



Executive Engineer (Civil-II), CPWD, Vadodara.

NOTICE INVITING e-TENDERS

NIT No.: **02/EE(C)-II/Vadodara/2026-27**

Name of work: **Renovation work of Vice Chancellor's Bungalow at IRMA Campus, Anand (Gujarat).**

Composite Estimated cost	Rs.14,88,172/- (Civil Rs.13,85,561/- + Elect. Rs.1,02,611/-)
<i>Earnest Money</i>	Rs.29,763/-
<i>Period of Completion</i>	02 (Two) Months

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It is certified that the above-mentioned documents contain two parts (Part A, Part B & Part-C) containing page Nos. 1 to 156.

*Executive Engineer(C)-II
CPWD, Vadodara*

INFORMATION AND INSTRUCTIONS FOR BIDDERS FOR E-TENDERING FORMING PART OF BID DOCUMENT AND TO BE POSTED ON WEBSITE.

The Executive Engineer(C)-II, CPWD, Vadodara (Emailid: ee-iiitvdpd@cpwd.gov.in) invites on behalf of President of India online percentage rate bids from approved and eligible contractors of CPWD in appropriate class of **Buildings & Roads (erstwhile composite/Building/infrastructure) category** for the following work.

S. No.	NIT No.	Name of work & Location	Estimated cost put to bid	Earnest Money	Stipulated Period of completion of Work (in Months)	Last date & time of online submission of bid, EMD, copy of receipt or deposition of original Bank Guarantee and other Document as specified in the bid document	Time and date of opening of bid
01	02/EE(C)-II/Vadodara/2026-27	Renovation work of Vice Chancellor's Bungalow at IRMA Campus, Anand (Gujarat)	Rs.14,88,172/- (Civil Rs.13,85,561/- + Elect. Rs.1,02,611/-)	Rs. 29,763/-	02 (Two) Months	Up to 3.00 PM on 28.08.2026	At 3.30 PM on 28.08.2026

1. The intending bidder must read the terms and conditions of CPWD-6 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
2. Information and Instructions for bidders posted on website shall form part of bid document.
3. The 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 <http://etender.cpwd.gov.in> or www.cpwd.gov.in free of cost.
4. But the bid can only 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 (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.

5. 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 before hand. The necessary training materials including the videos with step-to-step process are available on download section of <http://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 eMSigner 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** colour 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, rate of such item shall be treated as "0" (ZERO).
However, if a tenderer quotes nil rates against each item in item 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. If the contractor is found ineligible after opening of bids, his bid shall become invalid.

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

- I. Insurance Surety Bonds/Account Payee Demand Draft/Fixed Deposit Receipt/Banker's Cheque and Bank Guarantee (for balance amount as prescribed) from any of the Commercial Banks against EMD. (The EMD should be in favour of "**Executive Engineer, Vadodara Central Division, CPWD, Vadodara**". **Non compliance bids shall be summarily rejected**).
- II. Enlistment order of the contractors of CPWD in appropriate class of Buildings & Roads (erstwhile composite/Building/infrastructure) category.
- III. 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 following undertaking alongwith 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 account of the work executed and/or for any action taken by CPWD or GST department in this regard".
- IV. Copy of receipt for deposition of original EMD issued from division office of any Executive Engineer, CPWD (**including NIT issuing EE**). The EMD receiving Executive Engineer (**including NIT issuing EE**) shall issue a receipt of deposition of earnest money deposit to the bidder in a prescribed format, up loaded by tender inviting EE in the NIT (**Annexure-I**).
- V. Copy of ERP training Certificate (The enlisted contractors will not be allowed to participate in tendering process without uploading the E.R.P Training Certificate).
- VI. Affidavit/ Undertaking on structural stability and soundness as per prescribed format **form F** on **Rs. 200/- Non-Judicial Stamp Paper** duly notarized.
- VII. Valid electrical license of eligible class in the **state where the work is to be performed**, if already obtained by the bidder. If the bidder is not obtained the electrical license as applicable, then shall scan and upload the undertaking that "I/We will either obtain valid electrical license of eligible class in the state where work is to be performed prior to execution of electrical works or associate contractors having **valid electrical license of eligible class in the state** where the work is to be performed".

**Executive Engineer(C)-II,
CPWD, Vadodara**

Insertion : Nil

Correction : Nil

Omission : Nil

AE(P)... / EE(C).....

Additional Instructions to the bidders For Submission of Tenders

1. *Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves for submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra cost 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.*
2. *GST applicable as per Government norms up to date and future circulars. Contractor should quote the rate including GST as per Govt. norms, nothing to be reimbursed against GST directly.*

RECEIPT OF DEPOSITION OF EMD

(Receipt No. / date))

1. Name of work: **Renovation work of Vice Chancellor's Bungalow at IRMA Campus, Anand (Gujarat).**
2. NIT No. : **02/EE(C)-II/Vadodara/2026-27**
3. Estimated Cost: Rs.14,88,172/- (Civil Rs.13,85,561/- + Elect. Rs.1,02,611/-)
4. Amount of Earnest Money Deposit to be (In favour of : **Executive Engineer, Vadodara Central Division, CPWD, Vadodara**) : **Rs. 29,763/-**
5. Last date & Time of submission of Bid :Up to 3.00 PM on 28.08.2026.

(* To be filled by NIT approving authority/ EE at the time of issue of NIT and uploaded along with NIT)

Name of Contractor:#.....

1. Form of EMD#.....

2. Amount of Earnest Money Deposit#.....

3. Date of submission of EMD#.....

.....

Signature, Name and Designation of EMD
Receiving officer (EE/DDH/AE(P)/AE/AAO) along with Officer stamp

Note:-

- 1 The Executive Engineer receiving EMD in original form shall examine the EMD deposited by the bidder and shall issue a receipt of deposition of earnest money to the agency in a given format uploaded by tender inviting EE. The receipt may be issued by the AE(P)/AE/AAO.
- 2 The Executive Engineer receiving original EMD shall also intimate tender inviting Executive Engineer about deposition of EMD by the agency by email/ fax/telephonically.
- 3 The original EMD receiving Executive Engineer shall release the EMD after verification from the e-tendering portal website www.etender.cpwd.gov.in. free view> advance search>awarded tenders) that the particular contractor is not L-1 tenderer and work is awarded.
- 4 The tender inviting Executive Engineer will call for original EMD of the L-1 tenderer from EMD receiving Executive Engineer immediately.

Form-F

(Affidavit on Non-Judicial Stamp paper)

Undertaking on structural stability and soundness of already completed buildings and infrastructure Projects.

To,
The Executive Engineer(C)-II
Central P.W.D., Vadodara

I/we hereby give an undertaking for the given work as follows:

NIT No. : **02/EE(C)-II/Vadodara/2026-27**

Name of work: *Renovation work of Vice Chancellor's Bungalow at IRMA Campus, Anand (Gujarat)*

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 the Engineer-in-Charge or any higher authority shall be final and binding.

Signature of
Notary with seal

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

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

UNDERTAKING REGARDING ELECTRICAL LICENCE

To,
The Executive Engineer(C)-II
Central P.W.D., Vadodara

Subject :- *Renovation work of Vice Chancellor's Bungalow at IRMA Campus, Anand (Gujarat)*

Sir,

Having examined the details given in press notice and bid document for the above work, I/we hereby submit the following:

*"I/We will either obtain valid electrical license of eligible class in the **State** where work is to be performed prior to execution of electrical works or associate contractors having valid electrical license of eligible class in the **State** where the work is to be performed".*

Seal of bidder:

Date of submission:

Signature(s) of Bidder(s)

PART – A

NOTICE INVITING e-TENDER (CPWD-6),

TENDER FORM (CPWD-7),

SCHEDULES - A TO F FOR MAJOR COMPONENT OF WORK
AND STANDARD GCC FOR CPWD CONSTRUCTION WORK-
2023 AMENDED/ MODIFIED UP TO LAST DATE OF TENDER
SUBMISSION

CPWD-6 FOR e-Tendering

1. Percentage rate bids are invited on behalf of President of India from approved and eligible contractors of CPWD registered for Composite category for the work of **“Renovation work of Vice Chancellor's Bungalow at IRMA Campus, Anand (Gujarat).”**

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

- 1.1 The work is estimated to cost **Rs.14,88,172/- (Civil Rs.13,85,561/-+Elect. Rs.1,02,611/-)**. This estimate, however, is given merely as a rough guide.
- 1.1.1 The authority competent to approve NIT for the combined cost and belonging to the major discipline will consolidate NITs for calling the bids. He will also nominate Division, which will deal with all matters relating to the invitation of bids. For composite bid, besides indicating the combined estimated cost put to bid, should clearly indicate the estimated cost of each component separately. The eligibility of bidders will correspond to the combined estimated cost of different components put to bid.
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 **02 (Two) 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.

OR

~~The site for the work shall be made available in parts as specified below~~

- (ii) The architectural and structural drawings for the work are available.

Or

The contractor shall submit the shop drawings duly prepared by the skilled fabricator (as per site layout and orientation) and submit the same to department well in advance say 15 days before the start of activity for approval of the same as per existing pattern being followed in the campus.

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 <http://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. ~~When bids are invited in three stage system and if it is desired to submit revised financial bid then it shall be mandatory to submit revised financial bid. If not submitted then the bid submitted earlier shall become invalid.~~
9. Earnest Money in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipts, Banker's Cheque or Bank Guarantee (for balance amount as prescribed) from any of the Commercial Banks (drawn in favour of **Executive Engineer, Vadodara Central Division, CPWD, Vadodara**) shall be scanned and uploaded to the e-tendering website within the period of bid submission. **The original EMD should be deposited either in the office of Executive Engineer 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.
- This receipt shall also be uploaded to the e-tendering website by the intending bidder up to the specified bid submission date and time.**
- A part of earnest money is acceptable in the form of bank guarantee also. In such case, minimum 50% of earnest money or Rs. 20 lac, whichever is less, shall have to be deposited in shape prescribed above, and balance may be deposited in shape of Bank Guarantee of any Commercial bank having validity for a period of six months 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 thirty days of declaration of result of technical bid evaluation.
- 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 to the e-Tendering website within the period of bid submission. However, certified copy of all the scanned and uploaded documents as specified in e-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, whose original EMD deposited with any division of CPWD and other scanned documents are found in order.**
- The bid submitted shall be opened at 3.30 PM on 28.08.2026.**
10. The bid submitted shall become invalid and e-Tender processing fee shall not be refunded if:
- The bidder is found ineligible.
 - The bidders does not deposit original EMD with division office of any Executive Engineer, CPWD.
 - The bidders does not upload scanned copies of all the documents as stipulated in the bid document.
 - 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.
 - 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.

11. The contractor whose bid is accepted will be required to furnish **performance guarantee of 5% (Five Percent) of the ECPT or Contract Amount whichever is higher as per OM No. DG/CON/Construction 2023/20 dated 27/02/2026** 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 the aforesaid provisions by the sub contractors, if any engaged by the contractor for the said work and Programme Chart (Time and Progress) within the period specified in Schedule F.
12. *Description of the work for general reference and SOQ prevails over those provisions is as follows: "Renovation work of Vice Chancellor's Bungalow at IRMA Campus, Anand (Gujarat). "*
- Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidder 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.*
13. *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 bidder shall be summarily rejected.*
14. *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.*
15. *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 bidder shall be bound to perform the same at the rate quoted.*
16. *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.*
- Insertion : Nil Correction : Nil Omission : Nil AE(P)... / EE(C).....*

Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department.

17. 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.
18. The bid for the works shall remain open for **acceptance for a period of thirty (30) days from the date of opening of bids in case of single bid system and 75 (seventy five) days from the date of opening of technical bids in case bids are invited in 2 or 3 bid system.**

Further

- i) If any tenderer withdraws his tender or makes any modifications in the terms and conditions of the tender which is not acceptable to the department within 7 days after the last 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 modifications in the terms and conditions of the tender which is not acceptable to the department after expiry of 7 days after the 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.
19. This notice inviting Bid shall form a part of the contract document. The successful bidders/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/ 8** or other Standard C.P.W.D. Form as applicable.

20. For Composite Bids

The Executive Engineer in charge of the major component will call bids for the composite work. The cost of bid document and Earnest Money will be fixed with respect to the combined estimated cost put to tender for the composite bid.

The bid document will include following components:

Part A:-CPWD-6, CPWD-7 including schedule A to F for the major component of the work, Standard General Conditions of Contract for CPWD 2023 (Construction Works) as amended/modified up to the last date of submission of tender.

Part B:-General / specific conditions, specifications and schedules of quantities applicable to major component (s) of the work.

Part C :- Schedule A to F for minor component of the work. (Competent authority under clause 2 and clause 5 shall be same authority as mentioned in schedule A to F for major components), General/specific conditions, specifications and schedule of quantities applicable to minor component(s) of the work.

The bidders must associate himself, with agencies as per NIT condition.

~~The eligible bidders shall quote rates for all items of major component as well as for all items of minor components of work.~~

After acceptance of the bid by competent authority, the EE in charge of major component of the work shall issue letter of award on behalf of the President of India. After the work is awarded, the main contractor will have to enter into one agreement with EE in charge of major component and has also to sign two or more copies of agreement depending upon number of EE's/DDH in charge of minor components. One such signed set of agreement shall be handed over to EE/DDH in charge of minor component(s).

EE of major and minor component will operate **Part A and Part B** of the agreement.

EE/DDH in charge of minor component(s) shall operate Part C alongwith Part A of the agreement.

Entire work under the scope of composite bid including major and all minor components shall be executed under one agreement.

Security Deposit will be worked out separately for each component corresponding to the estimated cost of the respective component of works.

The main contractor has to associate agencies for specialized component(s) conforming to eligibility criteria as defined in the bid document and has to submit detail of such agency(s) to Engineer-in-charge of relevant component(s) within prescribed time. Name of the agency(s) to be associated shall be approved by Engineer-in-charge of relevant component(s).

In case the main contractor intends to change any of the above agency/agencies during the operation of the contract, he shall obtain prior approval of Engineer-in-charge of relevant specialized component(s).

The new agency/agencies shall also have to satisfy the laid down eligibility criteria. In case Engineer-in-charge is not satisfied with the performance of any agency, he can direct the contractor to change the agency executing such items of work and this shall be binding on the contractor.

The main contractor has to enter into MoU with agency(s) associated by him. Copy of such MoU shall be submitted to EE/DDH in charge of each relevant component as well as to EE in charge of major component. In case of change of associate contractor, the main agency(s) has to enter into MoU/agreement with the new- contractor associated by him.

Running payment for the major component shall be made by EE of major discipline to the main contractor. Running payment for minor components shall be made by the Engineer-in-charge of the discipline of minor component directly to the main contractor. The CMB shall be maintained independently by Engineer-in-Charge of major and minor components.

A. The composite work shall be treated as complete when all the components of the work are complete. The completion certificate of the composite work shall be recorded by Engineer-in-charge of major component after record of completion certificate of all other components.

20.1.12B. Final bill of whole work shall be finalized and paid by the EE of major component. Engineer(s) in charge of minor component(s) will prepare and pass the final bill for their component of work and pass on the same to the EE of major component for including in the final bill for composite contract.

21. ~~Integrity Pact: The contractor shall download the Integrity Pact, which is a part of tender documents, affix his signature in the presence of a witness, and upload the same while submitting online bids for all works of estimated cost put to tender equal or more than the threshold value given in Schedule'F. In the event of his failure to sign and upload the Integrity Pact along with other bid documents, his bid shall be rejected.~~
- 22 The intending bidders are required to update their profile in CPWD e-tender issue related to updating profile / uploading tender can be resolved through the concerned Executive Engineer/ Assistant Engineer (Email Id- ee-iiitvpd@cpwd.gov.in) or ERP help line 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. (As per DG/SOP/36 dated 25.03.2022).
- 23 Specialized works shall be got executed only through associated agencies specialized in these fields. Engineer-in-charge shall define list of specialized work.

GOVERNMENT OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT

CPWD-7

PERCENTAGE RATE TENDER & CONTRACT FOR WORKS

- (A) Tender for the work of: **Renovation work of Vice Chancellor's Bungalow at IRMA Campus, Anand (Gujarat).**
- (i) To be uploaded by **3.00 PM** on **28.08.2026** at <http://etender.cpwd.gov.in>
- (ii) To be opened in presence of tenderers who may be present at **3.30 PM** on **28.08.2026** in the office of **Executive Engineer(C)-II, CPWD, Vadodara.**

TENDER

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

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

We agree to keep the tender open for **Thirty (30) days** from the due date of its opening and not to make any modification in its terms and conditions.

A sum of **Rs.29,763/-** is hereby forwarded in Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee (for balance amount as prescribed) from any of the Commercial Banks as earnest money.

A copy of earnest money in Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee (for balance amount as prescribed) from any of the Commercial Banks 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 and 12.3 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 Department, then I/We shall be debarred for tendering in CPWD in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

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

Dated

Signature of Contractor

Witness:

Postal Address

Address:

Occupation:

ACCEPTANCE

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

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

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

For & on behalf of President of India

Signature

Dated:

Designation

PROFORMA OF SCHEDULES (Civil Part :- A to F)

SCHEDULE 'A' Schedule of quantities (as per PWD-3)	As per enclosed Schedule of Quantities.
SCHEDULE 'D' Extra schedule for specific requirements/ document for the work, if any.	Nil
SCHEDULE 'E' Reference to General Conditions of contract.	GCC 2023 (Construction Works), CPWD form 7 as modified & corrected up to previous day of the last date of submission of the tender.
Name of Work	Renovation work of Vice Chancellor's Bungalow at IRMA Campus, Anand (Gujarat).
Estimated cost of work	Rs.14,88,172/- (Civil Rs.13,85,561/- + Elect. Rs.1,02,611/-)
i) Earnest money	Rs. 29,763/- (To be returned after receiving Performance Guarantee)
ii) Performance guarantee	(a) 5% of tendered value or Estimated Cost Put to Tender (ECPT) (whichever is higher). (b) Where the tendered amount is less than eighty percent (80%) of the Estimated Cost Put to Tender (ECPT), the Performance Guarantee, in addition to the requirement under (a) above, shall be increased by an amount equal to the difference between eighty percent (80%) of the of the ECPT and the tendered amount.
iii) Security deposit	2.5% of tendered value
SCHEDULE 'F' GENERAL RULES & DIRECTIONS:	
Officer inviting tender	Executive Engineer(C)-II, C.P.W.D, Vadodara or his successor thereof.
Definitions:	
2(vi) Engineer-in-Charge	Executive Engineer(C)-II, C.P.W.D., Vadodara.
2(viii) Accepting Authority	Executive Engineer(C)-II, C.P.W.D., Vadodara.
2(x) Percentage on cost of materials and labour to cover all overheads and profits:	15%
2(x)(a) Standard Schedule of Rates	D.S.R. 2023 with correction slips issued up to the last date of submission of tender.

