 The contractor shall obtain occupation certificates / completion certificates from local bodies including getting the required site visits conducted by such authorities with a view to obtain the same. The final payment will be released to the contractor after submission of Occupancy Certificate from the local Municipal Corporation / Panchayat / Local Body. This activity also includes obtaining lift license, Fire Clearance Certificate from the concerned Fire Services Department.

42. **ROAD**

- 42.1 **The contractor shall at his own expense and risk arrange for construction of approach roads to the site of the work including land required for carrying out of all jobs connected with the execution & completion of the work.** If during the construction, it becomes necessary

to remove or shift the stored materials shed workshop, access roads, etc, to facilitate execution of any other work by any other agency, the contractor shall carry out the removal of shifting as directed by the Officer in charge and no claim whatsoever, shall be entertained on this account.

43. **QUALITY ASSURANCE / TESTING OF MATERIALS**

- I. Water tanks, taps, sanitary, water supply & drainage pipes, fittings & accessories should conform to bye-laws of local body / corporation, where CPWD specifications are not available. The Contractor (s) should engage approved, licensed plumbers for the work and get the materials (fixtures / fittings) tested, by the municipal Body / Corporation authorities wherever required at his own cost. The Contractor shall submit for the approval of the Engineer in charge, the name of the plumbing agency (along with their working experience in recent past) proposed to be engaged by him.
- II. With each Running Bill, the details of test carried out shall be submitted by the contractor as per Performa given in the tender document.
- III. All Samples of materials including Cement Concrete Cubes shall be taken jointly with Contractor by representative of the Engineer in Charge. All the assistance shall be provided by the contractor. He shall be responsible for safe custody of samples to be tested at site.
- IV. All the test in field lab setup at Construction Site shall be carried out by the Engineering Staff deployed by the contractor which shall be witnessed by representative of the Engineer in Charge.
- V. The Contractor or his authorized representative shall associate in collection, preparation, forwarding and testing of such samples. In case he or his authorized representative is not present or does not associate him, the result of such tests and consequences thereon shall be binding on the Contractor. The Contractor or his authorized representative shall remain in contact with the Engineer in charge or his authorized representative associated for all such operations. No claim of payment or claim of any other kind, whatsoever, shall be entertained from the Contractor.
- VI. Testing of material in any Govt. Lab/Public Undertaking Lab/ IIT or NIT Lab /Government Engineering College is allowed by Engineer in charge , provided these labs have all necessary facility to carry out the required tests. Private laboratories as approved by the SDG Mumbai, if any, shall also be allowed.
- VII. In case there is any discrepancy in frequency of testing as given in list of mandatory tests and that in individual sub-heads of work as per CPWD Specifications higher of the two frequencies of testing shall be followed and nothing extra shall be payable on this account.
- VIII. 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.
- IX. In addition to the supervision of work by CPWD engineers, the Architects deployed by the Client/CPWD, CPWD Quality Control / Assurance Team, Third-party Quality Control/ Assurance Team, Vigilance team etc. 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 CPWD 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.

- X. The Contractor shall submit, within 90 days after the date of award of work, a detailed and complete method statement for the execution, testing and Quality Assurance, of such items of works, as directed by the Engineer in charge. All the materials to be used in the work, to give the finished work complete in all respects, shall comply with the requirements of the specifications and shall pass all the tests required as per specifications as applicable or such specifications / standards as directed by the Engineer in charge. However, keeping the Quality Assurance in mind, the Contractor shall submit, on request from the Engineer in charge, his 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.
- XI. 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.
- XII. The list of Laboratory/ Field equipment referred in the contract document is to be arranged and maintained by the contractor at the site of work. In case the equipment required for any test is not available at site, the department shall get the test conducted from the third party. However, in that event, all expenditure to be incurred for testing of samples i.e. collection, packaging, sealing, transportation, loading, unloading, etc. including testing charges shall be borne by the contractor irrespective of the results. The cost of material used for testing shall also be borne by the contractor.

44. **SAMPLE OF MATERIALS**

- i. All materials 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 per **List of Preferred Brands / Makes / Manufacturers** given in the tender document for approval of Engineer in charge. For all other items, 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 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 tests, the frequency of testing 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. Cost of all test Charges shall be borne by the contractor.

45. **Field Laboratory:**

- I. **Laboratory at site:** The contractor shall establish a testing lab at site and provide testing equipment and materials for the field tests mentioned in the list of mandatory tests given in CPWD Specifications Vol. 1 & 2. Nothing extra shall be payable to him on this account. The representatives of the department shall be at liberty to inspect the testing facilities at site and conduct testing at random in consultation with Engineer in charge. The contractor shall provide all necessary facilities for the purpose.

Not less than 90% tests for material be performed at site lab, however at least 10% testing of materials shall be got done from external laboratories. However, for the tests to be carried out by the external laboratories, the contractor shall supply free of charge all the materials required for testing, including transportation.

All expenditure to be incurred for testing of samples i.e. collection, packaging, sealing, transportation, loading, unloading, etc. including testing charges shall be borne by the contractor. The cost of material used for testing shall also be borne by the contractor.

If the tests which were to be conducted in the site laboratory are conducted in other laboratories for any the reasons the cost of such tests shall be borne by the contractor.

- II. **Other Laboratories:** The contractor shall arrange carrying out all tests required under the agreement through the laboratory as approved by the Engineer in charge and **shall bear all charges in connection therewith including charges for testing for all materials including cement, steel** for which separate condition is provided in the tender document.

All expenditure to be incurred for testing of samples i.e. collection, packaging, sealing, transportation, loading, unloading, etc. including testing charges shall be borne by the contractor. The cost of material used for testing shall also be borne by the contractor.

46. Maintenance of Site Registers:

- I. All the Site Registers including Tests registers for tests to be carried out at construction site or in outside laboratories shall be maintained by the contractor which shall be issued to the contractor by Engineer in charge in the same manner as being issued to CPWD field staff.
- II. The various registers to be issued to the contractor are:
 - i. Materials at site account register.
 - ii. Cement register.
 - iii. Master test registers.
 - iv. Cube test register.
 - v. Paint register.
 - vi. Inspection register.
 - vii. Drawing register.
 - viii. Chemical Registers.
 - ix. Any other registers as required
- III. All the entries in the registers will be made by the designated engineering staff of the contractor and same should be regularly reviewed by JE/AE/EE.
- IV. Submission of copy of all test registers, material at site register along with each alternate running account bill and final bill shall be mandatory. These registers should be duly checked by AE(P) in division office.

47. Removal of Rejected / Sub-standard Materials:

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 at the site of work is rejected, entry thereof should invariably be made in the site order book under the signature of the AE/AEE 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/AEE against the original entry, giving the date of removal a 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.
- III. When it is not possible for the AE/AEE to be present at the site of work at the time of actual removal of the rejected/sub-standard materials from the site the required certificate should be recorded by the Junior Engineer and the AE/AEE should countersign the certificate recorded by the Junior Engineer.

48. **ADVANCE PAYMENTS:**
Contractor shall not divert any advance payments or part thereof for any work other than that needed for completion of the contracted work. All advance payments received as per terms of the contract (i.e. mobilization advance, secured advance against materials brought at site, secured advance 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..
49. **PANDEMIC & GRAP RESTRICTIONS:**
49.1 **Contractor shall comply all the Conditions, Procedures, Guidelines issued time to time by authority of Central/State Govt. in case of pandemic situations (e.g. COVID) and emergency measures imposed under Graded Response Action Plan (GRAP) to prevent deterioration of air quality. The Contractor shall quote the rates considering all these factors and nothing extra shall be paid on this account.**
50. The Contractor shall deploy T&P, Plant and Equipment required for execution of work within contract period. Schedule of deployment of the equipment shall be as per requirement of work for completion of work as per work program within stipulated time and contractor himself shall be responsible for their efficient use avoiding any idling. **No damages/compensation shall be payable on account of idle Manpower, Labor, T&P, Plant and Equipment and Loss of Profit etc. for whatsoever reason, not even for delay in work due to justified hindrances.**

SPECIAL CONDITIONS FOR CIVIL COMPONENT OF WORK

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.

1 SPECIAL CONDITIONS FOR CEMENT

i) The contractor shall procure Portland Pozzolana Cement (PPC) conforming to IS: 1489 (Part-1) from reputed manufacturers of cement, such as given in preferred manufacture or from any other reputed cement Manufacturer having a production capacity not less than one million tonnes per annum as approved by Chief Engineer Gandhinagar, CPWD, Gandhinagar. The tenderers may also submit a list of names of cement manufacturers which they propose to use in the work. The tender accepting authority reserves right to accept or reject name(s) of cement manufacturer(s) which they propose to use in the work. No change in the tender rate is accepted if the tender accepting authority does not accept the list of cement manufacturers, given by the tenderer, fully or partially. The supply of cement shall be made in 50 kg 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 the relevant BIS codes. In case the test results indicate that the cement arranged by the contractor does not confirm to the relevant BIS code the same shall stand rejected and shall be removed from the site by the contractor at his own cost with in a week's time of written order from the Engineer-in-Charge to do so.

If Portland Pozzolana cement or Portland slag cement is used, suitable modification in de-shuttering time etc. shall be done if need be as per specifications and standards and as directed by Engineer charge and nothing extra shall be in-payable on this account. No extra payment/deduction shall be made from the payment to the contractor for using any of the above type of cement. Portland Pozzolana Cement is to be used for RCC works only subject to fulfillment of conditions of circular No. CDO/SE(RR)/Flyash[MAN] 02 dated 09.04.09. However, if the contractor uses higher grade of cement or uses OPC only nothing extra shall be paid.

- a) IS:456-2000 Code of Practice for Plain and Reinforced Concrete (as amended up to 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) The specified grade of concrete shall be used in all structural elements made with RCC cast-in-situ / precast members respectively as mentioned in structural drawings.
- c) The mechanical properties such as modulus of elasticity, tensile strength, creep and shrinkage of fly ash mixed concrete or concrete using fly ash blended cements (PPCs) are not likely to be significantly different and their values are to be taken same as those used for concrete made with OPC.
- d) To control higher rate of carbonation in early ages of concrete both in fly ash admixed as well as PPC based concrete, water/binder ratio shall be kept as low as possible, which shall be closely monitored during concrete production. If necessitated due to low water/binder ratio, required workability shall be achieved by use of chloride free chemical admixtures conforming to IS: 9103. The compatibility of chemical admixtures and super plasticizers with each set OPC, fly ash and /or PPC received from different sources shall be ensured by trials.
- e) In environment subjected to aggressive chloride or sulphate attack in particular, use of fly ash admixed or PPC based concrete is recommended. In case, where structural concrete is exposed to excessive magnesium sulphate, fly ash substitution/content shall be limited to 18% by weight. Special type of cement with low C3A content may also be alternatively used. Durability criteria like minimum binder content and maximum water/binder ratio also need to be given due consideration in such environment.
- f) Wet curing period shall be enhanced to a minimum of 10 days or its equivalent. In hot & arid regions, the minimum curing period shall be 14 days or its equivalent.

- g) Subject to General Guidelines detailed out as above, PPC manufactured conforming to IS: 1489 (Part-I) shall be treated at par with OPC for manufacture of Design Mix Concrete for structural use in RCC.
- h) Till the time, BIS makes it mandatory to print the percentage age of fly ash on each bag of cement, the certificate from the PPC manufacturer indicating the same shall be insisted upon before allowing use of such cements in works.
- i) While using PPC for structural concrete work, no further admixing of fly ash shall be permitted.
- ii) The cement shall be brought at site in bulk supply of approximately 50 tonnes or as decided by the Engineer-in-charge.
- iii) The cement godown of the capacity to store a minimum of 2000 bags of cement shall be constructed by the contractor at the site of work for which no extra payment shall be made. Double lock provision shall be made to the door of the cement go down. 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.
- iv) The contractor shall be responsible for the watch and ward and safety of the cement godown. The contractor shall facilitate the inspection of the cement godown by the Engineer-in-charge at any time.
- v) The cement shall be got tested at a frequency of one test for 50 MT or part thereof, by Engineer-in-charge and shall be used on after satisfactory test results have been received. The contractor shall supply free of charge the cement required for testing including its transportation cost to the test laboratory. The cost of tests shall be borne by the contractor.
- vi) The actual issue and consumption of cement on work shall be regulated and proper accounts maintained as provided in respective clause of the contract. The theoretical consumption of cement shall be worked out as per procedure prescribed in respective clause of the contract and shall be governed by conditions therein.
- vii) 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.
- viii) Damaged cement shall be removed from site immediately by the contractor on receipt of notice in writing from the Engineer-in-charge. If he does not do so within three days of receipt of such notice, the Engineer-in-charge shall get it removed at the cost of the contractor.
- ix) Cement should be kept in godowns under double locks and keys and its consumption account invariably maintained, whether the cement is supplied departmentally or arranged by the contractor. A register should be maintained at the site for this purpose. This register should contain the columns as shown in Appendix-28. (CPWD Works Manual 2019). The pages of the register should be machine numbered. The cement godown and the register are required to be checked by the AE/AEE in- charge.