2(xi) Department	Central Public Works Department.																								
9(ii) Standard CPWD Contract Form GCC 2020. CPWD Form 7/8 as modified & corrected upto	Standard CPWD contract Form General Conditions of Contract (Construction works 2023), CPWD Form 7 asmodified & corrected up-to previous day of the last date of submission of the tender.																								
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.	07 days																								
(ii) Maximum allowable extension with late fee @ 0.1% per day of Performance Guarantee amount beyond the period provided in (i) above(1 to 15 days to be filled by NIT approving authority)	03 days																								
Clause 2																									
Authority for fixing compensation under clause 2.	Superintending Engineer, C.P.W.D., Vadodara Or successor thereof.																								
Clause 5																									
Number of days from the date of issue of letter of acceptance for reckoning date of start Mile stone(s) as per table given below:-	10 days																								
<table><tr><th colspan="4">Table of Mile stone(s)</th></tr><tr><th>Sl.No.</th><th>Description of Milestone(<i>Financial/Physical</i>)</th><th>Time Allowed in days (from date of start)</th><th>Amount to be with-held in case of non achievement of milestone</th></tr><tr><td>1.</td><td>1/8th (of the whole work)</td><td>1/4th (of the whole time)</td><td>1.25% of the accepted tendered value.</td></tr><tr><td>2.</td><td>3/8th (of the whole work)</td><td>1/2th (of the whole time)</td><td>1.25% of the accepted tendered value.</td></tr><tr><td>3.</td><td>3/4th (of the whole work)</td><td>3/4th (of the whole time)</td><td>1.25% of the accepted tendered value.</td></tr><tr><td>4.</td><td>Full work</td><td>Full time</td><td>1.25% of the accepted tendered value.</td></tr></table>		Table of Mile stone(s)				Sl.No.	Description of Milestone(<i>Financial/Physical</i>)	Time Allowed in days (from date of start)	Amount to be with-held in case of non achievement of milestone	1.	1/8 th (of the whole work)	1/4 th (of the whole time)	1.25% of the accepted tendered value.	2.	3/8 th (of the whole work)	1/2 th (of the whole time)	1.25% of the accepted tendered value.	3.	3/4 th (of the whole work)	3/4 th (of the whole time)	1.25% of the accepted tendered value.	4.	Full work	Full time	1.25% of the accepted tendered value.
Table of Mile stone(s)																									
Sl.No.	Description of Milestone(<i>Financial/Physical</i>)	Time Allowed in days (from date of start)	Amount to be with-held in case of non achievement of milestone																						
1.	1/8 th (of the whole work)	1/4 th (of the whole time)	1.25% of the accepted tendered value.																						
2.	3/8 th (of the whole work)	1/2 th (of the whole time)	1.25% of the accepted tendered value.																						
3.	3/4 th (of the whole work)	3/4 th (of the whole time)	1.25% of the accepted tendered value.																						
4.	Full work	Full time	1.25% of the accepted tendered value.																						
Note: The withhold milestone will only be released when subsequent milestone is achieved within the specified time.																									
Time allowed for execution of work	02 (Two) Months																								

Authority to decide:			
(i) Authority to convey the decision of shifting of milestone and extension of time	<i>Executive Engineer (C)-2, CPWD, Vadodara Or successor thereof</i>		
(ii) Authority to decide rescheduling of milestone and extension of time.	<i>Executive Engineer (C)-2, CPWD, Vadodara Or successor thereof</i>		
(iii) Shifting of date of start in case of delay in handing over of site.	<i>Executive Engineer (C)-2, CPWD, Vadodara Or successor thereof</i>		
Clause 5 Schedule of handing over of site			
Part	Portion of Site / Design	Description	Time Period for handing over reckoned from date of issue of letter of intent.
Part A	Portion without any hindrance.	-----	10 days
Part B	Portions with encumbrances	-----	Not Applicable
Part C	Portions dependent on work of other agencies	----	Not Applicable
Clause 5			
Applicable Clause 5 / 5A		Clause 5	

Clause-5.1 (iv):

Schedule of rate of recovery for delay in submission of time & progress chart by 5th of each month in terms of delay days: Rs 2,000/- per week.

Clause-5.4:

Schedule of rate of recovery for delay in submission of the modified programme in terms of delay days:

Sl. No.	Contract Value	Recovery (Rs.)
I	Less than or equal to Rs. 1 Crore	Rs. 500 per
II	More than Rs. 1 Crore	Rs. 1000 per day

Clause 6 : Computerised Measure Book (CMB)/ Electronic Measurement Book (EMB)	
(i) Mode of measurement : CMB/EMB	Electronic Measurement Book (EMB) (Unless otherwise decided by E-I-C)
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.	Tendered cost divided by stipulated completion time in month.
Clause 7A Whether Clause 7A shall be applicable.	Yes, (No running Account Bill shall be paid for the work till the applicable GST registration of the same State in which work is to be taken up, labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are submitted by the contractor to the Engineer-in-charge).

Clause 10A General list of testing equipment to be provided by the contractor at site lab as per work requirement and as per direction of Engineer-in-charge.	(i) Sieve set (ii) Slump Cone set (iii) Weighing balance (iv) Cube Set (v) Compressive testing machine (vi) Oven (vii) Measuring Jar (viii) Moisture Metre (ix) Screw Gauge and Vernier Calipers. (x) Hammer (xi) Screw driver (xii) Bitumen extractor (xiii) Any other work specific apparatus Or The agency at his own discretion may request to waive off the major apparatus required to be used for test conducted at the site lab if he is willing to get all the test done in the lab approved by the department/government lab at his own cost. The decision of engineer in charge shall be final and binding.
Clause 10B (ii) Whether Clause 10 B (ii) shall be applicable	Yes /No
Clause 10C Component of labour expressed as percent of value of work	Not Applicable

Clause 10CC	Not Applicable
Clause 10 CC to be applicable in contracts with stipulated period of completion exceeding the period shown in next column:	Not Applicable
Schedule of component of other Materials, Labour etc. for price escalation.	NA
Component of civil (except materials covered under clause 10CA)/ Electrical construction- value of work (Xm)	NA
Component of Labour- expressed as percent of total value of work.(Y)	NA
Component of P.O.L. expressed as percent of total value of work.	NA

Clause 11		
Specifications to be followed for execution of work		CPWD Specifications 2019, Volume-I and II with correction slips issued up to the last date of submission of e-bid.
Clause 12		Construction work
Clause 16		
Competent authority for deciding reduced rates.		Superintending Engineer CPWD, Vadodara Or his successor thereof.
Clause 18 List of machinery, tools & plants to be deployed by the contractor at site:- As stated in tender document i.e. particular specifications and special conditions specifically (if any).		
Clause	Rate of recovery for default (Rs.)	
Clause 19 C	Rs. 500/- per day	
Clause 19 D	Rs. 1000/- per fortnightly report	
Clause 19 G	Rs. 2000/- per day for each day of default (Subjected to maximum 5% of Estimated cost put to tender).	
Clause 19 K	Rs.1000/- per tradesman per day. (This clause will not applicable when Estimated cost put to tender is less than Rs. 5 crore.)	
Clause 25		
(i) Conciliator	SDG, Region Mumbai, CPWD, Mumbai.	
(ii) Arbitrator Appointing Authority	Superintending Engineer, CPWD, Vadodara.	
(iii) Place of Arbitration	Vadodara.	

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 36(i)	
	Qualification	Number (of major + minor Component)			Figures	Words
1	Graduate Engineer Or Diploma Engineer	1 (Civil Engineering)	2 or 5 respectively	Project Manager cum Planning/ quality/Site/ Billing Engineer	Rs. 15000/- per month per person	Rs. Fifteen Thousand per month per person

Notes:

- 1) Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers.
- 2) Diploma holder with minimum 10 year 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.

Clause 38

(i)	(a)	Schedule/ statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rates 2023 with up-to-date correction slips.	D.S.R. 2023 with correction slips up to the last date of submission of tender.
(ii)		Variations permissible on theoretical quantities:	Variations
	(a)	Cement For works with estimated cost put to tender not more than Rs. 25 lakh.	3% plus/minus
		For works with estimated cost put to tender more than Rs.25 lakh.	2% plus/minus
	(b)	Bitumen all works	2.5% plus only & 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

Note:- In case contractor is permitted to use structural steel procured from secondary producers (As approved by Engineer-in-charge) then:- The rate quoted by contractor of relevant item in tender of structural steel work shall be reduced by Rs. 6.00 per kg.

1/2

Central Public Works Department
Office Memorandum
No. DG/CON/Construction-2023/02

ISSUED BY THE AUTHORITY OF DIRECTOR GENERAL, CPWD
Nirman Bhawan, New Delhi Dated: 14.11.2023
Subject: Amendments in Clause 32, Schedule F of Clause 11 and 32 of GCC
2023 Construction Works.

The following amendments in Clause 32, Schedule F of Clause 11 and 32
are made in the GCC 2023 for Construction Works.

Existing Provision	Modified Provision
Clause 32 Employment of Technical Staff and employees	Clause 32 Employment of Technical Staff and employees
Contractors Superintendence, Supervision, Technical Staff & Employees	Contractors Superintendence, Supervision, Technical Staff & Employees
Sl. No. (i) and (iii)	No change
(iv) No Provision	(iv) Building Information Model (BIM) professional shall be deployed by the contractor for the projects wherever required as mentioned in Schedule F. The BIM professional shall be available for the work as and when required by Engineer-in-Charge. The BIM professional will study 3D architectural models, architectural drawings generated from 3D models, service drawings and structural drawings. The BIM professional will interact with architects, planning & site engineers to get the clashes removed. The recovery shall be made from bill of contractor in case of non-deployment of BIM Professionals/technical staff as mentioned in Schedule 'F' of NIT without giving any notice in writing. The decision of Engineer-in-Charge in this respect is final and binding on the contractor.

21/11/2023
R.K. JAIN
(EE (Contact))

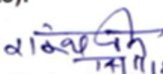
SCHEDULE 'F' Clause 11 Specifications to be followed for execution of work No provision	SCHEDULE 'F' Clause 11 Specifications to be followed for execution of work i. Building information model (BIM) is applicable and BIM professional to be deployed by contractor (NIT approving authority to write Yes or No)
SCHEDULE 'F' Clause 32 Requirement of Technical Representative(s) and recovery Rate Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers. Diploma holder with minimum 10 year 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. No Provision	SCHEDULE 'F' Clause 32 Requirement of Technical Representative(s) and recovery Rate No Change. No Change. Minimum recovery for not deploying Building Information Model (BIM) professional shall be Rs. two lac per month or as mentioned above, whichever is higher.

This issues with the approval of DG CPWD.


 14.11.2023
 (V.P. Sahu)
 Superintending Engineer (C&M)

Issued from file No. CSQ/CM/17 (1)/2023/Construction e-file 9162768

All CPWD and PWD officers for information and necessary action.
(Through CPWD website).


 14/11/2023
 R.K. JAIN
 (EE (Contact))

Central Public Works Department

Office Memorandum

No. DG/CON/Construction 2023/03

ISSUED BY THE AUTHORITY OF DIRECTOR GENERAL, CPWD

Nirman Bhawan, New Delhi

Dated 06.12.2023

Subject: Modifications in Clause 12 and Schedule F for Clause 12 of GCC 2023 for Construction Works

The following amendments are made in the GCC 2023 Construction Works.

Existing provision	Modified provision
CONDITIONS OF CONTRACT Definitions 2. In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them:- (i) to (xv) (xvi) No provision (xvii) No provision	CONDITIONS OF CONTRACT Definitions 2. In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them:- (i) to (xv) No change (xvi) Extra items are those items which are not available in the contract. a. Non Schedule Extra Items are those items which are not available in the Standard Schedule of Rates specified in Schedule F. b. Scheduled Extra Items are those items which are available in the Standard Schedule of Rates specified in Schedule F. (xvii) Completion cost: The completion cost includes gross amount of work done, amount of extra items and deviations and escalation admissible as per agreement etc.
Clause 12 Deviations/ Variations Extent and Pricing The Engineer-in-Charge shall have power (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the	Clause 12 Deviations/ Variations Extent and Pricing No Change

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R.K. JAIN
 (EE (Contact))

केन्द्रीय लोक निर्माण विभाग

कार्यालय झापन

No. DG/CON/Construction 2023/04

ISSUED BY THE AUTHORITY OF DIRECTOR GENERAL, CPWD

Nirman Bhawan, New Delhi

Dated: 08.12.2023

Subject: Modifications in Conditions of Contract, Clause 5 and schedule F in clause 5 of GCC 2023 Construction Works

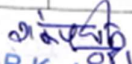
The following amendments are made in the GCC 2023 for Construction works.

Existing Provision	Modified Provision
CONDITIONS OF CONTRACT	CONDITIONS OF CONTRACT
Definitions	Definitions
2. In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them:-	2. No change:-
(i) to (xvii)	(i) to (xvii) No Change
(xviii) No provision	(xviii) Concurrent delay: Concurrent delays are those delays occurring in the work concurrently in any combination or combination of all delay fall under different sub clauses 5.2, 5.3 and 5.5.
Clause 5 Time and Extension for Delay	Clause 5 Time and Extension for Delay
The time allowed for execution of the Works as specified in the Schedule 'F' or the extended time in accordance with these conditions shall be the essence of the Contract. The execution of the work shall commence from such time period as mentioned in schedule 'F' or from the date of handing over of the site, notified by the Engineer-in-Charge, whichever is later. If the Contractor commits default in commencing the execution of the work as aforesaid, the performance guarantee shall be forfeited by the Engineer in Charge and shall be absolutely at the disposal of the Government without prejudice to any other right or remedy available in law.	The time allowed for execution of the Works as specified in the Schedule 'F' or the extended time in accordance with these conditions shall be the essence of the Contract. The execution of the work shall commence from such time period as mentioned in schedule 'F' or from the date of handing over of the site, notified by the Engineer-in-Charge, whichever is later. If the Contractor commits default in commencing the execution of the work as aforesaid and such default continues even after time period specified in the notice in writing by the Engineer-in-Charge then the performance guarantee shall be forfeited by the Engineer-in-Charge and shall be absolutely at the disposal of the Government without prejudice to

R.K. JAIN 2023
(EE (Contact))

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	any other right or remedy available in law. The contract shall stand determined when such decision of forfeiture of the performance guarantee is issued to the contractor.
5.1 As soon as possible but within 7 (seven) working days of award of work and in consideration of	5.1 The contractor as soon as possible but within 7 (seven) days of issue of letter of award of work shall submit a time and progress chart to the Engineer-in-Charge. Such chart shall be made in due consideration of
a. Schedule of handing over of site as specified in the Schedule 'F' b. Schedule of issue of designs as specified in the Schedule 'F',	a. Schedule of handing over of site as specified in the Schedule 'F' b. Schedule of issue of design(s) and drawing(s) as specified in the Schedule 'F',
i. the Contractor shall submit a Time and Progress Chart for each mile stone. The Engineer-in-Charge may within 7 (seven) working days thereafter, if required modify, and communicate the program approved to the contractor failing which the program submitted by the contractor shall be deemed to be approved by the Engineer-in-Charge. The Chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of the works. It shall indicate the forecast of the dates of commencement and completion of various trades of sections of the work and may be amended as necessary by agreement between the Engineer-in-Charge and the Contractor within the limitations of time imposed in the Contract documents. ii. In case of non-submission of construction programme by the contractor, the program approved by the Engineer-in-Charge shall be deemed to be final.	i. The Contractor shall submit a Time and Progress Chart for each milestone. The Engineer-in-Charge may within 7 (seven) days of receipt of such chart, make modifications thereafter, if any, and communicate the approved chart to the contractor, failing which the chart submitted by the contractor shall be deemed to be approved by the Engineer-in-Charge. The Chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of the works. It shall indicate the forecast of the dates of commencement and completion of various trades of sections of the work and may be amended as necessary by agreement between the Engineer-in-Charge and the Contractor within the limitations of time imposed in the Contract documents. ii. In case of non-submission of time and progress chart by the contractor, the chart prepared by the Engineer-in-Charge shall be deemed to be final.


 R.K. JAIN
 (EE (Contact))

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iii. The approval by the Engineer-in-Charge of such programme shall not relieve the contractor of any of the obligations under the contract. iv. The contractor shall submit the Time and Progress Chart and progress report using the mutually agreed software or in other format decided by Engineer-in-Charge for the work done during previous month to the Engineer-in-charge on or before 5th day of each month failing which a recovery as per Schedule F to be decided by the NIT approving authority shall be made on per week or part basis in case of delay in submission of the monthly progress report v. No provision	iii. The approval by the Engineer-in-Charge of such programme shall not relieve the contractor of any of the obligations under the contract. iv. The contractor shall submit the Time and Progress Chart containing upto date progress of work using the mutually agreed software or in the format decided by Engineer-in-Charge. Such chart shall be submitted by the contractor on or before 5th day of each month failing which a recovery as mentioned in Schedule 'F' shall be made at the earliest from running account bill without any notice in this regard. v. While recording the hindrances in the progress of the work, due consideration should be given to the cause of hindrance. The hindrances shall be segregated in following categories : a) delays due to reasons beyond the control of both parties (sub-clause 5.2) b) delays attributable to the Department and concurrent delays (sub-clause 5.3). c) delays solely attributable to the contractor (sub-clause 5.5)
5.2 If the work(s) be delayed by:- i. force majeure, or ii. abnormally bad weather, or iii. serious loss or damage by fire, or iv. civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or v. delay on the part of other contractors or tradesmen engaged by Engineer-in-Charge in	5.2 Delays due to reasons beyond the control of both parties: If the work(s) delayed by:- i. force majeure, or ii. abnormally bad weather, or iii. serious loss or damage by fire, or iv. civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or v. delay on the part of other contractors or tradesmen engaged by Engineer-in- Charge in

R.K. JAIN
(EE (Contact))

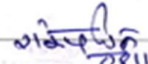
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executing work not forming part of the Contract, or vi. any other cause like above which, in the reasoned opinion of the Engineer-in-Charge is beyond the Contractor's control	executing work not forming part of the Contract, or vi. any other cause like above which, in the reasoned opinion of the Engineer-in-Charge is beyond the Contractor's control.
Then upon the happening of any such event causing delay, the contractor shall immediately give notice thereof in writing to the Engineer-in-Charge but shall nevertheless use constantly his best endeavours to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the works.	Then upon the happening of any such event causing delay, the contractor shall within 03 (three) days give online notice thereof through ERP Portal to the Engineer-in-Charge but shall nevertheless use constantly his best endeavors to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the work(s). The contractor shall have no claim on account of any hindrance in case notice(s) are not given by the contractor through ERP portal. The Engineer-in-Charge, on receipt of such notice(s) after considering the factual ground situation, shall either acknowledge or reject the notice(s) In case of rejection, the reason(s) for rejection shall be communicated by Engineer-in-Charge to the agency. The decision of Engineer-in-Charge with regard to nature of event causing delay, its start date and end date, as has been finalized during acknowledgement of notice, shall be final and binding. The end date of such events shall be recorded by Engineer-in-Charge either during acknowledgment of notice or subsequent to acknowledgement if end date of hindrance is after the date of acknowledgement of notice. In absence of notice by the contractor, Engineer-in-Charge or his representative(s) may record the events causing delay within 05 (five)


R.K. JAIN
 (EE (Contact))

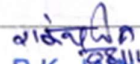
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	days of occurrence of hindrance on ERP portal provided further that not recording of events causing delay by the Engineer-in-Charge does not ipso facto entitle the contractor for any hindrance.
The contractor shall have no claim of damages for extension of time granted or rescheduling of milestone/s for events listed in sub clause 5.2.	No change.
5.3 In case the work is hindered in the opinion of the contractor, by the Department or for any reason / event, for which the Department is responsible, the authority as indicated in Schedule 'F' shall, if justified, give a fair and reasonable extension of time and reschedule the mile stones for completion of work.	5.3 Delays attributable to the department In case the work is hindered, in the opinion of the contractor, by the Department or for any reason / event, for which the Department is responsible, then upon the happening of such event causing delay, the Contractor shall within 3 (three) days give online notice there of through ERP Portal to the Engineer-in-Charge but shall nevertheless use constantly his best endeavours to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the work. The contractor shall not be entitled for any hindrance in case notice(s) are not given by the contractor through ERP portal. The Engineer-in-Charge, on receipt of such notice(s) after considering the factual ground situation, shall either acknowledge or reject the notice(s). In case of rejection, the reason(s) for rejection shall be communicated by Engineer-in-Charge to the agency. The decision of Engineer-in-Charge with regard to nature of event causing delay, its start date and end date, as has been finalized during acknowledgement of notice, shall be final and binding.


 R.K. JAIN
 (EE (Contact))

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	The end date of such events shall be recorded by Engineer-in-Charge either during acknowledgment of notice or subsequent to acknowledgement if end date of hindrance is after the date of acknowledgement of notice. In absence of notice by the contractor, Engineer-in-Charge or his representative(s) may record the events causing delay within 05 (five) days of occurrence of hindrance on ERP portal provided further that not recording of events causing delay by the Engineer-in-Charge does not ipso facto entitle the contractor for any hindrance.
Such extension of time or rescheduling of milestone/s shall be without prejudice to any other right or remedy of the parties in contract or in law, provided further that for concurrent delays under this sub clause and sub clause 5.2 to the extent the delay is covered under sub clause 5.2 the contractor shall be entitled to only extension of time and no damages.	Such extension of time or rescheduling of milestone(s) shall be without prejudice to any other right or remedy of the parties in contract or in law, provided further that for concurrent delay(s) under this sub clause and sub clause 5.2 to the extent the delay is covered under sub clause 5.2, the contractor shall be entitled to only extension of time and shall have no claim of damages.
5.4 Request for rescheduling of Mile stones or extension of time, to be eligible for consideration, shall be made by the Contractor in writing within fourteen days of the happening of the event causing delay on the prescribed forms i.e. Form of application by the contractor for seeking rescheduling of milestones or Form of application by the contractor for seeking extension of time (Appendix - XVI) respectively to the authority as indicated in Schedule 'F'. The Contractor shall indicate in such a request the period by which rescheduling of milestone/s or extension of time is desired.	5.4 Rescheduling of milestone(s) and 'extended date of completion' The request for rescheduling of Milestone(s) and extension of time, shall be made by the Contractor through ERP Portal once in a month on the basis of hindrances accepted by Engineer-in-Charge under sub-clause 5.2 and sub-clause 5.3. The Contractor shall indicate in such a request number of days by which rescheduling of milestone(s) and/or extension of time is desired.
With every request for rescheduling of milestones, or if at any time the actual progress of work falls behind the approved programme by more than 10% of the stipulated period of completion of contract, the contractor shall produce a revised programme without causing any delay in execution	Deleted


 R.K. JAIN
 (EE (Contact))

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of the work. A recovery as specified in Schedule 'F' shall be made on per day basis in case of delay in submission of the revised programme. No provision	The authority as indicated in Schedule 'F', after examining the request, shall give a fair and reasonable extension of time for completion of work and simultaneously reschedule the milestone(s), if required so. The authority shall consider all the hindrances accepted as per sub-clauses 5.2, 5.3 and 5.5. The authority shall decide rescheduling of milestone(s) and extension of time within 21 (Twenty One) days of the request submitted by the contractor through ERP portal. In event of no request by the contractor for rescheduling of milestone(s) and extension of time, the authority as indicated in Schedule F, after affording opportunity to the contractor, may give fair and reasonable extension of time based on hindrances accepted by Engineer-in-Charge and reschedule the milestone(s) once in a month. Such justified extension of time shall determine the 'extended date' of completion of work.
5.4.1 In any such case the authority as indicated in Schedule 'F' may give a fair and reasonable extension of time for completion of work or reschedule the mile stones. E-in-C shall finalize/ reschedule a particular mile stone before taking an	5.4.1 Provided that the end date of any event causing delay shall not fall beyond the date of request for extension of time or rescheduling of milestone(s) by the contractor. In case end date of event falls beyond the date of submission of said request, then period for extension up to date of application shall be considered in the said request for events eligible for consideration and remaining period shall be applied in subsequent request of extension of time or rescheduling of milestone(s). Engineer-in-Charge shall finalize/ reschedule a particular mile stone

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R.K. JAIR
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Page 7 of 9

action against subsequent mile stone. Such extension or rescheduling of the milestones shall be communicated to the Contractor by the authority as indicated in Schedule 'F' in writing, within 21 days of the date of receipt of such request from the Contractor in prescribed form. In event of non-application by the contractor for extension of time E-in-Cafter affording opportunity to the contractor, may give, supported with a programme (as specified under 5.4 above), a fair and reasonable extension within a reasonable period of occurrence of the event.	before taking an action against subsequent mile stone. Such extension or rescheduling of the milestones shall be communicated to the Contractor by the authority as indicated in 'Schedule 'F' in writing, within 21 (twenty one) days of the date of receipt of such request from the Contractor on ERP Portal.
5.5 In case the work is delayed by any reasons, in the opinion of the Engineer- in-Charge, by the contractor for reasons beyond the events mentioned in clause 5.2 or clause 5.3 or clause 5.4 and beyond the justified extended date, without prejudice to right to take action under Clause 3, the Engineer-in-Charge may grant extension of time required for completion of work without rescheduling of milestones. The contractor shall be liable for levy of compensation for delay for such extension of time.	5.5 Delays attributable solely to the contractor In case the work is delayed by reasons solely attributable to the contractor, then Engineer-in-Charge or his representative(s) may record the event causing delay within 05 (five) days of occurrence of delay in the ERP portal. Contractor shall take the notice of the same for necessary action. He may submit his version, if any within 05 (Five) days. Engineer-in-Charge, considering the version of the contractor, will take decision on such recording of the event and the decision of the Engineer-in-Charge shall be final and binding. The contractor shall be liable for levy of compensation for such delays (i.e. for the period beyond the justified extended date of completion as determined in sub clause 5.4 and this default of contractor shall be dealt in conjunction with clause 2 of the contract. In case the work is delayed, due to hindrances attributable solely to the contractor, beyond the justified extended date (as stated in sub clause 5.4), the authority indicated in Schedule 'F', without prejudice to provisions to take action under Clause 3, may grant extension of

21/11/2023
R.K. JAIN
(EE (Contact))

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	time required for completion of work without rescheduling of milestone(s) and extend the date of completion.
PROFORMA OF SCHEDULES (Separate Performa for Civil, Elect.& Hort. Works in case of Composite Tenders) SCHEDULE 'F' Clause 5 Authority to decide: i. Extension of time (Engineer in Charge or Engineer in Charge of Major Component in case of Composite Contracts, as the case may be) ii. Rescheduling of mile stones (Superintending Engineer/ PM/CPM in Charge or Superintending Engineer/ PM/CPM in Charge of Major Component in case of Composite Contracts, as the case may be) iii. Shifting of date of start in case of delay in handing over of site (Superintending Engineer/ PM/CPM in Charge or Superintending Engineer in Charge of Major Component in case of Composite Contracts, as the case may be)	PROFORMA OF SCHEDULES (Separate Performa for Civil, Elect. & Hort. Works in case of Composite Tenders) SCHEDULE 'F' Clause 5 i. Authority to convey the decision of shifting of milestone and extension of time (Engineer-in-Charge or Engineer-in-Charge of Major Component in case of Composite Contracts, as the case may be) ii. Authority to decide rescheduling of milestone and extension of time (SE/SE&PD/CE/CE&ED). iii. Shifting of date of start in case of delay in handing over of site (SE/SE&PD/CE/CE&ED).

This OM is applicable for all NITs uploaded after date of issue of this OM.

This is issued with the approval of DG CPWD.


 08.12.2023
 (वी. पी. साहू)

अधीक्षण अभियंता (सी.एंड एम.)

Issued from file No. CSQ/CM/17(1)/2023/ Construction e-file 9161772

के.लो.नि.वि. तथा लो.नि.वि. दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु (के.लो.नि.वि.वेबसाईट के माध्यम से)।


 R.K. JAIN
 (Contact)

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केन्द्रीय लोक निर्माण विभाग

कार्यालय झापन

No. DG/CON/Construction 2023/05

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI

Dated: 08.02.2024

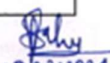
Subject: Modifications in Conditions of Contract and Clause 19 of GCC 2023 for Construction Works

The following amendments are made in the GCC 2023 for Construction Works:

Existing provision	Modified provision
CONDITIONS OF CONTRACT Definitions 2. In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them:- (i) to (xviii) (xix) No provision (xx) No provision	CONDITIONS OF CONTRACT Definitions 2. In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them:- (i) to (xviii) No change (xix) Adolescent Person: A person who has completed his/her fourteenth year of age but has not completed his eighteenth year. (xx) Hazardous works: Hazardous process/works are the works as defined in the clause (cb) of the Factory Act, 1948.
Clause 19 Labour Laws to be complied by the Contractor The contractor shall comply with the provisions of the Contract Labour (Regulation and Abolition) Act, 1970, and the Contract Labour (Regulation and Abolition) Central Rules, 1971. The contractor shall also obtain a valid licence under the said Act before the commencement of the work, and continue to have a valid licence until its completion. The contractor shall also comply with provisions of the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979.	Clause 19 Labour Laws to be complied by the Contractor No change No change No change

The contractor shall also abide by the provisions of the Child and Adolescent Labour (Prohibition and Regulation) Act, 1986. The contractor shall also comply with the provisions of the building and other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996 and the building and other Construction Workers Welfare Cess Act, 1996. Any failure to fulfil these requirements shall attract the penal provisions of this contract arising out of the resultant non-execution of the work.	The contractor shall also abide by the provisions of the Child and Adolescent Labour (Prohibition and Regulation) Act, 1986, amended by Amendment Act No. 35 of 2016 and thereafter time to time. No change No change
Clause 19A No labour below the age of eighteen years shall be employed on the work.	Clause 19A No person below the age of fourteen years shall be employed on the work. However Adolescent Persons can be employed on non-hazardous works/process.
C.P.W.D. Contractor's Labour Regulations 2. DEFINITIONS i. (c) Who is an out worker, that is to say, person to whom any article or materials are premises under the control and management of the principal employer. No person below the age of 18 years shall be employed to act as a workman.	C.P.W.D. Contractor's Labour Regulations 2. DEFINITIONS i. (c) No change. No person below the age of fourteen years shall be employed on the work. However Adolescent Persons can be employed on non-hazardous works/process.

This issues with the approval of DG CPWD.


08-02-2024
(वी. पी. साहू)

अधीक्षण अभियंता(सी.एंड एम.)

Issued from file No. CSQ/CM/17(1)/2023/Construction e-file 9169019

केलोनवि तथा लोनवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।
(केलोनवि वेबसाईट के माध्यम से)

**Central Public Works Department
Office Memorandum**

No. DG/CON/Construction 2023/07

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

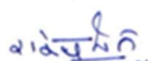
NIRMAN BHAWAN, NEW DELHI

Dated: 01.03.2024

Subject: Modifications in Clause 7 of GCC 2023 for Construction Works

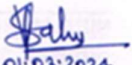
The following amendments is made in the GCC 2023 for Construction Works :

Existing provision	Modified provision
Clause 7 Payment on intermediate certificate to be regarded as Advances No payment shall be made for work, estimated to cost Rs. twenty lacs or less till after the whole of the work shall have been completed and certificate of completion given. fixed for the same by the Engineer-in-Charge.	Clause 7 Payment on intermediate certificate to be regarded as Advances No change.
The contractor shall not be entitled to be paid any such interim payment if the gross work done together with net payment/ adjustment of advances for material collected, if any, since the last such payment is less than the amount specified in Schedule 'F', in which case the interim bill shall be prepared on the appointed date of the month after the requisite progress is achieved.	The contractor shall not be paid any such interim payment if the gross work done together with net payment/ adjustment of advances for material collected, if any, since the last such payment is less than the amount specified in Schedule 'F', in which case the interim bill shall be prepared on the appointed date of the month after the requisite progress is achieved.
No provision	However, to expedite the progress of work, Engineer-in-Charge, on the request of contractor, may make interim payment(s) even before the net payment limit specified in schedule 'F' is achieved. In such case(s) no interest / compensation shall be recoverable from contractor. Such payment by Engineer-in-Charge shall not be construed as waiver of limit specified in schedule 'F' for subsequent interim payment(s).


R.K. JAIN
(EE (Contact))

Engineer-in-Charge shall arrange to have the bill verified by taking or causing to be taken, prescribed time limit.	No Change
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This issues with the approval of DG CPWD.


01/03/2024
(V.P. Sahu)

Superintending Engineer (C&M)

Issued from file No. CSQ/CM/17(1)/2023/Const. e-file no. 9135972

To all the concerned officers of CPWD/PWD for information and necessary action please. (Through CPWD Website)


R.K. JAIN
(EE (Contact))

**Central Public Works Department
Office Memorandum**

No. DG/CON/Construction 2023/06

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD 01.03.2024

NIRMAN BHAWAN, NEW DELHI

Dated: 20.02.2024

Subject: Modifications in Conditions of Contract, Clause 19 and 20 of GCC 2023 for Construction Works

The following amendments are made in the GCC 2023 for Construction Works:

Existing provision	Modified provision
CONDITIONS OF CONTRACT Definitions 9. Signing of Contract:- The successful tenderer/contractor, on acceptance of his tender by the Accepting Authority, shall, within 15 days from the stipulated date of start of the work, sign the contract consisting of:- (i) to (iii) No Provision	CONDITIONS OF CONTRACT Definitions 9. Signing of Contract:- The successful tenderer, on acceptance of his tender by the Accepting Authority, shall, within 15 days from the stipulated date of start of the work, sign the contract consisting of:- (i) to (iii) No change In the event of successful tenderer being a firm/company, then the agreement shall be signed by all the partners or directors thereof individually. In the event of the absence of any partner/director, it shall be signed on his behalf by a person holding a power of attorney (duly notarized by notary public or board resolution in case of company) authorizing him to do so.
Clause 19 B Payment of Wages (i) The contractor shall pay to labour employed by him either directly or through subcontractors, wages not less than fair wages as defined in the C.P.W.D. Contractor's Labour Regulations or as per the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 and the contract Labour (Regulation and Abolition) Central Rules, 1971, wherever applicable.	Clause 19 B Payment of Wages (i) The contractor shall pay to labour employed by him either directly or through subcontractors, wages not less than fair wages as defined in the C.P.W.D. Contractor's Labour Regulations or as per the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 and the contract Labour (Regulation and Abolition) Central Rules, 1971 and Gazette Notification 19.01.2017, S.O 188 (E) extra ordinary part 2 – sec. 3 (ii) amended time to time.

21/02/24
R.K. JAIN
(EE (Contract))

(v) The contractor shall comply with the provisions of the Payment of Wages Act, 1936, Minimum Wages Act, 1948, Employees Liability Act, 1938, Workmen's Compensation Act, 1923, Industrial Disputes Act, 1947, Maternity Benefits Act, 1961, and the Contractor's Labour (Regulation and Abolition) Act 1970, or the modifications thereof or any other laws relating thereto and the rules made there under from time to time.	Thus higher of the wages either notified by Govt. of India, Ministry of Labour and/or that notified by the local administration of the State Govt. both relevant to the place of work and the period of reckoning shall be paid by the contractor to the labourer . (v) The contractor shall comply with the provisions of the Payment of Wages Act, 1936, Minimum Wages Act, 1948, Employees Liability Act, 1938, Workmen's Compensation Act, 1923, Industrial Disputes Act, 1947, Maternity Benefits Act, 1961, and the Contractor's Labour (Regulation and Abolition) Act 1970, Gazette Notification 19.01.2017, S.O 188 (E) extra ordinary part 2 – sec. 3 (ii) and or the modifications thereof or any other laws relating thereto and the rules made there under from time to time.
Clause 20 Minimum Wages Act to be Complied With The contractor shall comply with all the provisions of the Minimum Wages Act, 1948, and Contract Labour (Regulation and Abolition) Act, 1970, amended from time to time and rules framed there under and other labour laws affecting contract labour that may be brought into force from time to time.	Clause 20 Minimum Wages Act to be Complied With The contractor shall comply with all the provisions of the Minimum Wages Act, 1948, and Contract Labour (Regulation and Abolition) Act, 1970, Gazette Notification 19.01.2017, S.O 188 (E) extra ordinary part 2 – sec. 3 (ii) amended from time to time and rules framed there under and other labour laws affecting contract labour that may be brought into force from time to time.

This issues with the approval of DG CPWD.

[Signature]
(V.P. Sahu)

Superintending Engineer (C&M)

Issued from file No. CSQ/CM/17(1)/2023 e-file no. 9163323

To all the concerned officers of CPWD/PWD for information and necessary action please. (Through CPWD Website)

[Signature]
R.K. JAIN
17/01/2024

Central Public Works Department
Office Memorandum
No. DG/CON/Construction 2023/08
ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD
NIRMAN BHAWAN, NEW DELHI **Dated: 05.03.2024**
Subject: Modifications in Clause 19 of GCC 2023 for Construction Works

The following amendments are made in the GCC 2023 for Construction Works:

Existing provision	Modified provision
Clause 19 Labour Laws to be complied by the Contractor	Clause 19 Labour Laws to be complied by the Contractor
The contractor shall comply with the provisions of the Contract Labour (Regulation and Abolition) Act, 1970, and the Contract Labour (Regulation and Abolition) Central Rules, 1971.	No change
The contractor shall also obtain a valid licence under the said Act before the commencement of the work, and continue to have a valid licence until its completion.	No change
The contractor shall also comply with provisions of the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979.	No change
The contractor shall also abide by the provisions of the Child and Adolescent Labour (Prohibition and Regulation) Act, 1986, amended by Amendment Act No. 35 of 2016 and thereafter time to time.	No change.
The contractor shall also comply with the provisions of the building and other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996 and the building and other Construction Workers Welfare Cess Act, 1996.	No change


R.K. JAIN
(EE (Contact))

No provision	The contractor shall also comply with the provisions of Sexual Harassment of Women at Workplace (Prevention Prohibition and Redressal) Act, 2013 and amendment thereafter time to time.
Any failure to fulfill these requirements shall attract the penal provisions of this contract arising out of the resultant non-execution of the work.	Any failure to fulfil these requirements shall attract the penal provisions of the relevant act and in this contract
Clause 19 M No Provision	Clause 19 M Sexual Harassment of Women at Workplace The contractor shall comply with all provision(s) and guideline(s) of Sexual Harassment of Women at Workplace (Prevention Prohibition and Redressal) Act, 2013 and amendment thereafter time to time or any other rules framed under any labour law affecting women worker(s).

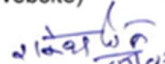
This issues with the approval of DG CPWD.


05.03.2024
(V.P. Sahu)

Superintending Engineer (C&M)

Issued from file No. CSQ/CM/17(1)/2023 e-file no. 9163323

To all the concerned officers of CPWD/PWD for information and necessary action please. (Through CPWD Website)


05/03/2024
R.K. JAIN
(E.E (Contact))

Central Public Works Department

Office Memorandum

No. DG/CON/Construction 2023/09

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI

Dated: 01.04.2024

Subject: Modifications in Clause 1, 8 and 41 of GCC 2023 for Construction Works

The following amendments are made in the GCC 2023 for Construction Works:

Existing provision	Modified provision
Clause 1 Performance Guarantee	Clause 1 Performance Guarantee
Sl. No. (i) to (iv)	Sl. No. (i) to (iv) No Change
(v) On substantial Completion of any work which has been completed to such an extent that the intended purpose of the work is met and ready to use, then a provisional Completion certificate shall be recorded by the Engineer-in-Charge. The provisional certificate shall have appended with a list of outstanding balance item of work that need to be completed in accordance with the provisions of the contract.	(v) As per requirement of the client or otherwise specified in the contract, part completion certificate may be issued for the building(s)/ infrastructure project for the part(s) which have been completed in all respect and are ready for use. However, statutory approvals, Completion drawing of various services, wherever required, shall be obtained before handing over of building(s)/ part(s) of the project. Scope of the completed part(s) shall be mentioned in such part completion certificate.
This provisional completion certificate shall be recorded by the concerned Engineer-in-charge with the approval of Superintending Engineer /Project Manager / Chief Engineer/ Chief Project Manager, if required. After recording of the provisional Completion Certificate for the work by the competent authority, the 80 % of performance guarantee shall be returned to the contractor, without any interest.	The part completion certificate shall include outstanding balance work that need to be completed in accordance with the provisions of the contract. This part completion certificate shall be recorded by the authority as per contract value of work . After recording of the part Completion Certificate for the work by the competent authority, the proportionate amount of 80% of performance guarantee shall be returned to the contractor, without any interest.
However in case of contracts involving Maintenance of building and services /any other work after construction of same building and services/ other work, then 40% of performance guarantee shall be returned to the contractor, without any interest after recording the provisional Completion certificate.	However in case of contracts involving Maintenance of building and services /any other work after construction of same building and services/ other work, then proportionate amount of 40% of performance guarantee shall be returned to the contractor, without any interest after recording the part Completion certificate.