2. **SPECIAL CONDITIONS FOR STEEL REINFORCEMENT**

1. The Contractor shall procure IS marked Low Alloy TMT bars of minimum Fe-500D grade produced by manufacturers listed in preferred make or their authorized dealers. The procured steel should have following qualities: -

- i. Excellent ductility, bend ability and elongation of finished product due to possible refining technology.
- ii. Consumption of steel should be accurate as per design.
- iii. Steel should have no brittleness problem in finished product.
- iv. Steel should carry the quality of corrosion and earthquake resistance.
- v. Quality steel with achievement of proper level of sulphur and phosphorus as per IS: 1786:2008.

3. The contractor shall have to obtain and furnish test certificates to the Engineer-in-charge in respect of all supplies of steel brought by him to the site of work.

4. 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 the steel arranged by the contractor does not conform to the specifications the same shall stand rejected, and it shall be removed from the site of work by the contractor at his cost within a week time.

5. The steel reinforcement bars shall be brought to the site in bulk supply of ten tons or more as decided by the Engineer-in-charge.

6. The steel reinforcement shall be stored by the contractor at site of work in such a way as to prevent distortion and 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.

7. For checking nominal mass, tensile strength, bend test, re-bend test etc. specimen of sufficient 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 tons	For consignment above 100 tons
Under 10mm dia bars	One sample for each 40 tons or part thereof.	One sample for each 60 tons or part thereof.
10mm to 16mm dia bars	One sample for each 50 tons or part thereof.	One sample for each 70 tons or part thereof.
Over 16mm dia bars	One sample for each 60 tons or part thereof.	One sample for each 80 tons or part thereof.

8. The contractor shall supply free of charge the steel required for testing including transportation to testing laboratories. The cost of tests shall be borne by the contractor.

9. The actual issue and consumption of steel on work shall be regulated and proper accounts maintained as provided in relevant clause of the contract. The theoretical consumption of steel shall be worked out as procedure prescribed in relevant clause 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 structural. 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.

10. The steel brought to site and the steel remaining unused shall not be removed from site without the written permission of the Engineer-in-charge.

11. The contractor shall submit original vouchers from the manufacturer for the total quantity of steel supplied under each consignment to be used in the work. All consignment received at the work site shall be inspected by the Site staff along with the relevant documents before acceptance. The contractor shall obtain Original Vouchers and Test Certificates and furnish the same to the Engineer-in-Charge in respect of all the lots of steel brought by him from approved supplier to the site of work. The original vouchers and test certificates shall be defaced by the Site staff and kept on record in the site office.

12. Reinforcement including authorized spacer bars and laps shall be measured in length of different diameters as actually (not more than as specified in the drawings) used in the work nearest to a centimeter. Wastage and unauthorized overlaps shall not be measured.

13. The standard sectional weights referred to as in Table 5.4 in para 5.3.4 in CPWD Specifications will be considered for conversion of length of various sizes of M.S. Bars, Steel Bars and T.M.T. bars into Standard Weight.

14. Records of actual Sectional weights shall also be kept dia-wise and lot-wise. The average sectional weight for each diameter shall be arrived at from samples from each lot of steel received at site. The decision of the Engineer-in-Charge shall be final for the procedure to be followed for determining the average sectional weight of each lot. Quantity of each diameter of steel received at site of work each day will constitute one single lot for the purpose. The weight of steel by conversion of length of various sizes of bars based on the actual weighted average sectional weight shall be termed as Derived Actual Weight.

15. (a) If the Derived Weight as in sub-para above is less than the Standard Weight as in Sub-para above then the Derived Actual Weight shall be taken for payment provided, if it is within the following tolerances specified in IS1786-2008, otherwise whole lot will be rejected.

Tolerances on Nominal Mass

Nominal Size in mm	Batch	Tolerance on Nominal mass Per cent	
		Individual Sample*	Individual sample for coil**
Up to and including 10	+7	-8	+8
Over 10 up to and Including 16	+5	-6	+6
Over 16	+3	-4	+4

* For individual sample plus tolerance is not specified.

** For coils batch tolerance is not specified.

Tolerance shall be determined in accordance with method given in IS 1786.

b) If the Derived Actual Weight is found more than the Standard Weight, the Standard Weight as per in sub-para above shall be taken for payment. In such case nothing extra shall be paid for the difference between the Derived Actual Weight and the Standard Weight.

16. 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/AEE 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/AEE against the original entry, giving the date of removal a 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.

3. SAFETY IN CONSTRUCTION

- 3.1 The contractor shall employ only such methods of construction, tools and plants as are appropriate.
- 3.2 The contractor shall take all precautions and measures to ensure safety of works and work man and shall be fully responsible for the same.
- 3.3 Safety pertaining to construction such as centering & shuttering, scaffolds, ladders, working platforms, gangway etc. shall be governed by CPWD safety code, relevant safety codes and the directions of Engineer in charge.
- 3.4 All the staging to be either of tubular steel structure with adequate bracings as approved or made of built-up structural sections made from rolled structural steel sections.
- 3.5 Form work shall be properly designed for self-weight, weight of reinforcement, weight of fresh concrete and in addition the various live loads likely to be imposed during construction process.
- 3.6 The form work shall be designed & constructed so as to remain sufficiently rigid during placing & compaction of concrete & shall be such as to prevent loss of slurry from the concrete.
- 3.7 The vertical supports shall be adequately braced or otherwise secured in position that these do not fall when the load gets released or the supports are accidentally hit.
- 3.8 A thorough inspection of tubular steel centring is necessary before its erection and members showing evidence of excessive rusting, kinks, dents or damaged welds shall be discarded. Buckled or broken members shall be replaced. Care shall also be taken that locking devices are in good working order and that coupling pins are effectively aligned to frames. Tubes should have end to end joints in adjacent tubes staggered. Sleeve couplers should be used in preference to joint pins for axial connections.
- 3.9 Inclined forms which give rise to very high horizontal forces should be taken care of by trussing and diagonal bracing.
- 3.10 Vertical members should be placed centrally under the members to be supported and over the member supporting them with no eccentricity exceeding 25mm.
- 3.11 The centering frames shall be tied together with sufficient braces to make a rigid and solid unit. It shall be ensured that struts and diagonal braces are in proper position and are secured so that frames develop full load carrying capacity. As erection progresses, all connecting devices shall be in place and shall be fastened for full stability of joints and units.
- 3.12 Wedges under the supports shall be set on firm soil / PCC which assures adequate stability for all props. Care shall be taken not to disturb the soil under the supports. Adequate drainage shall be provided to drain away the water coming due to rains, easing of forms or during the curing of the concrete to avoid softening of the supporting soil strata.
- 3.13 During pouring of the concrete the centering shall be constantly inspected and strengthened, if required wedges below the vertical supports tightened and adjustment screws properly adjusted as necessary.

- 3.14 Only workmen actually engaged in the form work shall be allowed in the area during operations. Those engaged in removing the form work shall wear helmets, gloves and heavy soled shoes and approved safety belts etc.
- 3.15 The safety code as lay down in respective clauses of Agreement shall be strictly followed

4. **SPECIAL CONDITIONS FOR GREEN BUILDING PRACTICE:**

The building is to be designed as Green building of the rating as mentioned in the tender document. The contractor is required to execute the work in a befitting manner to obtain the targeted rating.

Any failure on the part of the contractor to comply with any of the Green Building conditions laid down by CPWD (GHAR) / GRIHA & the below mentioned tender conditions of Green Building and if the contractor continues to neglect the Green Building conditions even after 7 days from the date of issue of a written Notice by Engineer in charge then the Contractor is liable to pay a penalty of Rs One Lakh per day till the contractor starts complying the Green Building conditions and sets right the cause. The decision of the Engineer in charge in this regard shall be final and binding on the Contractor and such penalties imposed by the Engineer in charge are Non-refundable.

The contractor shall abide by all the conditions regarding safety & security apart from all other Green Building norms.

The contractor shall design and construct the building in such a way that the building is rated with the required rating, within the available provisions of the contract. If the contractor is required to construct / execute any additional work to achieve the required rating, he shall construct / execute that work also for which nothing extra shall be paid.

Special conditions for GREEN rating:

The contractor shall prepare scheme for the approval of Engineer in charge for obtaining GREEN rating in the criteria relevant to the execution of work.

The contractor shall plan and execute the work in a manner to preserve and protect the landscape during construction and shall arrange the materials / equipment and follow the procedure as per latest version of GREEN rating as applicable.

All the mandatory criteria of GREEN and additional conditions for Green Building practices are to be mandatorily followed.

The contractor shall comply with NBC norms on construction safety, health and sanitation of workers as per GREEN rating system.

The construction activity shall be done in a befitting manner and the contractor shall adopt measures to prevent air pollution at site in compliance with GREEN rating system as applicable.

The contractor shall comply with all the instructions and schemes for execution of Green building as per the conditions & procedure laid down by GHAR / GRIHA.

Nothing shall be paid extra for adhering to all these conditions except for the items existing in the schedule of quantities. For all such items of work done shall be paid only on the basis of the agreement rates.

Pre-construction Stage

Construction Vehicles, Equipment and Machinery

- i. All vehicles, equipment and machinery to be procured for construction shall conform to the relevant Bureau of India Standard (BIS) norms.
- ii. Emission from the vehicles shall conform to environmental norms.
- iii. Dust produced from the vehicular movement and other site activities is to be mitigated by sprinkling of water.
- iv. Noise limits for construction equipment shall not exceed 75 dB(A), measured at one meter from the edge of the equipment in free area, as specified in the Environment Protection Act, 1986, schedule VI part E, as amended on 9th May, 1993. The maximum noise levels near the construction site should be limited to 65 dB (A) Leq (5 min) in project area.

Construction Stage

Construction Wastes Disposal

- i. The pre-identified dump locations will be a part of solid waste management plan to be prepared by the Contractor in consultation with Engineer in charge.
- ii. Contractor shall get approved the location of disposal site prior to commencement of the excavation on any section of the project location.
- iii. Contractor shall ensure that any spoils of material / construction waste will not be disposed off in any municipality solid waste collection bins.

Procurement of Construction Materials

- i. All vehicles delivering construction materials to the site shall be covered to avoid spillage of materials and maintain cleanliness of the roads.
- ii. Wheel Tyres of all vehicles used by of the contractor, or any of his sub-contractor or materials suppliers shall be cleaned and washed clear of all dust/mud before entering and leaving the premises. This shall be done by routing the vehicles through tyre washing troughs or water jets aided by compressed air.
- iii. Contractor shall arrange for regular water sprinkling at least twice a day (i.e. morning and evening) for dust suppression of the construction sites and unpaved roads used by his construction vehicles.

Water Pollution

- i. The Contractor shall take all precautionary measures to prevent the wastewater during construction to accumulate anywhere.
- ii. The wastewater arising from the project is to be disposed off in the manner that is acceptable to the CPCB.

Air and Noise Pollution

Contractor shall use dust screens and sprinkle water around the construction site to arrest spreading of dust in the air and surrounding areas.

- i. Contractor shall ensure that all vehicles, equipment and machinery used for construction are regularly maintained and confirm that emission levels comply with environmental emission standards / norms.
- ii. For controlling the noise from Vehicles, Plants and Equipment, the Contractor shall confirm the following:

- a. All vehicles and equipment used in construction will be fitted with exhaust silencers.
- b. Servicing of all construction vehicles and machinery will be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced.
- c. Noise emission from compactors(rollers) front loaders, concrete mixers, cranes(movable), vibrators and saws should be less than 75 dB(A).
- d. As per the standards/guidelines for control of Noise Pollution from Stationary Diesel Generator (DG) sets, noise emission in dB(A) from DG Sets (2-1010 KVA) should be less than $94+10 \log 10$ (KVA). The standards also suggest construction of acoustic enclosure around the DG Set and provision of proper exhaust muffler with insertion loss of minimum 25 dB(A) each as mandatory.

Personal Safety Measures for Labour:

Contractor shall provide the following items for safety of workers employed by contractor and associate agencies:

- i. Protective footwear / helmet and gloves to all workers employed for the work on mixing, cement, lime mortars, concrete etc. and openings in water pipeline / sewer line.
- ii. Welder's protective eye-shields to workers who are engaged in welding works.
- iii. Safety helmet and Safety harness / belt Provide adequate sanitation / safety facilities for construction workers to ensure the health and safety of the workers during construction, with effective provisions for the basic facilities such as sanitation, drinking water and safety equipment or machinery.
- iv. All the workers should be wearing helmet and shoes all the time on site.
- v. Masks and gloves should be worn whenever and wherever required.
- vi. Adequate drinking water facility should be provided at site, adequate number of decentralized latrines and urinals to be provided for construction workers.
- vii. Full time workers (if any with the approval of Engineer in charge) residing on site should be provided with clean and adequate temporary hutment.
- viii. First aid facility should also be provided.
- ix. Overhead lifting of heavy materials should be avoided. Barrow wheel and hand-lift boxes should be used to transport materials onsite.
- x. Tobacco and cigarette smoking should be prohibited onsite.
- xi. All dangerous parts of machinery are well guarded and all precautions for working on machinery are taken.
- xii. Maintain hoists and lifts, lifting machines, chains, ropes and other lifting tackles in good condition. Provide safety net of adequate strength to arrest falling material down below.
- xiii. Use of durable and reusable formwork systems to replace timber formwork and ensure that formwork where used is properly maintained.
- xiv. Ensure that walking surfaces or boards at height are of sound construction and are provided with safety rails and belts. Provide protective equipment such as helmets.
- xv. Provide measure to prevent fire. Fire extinguisher and buckets of sand to be provided in fire-prone area and elsewhere.

- xvi. Provide sufficient and suitable light for working during night.
- xvii. Ensure that measures to protect workers from materials of construction, transportation, storage and other dangers and health hazards are taken.
- xviii. Ensure that the construction firm/division/company have sound safety policies.
- xix. Comply with the safety procedure, norms and guidelines (as applicable) as outlined in the latest NBC.
- xx. Adopt additional best practices and prescribed norms as in the latest NBC.

Identify roads on-site that would be used for vehicular traffic. Update vehicular roads (if these are unpaved) by increasing the surface strength by improving particle size, shape and mineral type that make up the surface base. Add surface gravel to reduce source of dust emission. Limit amount of fine particles (smaller than 0.075mm) to 10-20%. Limit vehicular speed on site 10km/h. Nothing extra will be payable for this.

All material storages should be adequately covered and contained so that they are not exposed to situations where winds on site could lead to dust / particulate emissions.

Spills of dirt or dusty materials shall be cleaned up promptly so the spilled material does not become a source of fugitive dust and also to prevent of seepage of pollutant laden water into the ground aquifers. When cleaning up the spill, ensure that the clean-up process does not generate additional dust. Similarly, spilled concrete slurries or liquid wastes should be contained / cleaned up immediately before they can infiltrate into the soil / ground or runoff in nearby areas.

Ensure that water spraying is carried out by wetting the surface by spraying water on:

- i. Any dusty material.
- ii. Areas where demolition work is carried out.
- iii. Any unpaved main-haul road and.
- iv. Areas where excavation or earth moving activities are to be carried out.

The contractor shall ensure the following:

- i. Cover and enclose the site by providing dust screen, sheeting or netting to scaffold along the perimeter of a building.
- ii. Covering stockpiles of dusty material with impervious sheeting.
- iii. Covering dusty load on vehicles by impervious sheeting before they leave the site.
- iv. Transferring, handling/storing dry loose materials like bulk cement and dry pulverized fly ash inside a totally enclosed system.
- v. Spills of dirt or dusty materials shall be cleaned up promptly so that the spilled material does not become a source of fugitive dust and also to prevent seepage of pollutant laden water into the ground aquifers. When cleaning up the spill, ensure that the clean-up process does not generate additional dust. Similarly, spilled concrete slurries or liquid wastes should be contained / cleaned up immediately before they can infiltrate into the soil / ground or runoff in nearby areas.
- vi. Clear vegetation only from areas where work will start right away.

Adopt measures to prevent air pollution in the vicinity of the site due to construction activities. There is no standard reference for this. The best practices should be followed (as adopted from international best practice documents and codes).

Provide safety barricading of site by drawing ribbon band along the site boundary, next to a road or other public area.

The contractor shall provide experienced personnel with suitable training to ensure that these

methods are implemented. Prior to the commencement of any work, the method of working, plant equipment and air pollution control system to be used on-site should be made available for the inspection and approval of the Engineer in charge to ensure that these are suitable for the project.

Employ measures to segregate the waste on-site into inert, chemical or hazardous wastes. Recycle the unused chemical/hazardous wastes such as oil, paint, batteries and asbestos. As per Green rating (inert and Hazardous waste shall be collected and stored separately from site. Proper training shall be given to all construction workers in order to train them to be able to handle different kind of waste on site. In addition to segregating the inert and hazardous waste, it is also important to either reuse the construction waste on site or safely dispose it off to designated agencies for recycling.

To preserve the existing landscape and protect it from degradation during the process of construction. Select proper timing for construction activity to minimize the disturbance such as soil pollution due to spilling of the construction material and its mixing with rainwater. The construction management plan including soil erosion control management plan shall be prepared accordingly for each month. The application of erosion control measures includes construction of gravel pits and tyre washing bays of approved size and specification for all vehicular site entry / exits, protection of slopes greater than 10%. Sedimentation Collection System and run-off diversion systems shall be in place before the commencement of construction activity. Preserve and protect the existing vegetation by not-disturbing or damaging to specified site areas during construction.

The Contractor should follow the construction plan as proposed by the Engineer in charge / landscape consultant to minimize the site disturbance such as soil pollution due to spilling. Use staging and spill prevention and control plan to restrict the spilling of the contaminating material on site.

Spill prevention and control plans should clearly state measures to stop the source of the spill. Measures to contain the spill and measures to dispose the contaminated material and hazardous wastes. It should also state the designation of personnel trained to prevent and control spills. Hazardous wastes include pesticides, paints, cleaners and petroleum products.

A Soil Erosion and Sedimentation Control Plan (ESCP) should be prepared prior to construction and should be applied effectively.

The contractor shall prepare and submit '**Spill prevention and control plans**' before the start of construction, clearly stating measures to stop the source of the spill, to contain the spill, to dispose the contaminated material and hazardous wastes, and stating designation of personnel trained to prevent and control spills. Hazardous wastes include pesticides, paints, cleaners, and petroleum products.

The contractor shall ensure that no construction leaches (Ex: cement slurry) is allowed to percolate into the ground. Adequate precautions are to be taken to safeguard against this including reduction of wasteful curing processes, collection, basic filtering and reuse. The contractor shall follow requisite measures for collecting drainage water run-off from construction areas and material storage sites and diverting water flow away from such polluted areas. Temporary drainage channels, perimeter dike / swale, etc. shall be constructed to carry the pollutant -laden water directly to the treatment device or facility (municipal sewer line).

All lighting installed by the contractor around the site and at the labour quarters during construction shall be energy efficient fixtures of the appropriate illumination levels.

All paints, adhesives and sealants should comply with the VOC limits prescribed as a Green initiatives as follows:

The VOC (volatile organic compound) content of adhesives and sealants used on the interior of the building shall be less than VOC content limits mentioned below. A list of all the adhesives and sealants used for the project is to be submitted along with the manufacturer's certificate supporting the VOC content.

Architectural Applications	VOC Limit (g/l minus water)
Indoor Carpet Adhesives	50
Carpet Pad Adhesives	50
Wood Flooring Adhesives	100
Rubber Floor Adhesives	60
Sub floor Adhesives	50
Ceramic Tile Adhesives	65
VCT and Asphalt Tile Adhesives	50
Dry Wall and Panel Adhesives	50
Cove base adhesives	50
Structural Glazing Adhesives	100
Multipurpose Construction Adhesives	70
Substrate Specific Application	VOC Limit (g/l minus water)
Metal to Metal	30
Porous Material(except wood)	50
Plastic Foams	50
Wood	30
Fibre glass	80
Specialty Application	VOC Limit (g/l minus water)
PVC Welding	510
CPVC Welding	490
ABS Welding	325
Plastic cement welding	250
Adhesive primer for plastic	550
Top and Trim Adhesive	250
Contact Adhesive	80
Special purpose Contact Adhesive	250
Structural wood member adhesive	140
Sheet applied rubber lining operations	850
Sealants	VOC Limit (g/l minus water)
Architectural	250
Non Membrane Roof	300
Roadway	250
Single-ply roof membrane	450
Other	420
Sealant Primers	
Architectural, nonporous	250

Architectural, porous	775
Other	750
Aerosol Adhesives	
General purpose mist spray	65% VOC's by weight
General purpose web spray	55% VOC's by weight
Special purpose aerosol adhesives (alltypes)	70% VOC's by weight

All the building materials and systems used on site shall be as per the specifications and approved makes by the Engineer in charge.

All required certificates explaining the properties of the building material/system needs to be obtained from the manufacturer/vendor as required by the green building rating authority. The final certificates would be produced after the approval of green building consultant with necessary due diligence. The purchase orders of all the materials made with the manufacturers / authorized vendors should be maintained and shall be provided for the process with due diligence upon request.

Water saving measures as suggested by the consultants need to be followed on site.

The contractor / subcontractor shall prepare and submit a **Site Management Plan (SMP)** within 120 days of commencement of work, for approval by the Engineer in charge. This SMP shall indicate the locations of godown, stockpiles, barricading, waste storage, offices, vehicular movement routes etc. In short this SMP would comprehensively represent how the site activities shall be managed conforming to CPWD (GHAR) / GRIHA guidelines. Contractor will be penalized @ decided by Engineer in charge per week of delay in non-submission of SMP beyond due date to be recovered from next RA bill.

Any other site management measures suggested by the Engineer in charge / Green building consultant to be appointed by contractor shall be followed on site.

The contractor shall submit to the Engineer in charge after construction of the buildings, a detailed as built quantification of the following within 30 days of recording of completion. Contractor will be penalized @ Rs. 25000/- per day of delay in submission of "detailed as built quantification".

- i. Total materials used
- ii. Total waste generated
- iii. Total waste reused
- iv. Total water used
- v. Total electricity consumed, and
- vi. Total diesel consumed

Evidence for the implementation of the all the above required measures shall be provided to the Engineer in charge in the form of photographs and templates as required which is required for the submission to the green building rating authority.

Nothing extra shall be payable for above provisions unless otherwise specified in Schedule of Quantity.

The contractor shall appoint Green Building consultant who shall provide the Green building consultancy and shall upload all the required documents on the Website of CPWD (GHAR) / GRIHA as the case may for obtaining required rating. The Quoted rate for design of buildings are inclusive of Green building consultancy and Co-ordinating with the CPWD (GHAR) /

GRIHA for obtaining the rating. The Green building consultant appointed by the contractor should upload all the relevant details from time to time on the website of the GRIHA / CPWD (GHAR) as the case may be for obtaining the Green Certification on time without any undue delay. Nothing extra shall be paid on this account. **The quoted rates of the contractor are inclusive of all the above activities.**

PARTICULAR SPECIFICATIONS FOR CIVIL COMPONENT OF WORK

1 GRANITE / MARBLE OR LIKE WORKS

1.1 The granite / marble or like stonework shall, in general, be carried out as per the CPWD Specifications. The specifications for dressing, laying, curing, finishing, measurements, rate etc. for the granite / marble or like stone flooring shall be same as that of works for the Marble flooring, skirting and risers of steps under Flooring Sub Head of the CPWD Specifications. The wall lining / veneer work with granite / marble or like stone shall be as per the CPWD Specifications for Marble work Sub Head.