R.K. JAIN 04/04/2024
EE (Contract)

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Clause 8 Completion Certificate Within ten days of the completion of the work, the contractor shall give notice of such completion to the Engineer-in-Charge and within thirty days of the receipt of such notice, the Engineer-in-Charge shall inspect the work and if there is no defect in the work, shall furnish the contractor with a final certificate of completion, otherwise a provisional certificate of physical completion indicating defects (a) to be rectified by the contractor and/or (b) for which payment will be made at reduced rates, shall be issued.	Clause 8 Completion Certificate Within ten days of the completion of the work or on part completion of one or more building(s) out of independent building in a project or infrastructure project, as per requirement of client or otherwise specified in schedule F, the contractor shall give notice of such completion to the Engineer-in-Charge and within thirty days of the receipt of such notice, the Engineer-in-Charge shall inspect the work and shall furnish the contractor with a part or final completion certificate as the case may be , indicating defects (a) to be rectified by the contractor and/or (b) for which payment will be made at reduced rates.
But no final certificate sum actually realized by the sale thereof.	No change.
Clause 41 Release of Security deposit after labour clearance The Security Deposit security deposit and refund the balance amount.	Clause 41 Release of Security deposit after labour clearance No change.
No Provision	In case, if part completion certificate of work is recorded then security deposit shall be released only after recording final completion certificate of the work and after completion of defect liability period whichever is later or specified otherwise in the contract.

This issues with the approval of DG CPWD.

[Signature]
01.04.2024
(V.P. Sahu)

Superintending Engineer (C&M)

Issued from file No. CSQ/CM/17(1)/2023/Construction e-file 9163323

All CPWD and PWD officers for information and necessary action.(Through CPWD website)

[Signature]
R.K. JAIN
EE (Contract)

**Central Public Works Department
Office Memorandum**

No. DG/CON/Construction 2023/10

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI

Dated: 03-06-2024

Subject: Modifications in Clause 36 of GCC 2023 for Construction Works

The following amendment is made in the Clause 36 of GCC 2023 for Construction Works:

Existing provision	Modified provision
Clause 36 If relative working in CPWD then the contractor not allowed to tender The contractor shall not be <u>permitted</u> to tender for works in the CPWD circle <u>(Division in case of contractors of Horticulture/Nursery categories)</u> responsible for award and execution of contracts in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of the <u>Superintending Engineer</u> and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working <u>with him in any capacity</u> or are subsequently employed by him and who are near relatives to any <u>Gazetted Officer in the C.P.W.D. or in the Ministry of Housing and Urban Affairs</u>. Any breach of this condition by the contractor would render him liable to be <u>removed from the approved list of contractors of this Department. If however the contractor is registered in any other department, he shall be debarred from tendering in CPWD for any breach of this condition.</u> NOTE: By the term "near relatives" is meant wife, husband, parents and grandparents, children and grandchildren, brothers and sisters, uncles, aunts and cousins and their corresponding in-laws.	Clause 36 If relative working in CPWD then the contractor is not allowed to participate in the tendering process The contractor (enlisted or non-enlisted in CPWD) shall not be allowed to participate in the tender for work(s) in the CPWD Zone/circle /Division/Sub-Division responsible for award and/or execution of contract(s) in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of the Chief Engineer and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working or are subsequently employed by him and who are near relatives to any Officer working in the CPWD. Any breach of this condition by the contractor would render him liable to be debarred for a period upto two years from tendering in CPWD as decided by the accepting authority mentioned in Schedule F and his decision will be excepted from clause 25.
	No change.

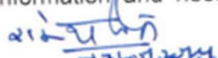
This issues with the approval of DG, CPWD.


 03.06.2024
 (V.P. Sahu)

Superintending Engineer (C&M)

Issued from file No. CSQ/CM/17(1)/2023/Construction e-file 9135972

All CPWD and PWD officers for information and necessary action. (Through CPWD website)


 R.K. JAIN
 EE (Contract)

**Central Public Works Department
Office Memorandum**

No. DG/CON/Construction 2023/11

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI

Dated: 03-06-2024

Subject: Additions in 'General Rules and Directions' of GCC 2023 for Construction Works

The following additions are made in GCC 2023 for Construction Works under 'General Rules and Directions':

Existing provision	Modified provision
General Rules and Directions Sl. No. 1 to 16 No Provision	General Rules and Directions No Change 17. Price Preference to SC/ST individual contractor for item rate/percentage rate tender: Price preference in quoted item rate/percentage rate tender shall be applicable to the individual enlisted/non-enlisted SC/ST contractor as under:- i. For work(s) upto and equal to an estimated cost of Rs.2.70 lakh a price preference upto 5% (with reference to the lowest valid tender) may be allowed in favor of individual SC/ST enlisted/non-enlisted contractor. No earnest money is required in such case(s). ii. For work(s) beyond an estimated cost of Rs. 2.70 lakh and upto and equal to estimated cost of Rs. 6.20 lakh, the price preference upto 5% (with reference to the lowest valid tender) may be allowed in favour of individual enlisted SC/ST contractor. However, earnest money at a reduced rate of ½% may be accepted in such cases. iii. The price preference upto 5% (with reference to the lowest valid price bid) may be allowed in favour of individual SC/ST contractor. The above concession shall be allowed only after proper verification of the individual contractor's claim of belonging to SC/ST community.
Schedule F No Provision	Schedule F Price Preference to SC/ST individual contractor is valid upto (date)

This issues with the approval of DG CPWD.


 03-06-2024
 (V.P. Sahu)

Superintending Engineer (C&M)

Issued from file No. CSQ/CM/17(1)/2023/Construction e-file 9163323

All CPWD and PWD officers for information and necessary action.(Through CPWD website)


 R.K. Jaiswal
 EE (Contract)

केन्द्रीय लोक निर्माण विभाग
कार्यालय ज्ञापन

No. DG/CON/Construction 2023/12
ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI Dated: 09.10.2024

Subject: Modifications in Clause 10A of GCC 2023 for Construction Works

The following amendment is made in the Clause 10A of GCC 2023 for Construction Works:

Existing provision	Modified provision
Clause 10A Materials to be provided by the contractor The contractor shall as specified in Schedule F. No Provision	Clause 10A Materials to be provided by the contractor (i) No Change (ii) Maintenance of Material at Site (MAS) Register (a) MAS register of the key materials including Cement, Steel Bitumen, Paint, Primer, Distemper, Varnishes, Tile Adhesive, Admixture, Anti termite chemical Water proofing compound material and other items as required by Engineer-in-Charge, and shall be maintained as per proforma in Appendix-XX of GCC. All the entries in the MAS registers are made by the designated staff of the contractor and same is reviewed weekly by the authorized representative and fortnightly by the Engineer-in-Charge. However, contractor is responsible for maintenance and safe custody of MAS registers.
(b) No provision	(b) The self-attested copies of tax paid bill of all the materials entered in the MAS register shall be submitted by the contractor at the time of review by representative of Engineer-in-Charge. In case of any doubt, genuineness of the tax paid bills; it can be verified by the representative of the Engineer-in-Charge or the Engineer-in-Charge, however, onus of genuineness of tax paid bills rest with the contractor.


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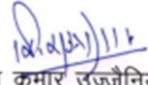
Appendix-XX

REGISTER OF MATERIAL AT SITE (MAS)

1. Division/Sub-division
2. Name of Work
3. Name of Article/Item
4. Estimated Requirements

S. No.	Date of Receipts (Details of Challans/ Bills, Specific location where Plants and Materials received/ Vehicle No.	Received from/ Issued to	Quantity Received	Date of issue	Specific location where Plants & Materials Displayed / Delivered / Issued	Quantity Issued	Balance Quantity	Signature of authorized representative of contractor	Signature of authorized representative of Engineer -in-Charge/ AE/EE/	Remarks
1	2	3	4	5	6	7	8		9	10

This issues with the approval of DG, CPWD.


 (दिनेश कुमार उज्जैनिया)
 अधीक्षण अभियंता (सी.एंड एम.)

**Issued from file No. CSQ/CM/17(1)/ Construction/2024
e-file 9184028 (DFA/9301389)**

केलोनिवि तथा लोनिवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।
(केलोनिवि वेबसाईट के माध्यम से)


 09.10.24
 R K SINGH
 EE(Manual)



केन्द्रीय लोक निर्माण विभाग
कार्यालय ज्ञापन

No. DG/CON/Construction-2023/13

ISSUED BY THE AUTHORITY OF DIRECTOR GENERAL, CPWD

Nirman Bhawan, New Delhi

Dated: 29.10.2024

Subject: Modifications in Conditions of Contract, Clause 10A of GCC
Construction Works 2023.

Following amendments are made in the GCC Construction Works 2023:-

Existing Provision	Modified Provision
Clause 10A: Materials to be provided by the Contractor (i) The contractor shall, thereof and in case of default, the Engineer-in-Charge may cause the same to be supplied and all costs which may attend such removal and substitution shall be borne by the Contractor. The contractor shall at his own expense, provide a material testing lab at the site for conducting routine field tests. The lab shall be equipped at least with the testing equipment as specified in schedule F. No Provision	No Change Field Laboratory: The contractor shall at his own expense, setup a material testing lab equipped with the testing equipment as specified in schedule F at site for conducting routine field test. External Laboratory: Letter for submitting sample(s) for testing of material shall be sent through e-mail to the Lab by authorized representative of Engineer-in-Charge or Engineer-in-Charge of the work along with name(s) of test(s) to be done on the material. The contractor shall collect the sample(s) from the site and submit it to the lab; make necessary payment for the testing charges. He will inform on the same day through email to authorized representative of Engineer-in-Charge and Engineer-in-Charge regarding submission of sample (s) and

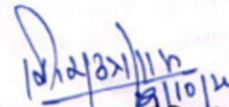

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EE(Manual)

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No Provision	payment made to the lab. If he either fails to collect or submit the sample(s) to the lab within 03 days or in time as prescribed in the specifications, whichever is earlier, the Engineer-in-Charge shall collect and submit the sample(s) and make necessary payment for testing charges to the lab. In such case, Engineer-in-Charge shall make recovery on account of collection and submission of sample(s) to the lab and paid testing charges etc. from the next R/A bill / Final bill of the contractor. This action of Engineer-in-Charge shall be final and binding. If the contractor fails three times in collection and/or submitting sample(s) and/or fails to make payment for testing charges, the contractor shall be debarred from tendering in CPWD for a period of two years.
Sl. no. (ii) (a) and (b)	No change

This OM is applicable for all NITs uploaded after date of issue of this OM.

This is issued with the approval of DG CPWD.


 (दिनेश कुमार उज्जैनिया)
 अधीक्षण अभियंता (सी.एंड एम.)

Issued from file No. CSQ/CM/17(1)/2024/Construction e-file- 9184436 (DFA/9303295)
 केलोनिवि तथा लोनिवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।
 (केलोनिवि वेबसाईट के माध्यम से)


 28.10.24
 R K SINGH
 EE(Manual)

केन्द्रीय लोक निर्माण विभाग

कार्यालय ज्ञापन

No. DG/CON/Construction 2023/14

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI

Dated: 03.01.2025

Subject: Modifications in General Rules and Directions of GCC 2023 for Construction Works.

The following amendments are made in the General Rules and Directions of GCC 2023 for Construction Works:

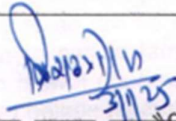
Existing provision	Modified provision
Applicable for Item Rate Tender only (CPWD - 8) 4 The rates rupee one. In case the lowest tendered amount (worked out on the basis of quoted rate of Individual items) of two or more contractors is same, then such lowest contractors may be asked to submit sealed revised 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 sub sections/sub heads 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 their tenders. In case of any be forfeited. In case all lowest contractors. Contractor of the work.	Applicable for Item Rate Tender only (CPWD - 8) 4 No change 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 revised price bid online using e-tender website, quoting rate of each item of the schedule of quantity for 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 quoted rate of each item of schedule of quantity for all sub sections/sub heads 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. No change
Applicable for Percentage Rate Tender only [CPWD- 7] 4B 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 sealed revised offer in the form of letter mentioning percentage above/ below on estimated cost of tender including all sub sections/sub	Applicable for Percentage Rate Tender only [CPWD- 7] 4B 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


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heads as the case may be, 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.	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 of any be forfeited.	
If the revised their tenders.	No change
In case all process of the work.	

This issues with the approval of DG, CPWD.


(दिनेश कुमार उज्जैनिया)
अधीक्षण अभियंता (सी.एंड एम.)

**Issued from file No. CSQ/CM/17(1)/ Construction/2024
e-file 9185053 (DFA/9307326)**

केलोनवि तथा लोनवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।
(केलोनवि वेबसाईट के माध्यम से)


R K SINGH
EE(Manual)

केन्द्रीय लोक निर्माण विभाग
कार्यालय ज्ञापन

No. DG/CON/ Construction 2023/15
ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI

Dated: 31.01.2025

Subject: Modifications in Clause 7A of GCC 2023 for Construction Works.

The following amendments are made in the Clause 7A of GCC 2023 for Construction Works:

Existing provision	Modified provision
Clause 7A No Running Account Bill shall be paid for the work till the applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are submitted by the contractor to the Engineer-in-Charge.	Clause 7A (a) No Running Account Bill/Final Bill shall be paid for the work till the applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are submitted by the contractor to the Engineer-in-Charge. (b) The following documents shall also be part of the bill submitted by the contractor (these documents shall be owned by the contractor) before making payment:- 1. Details of person employed with date of their employment up to previous month. 2. Documents of payment made to the employees directly into their bank accounts up to previous month. 3. Documents of attendance through biometric attendance or other mode up to previous month. 4. Documents of deposition of EPF and ESI deductions in the employee's accounts up to previous month. 5. Any penalty imposed on the agency for delay in disbursing payment and deposition of EPF and ESI deductions in the employee's accounts up to previous month. 6. Any other document(s) required as per statutory requirements and/or as directed by Engineer-in-Charge. (c) In case, any of the documents submitted by the contractor is found false/forged at a later date, action for debarment of contractor will be taken by the SE/CE concerned.

This issues with the approval of DG, CPWD.

(दिनेश कुमार उज्जैनिया)
अधीक्षक अभियंता (सी.एंड.एम.)

Issued from file No. CSQ/CM/17(1)/2023/Construction e-file 9184028 (DFA/9313089)

केलोनवि तथा लोनवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।

(केलोनवि वेबसाईट के माध्यम से)

R K SINGH

Subject: Modifications in Clauses 7, 8, 9 and Schedule F of clause 8 of GCC 2023 for Construction Works.

The following amendments are made in the Clauses 7, 8, 9 and Schedule F of clause 8 of GCC 2023 for Construction Works:

Existing provision	Modified provision
Clause 7 Existing provisions No provision	Clause 7 No change In case of correction / rejection / short documents, it will be mandatory for Engineer-in- Charge to give recorded reasons for correction / rejection / submission of additional documents within seven days after submission of running bill by the contractor.
Clause 8 Completion Certificate (Issued vide OM No. DG/Construction-2023/09 dated 01.04.2024) Within ten days of the completion of the work or on part completion of one or more building(s) out of independent building in a project or infrastructure project, as per requirement of client or otherwise specified in schedule F, the contractor shall give notice of such completion to the Engineer-in-Charge and within thirty days of the receipt of such notice, the Engineer-in-Charge shall inspect the work and shall furnish the contractor with a part or final completion certificate as the case may be, indicating defects (a) to be rectified by the contractor and/or (b) for which payment will be made at reduced rates.	Clause 8 Completion Certificate Within ten days of the completion of the work or on part completion of one or more building(s) out of independent building in a project or infrastructure project, as per requirement of client or otherwise specified in schedule F, the contractor shall give notice of such completion to the Engineer-in-Charge and the Engineer-in-Charge, within seven days of receipt of intimation of completion from contractor will inspect the work and satisfy himself about completion of part /full work, then intimate to the concerned authorities as mentioned in Schedule F for inspection and issuance of part / final completion certificate. The concerned authorities will inspect the work and issue part/final completion certificate within thirty days of the receipt of such intimation. The Engineer-in-Charge shall furnish to the contractor a part / final completion certificate as the case may be, indicating defects (a) to


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But no final certificate sum actually realized by the sale thereof.	be rectified by the contractor and/or (b) for which payment will be made at reduced rates. No change.
Clause 9 Payment of Final Bill The final bill shall be submitted by the contractor in the same manner as specified in interim bills within three months of physical completion of the work or within one month of the date of the final certificate of completion furnished by the Engineer-in-Charge whichever is earlier. No further claims shall be made by the contractor after submission of the final bill and these shall be deemed to have been waived and extinguished. Payments of those items of the bill in respect of which there is no dispute and of items in dispute, for quantities and rates as approved by Engineer-in-Charge, will, as far as possible be made within the period of three months the period being reckoned from the date of receipt of the bill by the Engineer-in-Charge or his authorized Asstt. Engineer, complete with account of materials issued by the Department and dismantled materials.  R K SINGH EE(Manual)	Clause 9 Payment of Final Bill i. The final bill shall be submitted by the contractor to the Engineer-in-Charge in the same manner as specified in interim bills within three months of physical completion of the work or within one month of the date of the final completion certificate furnished by the Engineer-in-Charge whichever is earlier. At the time of submission of the final bill, receipt will be given by the O/o Engineer-in-Charge. ii. In case of correction / rejection / short documents, it will be mandatory for Engineer-in-Charge to give recorded reasons for correction / rejection / submission of additional documents within fifteen days after submission of final measurement and/or final bill by the contractor. iii. Final bill will be accepted with all pre-requisite documents such as sanctioned copies of extra items and deviation in quantities, escalation statements, recovery statement, theoretical statement, final completion certificate, final extension of time case, mandatory tests statement, dismantled materials account and other documents as mentioned in clause 7A etc. iv. An undertaking alongwith the final bill will be submitted by the contractor that "I / we hereby undertake that all the measurements/claims payable under this contract have been included in the final bill and will not submit any other bill/claims in future under this agreement thereafter". v. No further claims shall be entertained from the contractor after submission of the final bill and these shall be deemed to have been waived off and extinguished. Payments of those items of the bill in respect of which there is no dispute and of items in dispute, for quantities and rates as approved by Engineer in charge will, be made within the

Page 2 of 3

If the final bill is submitted by the contractor within the period specified above and delay in payment of final bills is made by the department after prescribed time limit, a simple interest @ 5 % (five percent) per annum shall be paid to the contractor from the date of expiry of prescribed time limit, provided the final bill submitted by the contractor is found to be in order.	period of three months. The period of three months will be reckoned from the date of receipt of the bill in complete shape after necessary corrections / additional documents, by the Engineer-in-Charge. vi. In case of foreclosure / determination of contract, if the contractor fails to submit the EOT case, final measurement /bills within 30 days of foreclosure/ determination, the EOT case and final bill will be prepared and decided by the department. The final bill shall only be paid after withholding amount equivalent to maximum compensation to be levied on the contractor. vii. If the final bill, in complete shape, is submitted by the contractor within the period specified above and delay in payment of final bill is made by the department after prescribed time limit, a simple interest @5% (five percent) per annum may be paid to the contractor from the date of expiry of prescribed time limit, provided the final bill submitted by the contractor contains all the documents as mentioned in para – (iii) & (iv) above. .
Schedule F Clause 8 No Provision	Schedule F Clause 8 Competent Authorities to inspect and issue part / final completion certificate (To be filled by NIT approving authority).

This issues with the approval of DG, CPWD.

(दिनेश कुमार उज्जैनवा)
अधीक्षण अभियंता (सी.एंड एम.)

Issued from file No. CSQ/CM/17(1)/2025/Construction
e-file 9190123 (DFA/9315615)

केलोनिवि तथा लोनिवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।
(केलोनिवि वेबसाईट के माध्यम से)

R K SINGH
EE(Manual)

केन्द्रीय लोक निर्माण विभाग
कार्यालय ज्ञापन

No. DG/CON/ Construction 2023/17
ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI

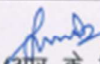
Dated: 03.03.2025

Subject: Modifications in Clause 14 of GCC 2023 for Construction Works 2023.

The following amendments are made in the Clause 14 of GCC 2023 for Construction Works 2023:

Existing provision	Modified provision
Clause 14 Carrying out part work at risk & cost of contractor If contractor: (iii) The Engineer- in-Charge without invoking action under clause 3 may, without prejudice to any other right or remedy against the contractor which have either accrued or accrue thereafter to Government, by a notice in writing to take the part work / part incomplete work of any item(s) out of his hands and shall have powers to : (a) Take possession of the site and any materials, constructional plant, implements, stores, etc., thereon; and/or (b) Carry out the part work / part incomplete work of any item(s) by any means at the risk and cost of the contractor.	Clause 14 Carrying out part work at risk & cost of contractor If contractor: (iii) The Engineer- in-Charge without invoking action under clause 3 may, without prejudice to any other right or remedy against the contractor which have either accrued or accrue thereafter to Government, by a notice in writing to take the part work / part incomplete work of any item(s) out of his hands and shall have powers to : (a) Take possession of the site and any materials, constructional plant, implements, stores, etc., thereon; and/or (b) Carry out the part work / part incomplete work of any item(s) by any means at the risk and cost of the contractor. The contractor, from whom a part work / part incomplete work of any item(s), has been taken out of his hands, shall not be allowed to participate in the tendering/quotation process of part work / part incomplete work of any item(s).