1.2 The decision of the Engineer in charge as regards the approval of the samples for the various types of the granite / marble or like stones shall be final and binding on the Contractor. No claim of any kind whatsoever shall be entertained from the Contractor on this account. The Contractor shall then procure and get the mock up prepared at site of work for approval of quality of workmanship and the granite / marble or like stone as specified. The mock up shall be prepared in lift lobby, toilet etc. on one of the floors.

The size of the stones shall be as per the architectural drawings. If the quality of the workmanship and the material is as per the required standards, the mock up shall be allowed as part of the work and measured for payment and shall not be dismantled. Otherwise, it shall be dismantled by the contractor as directed by the Engineer in charge and taken away from the site of the work at his own cost. Nothing extra shall be payable on this account.

1.3 The granite/ marble or like stone slabs shall be cut to required sizes and shapes, as per the architectural drawings, to negotiate the curved steps in segmented manner. The risers shall also be cut to required sizes and shapes and the edges chamfered at the joints, all as per the architectural drawings. However, the Contractor shall prepare the detailed shop drawings for the same and commence work only after the approval by the Engineer in charge. The rate shall also include any consequent wastage, incidental charges involved in this work. Nothing extra shall be payable on this account. For the purpose of payment, the actual area of each type of granite / marble or like stone as laid shall be measured.

1.4 For the steps (risers and treads) in the linear profile, the granite / marble or like stone shall be provided in single pieces as per the architectural drawings, unless otherwise specifically permitted by the Engineer in Charge. Wherever grooves are required to be provided near the nosing of the step for grip, the same is to be done as per architectural drawings and as directed by the Engineer in charge. Wherever required, the joints shall be provided as per the architectural drawings. Nothing extra shall be payable on these accounts.

1.5 The granite / marble or like stone slabs used for providing and fixing in the sills, soffits and jambs of doors, windows, ventilators and similar locations shall be in single piece unless otherwise directed by the Engineer in Charge. Wherever stone slab other than in single piece is allowed to be fixed, the joints shall be provided as per the architectural drawings and as per the directions of the Engineer in charge. Depending on the number of joints, as far as possible, the stone slabs shall be procured and fixed in slabs of equal lengths as per the architectural drawings and as directed by Engineer in charge.

1.6 While fixing the granite / marble or like stone slabs in sills, soffits and jambs of doors, windows, ventilators etc., rebates shall be made by overlapping the stones at the required places for fixing shutters for doors, windows and ventilators etc. as shown in the architectural drawings and as per the directions of the Engineer in Charge. Epoxy based adhesives shall be used for

fixing the granite / marble or like stones to each other, or wherever required. The authorized overlap as per the architectural drawings or as directed by the Engineer in charge shall be measured for payment under the same item. However, any extra mortar thickness required due to the overlap arrangement shall be deemed to have been included in the rate of this item.

Nothing extra shall be payable on this account. The stone shall have uniform thickness and shall be provided in sizes as per the architectural drawings. The stone slab shall have uniformly leveled surface after fixing. All the joints shall be finished smoothly in a workmanlike manner.

- 1.7 The granite / marble / Vitrified tile work shall be adequately protected by a layer of 2mm thick PVC sheet secured by adhesive tapes, which shall be maintained throughout and removed just before handing over of the works for which nothing extra shall be payable.

2 WOOD WORK

- 2.1 The wood work in general shall be carried out as per CPWD Specifications (Volume-I) 2019, with up-to-date correction slips.
- 2.2 The sample of timber to be used shall be deposited by the contractor with Engineer in charge before commencement of work.
- 2.3 The shape and size of beading shall be as per drawings. The joints of beading shall be mitred.
- 2.4 Timber shall be of specified species, good quality and well-seasoned. It shall have uniform colour, reasonably straight grains and shall be free from knots, cracks, shakes and sapwood. It shall be close grained. The contractor shall deposit the samples of species of timber to be used with the Engineer in Charge for testing before commencement of the work.
- 2.5 Wood work shall not be painted, oiled or otherwise treated before it has been approved by the Engineer in charge. All portion of timber including architrave abutting against masonry, concrete, stone or embedded in ground shall be painted with approved wood preservative or with boiling coal tar.
- 2.6 The contractor(s) shall produce cash voucher and certificates from approved Kiln Seasoning Plants about the timber used on the work having been kiln seasoned and chemically treated by them, falling which it would not be accepted as kiln seasoned and/or chemically treated.
- 2.7 Transparent sheet glass conforming to IS: 2835 shall be used. Thickness being governed as under unless otherwise specified in the item in wood work / steel work:

	Area of Glazing	Thickness
(a)	For glazing area up to 0.50 sqm	4.0 mm
(b)	For glazing area more than 0.50 sqm to 0.90 sqm	5.0 mm
(c)	For glazing area more than 0.90 sqm to 1.50 sqm	6.0 mm

- 2.8 Factory made wooden flush door and panelled and wire gauge shutters shall be manufactured and carried out as per relevant CPWD specifications (Volume-I with upto date correction slips).
- 2.9 The work shall be executed through specialized agencies to be approved by the Engineer in charge.

- 2.10 The contractor shall propose well in advance to Engineer in charge, the names and address of the factory where from the contractor intends to get the shutters manufactured along with the credential of the firm. The contractor shall place the order for manufacturing of shutters only after obtaining approval of the Engineer in Charge whose decision in this case shall be final & binding. In case the firm is not found suitable he shall propose another factory. The factory may also be inspected by a group of officers before granting approval; shutters shall however be accepted only if these meet the specified test.
- 2.11 Contractor will arrange stage wise inspection of the shutters at factory by the Engineer in Charge or his authorized representative. The contractor will have no claim if the shutters brought at site in part or full lot are rejected by the Engineer in Charge due to bad workmanship / quality. Such defective shutters will not be measured and paid. The contractor shall remove the same from the site of work within 7 days after the written instruction in this regard are issued by the Engineer in Charge.
- 2.12 The shutters should be brought at site without primer / painting.
- 2.12.1 Inspection of shutters shall be carried out for dimensions & tolerances, size & type general construction & workmanship, finish & glazing at the following frequency:

Lot Size	Sample Size	Permissible number of defectiveness
Upto 25	2	0
26 to 50	5	0
51 to 100	8	0
101 to 150	13	1
151 to 300	20	2
301 to 500	32	3
501 to 1000	50	5
1001 & above	80	7

- 2.13 Criteria for conformity

Any sample shutter failing in any one or more of the requirements inspected for as above shall be considered as defective. A lot shall be considered as having satisfied the requirements of the standard if the number of defective shutters in the sample does not exceed the corresponding permissible number of defectiveness given above.

- 2.14 Testing

The shutters shall be tested for species seasoning & treatment, defects in the timber, panel material, construction & workmanship in the approved Laboratory at the frequency mentioned in CPWD specification.

If shutters are found defective in any one of the criterion double the shutter shall be tested & if found permissible can be accepted. If shutter is found defective in more than one criterion, the whole lot shall be rejected.

- 2.15 Finish

- 2.15.1 All components of door shutter shall have smooth finish.

- 2.15.2 Panels of the door shutters shall be flat and well sanded to a smooth and level Surface.

- 2.15.3 All the surfaces of door shutters which are required to be painted or polished or varnished shall be got approved from the Engineer in charge before applying protective coat of primer, polish or varnish.

3 STEEL WORK

- 3.1 All steel work shall be carried out as per relevant CPWD Specifications. with up-to-date correction slips.
- 3.2 All welded steel work shall be tested for quality of weld as laid down in IS 822: 1970 before actual execution.

4 FLOORING

- 4.1 All work in general shall be carried out as per relevant CPWD Specifications 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 general sizes of stones for flooring shall be of a size not less than 900mm x 1500mm 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 Full width Marble / Kota / Granite stone over kitchen platform shall be provided except to adjust for closing pieces. The marble / stone flooring in treads and risers of staircase is to be laid in single piece.
- 4.7 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.
- 4.8 Chasing of required width and thickness shall be made in masonry work at skirting location so as to flush the external surface of skirting with internal plastering. No extra payment towards making chases in masonry 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.
- 4.9 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.
- 4.10 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.

5 VITRIFIED TILES FLOORING

- 5.1 The tiles shall be of approved make and shall generally conform to Table 12 of IS 15622. The 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.
- 5.2 The vitrified 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 first quality of approved make.

6 Water proofing

- 6.1 The work shall be got executed as per CPWD specifications or manufactures' specifications and from the specialized agency as approved by the Engineer in Charge.
- 6.2 Contractor shall also submit the names of water proofing specialist along with information about their technical capabilities and list of similar works executed by the specialized agency in the past for the approval of Engineer in charge within 90 days from the date of award of work.
- 6.3 Total quantity of the water proofing chemicals / membranes required shall be arranged only after obtaining the prior approval of the make by Engineer in charge in writing. Materials shall be kept under double lock and key and proper account of the 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.
- 6.4 The finished surface after water proofing treatment shall have adequate smooth slope as per the direction of the Engineer in charge.
- 6.5 Before commencement of treatment on any surface, it shall be ensured that the outlet drain pipes / spouts have been fixed and the spout openings have been chased and rounded off properly for easy flow of water.

6.6 Acrylic Polymer modified Cementitious coating

- i. Cementitious waterproofing shall be applied after proper surface preparation, treating construction joints, making coving at junctions, repair of cracks in concrete wherever required.
- ii. Waterproofing shall be applied in two coats in right angle to each other followed by Polymer modified protection plaster.
- iii. Coating shall be applied over horizontal and vertical surfaces @ 1.7Kg/sqm. or as specified by the manufacturer's technical literature to achieve thickness of not less than 1.5 mm.

Technical properties of coating shall be

Tensile Strength > 1.75N/sqm m as per ASTM D412.

Crack bridging capacity upto 2 mm as per ASTM C836.

Adhesion strength > 2N/sqm m as per ASTM D4541.

Elongation > 250% as per ASTM D412.

Water vapour transmission: < 15gr/m²/24 Hrs as per ASTM E96.

6.7 **Food Grade epoxy coating**

Product shall be CFTRI approved and cured film shall be in conformity to IS 9833. It shall have technical properties as detailed below-
Bonding adhesion when tested as per ASTM: D4541 should be 2.5 N/m².

6.8 **Coal Tar Epoxy coating**

Epoxy coating shall have technical properties as detailed below-
Bonding adhesion when tested as per ASTM: D4541 should be I 1.2-1.4 N/m².
No crack on the film should appear in mandrel test done as per ASTM: D522-93.
Material should pass chemical resistance test done as per ASTM:C868

6.9 **Guarantee bond for all water proofing items**

Ten years Guarantee bond in prescribed proforma given in the tender document 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 about efficiency of water proofing treatment shall rest with the building contractor.

7 **Finishing**

7.1 The work shall be done in accordance with relevant CPWD Specifications, manufacturer's specifications and directions of Engineer in charge.

7.2 The quantity of paint required as per the theoretical consumption including wastages, if any, shall be procured from the approved manufacturer or his authorized dealers and deposited with the representative of the Engineer in charge at site.

7.3 The paint shall be kept in the joint custody of the Department and the Contractor and day-to-day account of receipt and issue shall be maintained. However, the safe custody and watch and ward shall remain to be the responsibility of the Contractor. Nothing extra shall be payable on this account.

7.4 The name of the manufacturer, manufacturer's product identification, manufacturer's mixing instructions, warnings and instructions for handling and application, toxicity and date of manufacturing and shelf life shall be clearly and legibly mentioned on the labels of each container. These details shall be kept in record. The material shall be consumed in the order of material brought to site, first come first consume basis. The Contractor shall obtain and submit to the Department the manufacturer's certificate for compliance of the various characteristics of the materials as per the manufacturer's specifications and also copy of the manufacturer's test report for the record.

7.5 Empty containers of the paints shall not be removed from site till the completion of the work unless otherwise permitted and shall be removed only with the permission of the Engineer in charge or his authorized representative at site of work.

7.6 All arrangements for measuring, dosing etc. at site shall be made by the Contractor. Nothing extra shall be payable on this account.

7.7 The Contractor shall apply samples of each kind of paint for the approval of shade and colour as per the directions of the Engineer in charge before procuring the paint in mass.

- 7.8 All incidental charges of cartage, storage, wastage, safe custody, scaffolding, cost of samples and mock ups etc. shall be borne by the Contractor and no claim, whatsoever, shall be entertained on this account.

8 Sanitary installations / water supply / drainage

- 8.1 The contractor shall be responsible for the protection of the sanitary and water supply fittings and other fittings and fixtures against pilferage and breakage during the period of installation and thereafter until the building is handed over.
- 8.2 The contractor shall furnish all labour, materials and equipment, transportation and incidental necessary for supply, installation, testing and commissioning of the complete Plumbing / Sanitary system as described in the Specifications and as shown on the drawings. This also includes any material, equipment, appliances and incidental work not specifically mentioned herein or noted on the Drawings/Documents as being furnished or installed, but which are necessary and customary to be performed under this contract. The Plumbing / Sanitary System shall comprise of following:
- a) Sanitary Fixtures and Fittings
 - b) Internal and External Water Supply
 - c) Internal and External Drainage
 - d) Balancing, testing & commissioning
 - e) Test reports and completion drawings
- 8.3 For the work of water supply and sanitary installations, the contractor shall engage the approved licensed plumbers and submit the name of proposed plumbing agencies with their credentials for approval of the Engineer in charge. For quality control & monitoring of workmanship, contractor shall assign at least one engineer who would be exclusively responsible for ensuring strict quality control, adherence to specifications and ensuring top class workmanship for the installation.
- 8.4 The work in general shall be carried out as per relevant CPWD Specifications.
- 8.5 The tendered rates shall include the cost of cutting holes in walls, floors, RCC slabs etc. wherever required and making good the same for which nothing extra shall be paid.
- 8.6 Nothing extra for providing & fixing CP Brass caps /extension pieces wherever required for CP Brass fittings shall be paid beyond the rates payable for corresponding CP Brass fittings.
- 8.7 The contractor shall examine all architectural, structural, plumbing, electrical and other services drawings and check the as-built works before starting the work, report to the Engineer in charge any discrepancies and obtain clarification. Any changes found essential to coordinate installation of his work with other services and trades, shall be made with prior approval of the Engineer in charge without additional cost to the department.
- 8.8 All the shop drawings shall be prepared on computer through AutoCAD System based on Architectural Drawings and site measurements within two months of the stipulated date of start of the contract, contractor shall furnish, for the approval of Engineer in charge, the two sets of detailed shop drawings of complete work and materials including layouts for Plant room, Pump room, Typical toilets drawings showing exact location of supports, flanges, bends, tee connections, reducers, detailed piping drawings showing exact location and type of supports, valves, fittings etc; external insulation details for pipe insulation etc.

- 8.9 These shop drawings shall contain all information required to complete the work. These Drawings shall contain details of construction, size, arrangement, operating clearances, performance characteristics and capacity of all items of equipment, also the details of all related items of work by other contractors. Each shop drawing shall contain tabulation of all measurable items of equipment / materials / works and progressive cumulative totals from other related drawings to arrive at a variation-in-quantity statement at the completion of all shop drawings. Minimum 4 sets of drawings shall be submitted after final approval along with CD. When he makes any amendments in the above drawings, the contractor shall supply two fresh sets of drawings with the amendments duly incorporated along with check prints, for approval. The contractor shall submit further four sets of shop drawings to the Engineer in charge for the exclusive use by the Engineer in charge and all other agencies. No material or equipment may be delivered or installed at the job site until the contractor has in his possession, the approved shop drawing for the particular material/equipment / installation.
- 8.10 Shop drawings shall be submitted for approval four weeks in advance of planned delivery and installation of any material to allow the Engineer in Charge ample time for scrutiny. No claims for extension of time shall be entertained because of any delay in the work due to his failure to produce shop drawings at the right time, in accordance with the approved programme.
- 8.11 Samples of all materials like valves, pipes and fittings etc. shall be submitted to the Engineer in charge prior to procurement for approval and retention by Engineer in charge and shall be kept in their site office for reference and verification till the completion of the Project. Wherever directed a mockup or sample installation shall be carried out for approval before proceeding for further installation without any extra cost.
- 8.12 Approval of shop drawings shall not be considered as a guarantee of measurements or of building dimensions. Where drawings are approved, said approval does not mean that the drawings supersede the contract requirements, nor does it in any way relieve the contractor of the responsibility or requirement to furnish material and perform work as required by the contract.
- 8.13 All materials and equipment shall conform to the relevant Indian Standards and shall be of the approved make and design. Makes shall be in conformity with list of approved manufacturers as per the tender document.
- 8.14 Balancing of all water systems and all tests as called for the CPWD Specifications shall be carried out by the contractor through a specialist group, in accordance with the Specifications and Standards. The installation shall be tested and shall be commissioned only after approval by the Engineer in charge. All tests shall be carried out in the presence of the representatives of the Engineer in charge and nothing extra shall be payable on this account.
- 8.15 The contractor shall submit completion plans for water supply, internal sanitary installations and building drainage work within 15 days of the date of completion. These drawings shall be submitted in the form of two sets of CD's and four portfolios (300 x 450 mm) each containing complete set of drawings on approved scale indicating the work as installed. These drawings shall clearly indicate complete plant room layouts, piping layouts and sequencing of automatic controls, location of all concealed piping, valves, controls and other services. In case the contractor fails to submit the completion plans as aforesaid, security deposit shall not be released and these shall be got prepared at his risk and cost.
- 8.16 The CCI / CI / PVC pipe and GI pipe etc. wherever necessary shall be fixed to RCC columns, beams etc. with rawl plugs and nothing extra shall be paid for this.

- 8.17 The variation in consumption of material shall be governed as per CPWD specification and clauses of the contract to the extent applicable.
- 8.18 The pig lead to be used in joints of 150mm, 100mm, 75mm, 50mm dia of sand cast iron, centrifugally cast (Spun) iron pipes shall be as per relevant CPWD Specifications.
- 8.19 The contractor shall bear all incidental charges for cartage, storage and safe custody of materials and shall construct suitable godowns, yards at the site of work for storing materials so as to be safe against damage by sun, rain, fire or theft etc., at his own cost and also employ necessary watch and ward establishment for the purpose at his own cost.
- 8.20 All fixtures and fittings shall be provided with all such accessories as are required to complete the item in working condition whether specifically mentioned or not in the Schedule of Quantities, specifications, elsewhere in this tender document & drawings. The quoted rates shall be deemed to be all inclusive for a complete item fit for use including all materials, labour, T&P, specials, equipment, testing & commissioning etc. Accessories shall include proper fixing arrangement, brackets, nuts, bolts, screws and required connection pieces. Nothing extra whatsoever shall be payable on this account.
- 8.21 Fixing screws shall be half round head chromium plated brass screws with C.P. washers where necessary or otherwise as provided in the item.
- 8.22 Porcelain sanitary ware shall be glazed vitreous china of first quality free from warps, cracks and glazing defects and shall conform to relevant BIS codes. Colour of sanitary ware, shall be specified or as selected by the Engineer in charge. Nothing extra shall be payable on this account.
- 8.23 Horizontal pipes running along ceiling shall be fixed on structural adjustable clamps of approved design. Horizontal pipes shall be laid to uniform slope and the clamps adjusted to the proper levels so that the pipes fully rest on them and are properly secured.
- 8.24 Contractor shall provide all nuts, bolts, welding material and paint the Clamps with one coat of red oxide and two or more coats of black enamel paint.
- 8.25 Slotted angle / channel supports on walls shall be provided wherever shown on drawings. Angles / channels shall be of sizes shown on drawings or specified in schedule of quantities. Angles / channels shall be fixed to brick walls with bolts embedded in cement concrete blocks and to RCC walls with suitable anchor fasteners. The spacing of support bolts horizontally shall not exceed 1 m.
- 8.26 Wherever M.S. clamps are required to be anchored directly to brick walls, concrete slabs, beams or columns, nothing extra shall be payable for clamping arrangement and making good with cement concrete 1:2:4 mix (1 cement: 2 coarse sand : 4 stone aggregate 20 mm nominal size) or as directed by the Engineer in charge.
- 8.27 The ground colour shall be applied throughout the entire length of pipe. Colour bands shall be superimposed on the ground colour and shall be applied near valves, junctions, joints, service appliances, bulkheads, valves, etc. for clear identification of fluid being carried and to avoid confusion. The relative proportional widths of the first colour band to the subsequent bands shall be 4:1. The minimum width of the narrowest colour band shall be 25 mm.

8.28 Rates for all items quoted shall be inclusive of all work and items given in the above mentioned specifications and Schedule of Quantities and applicable for the work under floors, in shafts or at ceiling level at all heights and depths. All rates are inclusive of cutting holes and chases in RCC and masonry work and making good the same. All rates are inclusive of pre testing and onsite testing of the installations, materials and commissioning.

8.29 **Cleaning and Disinfection of Pipelines:**

8.30 On completion of hydraulic tests and before a pipe is disinfected, it shall be proved to be free from obstruction, debris and sediment by scouring or by any other process which the Engineer in charge may prescribe. Upon satisfactory completion of testing and cleaning, the pipelines shall be disinfected as ordered. Chlorine solution shall be applied at the charging point as the pipeline is being filled and dosing shall be continued until the pipeline is full and at least 50 parts of chlorine per million parts of water have been made available and distributed evenly. If ordinary bleaching power is used, proportions will 150 gms of power to 1000 litre of water. If a proprietary brand is used, the proportion shall be as specified by the manufacturer. The treated water shall be left in pipeline for a period as directed but not exceeding 24 hours chlorine residual tests shall be taken at various points along the pipeline. The disinfection process shall be repeated until the sample of water taken from the pipeline are declared fit for human consumption by a recognized laboratory.

8.31 Opening, cut out in slabs, beams as required shall be left out by inserting PVC spouts of required size before casting of RCC members. Nothing extra shall be paid on this account.

8.32 The entire responsibility for the quality of work will however rest with the building contractor only.

9 AAC BLOCK MASONRY

9.1 The AAC Blocks shall be procured from reputed manufacturers as mentioned in **List of Preferred Brands / Makes / Manufacturers.**

9.2 The blocks shall be stored at site in stacks on a level dry surface.

9.3 The mortar used for joining the blocks shall be ready made prepacked polymer-based adhesive.

9.4 The thickness of joints in the masonry shall not exceed 5 mm and shall be of uniform thickness.

9.5 Maximum height of wall built on any day shall not be more than 1.2 meters (i.e. 6 layers).

9.6 The joints in the masonry shall be recessed and no flush pointing shall be done.

9.7 A slip membrane with PVC sheet shall be introduced as per the recommendation of blocks manufacturer before laying the first course on the plinth beam.

9.8 The blocks shall not be soaked in water and instead they shall be dipped in water and taken out immediately to have only moist surface.

9.9 The vertical joints of the masonry shall be broken to have a minimum overlap of 100 mm.

9.10 Bed joint reinforcement bars may be placed in the joints after every 4th course in two successive layers as per the recommendation of the manufacturers to have good lateral stability.

- 9.11 The internal wall panels shall be further divided by providing RCC vertical bands at required intervals to limit the wall panel size to 7.5 sqm (Size of AAC block wall panel between horizontal and Vertical RCC bands).
- 9.12 It shall be ensured that the lintels are rest at either end of window opening only on full blocks and not on half or part blocks reinforcement shall be placed in the sill course of window openings in two successive horizontal joints and extend the same at least to 600 mm on either side of the jams surface.
- 9.13 At a RCC column interface an MS anchor ('L' – shape) may be placed and fixed with screws at every 4th course so as to anchor the wall with RCC column for better lateral stability.
- 9.14 Curing of the masonry shall be done only by spraying water and no flooding shall be done by water jets / buckets.
- 9.15 The chases in the wall surface for electrical conduits shall be done only by means of electrically operated saw to cut two parallel lines and the portion between the cuts shall be chiseled carefully. The depth of vertical chases should be limited to 1/3rd of wall thickness and horizontal chases should not be more than 1/6th of wall thickness. The chases have to be properly packed with cement mortar 1:6 (1 cement : 6 sand) between pipes and chases.
- 9.16 The blocks shall be cut using a carpenter saw to have half blocks or any other suitable size block to close the masonry course or to break the vertical joint from the bottom course. Hammer or a masons trowel shall not be used to cut the blocks.
- 9.17 The thickness of plaster shall be as per finishing schedules of relevant Structure.
- 9.18 Plaster mesh shall be fixed on all column wall and beams wall junctions before taking up the plaster work.