This issues with the approval of DG, CPWD.


(आर. के. सिंह)

कार्यपालक अभियन्ता (एम.)

Issued from file No. CSQ/CM/17(1)/2023/Construction e-file-9184028 (DFA/9319526)

केलोनवि तथा लोनवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।
(केलोनवि वेबसाईट के माध्यम से)

R K SINGH
EE(Manual)

(Guarantee offered by Bank to CPWD in connection with the execution of contract)

Form of Bank Guarantee for Earnest Money Deposit / Performance Security (Guarantee) / Security Deposit / Mobilization Advance

1. WHEREAS, the Executive Engineer (Name of division).....,CPWD on behalf of the President of India (hereinafter called "the Government") has invited bid under..... (NIT No.) dated for (name of work)..... The Government has further agreed to accept irrevocable Bank Guarantee for Rs.(Rupees.....only) valid upto.....(date)* as **Earnest Money Deposit** from(name and address of contractor)..... (hereinafter called "the contractor ") for compliance of his obligations in accordance with the terms and conditions of the said NIT.

OR**

WHEREAS, the Executive Engineer (Name of division) ,CPWD on behalf of the President of India (hereinafter called "the Government") has entered into an agreement bearing number.....with.....(name and address of contractor)..... (hereinafter called "the contractor ") for execution of work (name of work) The Government has further agreed to accept irrevocable Bank Guarantee for Rs.(Rupees.....only) valid upto(date)*..... as **Performance Guarantee /Security Deposit / Mobilization Advance** from said contractor for compliance of his obligations in accordance with the terms and conditions of the agreement.

1. We,..... (indicate the name of the Bank) (hereinafter referred to as "the Bank "), hereby undertake to pay to the Government an amount not exceeding Rs.....(Rupees.....only) on demand by the Government within 10 days of the demand.
2. We,..... (indicate the name of the Bank)..... , do hereby undertake to pay the amount due and payable under this guarantee without any demur, merely on a demand from the Government stating that the amount claimed is required to meet the recoveries due or likely to be due from the said contractor. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.....(Rupees only).
3. We,..... (indicate the name of the Bank) , further undertake to pay the Government any money so demanded notwithstanding any dispute or dispute raised by the contractor in any suit or proceeding pending before any court or tribunal, our liability under this Bank Guarantee being absolute and unequivocal. The payment so made by us under this Bank Guarantee shall be valid discharge of our liability for payment there under and the contractor shall have no claim against us for making such payment.
4. 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 for bear 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 indulgence by the Government to the said contractor or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

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

DATE

WITNESSES:

Authorised signatory

1. SIGNATURE

Name

NAME AND ADDRESS

Designation

Staff code no.

Bank seal

2. SIGNATURE

NAME AND ADDRESS

**Date to be worked out on the basis of validity period of 90 days where only for financial bids are invited and ~~180 days for two / three bid system~~ from the date of submission of tender.*

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

PART- B

(CIVIL WORK)

GENERAL CONDITIONS

1. Except for the items, for which Particular Specifications are given or where it is specifically mentioned otherwise in the description of the items, the work shall generally be carried out in accordance with the “CPWD Specifications - 2019 (Vol. I & II) for civil works with up to date correction slips and CPWD Specification for Horticulture works with up to date correction slips (hereinafter to be collectively referred to as “CPWD Specifications”). Wherever CPWD Specifications are silent, the latest BIS Codes/Specifications, National Building Code 2016, MoRTH specification or any other specification shall be followed.
2. The order of preference in case of any discrepancy as indicated in condition No. 8.1 under “Conditions of Contract” given in standard CPWD Contract form may be read as the following
 - (i) Nomenclature of items as per Schedule of Quantities
 - (ii) Particular Specifications and Special Conditions as provided forming part of tender document.
 - (iii) Standard general conditions of contract for **Construction** works (GCC)
 - (iv) General conditions as provided forming part of tender document.
 - (v) Architectural/Structural drawings
 - (vi) CPWD Specifications with up to date Correction slips
 - (vii) Indian Standard Specifications of BIS

A reference made to any Indian Standard Specifications in these documents, shall imply to the latest version of that standard, including such revisions / amendments as issued by the Bureau of Indian Standards 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.

3. The proposed building work is a prestigious project and 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 work, stone flooring, flooring work, wood work, precast RCC coffers, polysulphide/ silicone sealant & other specialized works will specifically require engagement of skilled workers having experience particularly in execution of such items.
4. The tenderer shall acquaint himself with the proposed site of work, its approach roads, working space available, access upto working place etc. before quoting his rates 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 as per the required specifications.
6. The tenderer shall 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. No payment shall be admissible on this account and the quoted rates shall be deemed to be inclusive of all such activities.
7. The 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.

8. The contractor shall inform/issue notices to the Municipality, police and other authorities that may be required as per law and obtain all requisite permission/ licenses for temporary obstructions, enclosures etc. Contractor(s) shall pay all fee, taxes and charges which may be levied on account of these operations in executing the contract. He shall make good any damage to the property whether public or private and shall supply and maintain lights either for illumination or for cautioning the public at night at his own cost. Nothing, whatsoever, extra shall be admissible on this account over and above the tendered rates.
9. For Maintenance works which are likely to generate malba / rubbish, the contractor shall reuse it at site as directed by the Engineer-in-charge or hand over to recycling agents or dispose of at his own risk and cost, to the notified/specified Municipal dumping ground (if any) or any other suitable location outside the departments/clients premises/campus, to be identified by the contractor at his own risk and cost. No deduction on this account shall be made from the agency bill as well as no extra payment will be made to agency if it is disposed at pre-defined location within the campus / Municipal dumping ground.
10. The contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the owners, tenants or occupiers of adjacent properties and to the public in general and to prevent any damage to such properties and any pollution of smoke, streams and water-ways. He shall make good at his cost and to the satisfaction of the Engineer-in-Charge, any damage to roads, paths, cross drainage works or public or private property whatsoever caused thereon by the contractor. All waste or superfluous materials shall be carried away by the contractor without any reservation entirely to the satisfaction of the Engineer-in-Charge.
11. 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 building/adjacent properties.
12. The works shall be carried out in accordance with the Architectural drawings and structural drawings (if any) issued time to time or *the* contractor shall submit the shop drawings duly prepared by the skilled fabricator (as per site layout and orientation) and submit the same to department well in advance say 15 days before the start of activity for approval of the same 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 and contractor has to redo the same to correct/ to rectify the same.
13. The 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.
14. Other agencies will also simultaneously execute and install the works of sub-station / generating sets, air-conditioning, lifts, etc. for the work and the contractor shall afford necessary facilities for the same. The contractor shall leave such recesses, holes, openings trenches etc. as may be required for such related works (for which inserts, sleeves, brackets, conduits, base plates, clamps etc. shall be paid under relevant item, unless otherwise specifically mentioned) and the contractor shall fix the same at time of casting of concrete, stone work and brick work, if required, and nothing extra shall be payable on this account.

15. 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.
16. Some restrictions may be imposed by the security agencies /client on the working and on movement of labour, materials etc. in the campus/site and may require to issue identity cards to all persons authorized by contractor to do work / visit the work site. The contractor shall be bound to follow all such restrictions / instructions and no claim whatsoever, on this account shall be entertained. The loss of time on this account, if any, shall have to be made up by generating additional resources etc at no extra cost.
17. The rates quoted by the contractor are deemed to be inclusive of site clearance, setting out work, profile, establishment of reference bench mark, spot levels, construction of all safety and protection devices, barriers, earth embankments, preparatory works, all testing of materials, working during monsoon, working at all depths, height and locations etc. unless otherwise specified in the schedule of quantities.
18. Royalty at the prevailing rates, wherever payable, shall have to be paid by the contractor on the boulders; metal, shingle, sand and bajri etc., or any other material collected by him for the work directly to revenue/Govt. authorities and nothing extra shall be paid by the department for the same.
19. No payment shall be made for any damage caused by rain, snowfall, flood or any other natural calamity, whatsoever during the execution of the work. The contractor shall be fully responsible for any damage to the govt. property and work for which the 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.
20. **The contractor shall deploy resources e.g. manpower, labour, T&P, Plant & Equipment etc. as per actual requirement of work. No damages/compensation shall be payable on account of idle manpower, labour, T&P, Plant and Equipment and loss of profit etc. for whatsoever reason. The contractor shall utilize their resources to other works also in best possible manner to ensure no idle establishment at this site of work. The contractor shall submit a list of T&P deployed (in the working condition) at site work in the first week of each month.**
21. The rates for all items of work shall, unless clearly specified otherwise, include cost of all labour, material, tools and plants and other inputs involved, onsite & offsite, in the execution of the item.
22. 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.
23. 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. Those conditions shall be considered to 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.
24. 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 guidance only).

25. Unless otherwise specified in the schedule of quantities, the rates tendered by the contractor shall be inclusive of all costs & taxes and shall apply to all heights, lifts, leads and depths and nothing extra shall be payable on this account.
26. The foundation trenches shall be kept free from water while works below ground level are in progress.
27. 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 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.
28. All ancillary and incidental facilities required for execution of work, onsite & offsite, like labour camp, stores, laboratory with specified equipment, fabrication yard, offices for Contractor, watch and ward, temporary ramp required to be made for working at the basement level, temporary structure for plants and machineries, temporary barricading or fencing around the working sites, water storage tanks, installation and consumption charges of temporary electricity, telephone, data, water etc. required for execution of the work, protection works, testing facilities / laboratory at site of work, facilities for all field tests and for taking samples etc. during execution or any other activity which is necessary (for execution of work and as directed by Engineer-in-Charge), shall be deemed to be included in rates quoted by the Contractor, for various items in the schedule of quantities. Nothing extra shall be payable on these accounts. Before start of the work, the Contractor shall submit to the Engineer-in-Charge and get approved, a site / construction yard layout, specifying areas for construction, site office, positioning of machinery, material yard, cement & other storage, fabrication yard, site laboratory, water tank etc.
29. For completing the work in time, the Contractor might be required to work in two or more shifts (including night shifts). Normally contractors shall not be allowed to execute the RCC, electrical and finishing work at night or RCC casting even on government holiday. Work at night shall, however, be allowed if the site conditions/circumstances so demand. No claim whatsoever shall be entertained on this account, not with-standing the fact that the contractor may have to pay extra amounts for any reason, to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour and other statutory bodies regulations and the agreement entered upon by the contractor with them.
30. 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.
31. All material shall only be brought at site as per program finalized and approved from the Engineer-in-Charge. Any pre-delivery of the material without sample approval/ not required for immediate consumption shall not be accepted and thus not paid for. Mass supply of material could only be order after getting approval of sample from engineer in charge.
32. The contractor(s) shall take instructions from the Engineer-in-Charge regarding collection and stacking of materials at any place. No excavated earth or building rubbish shall be stacked on areas where other buildings, roads, services and compound walls are to be constructed. The stacking shall take place as per stacking plan. However, if any change is required, the same shall be done with the approval of Engineer-in-Charge. If required stacking of excavated earth required to be use on work to be done outside the construction site by the contractor at their own. Nothing extra shall be paid on this account.
33. The Contractor shall bear all incidental charges for cartage, storage, multiple handling including head load and safe custody of materials issued by department/arranged by the contractor.

34. The terms machine batched, machine mixed and machine vibrated concrete used elsewhere in agreement shall mean the concrete produced in concrete batching and mixing plant and if necessary transported by transit concrete mixers, placed in position by the concrete pumps, tower crane and vibrated by surface vibrator/needle vibrator/plate vibrator, as the case may be to achieve required strength and durability.
35. The cost of flooring is inclusive of providing sunken flooring in bath-rooms, kitchen, etc. and nothing extra on this account shall be payable.
36. Any legal or financial implications resulting out of carriage of earth from outside or disposal of surplus earth either obtained from excavation or already available at site, shall be sole responsibility of the contractor. Nothing extra shall be paid on this account.
37. No chase cutting/dismantling of plaster/RCC/CC shall be allowed, so contractor has to execute the electrical and plumbing work accordingly. The work should be planned in a systematic manner so that chase cuttings in the walls, ceilings and floors are 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 coordination of various disciplines viz. Sanitary & water supply, electrical, fire-fighting and any other services.
38. The work of water supply, internal sanitary installations and drainage etc. shall be carried out as per the bylaws of the Municipal Corporation or any other local body and the contractor shall produce necessary completion certificates from such authority after completion of work.
39. In case of local Municipal regulations / restrictions by client /non-availability of space at site, if huts for labour are not allowed to be erected at the site of work, the contractor shall be required to provide such accommodation at suitable place at his own cost and nothing extra shall be paid on this account.
40. Any cement slurry/chemical added over base surface for continuation of concreting on old surface for better bond is deemed to have been built in the items and nothing extra shall be payable and no extra cement considered in consumption on this account.
41. Existing drains, pipes, cables, over-head wires, sewer lines, water lines and similar service encountered in the course of the execution of work shall be protected against the damage by the contractor at his own expense. In case the same are to be removed and diverted, the same shall be payable to the contractor as per the terms and conditions of the contract. The contractor shall not store materials or otherwise occupy any part of the site in a manner, or work in a unsafe manner, likely to hinder the operation of such services. Core cutting in RCC/brick work is not allowed. **However, as per site requirement necessary capping, laying of service pipe etc. to be laid in advance. Nothing extra shall be paid on this account.**
42. The contractor shall be responsible for the watch and ward / guard of the buildings safety, 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.
43. The contractor shall make his own arrangements for obtaining electric connections including DG sets, if required, and make necessary payments directly to the department concerned. Nothing extra, whatsoever, shall be paid on this account and neither any extra time for delay in the said operations, whatsoever, shall be admissible on this account.

44. The Department shall in no way be responsible for either any delay in getting electric and/or water and/or telephone connections for carrying out the work or not getting connections at all. No claim of delay or any other kind, whatsoever, on this account shall be entertained from the Contractor. Also contingency arrangement of stand-by water & electric supply shall be made by the Contractor for commencement and smooth progress of the work so that work does not suffer on account of power failure or disconnection or not getting connection at all. No claim of any kind whatsoever shall be entertained on this account from the Contractor. Nothing extra shall be payable on this account.
45. The rate quoted by the contractor / agency shall be inclusive of mobilization to site all necessary machineries and equipments, furnishing, handling, storing, installation including placing, cutting holes, splicing, driving, re-driving, bailing out water, pulling out and removal of the temporary earth retaining structure / strutting etc. from site and other machineries, equipment's, instrumentations etc. men ,materials etc., other incidental to works, for execution of work, with all safety measures as required for the execution of construction work for safety of surrounding existing buildings, structures, services, parked / moving vehicles, equipment's and machines etc. as per direction of Engineer-in-charge.
46. The rates quoted by the Contractor are deemed to be inclusive of site clearance, setting out work, profile, setting lay out on ground, establishment of reference bench mark(s), installing various signage, taking spot levels, survey with total station, construction of all safety and protection devices, compulsory use of helmet, safety harness and safety shoes, and other appropriate safety gadgets by workers, imparting continuous training for all the workers, barriers, preparatory works, construction of clean, hygienic and well ventilated workers housings in sufficient numbers as per drawing supplied by Engineer in charge, working during monsoon or odd season, working beyond normal hours, working at all depths, height, lead, lift, levels and location etc. and any other unforeseen but essential incidental works required to complete this work. Nothing extra shall be payable on this account and no extension of time for completion of work shall be granted on these accounts.
47. The contractor shall display all permissions, licenses, registration certificates, bar charts, other statements etc., under various labour laws and other regulations applicable to the works, at his site office.
48. The contractor shall make all necessary arrangements for protecting works already executed from rains, fog or like wise extreme weather conditions and for carrying out further work, during monsoon including providing and fixing temporary shelters, protections etc. Nothing extra shall be payable on this account and also no claims for hindrance shall be entertained on this account.
49. 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 bid document. Also, the contractor shall make good, at his own cost, the damages caused, if any.
50. Stacking of materials and excavated earth including its disposal shall be done as per the directions of the Engineer-in-Charge. Double handling of materials or excavated earth if required at any stage shall have to be done by the contractor at his own cost.
51. Entry to the campus/site may be restricted from particular entrance gate and agency has to follow security rules of the campus & nothing extra shall be payable on this account.

52. The contractor shall be entirely and exclusively responsible for the horizontal, vertical and other alignment, 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. The contractor has to set up the burgy/reference level as directed by engineer in charge. He has to prepare level sheet and submit to department before start of excavation and wherever earth work is to be executed.

53. PROGRAMME CHART

The Contractor shall prepare an integrated programme chart (Bar 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 fulfillment of the programme within the stipulated period or earlier and submit the same for approval to the Engineer-in-Charge within ten days of award of the contract. Non-submission of such programme or submission of incomplete programme without all required details of manpower T&P etc., shall attract the recoveries as mentioned in the Schedule-F of the tender document. The integrated program chart so submitted should not have any discrepancy with the physical/financial milestones attached in the contract agreement.

The programme chart may include the following as per direction of engineer-in-charge:

- (a) Descriptive note explaining sequence of the various activities.
- (b) Network (PERT/CPM/BAR CHART).
- (c) Programme for procurement of materials and manpower by the contractor.
- (d) Programme of procurement and deployment of machinery / equipment having adequate capacity, manpower activity wise & commensurate with the quantum of work to be done as per the provided drawings or schedule of quantities within the stipulated period, by the contractor.
- (e) Productivity of T&P and manpower of all categories to be employed based on which the activity wise program is being proposed.

In addition to above, the contractor shall submit shuttering schedule and cycle time for repetition of floors, adequate to complete structure work within laid down physical milestone etc. and to achieve the progress of work as per programme, he must bring sufficient shuttering material required for cement concrete and R.C.C. works etc.

If at any time, 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. The modified schedule of programme shall be approved by the Engineer-in-Charge. Non-submission of such revised programme shall attract the recoveries as mentioned in the Schedule-F of the tender document.

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 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.

54. MONTHLY PROGRESS REPORT

The contractor shall submit to the Engineer-in-charge on the 5th day of each month monthly progress report of the work. Such progress report will include the project progress, summary, work progress (planned vs actual), CPM chart, status of financial progress and achievement of milestone, manpower deployment status category wise, inventory of materials and T&P deployed and photographs of important activities, list of idle establishment such as labour, T&P, etc.

The progress report shall contain the following, apart from whatever else may be required as specified above:

- (i) Project information, giving the broad features of the contract of the work under the contract, and the broad structural or other details.
- (ii) Introduction, giving a brief scope of the work under the contract, and the broad structural or other details.
- (iii) Construction schedule of the various components of the work through a bar chart for the next two fortnights (or as may be specified), showing the milestones, targeted tasks and up to date progress.
- (iv) Progress chart of the various components of the work that are planned and achieved, for the month as well as cumulative upto the month, with reasons for deviations, if any, in a tabular format.
- (v) Plant and machinery statement, indicating those deployed in the work, and their working status.
- (vi) Man-power statement, indicating individually the names of all the staff deployed in the work, along with their designations. No. of skilled workers (trade wise) and total no. of unskilled workers deployed on the work and their location of deployment, activity wise & block wise.
- (vii) A statement showing the extra, deviation and substituted items submitted by the contractor, and the payments received against them, items pending for sanction/decision by the Department, broad details of the Bank Guarantees, indicating clearly their validity periods, broad details of the insurance policie
- (viii) Quality assurance and quality control tests conducted during the month, with the results thereof.
- (ix) Videography at various stages of construction right from the day of start of work to date of completion/occupation, covering all major events, mile stones achieved, inspections, visits by dignitaries etc for future reference.
- (x) Chronological brief of all sort of upto date correspondences made by the contractor and department since the award of work in tabular format.