10 Flyash based solid cement concrete masonry blocks

- 10.1 The cement concrete blocks shall strictly conform to the standards of IS 2185 (Part-I):2005 for manufacturing process as well as for physical requirements and tests.
- 10.2 However, the density of blocks shall not be less than 2000 kg / m³
- 10.3 The CC blocks shall be manufactured for minimum average compressive strength of 100 kg/cm²
- 10.4 The water absorption being the average of three blocks when determined as per Annexure-E of IS 2185 (Part-I):2005 shall not be more than 10% by mass.
- 10.5 The CC Blocks should contain minimum of 40 % Fly ash by volume of the blocks.
- 10.6 The Flyash used shall be properly pre-processed for use in construction works. Raw fly ash collected directly from the Thermal power plants shall not be used. The Flyash shall be sourced only from approved thermal power stations.
- 10.7 The properties of the Flyash shall confirm to IS-3812(Part-2) -2013.

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On non-judicial stamp paper of minimum ₹100
(Guarantee offered by Bank to CPWD 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), CPWD on behalf of the President of India (here in after 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) (here in after 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), CPWD on behalf of the President of India (here in after called" The Government") has entered in to an agreement bearing number..... with..... (name and address of the contractor) (Here in after called" the Contractor") for execution of work..... (name of work) The Government has further agreed to accept an irrevocable Bank Guarantee for ₹..... (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 the bank)..... (here in after referred to as "the Bank"), Hereby undertake to pay to the Government an amount not exceeding ₹..... (Rupees..... only) on demand by the Government within 10 days of the demand.
3. We, (indicate the name of the Bank), do here by 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 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 ₹..... (Rupees only)
4. We, (indicate the name of the Bank), further undertake to pay the Government any money so demanded notwithstanding any dispute or disputes 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 and conditions of the said agreement or to extend 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 and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation or extension being granted to the said Contractor or for any forbearance, act of omission on the

part of the Government or any in diligence by the Government to the said Contract or by any such matter or thing what so ever 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 debt or at the first instance without proceeding against the Contractor and not withstanding 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 ₹..... (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

Name and address

Designation

2. Signature.....

Staff code no.

Name and address

Bank seal

*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

Receipt of deposition of original EMD

(Receipt No.....date.....)

Name of Work: - **Renovation of 05 No. Type III Quarters and 01 No Type II Quarters at SBRC, Rajkot**

1. NIT No: **28/EE/RAJKOT/2026-27.**
2. Estimated Cost: **₹ 67,87,135/- [CIVIL - ₹ 58,45,661/- + Electrical ₹ 9,41,474/-]**
3. Amount of Earnest Money Deposit: **₹ 1,35,743/- (Financial instrument shall be in favour of Executive Engineer, Rajkot Central Division, CPWD, Rajkot)**
4. Last date of submission of bid up to :- 15:00 Hrs on 16-10-2026
1. Name of contractor#.....
2. Form of EMD#.....
3. Amount of Earnest Money Deposit#.....
4. Date of submission of EMD#.....

Signature, Name and Designation of
EMD receiving officer (EE/AE (P)/AAO)
along with Office stamp

(# To be filled by EMD receiving EE)
(****) to be filled in by EE)

Form-H:*Affidavit for Non-Black Listing*

(Affidavit to be furnished on a 'Non-Judicial' stamp paper worth Rs.200/-)

Name of Work :- Renovation of 05 No. Type III Quarters and 01 No Type II Quarters at SBRC, Rajkot

I/we undertake and confirm that our firm/partnership firm has not been blacklisted by any state/Central Departments/PSUs/Autonomous bodies during the last 7 years of its operations. Further that, if such information comes to the notice of the department then I/we shall be debarred for bidding in CPWD in future forever. Also, if such an information comes to the notice of department on any day before date of start of work, the Engineer-in-charge shall be free to cancel the agreement and to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

(Scanned copy of this notarized affidavit to be uploaded at the time of submission of bid).

FORM-'I'**UNDERTAKING ON STRUCTURAL STABILITY AND SOUNDNESS OF ALREADY COMPLETED BUILDINGS AND INFRASTRUCTURE PROJECTS**

I/we undertake and confirm that any building / infrastructure constructed by our firm /partnership firm/ company has not suffered any failure, making it unfit for intended use, either due to structural design and defects or due to use of sub-standard materials or execution of sub-standard work, poor workmanship or any other reason during the last 25 (twenty-five) years.

I/we, further, undertake that if such information comes to the notice of CPWD, then Engineer-in-Charge shall be free to terminate the bid/agreement and to forfeit the entire amount of earnest money deposit, performance guarantee and security deposits.

I/we, also undertake that in addition to above, the Engineer-in-Charge shall be free to debar us forever from tendering in CPWD.

The decision of Engineer-in-Charge or any higher authority shall be final and binding.

Signature of bidder or
an authorized person of
the firm with stamp
Signature of notary with seal

Note: Affidavit shall be furnished on a 'Non-judicial' stamp paper of ₹ 200/-(scanned copy of the notarized affidavit shall be uploaded at the time of submission of bid).

GUARANTEE BONDS

(Shall be furnished on a 'Non-judicial' stamp paper of minimum Rs. 300/-)

GUARANTEE TO BE EXECUTED BY THE CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF STRUCTURAL GLAZING/TENSILE FABRIC ROOFING/POLYCARBONATE SHEET / ALUMINIUM GLAZING/ STP/ETP

This agreement made on this ____ day of _____ Two Thousand ____ between _____, S/o _____ (hereinafter referred to as the "Guarantor," which term shall include their heirs, executors, administrators, legal representatives, successors, and permitted assigns) of the one part, and the **President of India** (hereinafter referred to as the "Government," which term shall include its successors and assigns) of the other part.

WHEREAS:

1. **The Contract:** This agreement is supplementary to the Contract dated _____ (hereinafter referred to as the "Contract") executed between the Guarantor and the Government, wherein the Guarantor has undertaken the execution of works relating to Structural Glazing/Tensile Fabric Roofing/Polycarbonate Sheet/Aluminium Glazing/STP/ETP (hereinafter referred to as "the Works").
2. **Performance Obligation:** Under the terms of the Contract, the Guarantor has undertaken to ensure structural stability, sound workmanship, proper finishing, and the use of high-quality materials in the execution of the Works.
3. **Guarantee:** The Guarantor hereby unconditionally and irrevocably guarantees the Government that the Works executed by the Guarantor shall remain structurally stable, free from all defects arising from faulty workmanship, inferior materials, improper finishing, or any other construction-related flaws.

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. **Scope of Guarantee:**
 - The Guarantor guarantees that the Works executed shall maintain their structural stability and remain free from defects for a period of **Ten (10) years**, reckoned from the date of **completion of the entire project**.
 - This guarantee extends to all aspects of workmanship, materials, and finishing, ensuring that the Works shall remain free from leaks, structural instability, and any defects affecting their functional performance.
2. **Rectification of Defects:**
 - The Guarantor shall, upon receiving written notice from the Engineer in charge (or any other duly authorized representative of the Government), promptly and at their own expense, rectify any defects that arise during the guarantee period. Rectification must be completed within **15 calendar days** from the date of receipt of the notice unless otherwise stipulated by the Engineer in charge.
 - Failure by the Guarantor to rectify such defects within the specified period shall entitle the Government to have the defects rectified by a third party, with all expenses incurred (including any consequential damages) to be borne by the Guarantor. The decision of the Engineer in charge regarding the cost and extent of the rectification work shall be **final and binding** on both parties.
3. **Indemnification:**

- In the event that the Guarantor fails to fulfill their obligations under this agreement or is found to be in breach, the Guarantor shall indemnify and hold harmless the Government and its successors against all claims, losses, damages, costs, and expenses (including legal fees and court costs) arising out of any defect or failure in the Works.
- This indemnity shall include, without limitation, both **direct and consequential losses** suffered by the Government due to any failure of the Guarantor to execute or rectify the Works in accordance with the terms of the Contract and this Guarantee.

4. Finality of Engineer in charge's Decision:

- The determination by the Engineer in charge regarding the nature, cause, and extent of any defect in the Works, the rectification required, and the associated costs shall be **final, conclusive, and binding** on both the Guarantor and the Government.
- The Engineer in charge's authority shall also extend to any dispute arising under or in connection with this Guarantee, including the assessment of damages, cost of rectification, and the extent of the Guarantor's liability.

5. Transferability:

- This Guarantee shall remain in full force and effect notwithstanding any change in the constitution of either party and shall be binding on the legal successors, assigns, and representatives of the Guarantor.

6. Force Majeure:

- The Guarantor shall not be held liable for any failure or delay in the performance of their obligations under this guarantee arising from events beyond their control, such as natural disasters, war, or acts of God, provided that the Guarantor immediately notifies the Government in writing and makes all reasonable efforts to mitigate the effect of such events.

7. Termination:

- This Guarantee shall automatically expire upon the successful completion of the Ten (10) year guarantee period, provided that no defect or breach is pending at the time of such expiration.

IN WITNESS WHEREOF, these presents have been duly executed by the Guarantor 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 the Guarantor in the presence of:

1.
2.

SIGNED FOR AND ON BEHALF OF THE PRESIDENT OF INDIA by:

.....

In the presence of:

1.
2.

(Shall be furnished on a 'Non-judicial' stamp paper of minimum Rs. 300/-)

**GUARANTEE TO BE EXECUTED BY THE CONTRACTOR FOR REMOVAL OF DEFECTS
AFTER COMPLETION IN RESPECT OF WATERPROOFING WORKS.**

This Agreement, made on this day of, Two Thousand, between **(Name)**, S/o **(Name)**, (hereinafter referred to as the "Guarantor") of the one part, and the **President of India**, (hereinafter referred to as the "Government") of the other part.

WHEREAS this Agreement is supplementary to the main contract (hereinafter referred to as the "Contract") dated executed between the Guarantor on the one part and the Government on the other part, wherein the Guarantor agreed to execute waterproofing works on buildings and structures under the terms and conditions laid out in the Contract, and further undertook to render the said structures completely water- and leak-proof.

AND WHEREAS the Guarantor has agreed to provide this Guarantee as assurance that the waterproofing works executed under the Contract shall remain free from any leaks, seepages, or water infiltration defects for a period of **Ten (10) years** from the date of completion of the entire project.

NOW, THEREFORE, the Guarantor hereby **guarantees and warrants** that:

1. The work executed by the Guarantor under the Contract shall render the buildings and structures completely **leak-proof and water-tight**.
2. The minimum life expectancy of the waterproofing treatment applied shall be **Ten (10) years**, reckoned from the **date of completion of the entire project**.
3. Any defects, whether arising from faulty workmanship, inferior materials, or any other causes attributable to the Guarantor, shall be fully rectified by the Guarantor at **no additional cost** to the Government, within a reasonable timeframe, upon notification by the **Engineer in charge** or his authorized representative.

Rectification of Defects:

- During the period of this guarantee, if any defects related to waterproofing arise, the Guarantor shall be **duty-bound** to repair and rectify such defects to the **complete satisfaction** of the Engineer in charge.
- If the Guarantor **fails or neglects** to rectify the defects within the stipulated timeframe as directed, the Government reserves the right to carry out such rectification works through another contractor at the **Guarantor's cost and risk**. All costs incurred by the Government for such rectification shall be recoverable from the Guarantor, and the decision of the Engineer in charge regarding the amount of such costs shall be **final and binding** on the Guarantor.

Indemnity:

- The Guarantor agrees to **indemnify** and keep the Government indemnified against any **loss, damage, cost, or expense** incurred due to the failure of the Guarantor to rectify defects or due to the Guarantor's breach of the terms of this Guarantee. This includes, but is not limited to, consequential damages arising out of leaks, structural damages caused by water infiltration, and damage to property or equipment resulting from such defects.