- (xi) Details of consumption of electricity, fuel, water, cement, steel, fly ash based products and any other product being used, as directed by the Engineer in charge for the month as well as cumulative since start of work.
- Nothing extra, whatsoever, shall be paid on account of the aforesaid submission of monthly report.

55. SAFETY PRECAUTIONS

Necessary personal protective and safety equipments such as helmet, safety shoes & harness, gloves etc shall be provided to the all site Engineers, Supervisory staff, labour and technical staff of the contractor by the Contractor at his own cost and to be used at site.

The Contractor(s) 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 existing/new 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 labours/ contractual staff's the entire responsibility will rest on the part of the contractor and any compensation under such circumstances if becomes payable the same shall be entirely borne by the contractor and department shall have no role on this account.

It shall be ensured by the contractor that no electric live wire is left exposed or unattended to avoid any accidents in this regard.

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.

For facia work, outer finishing and other RCC works etc., only double steel scaffolding having two sets of vertical supports with steel staircase for inspection of works by engineer in charge shall be used. The supports shall be sound and strong, tied together with horizontal piece over which scaffolding planks shall be fixed.

56. QUALITY ASSURANCE

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.

The contractor shall ensure quality control measures on different aspects of construction including materials, workmanship and correct construction methodologies to be adopted. He shall have to submit quality assurance programme within one weeks of the award of work. The quality assurance programme should include method statement for various items of work to be executed along with check lists to enforce quality control.

Contractor shall be required to submit detailed method statement for all activities associated with the execution and completion of the work. Such method statement should contain all required details like check lists for pre, post and during execution of the activity/item of work, details of testing methodology, frequency, relevant testing standards as defined in the contract of the items involved in the activity. Engineer in charge reserves the right to direct any amendment/modification in the submitted method statement and contractor shall be bound to submit the amended/modified method statement as directed by Engineer in charge, after which only contractor shall be allowed to take up such activity. Contractor shall be required to get inspected any activity to be executed on a day from the Engineer in charge or his authorized representatives and get signed the checklist as per the method statement, after which only the activity on that particular day shall be allowed to start. Contractor shall be fully responsible for all contractual implications, for any delay caused, if any, on account of delay in submission of such method statement or modified method statement or checklists. Nothing extra, whatsoever, shall be paid on this account and his quoted amount shall be deemed to be inclusive of all such activities.

Contractor shall prepare and submit shop drawings for approval of Engineer in charge, before taking up different activities like aluminium doors, windows, MS/SS work, plumbing for water supply and drainage, sewer lines & manholes with IL, ACP cladding, stone cladding, glass curtain walls etc or any other activity as directed by Engineer in charge. Contractor shall be required to make modifications as may be directed by the Engineer in charge in the submitted shop drawings and shall resubmit modified shop drawings. Contractor shall not be allowed to execute the related items without approval of such shop drawings and he shall be fully responsible for all contractual implications, for any delay caused, if any, on account of delay in submission of such shop drawings or modified shop drawings. Nothing extra, whatsoever, shall be paid on this account and his quoted amount shall be deemed to be inclusive of all such activities.

Shop drawings shall be submitted for approval three 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 program.

Before taking up the work, the contractor shall also provide integrated drawings for various civil and electrical services showing details of lay out plan including sectional elevations. Contractor shall plan and mobilize his resources as per the integrated drawings and as per the site conditions to facilitate convenient execution, installation as well as construction of these services. Nothing extra shall be payable on this account.

The contractor shall produce all the materials in advance so that there is sufficient time for testing and approving of the material and clearance of the same before use in work.

Materials used on work without prior inspection and testing (where testing is necessary) and without approval of the Engineer-in-Charge are liable to be considered unauthorized, defective and not acceptable. The Engineer-in-Charge shall have full powers to order the removal of any or all of the materials brought to site by contractor which are not in accordance with the contract specifications or do not confirm, in character or quality to the samples approved by the Engineer-in-Charge. In case of default on the part of the contractor in removing rejected materials, the Engineer-in-Charge shall be at liberty to have them removed after 2 days of such instruction at the risk and cost of the contractor without issuing any further notice.

The contractor shall provide at his own cost, suitable weighing, surveying, levelling and measuring arrangements as may be necessary and directed by Engineer in charge at site for checking. All such equipment shall be got calibrated in advance from laboratory, approved by the Engineer-in-Charge. Nothing extra shall be payable on this account.

The contractor shall give performance test of the entire installation(s) as per the specifications in the presence of the Engineer-in-charge or his authorized representative before the work is finally accepted and nothing extra what-so-ever shall be payable to the contractor for such test.

Wherever work is specified to be done through specialized agencies, their names shall be got approved well in advance from Engineer in charge. Failure to do so shall not justify delay in execution of work. The contractor should negotiate with concerned specialist agencies and send their names for approval to Engineer in charge within 30 days of issue of letter of award of work.

All materials obtained from Govt. Stores or otherwise shall be got checked by the Engineer-in-Charge or his any authorized supervisory staff on receipt of the same at site before use.

The contractor shall provide at his own cost suitable weighing and measuring arrangements at site for checking the weight / dimensions as may be necessary for execution of work. The sealed samples are to be handed over to the testing lab by contractor in the presence of Junior Engineer/Assistant Engineer-in-Charge of work.

Samples of various materials required for testing as per the frequency prescribed in CPWD specifications/BIS codes/Contract, whichever is higher shall be provided free of charges by the contractor. Testing charges, if any, unless otherwise mentioned, shall be borne by the contractor and testing shall be got conducted in labs approved by Engineer in Charge. All other incidental expenditure required to be incurred for taking the samples; conveyance, packing etc. shall also be borne by the contractor himself. No extra payment shall be made on this account.

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 results or such tests and consequences thereon shall be binding on the contractor.

For certain item, if frequency of tests is not mentioned in the CPWD Specifications, then relevant BIS code shall be followed and tests shall be carried out as per the frequency specified therein. If any load testing or special testing is to be done for any sample whose strength is doubtful, the cost of the same shall also be borne by the contractor.

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. 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 approved list of brand names given in the tender document / additional specifications for approval of Engineer-in-charge. For all other items, materials and fittings of ISI Marked shall be used with the approval of Engineer-in-Charge. Wherever ISI Marked material / fittings are not available, the contractor shall submit samples of materials / fittings manufactured by firms of repute conforming to relevant specifications or IS codes and use the same only after getting the approval from engineer-in-charge.

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 at any point of time.

The contractor shall get the source of all other materials, not specified elsewhere in the document, approved from the Engineer-in-Charge. The contractor shall stick to the approved source unless it is absolutely unavoidable. Any change shall be done with the prior approval of the Engineer-in-Charge for which tests etc. shall be done by the contractor at his own cost. Similarly, the contractor shall submit brand/ make of various materials not specified in the agreement, to be used for the approval of the Engineer-in-Charge along with samples and once approved, he shall stick to it.

The contractor shall get the water tested with regard to its suitability and conforming to the relevant IS Code. The contractor shall obtain written approval from the Engineer-in-Charge before he proceeds by using the same for execution of work. The water testing charges shall be borne by the contractor. If tube well water is not suitable, the contractor shall arrange Municipal water or from any other source at his own cost and nothing extra shall be paid on this account. The water shall be got tested at frequency specified in latest CPWD Specifications / BIS Code.

Before taking up the finishing work such as Flooring, Plastering, sample unit of toilet, room etc., contractor shall prepare full-scale sample for large-scale repetitive items and get approved from Engineer-in-Charge before taking up for execution on large scale

Based on the samples approved by the Engineer-in-Charge for various flooring and dado / cladding materials as specified hereinafter, the contractor shall prepare mock up(s) at site of work as specified under relevant flooring and dado / cladding items, for approval of quality of workmanship and material specified. If the quality of the workmanship and the material is as per the required standards and approved by the Engineer-in-Charge, the mock up shall be allowed as part of the work and measured for payment. 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. The mock up(s) so made shall be kept till completion of respective works for reference. Nothing extra shall be payable on this account.

The contractor shall prepare & display mock-ups in actual position of each and every item and obtain approval of Engineer-in-charge before execution en masse. . Similarly, the contractor shall prepare sample toilet blocks comprising of all finishes and fittings included in the scope of this contract. Approval of Engineer-in-charge shall be obtained before taking up finishing works en masse. The work executed in approved mock ups/sample units in actual position forming part of the main work shall be deemed to be included the scope of work and quoted rates of the contract. However the contractor shall have to dismantle and remove the rejected mock up / sample from the site of work at his cost.

The contractor shall invariably prepare the samples of finishing items i.e. flooring of different types, external & internal finishing i/c colour scheme of paint, tiles in dado, flooring in platforms & staircase, water supply & sanitary fittings and any other item as per direction of Engineer-in-charge. The contractor shall proceed with further finishing items only after getting the samples of these items approved in writing from Engineer-in-charge. Toilets and in case of construction of residential quarters, one sample quarter complete in all shape for each category, shall be prepared by the contractor and got approved from Engineer-in-charge in writing. The contractor shall be allowed to proceed with further quarters only after getting

the sample quarters approved from Engineer-in-charge No extra claim whatsoever beyond the payments due at agreement rates will be entertained from the contractor on this account.

Water tanks, taps, sanitary, water supply and drainages pipes, fittings and accessories should conform to the specifications provided in bidding documents. 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(s) shall submit for the approval to the Engineer-in-Charge the name of the plumbing agency proposed to be engaged by him.

All the hidden items such as water supply lines, drainage pipes, conduits, sewers etc. are to be properly tested as per the design conditions submitted before covering.

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.

Door/window frames/shutters and other factory-made materials shall be procured from reputed and approved manufacturers or their authorized dealers. Decision of Engineer-in-charge in this regard shall be final and binding.

Unless specifically mentioned, the testing charges of all the building material shall be borne by the contractor. The construction material to be tested as site lab. However, at least 10% testing of materials shall be got done from external laboratories approved by Engineer in charge. 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 other reasons the cost of such tests shall also be borne by the contractor.

Maintenance of Site Registers:

- (i) All the Site Registers including Test 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 or his authorized representative.
- (ii) The various registers (In general) to be issued to and maintained by the contractor are:
 - a) Materials at site account register.
 - b) Cement register.
 - c) Master test registers.
 - d) Cube test register.
 - e) Paint/chemical register.
 - f) Inspection register.
 - g) Drawing register, etc.
- (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.

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.

- a) 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 JE/AE/AEE giving approximate quantity of such materials.
- b) As soon as the material is removed, a certificate to that effect may be recorded by the JE/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.

57. AS BUILT DRAWINGS:

On completion of work, the Contractor shall submit at his own cost three prints of "as built" drawings to the Engineer-in-Charge within 30 days of completion of work. These drawings shall have the following information amongst other information that may be directed by Engineer in charge.

- (i) Run off all piping and their diameters including soil waste pipes and vertical stacks.
- (ii) Ground and invert levels of all drainage pipes together with locations of all manholes and connections, up to outfall.
- (iii) Run off all water supply line with diameters, locations of control valves, access panels etc.
- (iv) Important literatures, manuals, warranty certificates etc. of various installed fittings, fixtures and equipment, paint as per manufacturer specification as per direction of Engineer-in charge.

Final bill will not be paid and Security Deposit shall not be released until submission of as built drawings as above and no claim, whatsoever, shall be admissible for non-payment of final bill or security deposit on account of non-submission of aforesaid as built drawings.

58. LAND FOR TEMPORARY USE

The land for labour camps & batching Plant and storage/dumping of construction materials shall be arranged by the contractor at his risk and cost. The lease/rent charges shall be borne by the contractor. The Engineer-in-Charge shall extend necessary help and issue necessary recommendations etc. to the concerned clients / department for temporary allotment of land during construction period if land is available with them. In such cases, the contractor shall vacate the land after completion of work in same condition as was at the time of allotment.

59. In credit items where rates are in minus, in such items the rebate offered by agency shall be calculated as under as per example below :-

a) Rate as (-x), quoted percentage below 10%, then payable rate $-x + \frac{(-x \times 10)}{100} = -1.1x$

b) Rate as (-x), quoted percentage above 10%, then payable rate $-x + \frac{(-x \times 10)}{100} = -0.9x$

41.0 In the exceptional cases if **there is some technical issue regarding updation of hinderance through ERP (the decision of Engineer-in-charge shall be final and biding)**, the hindrances in execution of work, if any, whether on part of the contractor or department or FM clause, as required under clause 5 for determining extension of time/rescheduling of mile stones etc.,with or without levy of compensation, shall be judged/worked out/based on the correspondences and site order book records between the department and the contractor.

42.0 In the exceptional cases if there is some technical issue regarding timely recording of electronic measurement through ERP **(the decision of Engineer-in-charge shall be final and biding)**, the Computerised Measure Book shall also be maintained to have timely payment of bills.

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

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

Insertion : Nil Correction : Nil Omission : Nil AE(P)... / EE(C).....

PARTICULAR SPECIFICATIONS AND SPECIAL CONDITIONS

EARTH WORK

The work shall be done in accordance with CPWD Specifications - 2019 - Vol.I & Vol. II and National Building Code 2016 with upto date correction slips.

Excavation shall be undertaken to the width of the Basement / Retaining wall footing including necessary margins for construction operation as per drawing or directed otherwise. Where the nature of soil or the depth of the trench and season of the year, do not permit vertical sides, the contractor at his own expense shall put up the necessary shoring, strutting and planking or cut slopes with or without steps, to a safer angle or both with due regard to the safety of personnel and works and to the satisfaction of the Engineer, Nothing extra shall be paid for making steps and slopes etc. as required.

The contractor shall make at his own cost all necessary arrangements for maintaining water level, in the area where works are under execution low enough so as not to cause any harm to the works or problems in carrying out with the execution and the rates for all items of work shall be considered as inclusive of pumping out or bailing out water, if required, for which no extra payment shall be made. This will include water coming from any source, such as rains, accumulated rain water, floods, leakages from sewer and water mains, subsoil water table being high or due to any other cause whatsoever. The contractor shall make necessary provision of pumping, dredging, and bailing out water coming from all above sources and excavation and other works shall be kept free of water by providing suitable system approved by the Engineer- in-charge.

Sub-soil water table at work site is reported to be about **9.0m below** general ground level. The water level may vary due to rainy season or due to dewatering etc. in order to avoid possibility of basement floor of building being getting uplifted/damaged due to water pressure, the contractor shall make arrangement for lowering the ground water table below the proposed foundation level as approved by Engineer-in-charge. Sub soil water table shall be maintained at least 50 cm below the P.C.C. level during laying of P.C.C., water proofing treatment, laying of basement raft and beams including filling of earth/sand under the basement floor. The water table shall not be allowed to rise above base of raft level until completion of outer retaining walls including water proofing of vertical surface of walls and back filling along the walls up to ground level and until the structure attains such height to counter balance the uplift pressure. However, the contractor should inspect the site and make his own assessment about sub-soil water level likely to be encountered at the time of execution and quote his rates accordingly. Rate of all items are inclusive of pumping out or bailing out water, if required. Nothing extra on this account whatsoever shall be paid to him unless otherwise specified. The sequence of construction shall be got approved by the Engineer-in-charge.

All the major excavation shall be carried out by mechanical excavator. No extra payment shall be made for that.

Any trenching and digging for laying sewer lines/water lines/cables etc. shall be commenced by the contractor only when all men, machinery's and materials have been arranged and closing of the trench(s) thereafter shall be ensured within the least possible time.

The rates are inclusive for all depths & nothing extra shall be paid for additional lift etc.

CONCRETE WORK

The work shall be done in accordance with CPWD Specifications - 2019 - Vol.I & Vol. II with upto date correction slips.

If the quantity of cement actually used in the work is found to be more than the theoretical quantity of cement including authorized variation, nothing extra shall be payable to the contractor on this account. In the event of it being discovered that after the completion of the work, the quantity of cement used is less than the quantity ascertained as herein before provided (allowing variation on the minus side as stipulated in clause 42) the cost of quantity of cement so less used shall be recovered from the contractor at the rate as specified in schedule „F“. Decision of the Engineer-in-Charge in regard to the quantity of cement which should have been actually used as per the schedule and recovery at the rate specified shall be final and binding on the contractor.

For non-scheduled items, the decision of the Superintending Engineer regarding theoretical quantity of the cement which should have been actually used shall be final and binding on the contractor.

RCC/CC WORK (DESIGN MIX CONCRETE)

The Design Mix Concrete will be designated based on the principles given in BIS codes IS:456, IS:10262 & SP:23. The condition and specifications stated herein shall have precedence overall conditions and specifications stated in relevant BIS codes/CPWD specifications. The concrete mix shall be designed for specified target mean compressive strength in order to ensure that the work test results do not fall below the acceptance criteria specified for the concrete mix. The Contractor shall design mixes for each class of concrete indicating that the concrete ingredients and proportions will result in concrete mix meeting requirements specified. The mix shall be designed with quantities of admixture / plasticizer proposed to achieve required workability & strength. The specifications mentioned here in below shall be followed for Design Mix Concrete.

The sources of coarse aggregate, fine aggregate & water to be used in concrete work shall be identified by the contractor & he will satisfy himself regarding their conforming to the relevant specification & their availability before getting the same approved by the Engineer-in-Charge.

Coarse Aggregate:As per CPWD Specifications - 2019 - Vol.I& Vol. II with up to date correction slips.

Fine Aggregate:As per CPWD Specifications - 2019 - Vol.I& Vol. II with upto date correction slips.

Water: It shall confirm to requirements laid down in IS:456-2000 / CPWD Specifications - 2019 - Vol.I& Vol. II with upto date correction slips.

Cement: PPC shall be used for design mix concrete and shall conform to IS-1489 (part-I). However, if higher grade of cement is used by the contractor nothing extra shall be paid on this account.

Admixtures / Plasticizers: - The admixture shall confirm to IS:9103, wherein required, the admixture of approved quality and approved make only shall be used to attain the required workability. Nothing extra shall be paid for use of admixtures.

Grade of Concrete: The compressive strength of various grades of concrete shall be given as below:

Grade Designation	Compressive Strength on 15 cm Cubes at 7 Days (N/mm ²)	Specified Characteristic Compressive Strength At 28 Days At (N/ mm ²)	Maximum Water Cement Ratio
M-25	As Per Design	25	
M-30	As Per Design	30	
M-35	As Per Design	35	
M-40	As Per Design	40	

Water cement ratio and slump shall be as per IS:456-2000.

Source of Materials:

All stone aggregate and stone ballast shall be of hard stone variety to be obtained from approved quarries at **Sevaliya** or any other source to be got approved by the Engineer-in-charge.

Coarse sand should be obtained from **Sankheda** or any other source to be got approved by the Engineer-in-charge and screened as required. The same shall be clean and sharp angular grit type. If the sand brought to site is dirty it must be washed in clean water.

Fine sand should be obtained from **Sankheda** any other source to be got approved by the Engineer-in-charge and screened as required. The same shall be clean and sharp angular grit type. If the sand brought to site is dirty it must be washed in clean water.

NOTE:

- (i) In the designation of a Concrete mix letter M refers to the mix and the number of the specified characteristic compressive strength of 15 cm cube at 28 days expressed in N/mm².
- (ii) It is specifically highlighted that in addition to the above requirements, the **maximum cement content for grade M-25 and M-30 shall be limited to 380 kg /cum and 410 kg/cum using PPC cement respectively.**
- (iii) The maximum cement content for design mix concrete shall be maintained as per the quantity mentioned above. In case where the quantity of cement required as per Design Mix is lower than the quantity specified in the respective item in the “schedule of quantity”, necessary deduction for less quantity of cement used shall be made from the contractor.

The concrete mix design will be carried out by the contractor through IIT/NIT/any other government lab as approved by engineer-in-charge.

The contractor shall submit the report on design mix from any of above approved laboratories for approval of Engineer-in-Charge within 30 days from the date of issue of letter of acceptance of the tender. No concreting shall be done until the design mix is approved. Accordingly the contractor shall conduct trial mixes at site for which nothing extra shall be payable.

In case of change of source or characteristic properties of the ingredients used in the concrete mix during the work, a revised laboratory mix design as above to be conducted and the charges to be borne by the contractor even as many times as required.

Trial Batches:

The designed mix proportion shall be checked for target mean compressive strength by means of trial batches. The quantities of materials for each trial mix shall be sufficient for at least six specimens (cubes) and the concrete required for carrying out workability tests.