- In the event of any breach of this agreement or failure to make good the defects, the Government shall have the right to recover any amount expended on rectification of defects from the amounts due to the Guarantor, including invoking any performance guarantees or retention money held under the Contract.

Engineer in charge's Decision:

- The **decision** of the Engineer in charge regarding the **nature, cause, and extent of the defect** as well as the appropriate **remedial measures** to be undertaken shall be **final, conclusive, and binding** on the parties.
- The determination of any costs, damages, or expenses incurred by the Government as a result of the Guarantor's failure to perform or breach of this Guarantee shall be determined solely by the Engineer in charge, whose decision shall also be **final and binding**.

Legal Obligations:

- The **Guarantor undertakes full legal responsibility** for ensuring that the waterproofing works are performed in a manner that complies with all applicable laws, codes, regulations, and standards pertaining to building construction, waterproofing, and safety.
- This Guarantee shall not be construed to limit the Government's **right to pursue additional legal remedies**, including seeking compensation for damages under contract law or tort law, should the need arise.

Transferability:

- This Guarantee is **personal** to the Guarantor and shall be **non-transferable**. The obligations of the Guarantor under this Guarantee shall **survive any assignment** of the Contract.
- The rights and obligations arising under this Guarantee shall be **in addition to** any rights, remedies, or causes of action available under the Contract, **without prejudice** to any other guarantees provided under the Contract or at law.
- The Guarantor **waives any right to dispute** or challenge the validity of this Guarantee on any grounds.

Force Majeure:

- The Guarantor shall not be held liable for any failure or delay in the performance of their obligations under this guarantee arising from events beyond their control, such as natural disasters, war, or acts of God, provided that the Guarantor immediately notifies the Government in writing and makes all reasonable efforts to mitigate the effect of such events.

Termination:

- This Guarantee shall automatically expire upon the successful completion of the Ten (10) year guarantee period, provided that no defect or breach is pending at the time of such expiration.

IN WITNESS WHEREOF, these presents have been duly executed by the Guarantor 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 the Guarantor in the presence of:

.....

.....

SIGNED FOR AND ON BEHALF OF THE PRESIDENT OF INDIA by:

.....

In the presence of:

1.

2.

(Shall be furnished on a 'Non-judicial' stamp paper of minimum Rs. 300/-)

**GUARANTEE TO BE EXECUTED BY THE CONTRACTOR FOR REMOVAL OF DEFECTS
AFTER COMPLETION IN RESPECT OF SANITARY INSTALLATIONS / WATER SUPPLY /
DRAINAGE WORK AND ALUMINIUM WORK / UPVC WINDOWS / DOORS / FIRE CHECK
DOORS**

This agreement made this ____ day of _____, Two Thousand _____, between _____, S/o _____ (hereinafter referred to as the "Guarantor," which term shall include their heirs, executors, administrators, legal representatives, successors, and permitted assigns) of the one part, and the **President of India** (hereinafter referred to as the "Government," which term shall include its successors and assigns) of the other part.

WHEREAS:

Supplementary Agreement: This agreement is supplementary to the principal contract (hereinafter referred to as the "Contract") dated _____ and executed between the Guarantor and the Government, under which the Guarantor undertook to execute works related to Sanitary Installations, Water Supply, Drainage Work, Aluminium Work, UPVC Windows, Doors, and Fire Check Doors, ensuring structural stability, leak-proof performance, and proper workmanship, including anodizing, powder coating, sealing, and finishing as specified in the Contract.

Contractual Obligation: The Guarantor has agreed to provide a guarantee to ensure that the work executed under the Contract will be structurally stable, leak-proof, and free from defects arising from faulty materials, defective workmanship, and inferior anodizing/powder coating/finishing for a specified period.

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

Scope of Guarantee:

The Guarantor hereby **guarantees** that the works executed under the Contract, including all **Sanitary Installations, Water Supply, Drainage Work, Aluminium Work, UPVC Windows/Doors, and Fire Check Doors**, shall be free from any leakage, seepage, cracks, defective materials, improper workmanship, and faulty finishing (including defective galvanizing, anodizing, and powder coating).

This guarantee shall remain in force for a period of Ten (10) years, starting from the **date of completion of the entire project**, and shall apply to all works completed under the Contract, including any and all Sanitary Installations, Water Supply, Drainage Work, Aluminium Work, UPVC Windows / Doors, and Fire Check Doors.

Rectification of Defects:

During the guarantee period, the Guarantor shall, at their own expense, rectify any and all defects that may arise in the Works, including but not limited to leaks, structural instabilities, and faulty installations, upon receiving a **written notice** from the Engineer in charge.

The **Guarantor** shall begin rectification works within **seven (7) days** from the date of issuance of such notice and shall complete the work to the satisfaction of the Engineer in charge.

In the event the Guarantor fails to commence or complete the rectification works within the stipulated time, the Government shall be entitled to engage other contractors to carry out the necessary repairs at the **Guarantor's risk and cost**, and the decision of the Engineer in charge regarding the cost and scope of such rectification shall be **final and binding** on both parties.

Finality of Engineer in charge's Decision:

The **decision** of the Engineer in charge with respect to the nature and cause of the defect, the required rectification, and the costs thereof shall be **final, conclusive, and binding** on both the Guarantor and the Government. This shall include the assessment of the workmanship, materials used, and any breach of the guarantee provided herein.

Indemnity:

The Guarantor shall indemnify and hold the Government, its successors, and assigns harmless from and against any and all losses, damages, claims, liabilities, costs, and expenses (including legal fees) incurred by the Government due to the failure of the Guarantor to rectify defects or any breach of this agreement.

This indemnity shall cover both **direct** and **consequential losses** incurred by the Government arising from any defects in the Works or failure by the Guarantor to fulfill their obligations under this guarantee.

Transferability:

The rights and obligations under this guarantee shall remain fully binding and enforceable on the Guarantor irrespective of any change in their constitution or ownership and shall also be binding on their legal successors and assigns.

Enforcement and Breach:

In the event of any **breach** of this guarantee or failure by the Guarantor to perform the rectification works, the Government reserves the right to take appropriate legal action, including recovering all associated costs and damages incurred due to the breach.

The Guarantor agrees that any legal claims arising out of this agreement shall be adjudicated in accordance with the laws of India and subject to the jurisdiction of the courts where the project site is located.

Force Majeure:

The Guarantor shall not be held liable for any failure or delay in the performance of their obligations under this guarantee arising from events beyond their control, such as natural disasters, war, or acts of God, provided that the Guarantor immediately notifies the Government in writing and makes all reasonable efforts to mitigate the effect of such events.

Termination:

This Guarantee shall automatically expire upon the successful completion of the Ten (10) year guarantee period, provided that no defect or breach is pending at the time of such expiration.

IN WITNESS WHEREOF, these presents have been duly executed by the Guarantor 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 the Guarantor in the presence of:

.....

.....

SIGNED FOR AND ON BEHALF OF THE PRESIDENT OF INDIA by:

.....

In the presence of:

.....

.....

Annexure- T&P**LIST OF MACHINERY, TOOLS & PLANTS TO BE DEPLOYED BY THE CONTRACTOR AT SITE AS & WHEN REQUIRED IN ADDITION TO T & P LISTED UNDER CLAUSE-18**

S.N.	Name of Equipment	Numbers
1	Excavators (various sizes)	2 Nos.
	Equipment for Concrete work	
1	Concrete transit mixer	As per requirement
2	Concrete mixer (diesel)	2 Nos.
3	Automatic batch mix plant	As per requirement
4	Needle vibrator (petrol/electric)	4 Nos.
5	Surface vibrator	2 Nos.
	Equipment for Building work	
1	Bar bending Machine	2 Nos.
2	Bar cutting machine	2 Nos.
3	Welding machine i/c transformer	2 Nos.
4	Cube testing machines	1 No.
	Equipment for transportation	
1	Tippers	As per requirement
2	Trucks	As per requirement
3	Tractor with Trolley	As per requirement
4	Water Tanker	As per requirement
	Pneumatic equipment	
1	Air compressors (diesel)	As per requirement
	Dewatering equipment	
1	Pump (diesel)	As per requirement
2	Pump (electric) (Desirable)	As per requirement
	Power equipment	
1	Diesel generator of sufficient capacity	1 No.
	Testing Equipment / Survey Instruments	
1	Total Station	1 No whenever required at site
2	Auto level and Staff	1No.
3	Graduated Glass Cylinder	As per requirement
4	Measuring jars 100ml, 200ml, 500ml	1 No. each
5	Vernier's calipers 12" & 6"	1 No.
6	Digital Micrometer least count 0.01 mm	1 No.
7	Screw Gauge 0.01mm – 10mm,	1 No.

Note: - The above list is only indicative and not exhaustive.

PREFERRED MAKE OF MATERIALS (FOR CIVIL WORKS)

NOTE: -

1. The contractor shall obtain prior approval from the Engineer-in-Charge before placing order for any specific material or engaging any of the specialized agencies. The contractor shall submit the proposal with catalogues and highlight the proposed specification as well as full details of the works executed by the specialized agencies, as specified.
2. Wherever applicable, the Engineer-in-Charge may obtain prior approval from T.S authority for any material equivalent to that specified in the tender. The engineer-in-charge will submit the proposal if he satisfies that proposed product is equivalent to the product specified in preferred make of the NIT.
3. Unless otherwise specified, the brand / make of the material as specified in the nomenclature of item, in the particular specification and in the list of approved materials attached in the tender, shall be used in the work.
4. In case of non-availability of the brand specified in the contract the contractor shall be allowed to use alternate equivalent brand of the material subject to submission of documentary evidence of non-availability of the specified brand. The necessary cost adjustments on account of change shall be made for the material.
5. The Engineer-In-Charge shall verify that manufacturers must have valid IS Certification as on date for materials wherever applicable.

The following brands shall be used if not otherwise mentioned in the items.

MATERIALS	APPROVED BRANDS
AAC Block	JK Laxmi, ECO GREEN, EKOBLOC, AIWON, Nova Green, Hella Infra, NXT Block
ACC Block Adhesive	ACC, ULTRA TECH, J.K., FERROUSCRETE, BAL ENDURA, AEROCON, EKOBLOC, VURA, Hella Infra, NXT Fix
Acoustic False Ceiling and Wall Paneling	Armstrong, Hunter Douglas, USG Boral
Acrylic Distemper / Dry Distemper	Asian Paint, Berger, Nerolac, ICI-Dulux.
Acrylic Emulsion Paints (Interior)	Asian Paints: Royal Luxury Emulsion, Nerolac: Impression Berger: Silk ICI-Dulux: Velvet touch
Acrylic Polymer FOR BOND COAT AND POLYMER MODIFIED MORTAR	Anuvi Chemical, Sunanda Specialty Coating Pvt. Ltd, Ferrouscrete, Yahska
Acrylic Smooth Exterior Paint	Asian Paints : (Apex/Professional Premium Exterior Emulsion), Nerolac: XL Berger: weather Coat, PEARL, PEARL-ULTIMA (Advance Anti-Algal Weatherproof Paint), Snowcem ICI-Dulux: Weather Shield, Gunjan, Godawari, Birla Paint, JSW Paint
ALL TYPE OF SILICONE	DOW CORNING, GE SILICON
Aluminum Extrusions	HINDALCO, JINDAL, Indalco
Aluminum Structural Members - Windows, Glazing and Partitions	Hindalco, Indalco, Jindal Aluminium Ltd.
Aluminum composite panel (ACP)	ALSTRONG, ALUCOBOND, ALUDECOR, EUROBOND, Viva, Raynoarch