The workability of trial mix No. 1 shall be measured and mix shall be carefully observed for freedom from segregation, bleeding and its finishing characteristics. The water content, if required, shall be adjusted corresponding to the required changes in the workability.

With the modified water content, the mix proportions shall be recalculated by keeping with water cement ratio unchanged. The mix proportions, as modified, shall form the Trial

Mix No. 2 and tested for the specified strength and workability.

In addition, trial mix No. 3 and 4 shall be designed by keeping water contents same as that determined for trial mix 2 but varying the water cement ratio + 10 percent of the specified value and tested for their design characteristics.

All cost of mix designing and testing connected therewith including charges payable to the laboratory shall be borne by the Contractor including redesigning of the concrete mix wherever required and directed by Engineer-in-Charge.

APPROVAL OF DESIGN MIX:

The mix design for a specified grade of concrete shall be done for a target mean compressive strength

$$T_{ck} = F_{ck} + 1.65s$$

Where, F_{ck} = Characteristic compressive strength at 28 days.

s = Standard deviation which depends on degree of quality control.

The degree of quality control for this work is “good” for which the standard deviation (s)

obtained for different grades of concrete shall be as follows:

GRADE OF CONCRETE	STANDARD DEVIATION(S)
M-25	4.0
M-30	5.0
M-35	5.0
M-40	5.0

Minimum three sets of separate preliminary test shall be carried out for each trial batch of concrete mix. Each test shall comprise six specimens and only one test set of six specimens shall be made on any particular day. Out of the six specimens of each set, three shall be tested at seven days and remaining three at 28 days. The preliminary tests at seven days are intended only to indicate the strength to be attained at 28 days. While the design mix shall be approved only on the basis of test strength of 28 days. The design mix shall be considered satisfactory and approval if at least three preliminary tests- sets individually satisfy the following strength and workability criteria:

- The average strength of each test sets is not less than the specified target mean compressive strength (T_{ck}).
- The strength of any specimen cube is not less than 0.85 T_{ck} .
- The concrete mix is required degree of workability and acceptance concrete finish.

WORK STRENGTH TEST:

TEST SPECIMEN:

Work strength test shall be conducted in accordance with IS:516 on random sampling. Each test shall be conducted on six specimens, three of which shall be tested at 7 days and remaining three at 28 days.

TEST RESULTS OF SAMPLES:

The test results of the sample shall be the average of the strength of three specimen. The individual variation shall not be more than + 15% percent of the average. If variation is more, the test results shall be treated as invalid. 90% of the total tests shall be done at the laboratory established at site by the contractor and remaining 10% in the laboratory of IIT/NIT or in any other laboratory as directed by the Engineer-in-Charge.

Insertion : Nil Correction : Nil Omission : Nil AE(P)... / EE(C).....

LOT SIZE:

The minimum frequency of sampling of concrete of each grade shall be in accordance with the following:

QUANTITY OF CONCRETE IN THE WORK (CUBIC METRE PER DAY).	NUMBER OF SAMPLES
1-5	1
6-15	2
16-30	3
31-50	4
51 & above	4 Plus one additional sample for each additional 50 cubic meters of part thereof

Water cement ratio and slump shall be as per IS:456-2000.

NOTE:

STANDARD OF ACCEPTANCE: All as per relevant IS codes.

Only MS centering / shuttering and scaffolding material unless & otherwise specified shall be used for all R.C.C. work to give an even finish of concrete surface. However, marine-ply shuttering in exceptional cases as per site requirement may be used on specific request from contractor as approved by the Engineer-in-Charge.

Nothing extra shall be paid for the centering and shuttering, circular in shape whenever the form work is having a mean radius exceeding 6m in plan.

In order to keep the floor finish as per architectural drawings and to provide required thickness of the flooring as per specifications, the level of top surface of RCC shall be accordingly adjusted at the time of its centering, shuttering and casting for which nothing extra shall be paid to the Contractor.

As per general engineering practice, level of floors in toilet / bath, balconies, shall be kept 25 mm as required lower than general floors shuttering should be adjusted accordingly and slabs should be laid with slope towards the drainage point. Nothing extra is payable on this account.

PRODUCTION OF CONCRETE

All design mix concrete shall be produced at site through weigh-batching plant of suitable capacity as directed by the Engineer-in-charge (of 10 cum/hr or as directed by the Engineer-in-charge) conforming to IS:4925 with the arrangements for automatic dispensing of admixture and having facility of giving print out indicating weight / details of all ingredient of concrete in each lot/ batch and variations from the approved design mix if any. Batching and mixing plant of capacity 10 cum/hr or as per direction of Engineer-in-charge shall be installed at the arranged site by the contractor. The batching and mixing plants shall be dedicated plants for this project. Contractor shall make his own arrangements for the necessary infrastructure for installation of batching plant and other machineries. However, if due to any reason, contractor wishes to supplement the concrete from Ready Mix Concrete (RMC) supplier, he is permitted to procure the same from the source approved by the Engineer-in-charge at his own cost. In such a situation nothing extra shall be paid to the contractor. All technical requirements such as cement type and minimum cement quantity, w/c ratio, slump, admixture etc. shall be conveyed to RMC supplier by the contractor and contractor shall be wholly responsible for ensuring the property of concrete as required at site, nothing extra shall be paid to the contractor.

The contractor may take some time to install his own batching plants at the arranged site and till the batching plants are installed, the contractor is permitted to procure concrete from approved Ready-Mix Concrete (RMC) supplier for a period of 3 months from date of start of work or the period as agreed by Engineer-in-Charge. Similarly, when the work is nearing completion and daily requirement of concrete is very less, if agreed by the Engineer-in-Charge, the contractor may be permitted to procure the concrete from approved Ready-Mix Concrete (RMC) supplier and nothing extra shall be paid to the contractor on this account.

LAND FOR TEMPORARY USE

The land for labour camps & batching Plant and storage/dumping of construction materials shall be arranged by the contractor at his risk and cost. The lease/rent charges shall be borne by the contractor. The Engineer-in-Charge shall extend necessary help and issue necessary recommendations etc. to the concerned clients / department for temporary allotment of land during construction period if land is available with them. In such cases, the contractor shall vacate the land after completion of work in same condition as was at the time of allotment.

TRANSPORTATION, PLACING AND COMPACTION OF CONCRETE

Mixed concrete from the RMC / Batching plant shall be transported to the point of placement by transit mixers and placed in position through concrete pumps and/or steel closed bottom buckets capable of carrying minimum 0.6 cum concrete. In case the concrete is proposed to be transported by transit mixer, the mixing speed shall not be less than 4 rev/min. of the drum nor greater than a speed resulting in a peripheral velocity of the drum 70 m/minutes at its largest diameter. The agitating speed of the agitator shall be not less than 2 rev/min nor more than 6 rev/min of the drum. The number of revolution of the mixing drum or blades at mixing speed shall be between 70 to 100 revolutions for a uniform mix, after all ingredients, have been charged into the drum. Unless tempering water is added, all rotation after 100 revolutions shall be at agitating speed of 2 to 6 rev/min and the number of such rotations shall not exceed 250. The general construction of transit mixer and other requirement shall conform to IS:5892.

In case concrete is to be transported by pumping, the conduit shall be primed by pumping a batch of mortar through the line to lubricate it. Once the pumping is started, it shall not be interrupted (if at all possible) as concrete standing idle in the line is liable to cause a plug. The operator shall ensure that some concrete is always there in the pump receiving hopper during operation. The lines shall always be maintained clean and shall be free of dents at all stages. Special precaution shall be taken that surrounding temperature during concreting shall not exceed 30 degree centigrade.

Except where otherwise agreed to by the Engineer-in-Charge, concrete shall be deposited in horizontal layers to a compacted depth of not more than 450 mm. Unless agreed to by the Engineer- in-Charge, concrete shall not be dropped into place from a height exceeding 1.5m. In order to avoid such situations chutes, tremie pipe or closed bottom buckets shall be used. These shall be kept clean and used in such a way as to avoid segregation. Slope of the chute shall be so adjusted that concrete flows without the use of excessive quantity of water. The delivery end of chute shall be as close as possible to the point of deposit. The chute shall be thoroughly flushed with water before and after each working period and the water used for this purpose shall be discharged outside the formwork. The concrete shall be compacted by using immersion type vibrators. When the concrete is being continuously deposited to a uniform depth along

a member, vibrator shall not be operated within one meter of free end of the advancing concrete.

Every effort shall be made to keep the surface of the previously placed layer of concrete alive so that the succeeding layer can be amalgamated with it by the vibration process. In case the concrete in underlying layer has hardened to such an extent that it cannot be penetrated by the vibrator but is still fresh (that is, just after initial set), un-imposed bond shall be achieved between the top and underlying layer by first scarifying the lower layer before the new concrete is placed by systematically and thoroughly vibrating the new concrete. The points of insertion of vibrator in the concrete shall be so spaced that the range of action overlap to some extent and the freshly filled concrete is sufficiently consolidated at all locations. The spacing between the dipping positions of vibrator shall be maintained uniformly throughout the surface of concrete so that concrete is uniformly vibrated. The vibrating head shall be regularly and uniformly inserted in the concrete so that it penetrates of its own accord and shall be withdrawn slowly whilst running so as to allow redistribution of concrete in its way and allow the concrete to flow back into the hole behind the vibrator. The vibrator head shall be kept in one position till the concrete within its influence is completely consolidated. Vibration shall be continued until the coarse aggregate particle have blended into the surface but have not disappeared. The contractor shall keep at least one additional vibrator in serviceable condition to be used in the event of breakdowns and construction problems.

The vibrator head shall not be brought more than 200 mm near to the formwork as this may cause formation of water stagnations. The formwork shall be strong and great care shall be exercised in its assembly. It shall be designed to take up increased pressure of concrete and pressure variations caused in the neighborhood of vibrating head, which may result in excessive local stress on the formwork. The joints of the formwork shall be made and maintained tight and close enough to prevent the squeezing out slurry or sucking in of air during vibration. The formwork to receive concrete shall be cleaned and made free from standing water, dust, etc. The contractor shall keep provision for screed and shutter vibrators at site.

No concrete shall be placed in any part of the structure until the approval of Engineer-in-Charge has been obtained. If concreting is not started within 24 hours of the approval being given, it shall have to be obtained again from the Engineer-in-Charge. Concreting shall be done continuously over the area between construction joints. Fresh concrete shall not be placed against concrete which has been in position for more than 30 minutes unless a proper construction joint is formed. When concreting has to be resumed on a surface which has hardened, it shall be roughened, swept, clean, thoroughly wetted and covered with a 13 mm thick layer of mortar composed of cement and sand in the same ratio as in the concrete mix itself. The 13 mm layer of mortar shall be freshly mixed and placed immediately before placing of new concrete.

Where concrete is not fully hardened, all latency shall be removed by scrubbing the wet surface with wire or bristle brushes. Care shall be taken to avoid dislodgement of particles of coarse aggregate. The surface shall then be thoroughly wetted, all free water removed and then coated with neat cement grout. Particular attention shall be given to corners and close spots.

In case of rejection of concrete on account of unacceptable compressive strength, governed by para “Standard of Acceptance” as above, the work for which samples have failed shall be redone at the cost of contractor. However, the Engineer-in-Charge may order for additional tests (like cutting cores, ultrasonic pulse velocity test, load test on structure on part of structure, etc) to be carried out at the cost of contractor to ascertain if the portion of structure wherein concrete represented by the sample has been used, can be retained on the basis of results of individual or combination of these tests. The Contractor shall take remedial measures necessary to retain the structure as approved by the Engineer-in-Charge without any extra cost. However, for payment, the basis of rate payable to contractor shall be governed by the 28 days cube test results and reduced rates shall be regulated in accordance with para 3.24.2.

The chasing, cutting and making holes in the masonry and / or cement concrete and / or RCC works shall be done carefully without causing any damage to the structure. Only mechanical cutters & core cutting machines shall be used in a workman like manner, for concealing the pipelines and fittings. The chases / holes, so made, shall be made good with the cement mortar of mix 1: 3 (1cement: 3 fine sand) after testing of the pipe lines for leakage. The cost of cutting cores in RCC, cutting holes in masonry & making good the same shall be deemed to be inclusive in the quoted rate of respective item of drainage/water supply lines. Nothing extra, whatsoever, shall be paid on this account.

Any cement slurry added over base surface for bond or for continuation of concreting, for protecting reinforcement bars, its cost shall be deemed to have been included in the respective items, unless specified otherwise and nothing extra shall be payable nor extra cement shall be considered in the cement consumption on this account.

SHUTTERING / FORM WORK

The work shall be done in accordance with CPWD Specifications - 2019 - Vol. I & Vol. II with upto date correction slips.

Steel shuttering as approved by the Engineer-in-Charge shall be used by the contractor. Minimum size of shuttering plates shall be 600mm x 900mm except for the case when closing pieces required to complete the shuttering panels. Dented, broken, cracked, twisted or rusted shuttering plates shall not be allowed to be used on the work.

The shuttering plates shall be cleaned properly with electrically driven sanders to remove any cement slurry or cement mortar or rust. Proper shuttering oil or debonding compound shall be applied on the surface of the shutter plates in the requisite quantity before assembly of steel reinforcement.

The joint filler shall be resilient closed cell expanded polyethene and non-tainting as manufactured by Supreme Industries Ltd.

Providing joint filler of required thickness in position to substrate using either double sided foam adhesive tape or neoprene synthetic rubber adhesive. When forming expansion joint with the Board in in-situ concrete, joint sealing slots can be readily formed in the following matter-

- a) Before installing, simply cut off a strip of the required depth. Then install the filler flush with the finished surface.
- b) Prior to sealing, the top strip can then be pulled easily from the joint to provide an uncontaminated sealing slot ready for preparation and sealing.

REINFORCEMENT

The reinforcement shall be done as per CPWD Specifications - 2019 - Vol.I& Vol. II with upto date correction slips.

The item of reinforcement of RCC work includes all operations including straightening, cutting, bending, welding, binding with annealed steel or welding and placing in position at all the floors with all leads and lift complete as per CPWD Specification - 2019 - Vol.I & Vol. II with upto date correction slips.

To avoid displacement of bars in any direction and to ensure proper cover, only factory made round type/rectangular cover blocks shall be used by the contractor. Nothing extra shall be payable on this account.

PRE-CAST RCC WORK

Pre-cast reinforced concrete units shall be of grade or mix as specified. Provision shall be made in the mould to accommodate fixing devices such as hooks, flats etc. And forming of notches and holes. Each unit shall be cast in one operation. A sample of the unit shall be got approved from Engineer-in-Charge before taking up the work.

Pre-cast units shall be clearly marked to indicate the top of member and its locations.

Pre-cast units shall be stored, transported and placed in position in such a manner that these are not damaged.

BRICK WORK

Unless otherwise specified FPS Bricks shall be used in all items of brick work. The classification of bricks brought by the contractor shall strictly conform to CPWD Specifications – 2019 Vol-I & II with upto date correction slips or as specified. The work shall also include for leaving chases / notches for dowels / cramps for all kinds of cladding to come over brick work.

STONE / MARBLE /GRANITE/TILE WORK (OTHER THAN MASONARY)

The execution of stones work shall be in general as per CPWD Specifications - 2019 - Vol.I &Vol. II with upto date correction slips.

The contractor shall compulsory use of wet jet in grinding and stone cutting. Nothing extra shall be paid on this account.

Nothing extra shall be payable for using combination of marble, granite and kota in the required pattern at various locations unless otherwise specified.

The pattern, spacing and locations of joints shall be as per drawings and direction of the Engineer-in-Charge and nothing extra shall be paid on account of the same.

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.

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.

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.

No extra cement mortar shall be paid on account of level matching with combination of different types of flooring materials like Kota stone, granite, tiles of different type due to thickness differences in such types flooring material. Contractor shall plan this type variation during casting of slabs itself and shuttering shall be fixed accordingly at staircases, rooms, balconies and in toilets etc. Contractor shall make such changes as may be required to achieve, as aforesaid, in the levels of different floor levels, provided in different architectural and structural drawings issued by the department.

The 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. In the cabin areas, the joints in sills shall preferably be provided in line with the partition wall. 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.

All the flooring works specified under this sub -head shall be adequately protected by a layer of plaster of paris which shall be laid over a 400 micron PVC film. The protective layer shall be maintained throughout the execution of works and removed just before handing over of the site for which nothing extra shall be payable.

All holes, rebates, recesses etc. for providing fixing and inserts shall be predrilled and precut and worked using precision machine tools. Nothing extra on this account shall be payable.

SAMPLES FOR STONE WORK: Samples of each item of stone work either individually or in combination shall be prepared for approval of Engineer-in-Charge before commencement of work.

Sequence of execution for cladding work shall be suggested by the contractor for approval of Engineer-in-Charge.

SCAFFOLDING

Double steel scaffolding having two sets of vertical supports shall be provided. The supports shall be sound and strong, tied together with horizontal pieces over which scaffolding planks shall be fixed.

WOOD WORK

The wood work in general shall be carried out as per CPWD Specifications - 2019 Vol.I& II with upto date correction slips.

The samples of species of timber to be used shall be got approved and deposited by the contractor with the EE before commencement of the work. The contractor shall produce cash vouchers and certificates from kiln seasoning or/and chemical treatment plants about the timber section to be used on the work having been kiln seasoned or/and chemically treated by them.

Factory made shutter as specified shall be obtained from factories approved by the Engineer in charge. The contractor shall inform well in advance to the Engineer-in-charge the names and address of the factory from where the contractor intends to get the shutters manufactured. The contractor will place order for manufacture of shutters only after written approval of the Engineer-in-charge in this regard is given. The contractor is bound to abide by the decision of the

Engineer-in-charge and recommend a name of another factory from the approved list in case the factory already proposed by the contractor is not found competent to manufacture quality shutters. Shutters will however be accepted only if this meet the specified tests. The contractor will also arrange stage wise inspection of the shutters at factory to the Engineer-in-charge or his authorized representative. Contractor will have no claim if the shutters brought at site are rejected by Engineer-in-charge in part or in full lot due to bad workmanship / quality even after inspection of factory. Such shutters will not be measured and paid and the contractor shall remove the same from the site of work within 7 days after the written instruction in this regard are issued by Engineer in Charge or his authorized representative. Laminates and wooden edge beading on flush doors shall be machine pressed in factory only. The design and pattern of laminates shall be as per the approval of engineer in charge.

All fittings and fixtures shall be got approved from the Engineer-in Charge before procurement well in advance and the approved samples shall be kept at site till completion of the work.

Glazing for toilets shall be of translucent type.

The shape and size of beading shall be as per drawings. The joints of beading shall be mitred.

11.0 FALSE CEILING WORKS:

The luminaries, air grills / diffusers, signage"s etc. shall be as far as possible independently supported to avoid any over loading of the ceiling system which may result in excessive deflection or twisting of grids. Any strengthening of grid system by providing additional hangers, fasteners, runners, cross tees etc. or providing additional bracing may be carried out as required for any specific locations or for specific purpose for which nothing extra shall be payable. Various false ceiling systems shall include cost of all inputs of labour, materials,wastage if any, T&P, scaffolding, staging or any other temporary enabling structure /services etc. and all other incidental charges including making necessary cut outs forA.C diffusers, Light fittings, grills, Fire detection, alarm, sprinklers devices and fittingsetc. No deduction in the area shall be made for openings nor anything extra shall bepayable for making the openings. Also nothing extra shall be payable on account ofany wastage in materials. Also nothing extra shall be payable on account of any strengthening of the supporting suspension system for the false ceiling, around the openings in the false ceiling by using additional hangers, fasteners, runners, crosstees, cross channels, etc.

STEEL WORK

Work shall be carried out as per CPWD Specifications - 2019 - Vol.I& Vol. II with upto date correction slips.

The rate of T- angle iron frame shall include the following.

- (a) M.S. sill/tie of 10mm dia bar welded to T-iron frames to keep the frames vertical in correct position. The sill / tie shall be embedded in floor concrete. No tie is necessary for window frames.
- (b) Each T – iron frame for doors shall have 4 Nos. M.S. lugs 15x3mm, 10 cm long welded to each vertical member of the frame.
- (c) M.S. flat 6 x 25mm, 100mm long having threaded holes (No. of flats shall correspond to the no. of butt hinges to be fixed to door / window shutters) shall be welded at appropriate places at the back of the T-iron frames for fixing the required butt hinges to the frame with machine screws.