Anodised Aluminum Doors Fittings (ISI Marked only)	Classic, Shalimar, Prestige
Bathroom accessories (Towel ring, Towel rack, Soap Dish Holder, etc.)	Cera, Jaquar, Kich, Euronics
C P Brass fittings	JAQUAR, Hindware, EURONICS, Cera
C P Brass, Flush Valve	JAQUAR, zoloto, leader, katar
Calcium Silicate False Ceiling	Aerolite, USG Boral
Cement based Ready Mix Plaster	Ultratech, Wallplast, Buildwell, ACC, Ferrouscrete
Cement Based Wall putty	Birla wall care, JK White, Berger, Asian Paints, Ferrouscrete
Cement Primer	NEROLAC, Berger, BP White (Berger), Decoprime WT (Asian), White primer (ICI). Godavari, Gunjan.
Centrifugally Cast (Spun) Iron Pipes & Fittings	Neco, Kapilansh, SKF, BIC, RPMF (Raj Pattern Makers & Founders)
Chequered Tiles, Paver Block &Kerb Stone	Super Tiles, Hind Mosaic, Vyaara, Kajaria, Ultra Designer Tile, Nitco, Vitco.
CI / FRP Manhole covers, Frames & Gratings	Neco, Kapilansh, SKF,
Clear / Float / Frosted Glass / Mirror	ST. GOBAIN, MODIGUARD, ASAHI, PILKINGTON, SCHOTT, Goldplus
Dash / Anchoring Fasteners	Hilti, Fischer, Arrow, Kundan, Trixel, Wurth
Dash Fastners	HILTI, FISHER, CANON
DI Pipes AND Fittings	ELECTROSTEEL, Kesoram, JINDAL, TATA DUCTURA, Neco, Kapilansh
EPDM Gasket	Amee Rubber Industries Pvt. Ltd., Bohra Rubber, Osaka
Epoxy Paint	ICI, NEROLAC, ASIAN, BERGER,
External Façade/Sun Control Louvers & Fins	Oculus, Hunter Douglas, Hifab
Fire Paint	ASIAN PAINTS, PROMAT, Jotun, Birla Paint, JSW Paint
Fire rated vision panels	SAINT GOBAIN, PILKINGTON, SCHOTT, FERILITE, PYROGUARD
Floor & Wall Tiles: Ceramic / Vitrified tiles / Antiskid / Matt / Glazed	KAJARIA, SOMANY, JOHNSON, RAK, VARMORA, SIMPOLO, Italika
FLOOR SPRING/DEAD LOCK/DOOR CLOSERS/PANIC BAR	DORMA, GEZE, HAFELE, DEFINE, OZONE, KICH
Flush door shutters	Gold Orient, KUTTY FLUSH DOORS, Greenply, A-1 Teak, Century Ply, Duro, Anchor, Archid ply industries Ltd., Jain Door, Samrat, Nippon ply.
GI Fittings	Unik, Zoloto, AVR, R-BRAND
GI Pipes	Zenith / Tata / Jindal / Surya Prakash
GLAZED FIRE DOOR	NAVIER, SAINT GOBAIN, GODREJ, SHAKTI, SCHOTT, Bhawani Fire protection

GRC Jali	Terrafirma, Ecovision, Mahesh GRC, Unistone
GRG False Ceiling	Aerolite, Diamond, Knauf Celling (Armstrong), Gypsonic
GULLY TRAPS(S.W.)	PERFECT, PARRY, CHERRY
Gypsum Board	SAINT GOBAIN, BORAL
Gypsum Board False Ceiling	Gyproc, Knauf, Aerolite
Gypsum Plaster	Gyproc (elite-90), Asian Paints, Ferrouscrete, Dudhi
Hardware for Kitchen cabinet, ward robe and shelves	Godrej, EBCO, KAFF, SLEEK, Hafele, dorma, OZONE, KICH, Define
HDPE Pipe	Reliance, Jain Pipes, ORIPLAST, Supreme, Prince, Ashirwad, Astral, Vasani
Hermitically sealed performance glass toughened Glass, DGU	AUTHORIZED FABRICATORS (MODI GUARD, SAINT GOBAIN, TATA ASAHI, HNG, AIS-GLEVERBEL, PILKINGTON
High-pressure laminate	Formica, Merino, Greenlam, Century, Archid ply industries Ltd., Samrat, Ever Shine Decore Pvt Ltd, Stylem
Hub less CI Pipes & Fittings	Neco, Kapilansh, SKF, RPMF (Raj Pattern Makers & Founders)
Lead Lined Doors	Dorma, Shakti Hormann, Gezep
RMC producers	A.C.C., ULTRA TECH, READY MIX INDIA (PVT.) LTD, NUVOCO, J K Laxmi and/or as approved by CE, Gandhinagar
Melamine Polish	ASIAN PAINTS (MELAMYNE GOLD), PIDILITE INDUSTRIES (WUDFIN), ICI DULUX (TIMBERTONE), BERGER, Birla Paint, JSW Paint
Metal-Fire rated Door Shutters	Godrej, Sukri, Bhawani Fire protection, Shakti Hormann, Ozone, Navier
Metallic False Ceiling	Hunter Douglas, SAINT GOBAIN, Knauf Celling (Armstrong) Grid square, Oculus
MICRO CONCRETE	DR. FIXIT, BASF, FOSROC, Ferrouscrete, Asian paint
Mineral Fiber False Ceiling	Knauf Celling (Armstrong)
Mortice lock	Godrej, Harrison, Hettich, Hafele, OZONE, KICH, Define
Oil Bound Washable Distemper / Dry Distemper	Asian paint : (Professional Acrylic Distemper), NEROLAC: Beauty Acrylic Distemper Berger: Bison Acrylic Distemper, snowcem, Birla Paint, JSW Paint, Dulux ICI: Maxilite, Godavari.
Ordinary Portland Cement / Portland Pozzolana Cement	Ultra Tech, A.C.C., Ambuja, Birla, Jaypee Cement, J.K. Laxmi Cement, Dalmia, Shree Cement, Kamal Cement (Shree Digvijay Cement Company Ltd.), HI-BOND Cement, Hathi cement (Saurashtra Cement Limited.), NUVOCO
Parallel Threaded Couplers	DEXTRA, G-TECH, Spplcetek, JD Enterprises
Particle board	Action TESA, Greenlam, Merino, Kitply
Plastic seat with Lid	Parryware, Hindware, Jaquar
Plasticizer, Super Plasticizer, Admixtures, Other construction	Sika, Fosroc, BASF, Dr. Fixit, Weber (Saint Gobain), Asian paints, Ferrouscrete, CAC

chemicals	
Plywood	KITPLY, GREEN PLY, CENTURY, Anchor, Regency wood panel Pvt. Ltd, Nippon ply, Archid Ply, Samrat.
Poly-Sulphide Sealant	Fosroc, Pidilite, Sika, BASF, Ferrouscrete
Polycarbonate sheet/Multi walled polycarbonate Sheet	GE Silicones (GE-LEXAN), Polygal India Pvt. Ltd., Tuflite Dalphalon, Coxwell MG Polyplas, Hindeggan Alcox Ltd., DPI Day Lightings Ltd.Tilara
Polymer modified cementitious grout / Tile Adhesive	ARDEX ENDURA, LATECRETE, FOSROC, BASF, ACC., Vura
Premium Acrylic Smooth Exterior Paint with Silicon additive	Asian Paints: Apex Ultima, Nerolac: XL Total, Berger: weather Coat all guard, ICI-Dulux: Weather Shield max, Birla Paint, JSW Paint
PTMT (ISI Marked only)	Prayag, Polytuf
PVC water tank	Sintex, Plasto, Ashirwad, National Plastic, Kaveri, Supreme
RCC Pipes	Jain Spun Pipes, LAKSHMI, SOOD& SOOD, PRAGATI, K.K. Spun Pipe, The Indian Hume Pipe Co.Ltd., Patel Hume Pipes
Re-barring Chemical	HILTI, 3M INDIA, Fischer
READYMADE SINGLE COMPONENT POLYMER MODIFIED REPAIR MORTAR	MASTER EMACO S 348 OF BASF, ANUVI CHEMICAL, SUNANDA SPECIALITY COTING PVT.LTD, SKG CONSTN, Ferrouscrete
Reinforcement Steel	SAIL, TATA, RINL, Jindal Steel &Power Ltd., JSW Steel Ltd.
Roller Blind	Vista, Hunter Douglas, MAC
Rolling Shutter with Grills	STANDARD, SWASTIK, SHUBDHWAR, SONA
Rust Passivator	Anuvi Chemical, Sunanda Specialty Coating Pvt. Ltd, Asian paint
Rust remover	Anuvi Chemical, Sunanda Specialty Coating Pvt. Ltd, Asian paint
Sanitary ware	Parryware, Hindware, Jaquar, EURONICS, Cera
SBR COMPOUND (For REPAIR MORTAR & WATERPROOFING SLURRY)	MASTER EMACO SBR2 OF BASF, SIKA LATEX POWER, CICO LATEX, Ferrouscrete., Asian paint
SFRC Covers	KK spun pipes, Jain spun pipes, SS industries
Silicon based water repellent/ Weather Sealant	GE Plastics, Dow Corning, Wacker, BASF, Pidilite, Ferrouscrete.
SPIDER FITTINGS	DORMA, HAFELE, OZONE, Define
SS Hardware and accessories for Doors and fire doors	DORMA, HAFELE, GEZE, Hormann, DEFINE, KICH, Hettich, OZONE, Dorset
SS Railing	Dorma, D line, KICH, Jindal, Godrej, Hafele, Define
Stainless Steel	Salem Steel, Jindal, JSW
Stainless Steel Sink	Nirali, Cera, Jaquar, Neelkantha, STAR, JAYNA

Steel Door / Window Frames	AGEW, SenHarvik, Shiv Mular, Steel Plast
Steel Primer (Red Oxide Zinc Chromate Primer)	Asian paints, Berger, ICI, NEROLAC, Birla Paint, JSW Paint
Stone Ware Pipes Grade-A (ISI Marked only)	Sonya, Supertech, Cherry
Structural Glazing Fabricators	Glaze Techno India, Ajit India Pvt. Ltd or any other agency who has executed work of similar nature and quantum
Structural Steel/Tubes	Tata Steel, SAIL, RINL, JSW, JSPL, APL Apollo, Prakash Surya
Synthetic Enamel Paint	Asian Paints: Apcolite Premium Gloss Enamel, Nerolac: Synthetic Hi Gloss, Berger: Luxol Hi Gloss ICI-Dulux: Gloss Synthetic Enamel, Gunjan, Godawari Birla Paint, JSW Paint
Textured Exterior Paint	Asian paints, Nerolac, Berger Paints, Ultratech Paints, Luxture, SPECTRUM, INSPIRA, Renovo, Jotun
UPVC / CPVC Pipe & Fittings	Finolex, Supreme, Prince, Astral, Ashirwad, Raksha, IS MC, Vasani, Prayag, KSR, Birlanu, Vigor
UPVC DOORS & windows (Profile makers & their authorized Fabricators only)	Fenesta, Kommerling, Aluplast, Duroplast, VEKA, KAKA, Prominace
UPVC DOORS & windows Hardware	Rotto, Dorset, Kinlong
Valves	Zoloto, Sant, KIRLOSKAR, LEADER
Vinyl flooring	Armstrong, Gerfloor, Tarkett
Vitrified paver tiles	Kajaria, Pavit, Johnson, Nitco, Vitco
Waterproofing Base Coat	Dulux aquatic, DOCTOR FIXIT (Pidilite), Akona
Water supply CP Fittings & Accessories	Cera, Jaquar, Somany, Hindware, EURONICS
Waterproofing Compound	BASF, CICO, SIKA, Fosroc, Penetron, Ferrouscrete.
White Cement	J.K., Birla, Ultratech
Wood Primer	Asian paint (Wood Primer- White/Pink), Berger ICI, NEROLAC
WPC Shutters & Frame	Rajashree, Jayna, KAKA
HDPE membrane for waterproofing	Tikidan, Fosroc, BASF, Zypex, CICO
Integral Crystalline Water Proofing Compound	Penetron, Xypex, Zypex
Factory made Modular Kitchen	Godrej Interio, Haecker, Hafele, Herman Miller, Sleek, Zuari, Johnson Kitchen, Asian Paint
Crystalline Water Proofing Coating	Penetron, Zypex, Hygie

Note: -

1. The above makes are subjected to the compliance of Make in India norms.
2. The Chief Engineer-Gandhinagar, CPWD, Gandhinagar reserves the right to add or delete any material and brands in the list of preferred makes of civil work.



**GOVERNMENT OF INDIA CENTRAL
PUBLIC WORKS DEPARTMENT**

**PART-C
ELECTRICAL WORK**