All welded structural steel work shall be tested for quality of weld as laid down in IS:822-1970 before actual erection if required.

FLOORING

All work in general shall be carried out as per CPWD Specifications- 2019 - Vol.I& Vol. II with upto date correction slips.

Whenever flooring is to be done in patterns tiles/ stone, the contractor shall get samples of each pattern laid and approved by the Engineer-in-Charge before final laying of such flooring for which nothing extra shall be paid.

Different stones/ tiles used in pattern flooring as per the approved architectural drawings and nothing extra for laying pattern flooring shall be paid. No additional wastage if any shall be accounted for any extra payment.

The proper gradient shall be given to flooring for toilets, varrandah, kitchen, court yard, etc. as per the directions of Engineer-in-Charge. For this there may be extra thickness of dry mortar below the tiles/stone slabs. These gradients should be insured in the shuttering itself. Nothing extra shall be paid for this as this is included in the tendered cost.

The rate of items of flooring is inclusive of providing sunken flooring in bathrooms, kitchen etc. and nothing extra on this account is admissible. The samples of flooring, dado & skirting as per approved pattern shall be prepared & got approved from the Engineer-in-charge before execution of work.

Ceramic Tiles/Vitrified Tiles Work/ Granite stone flooring

Work shall be carried out as per CPWD Specifications- 2019 Vol I & II with up to date correction slips and as per manufactures specifications.

Rates shall be inclusive of all operations including labour, material, T&P, scaffolding etc. complete. Nothing extra shall be payable on any account.

One-piece Granite stone for treads / risers in staircase shall be used and nothing extra shall be paid on this account.

STAINLESS STEEL RAILING/HANDRAILS:

GENERAL: The contractor shall apply all materials, labour, tools, ladders, scaffolding and other equipment necessary for the completion and protection of all stainless-steel work.

MATERIAL: All stainless-steel pipes and plates shall conform to AISI 316/304 grade and the relevant clauses associated with this grade of steel to be followed.

SURFACE FINISH: Surface finish of all the stainless-steel materials will be in 240 grit satin finish / matt finish.

ACCESSORIES: The S.S. railing to be fixed to staircase and all other location shall be modular and of design and make as approval by the Engineer-in-charge and as per list of approved makes. Fixing will be done by stainless steel expansion bolts of approved size and make as per Engineer-in-charge and welding if required to be done at any isolated place, to be done by using organ welding rods and the surface being duly finished and cleaned by K2 passivation, which is nitric acid plus fluoric acid solution treatment by which the chances of corrosion will be eliminated and any burn out makes on the metal will also be eliminated.

COATING MASS: All stainless-steel material will have to be coated by a solution of Inox to avoid finger in prints and avoidance of settlement of environment / atmospheric dust.

WATER PROOFING TREATMENT

Work shall be executed as per CPWD Specifications, 2019 Vol I & II with upto date correction slips.

The contractor shall associate himself with the specialized firm, to be approved by the Engineer-in-charge in writing, for water proofing treatment for basement/lower ground floor, underground tank and on roofs.

The brick bats shall be from over burnt bricks. The water proofing compound used in integral water proofing treatment shall satisfy all the performance requirements indicated in IS:2645 and shall be got tested before its use. The compound shall be used @ 2% by weight of cement used or as recommended by the manufacturer.

Total quantity of the water proofing compound required shall be arranged only after obtaining the prior approved of the 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.

The finished surface after water proofing treatment for roof slab shall have smooth slope with minimum gradient of 1 in 80.

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

The surface where the water proofing is to be done shall be thoroughly cleaned with wire brushes. All loose scales mortar splashes etc. shall be removed and dusted off. The surface shall be treated with neat cement slurry admixed with proprietary water proof compound to penetrate into crevices and fill up all the pores in the surface.

This cement slurry shall be applied at the junction of parapet and terrace slab including the vertical face of the parapet.

After the slurry coat is laid, layer of over burnt brick bats shall be laid in cement mortar of mix as specified by specialist firm but not leaner than 1:5 (1 cement : 5 coarse sand) admixed with proprietary water proofing compound to required gradient and joints filled to half the depth. The bricks bat layer shall be rounded at the junction with the parapet and tapered towards top for a height of 300mm. Curing of this layer shall be done for 2 days.

After curing the surfaces shall be applied with a coat of cement slurry admixed with proprietary water proofing compound.

Joints of bricks bat layer shall be filled fully with cement mortar of mix as specified by the specialist firm but not leaner than 1:5 (1 cement : 5 coarse sand) admixed with proprietary water proofing compound and finally top finished with average 20 mm thick layers of cement mortar 1:4 (1 cement : 4 coarse sand) and finished smooth with cement slurry mixed with proprietary water proofing compound. The finished surface shall have marking of 300x300 mm false squares to give the appearance of tiles.

Curing of water proofing treatment shall be done for a minimum period of two weeks by flooding the water by making compartments etc.

MESUREMENTS: The measurements shall be taken for plan area of terrace only. Length and

breadth shall be measured correct to one centimeter and area shall be worked out to nearest 0.01 sqm. No deduction in measurements shall be made for either opening or recesses for chimneys, stacks, roof lights and the like of areas up to 0.10 sqm nor anything extra shall be paid for forming such openings. For similar areas exceeding 0.10 sqm, deductions will be made in measurements for full openings and nothing extra shall be paid for making such opening.

Rates: The rate shall include the cost of all labour and materials involved in all the operations described above.

GUARANTEE:

The water proofing work shall carry Ten Years guarantee to be reckoned from the date of completion of the entire work under the contract against faulty workmanship, finishing, unsound materials, efficiency of water proofing treatment and other related problems.

Ten Years Guarantee bond in prescribed Performa attached herewith as **Annexure-III** 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 main contractor.

Ten percent of the cost of water proofing work shall be retained as security deposit and the amount so withheld would be released after ten years from the date of completion of the entire work under the contract, if the performance of the work done is found satisfactory. If any defect is noticed during the guarantee period, it shall be rectified by the contractor within seven days of receipt of intimation of defects in the work. If the defects pointed out are not attended to within the specified period, the same will be got done from another agency at the risk and cost of contractor.

However, the security deposit deducted may be released in full against bank guarantee of equivalent amount in favour of Engineer in charge, if so decided by the Engineer in charge.

The Security deposit against this item of work shall be in addition to the security deposit mentioned elsewhere in contract form.

FINISHING:

The work shall be carried out as per CPWD Specifications- 2019 Vol.-I & Vol. II with upto date correction slips.

All painting material shall be brought to the site of work in the original sealed containers. The material brought to the site of work shall be sufficient for at least 30 days of work. The material shall be kept under the joint custody of contractor and representative of the Engineer-in-Charge. The empty contains shall not be removed from the site till the completion of the work without permission of the Engineer-in-Charge.

Rates quoted in item of Gypsum plaster shall be deemed to be inclusive of item of providing and applying bond coat over RCC surface and providing fixing glass fibre mesh of density 80 gsm of width 300 mm over joint of different materials before application of gypsum plaster. Nothing extra, whatsoever shall be paid or entertained on this account.

SANITARY INSTALLATIONS, WATER SUPPLY AND DRAINAGE

The scope of work comprises supply, laying, installation, commissioning and testing of water supply, sewerage and drainage works including sanitary fixtures and fittings. These works shall be executed as per the specifications of items attached and CPWD specifications- 2019 Vol. I & II with up-to-date correction slips up to the date of tender submission.

The work of water supply and sanitary installations shall be got executed by the agency as approved by Engineer-in-Charge.

- (i) The entire plumbing drawing and sanitary installation drawing/ details shall be submitted by the contractor and got approved by the Engineer-in-Charge before the execution.
- (ii) The entire responsibility for the quality of work will however rest with the building contractor only.

The work of water supply, internal sanitary installations and drainage etc. shall be carried out as per the bylaws of the Municipal Corporation or any other local body and the contractor shall produce necessary completion certificates from such authority after completion of work.

All water tanks, taps, sanitary, water supply and drainage pipes fittings and accessories etc. shall conform to the bylaws and specifications of the Municipal Body/Corporation where CPWD specifications are not available.

The contractor shall engage licensed plumbers for the work and the materials (fixtures/fittings) tested by the local Municipal Body/Corporation wherever required at his own cost. Nothing extra shall be paid/reimbursed for the same.

All sanitary wares and fittings shall conform to IS standards and to be procured from approved makes. The contractor shall submit minimum three samples of different makes of approved make list for all fittings and fixtures proposed to be used to the Engineer-in-charge for his approval and decision of engineer-in-charge regarding selection of any sample shall be final and binding. The approved samples shall remain with the Engineer-in-charge till the completion of the work.

P or S and floor traps (long arm upto 90 cm length or more) in WCs shall be of deep seal type and shall have a minimum water seal of 75 mm. Floor traps (long arm upto 90 cm length or more) shall have a minimum water seal of 50 mm.

The pig lead to be used in jointing 100 mm, 75mm, 50 mm SCI pipe joints shall not be less than 0.98 kg, 0.88 kg and 0.77 kg per joint respectively. A variation of 5% is allowed on higher side. However, in case of variation on lower side, the quantity of pig lead less used shall be recovered from the contractor at market rate to be determined by the Engineer-in-Charge whose decision in the matter shall be final.

All fixtures and accessories shall be fixed in accordance with a set pattern matching the tiles or interior finish as per architectural requirements. Wherever necessary the fittings centered to dimensions and pattern desired.

The piping stack shall be installed at least 50mm using MS brackets, away from the finished / plastered shaft wall. The Item of Brackets and Clamps shall be paid for separately. From floor traps to outside CI fittings only single piece connection pipe shall be used.

All vertical Sanitary & water supply pipes shall be fixed to pre primed and pre painted M.S supporting frame with “U” shaped G.I bolts, threaded at both ends, as specified, with GI nuts, GI washers, GI cleats etc. as approved by the Engineer-in-charge. Supporting frame shall be fixed with approved anchor fasteners / plumbing nails as directed by the Engineer-in-charge. In all cases, pipelines shall be fixed, minimum 50 mm away from the finished wall face and shall not be fixed directly to the walls. The cost of providing and fixing GI supporting frame, “U” bolts, GI nuts, GI washer, anchor fastener etc., for clamping the pipes to the supporting frame shall be paid for separately under relevant item.

The rates shall include the cost of cutting chases, holes in walls, floors, RCC slabs etc. Wherever required and making good the same for which nothing extra shall be paid. The work in general shall be carried out as per CPWD specifications.

Rate includes all materials, labour and all the operations mentioned in the respective items unless and otherwise specifically mentioned.

The SCI pipe wherever necessary shall be fixed to RCC columns, beams etc. with rawl plugs of approved quality and nothing extra shall paid for on this account.

All the works shall be completely concealed either within shafts or chases or in fills and dropped ceilings, unless specifically shown in drawings or required otherwise.

All the works shall be adequate protected against corrosion, so that the whole work is free from damage throughout.

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.

The contractor shall give a satisfactory performance test of the entire installation (s) before the work is finally accepted and nothing extra shall be payable to the contractor on this account.

The contractor shall be responsible for all the protection of sanitary, water supply fittings and fixtures against pilferage and breakage during the period of installation until the completion / handing over of the work.

Before the work is handed over, the contractor shall clean all fixtures removing all plaster, stickers, rust stains and other foreign matter, leaving every part in acceptable condition and ready for use to the satisfaction of the Engineer-in-charge.

The contractor shall submit completion plans for water supply internal sanitary installations and building drainage work within thirty days of the date of completion. These plans are to be submitted on drawings prepared preferably through computers (1 original copy + 3 photocopies) on suitable scales to show the general arrangement and desired details.

INSPECTION AND TESTING

Inspection and testing of water supply sewerage and drainage installations shall be carried out as per National Building Code 2016 with up to date amendments.

18. PREMIXED READYMADE CEMENT MORTAR 'READYPLAST' of Ultra tech or 'EASYPLAST' of Wall Plast Product Pvt. Ltd. Or any other brands as specified in the list of makes are used in place of traditional cement sand mortar for plastering.
 - 1) Surface Preparation:- The surface needs to be cleaned and made free from grease, dust and loose particles to ensure proper binding. The surface needs to be pre-wetted with clean water before plastering.
 - 2) Process of mixing:-
 - i) Required quantity of dry mix shall be taken in a mortar mixing tray.
 - ii) Measured quantity of potable water shall be added to dry mix as per manufacturer's specification. (6-7 litre of water is required per 40kg bag of 'Readiplast' and 7-8 litres of water is required per 40kg bag of 'Easyplast'). Correct ratio of water and dry mix is essential for better result.
 - iii) The mortar shall be mixed well for 5 to 10 minutes to achieve homogenous and cohesive mix. (Use of mechanical mixer / electrical stirrer is recommended for better results.)
 - iv) The prepared mix shall remain undisturbed for 5 minutes to dissolve polymer additive in mortar and shall be mixed once again without adding any water just before use.
 - 3) Method of Application :-
 - i) Pre wetting of surface is required before applying plaster.
 - ii) The mixture should be applied within one hour of preparation of mix. This will ensure that the thin layer can be applied without cracking problems and proper cement hydration.
 - iii) If the concrete surface is smooth and dense, it is recommended to apply a bond coat of acrylic polymer of any approved make.
 - iv) Readymade mortar shall be applied manually using trowel and care should be taken that it does not expose to direct sunlight, wind and rain during its application.
 - 4) Curing:-

Curing shall be started after 24 hours of plastering in normal weather condition. After the plaster is completely dried, curing shall be done 2 to 3 times for 2 to 3 days. In abnormally dry weather conditions, curing for 5-7 days is required.

19 REPAIR WORK

1. Adequate care should be taken by the contractor while dismantling, chiseling, demolishing work, drilling etc. that impact/vibrations are minimum for considerations of structural safety and also for inconvenience caused to the users of the building. Perimeter of unsound concrete area shall be marked by making shallow cut on cover concrete with cutter machine to reduce the impact of chiseling. Rates shall cover cost of all inputs of material, labour; T&P etc. involved all the operations in the work.
2. Dismantling and repair work of any type like plaster, flooring, concrete, RCC, Brick work, GI/CI pipes, water proofing etc. shall be for all heights and all levels unless specifically mentioned in the item and no claim for extra cost shall be entertained on this account.
3. Sequence of strengthening work shall be as under: a. Strengthening of beams of first floor and columns from top of grade beams/foundations up to middle of second floor. b. Strengthening of beams of second floor and column from middle of second floor to middle of third floor. c. Strengthening of beams of third floor and columns from middle of third floor to middle of the fourth floor. d. Strengthening of beams of fourth floor and terrace beams and columns from

middle of the fourth floor up to terrace level. e. Guniting repaired structural members shall be allowed to attain at least 7 days strength before any load is transferred to that member.

4. For removal of all type of loose / delaminated / damaged / weak cement plaster from the surface of masonry or concrete, a cut normal to the surface all along the boundaries, in regular shape shall be made not to exceed plaster thickness. Then plaster shall be removed completely to expose the parent masonry or concrete 65 AE (P) surface so as not to have any traces of such plaster left. For brick work, the joints have to be properly raked and cleaned as per CPWD specifications. The plaster should be dismantled without causing any damage to brick work.
5. CHIPPING/ DISMANTLING OF UNSOUND/ WEAK CONCRETE & PREPARATION OF SUBSTRATE:

The perimeter of unsound / weak concrete / delaminated layer of guniting shall be sawcut to a minimum depth of 12 mm in square/rectangular shape at normal (orthogonal) to the surface of member. Then concrete shall be removed by chipping with standard power driven percussion type or pneumatic chisel of standard make from the demarked area including tapering all edges, making square shoulders of cavities etc. complete (after properly supporting the member with falseworks). The chipping shall be done in regular shape, with sides parallel or normal to the direction of the reinforcement and minimum 50mm beyond the perimeter of the spall for single spall, the repair area should have a minimum width of 100 mm in direction. If a number of spalls are closely located to each other, these should be included in a single area marked for repair.

Exposing of rusted/corroded reinforcement: Reinforcing bar must be further exposed if the remaining concrete is debonded from the reinforcing bar. Chipping around the reinforcing bar shall be continued to completely expose it, if more than half of reinforcing bar perimeter has been exposed. Concrete shall be removed from all around reinforcement including from behind the reinforcing bars to give an average 25 mm (but not less than 15 mm clear air gap) by using standard power driven percussion type or pneumatic chisel of standard make.

Adequate care is to be taken not to cut the reinforcement steel and a cover meter could be used to estimate the depth of cover, for which nothing extra shall be paid.

Chipping should be done up to the required depth as decided by the' Engineer-in Charge to reach sound concrete substrate to a near uniform depth for the repair areas.

Dimensions of area chipped off for RCC slabs, beams, columns etc. shall be measured in centimeters after the chipping / dismantling operation is completed. The area of 66 AE (P) the chipped / exposed RCC surface shall be measured in sq. m. correct to second place of decimal.

For the RCC members to be completely dismantled, pre-measurement of the dimensions of RCC member to be dismantled shall be recorded before taking up the dismantling operation and volume of concrete dismantled shall be worked out in cubic meters correct to second place of decimal.

Removal of concrete should begin at the interior of the repair areas and progress towards the boundaries. All edges and cavities shall be square shouldered.

6 CUTTING OF EXISTING REINFORCEMENT

The existing reinforcement bars to be cut shall be identified and approved for cutting by the Engineer-in-Charge.

The reinforcement shall be carefully cut with electrical cutter machine to minimize excessive vibrations or damaging the structure and the recovered reinforcement should be straightened, cleaned of concrete by wire brush scrapped and stacked properly with in a lead of 50 meters asdirected by the Engineer-in-Charge.

7 CLEANING OF EXISTING REINFORCEMENT

Before re-casting/ jacketing of members or repairs to members with polymer modified mortar, the reinforcement has to be cleaned properly, as specified.

At first rust shall be removed from the surface of the reinforcement manually using chisels, wire brush, emery paper etc. as directed by Engineer-in-Charge at no extra cost, till the steel surface is cleaned off loose rust.

Then sulphate and chloride free chemical rust remover, as approved by the Engineer-in-Charge shall be applied with paint brush over the reinforcement surface thoroughly along the full length of rusted reinforcement. After 24 hours of its application the surface shall be cleaned with wire brush to remove all loose particles.

Rates shall include cost of all materials, labour, T&P etc. involved in all the operations.

- 8 **ADDITIONAL REINFORCEMENT BARS:-** For introducing additional reinforcement bars for new structural connections or supplementing additional steel area to the existing RCC member, the cross sectional area (diameter and no. of bars) and length required shall be approved by the Engineer-in-Charge. Also the depth of embedment of reinforcement bar shall be approved by the Engineer-in-Charge. The holes of specified diameter and depth have to be bored with diamond or hammer drill machine in RCC. Diameter of the hole shall be 4mm larger than dia of dowel bar. The bored hole in dry state, shall be cleaned with round brush and by blowing air through a tube inserted in the hole and connected to hand operated blower. Depth of holes shall be checked by the field staff by inserting rod marked with standard length. Then, epoxy shall be injected from foil pack with help of epoxy dispenser and epoxy cartridge holder and disposable PVC mixing nozzle inserted inside the drilled hole to fill it from bottom/end of hole and slowly withdrawing the pipe while injecting epoxy till mouth of hole to ensure no air void is left inside the hole. Then dowel bar shall be inserted by pressing and turning till end of the hole is reached and shall be allowed to remain undisturbed for minimum 24 hours for epoxy to be air cured. Rates shall include cost of all inputs of material, labour and T&P etc. involved in all the operational except the cost of reinforcement.

WELDING ADDITIONAL REINFORCEMENT: In case cross sectional area of an individual bar of RCC slab has been reduced by 20% or more, then additional reinforcement shall be welded with existing bar to ensure continuity of the reinforcement of equal strength of original bar as illustrated in the sketch. If any existing reinforcement bar is found displaced/loosened, same shall be secured at its design location.

- 9 **SHEAR KEYS :-** Shear keys shall also be provided in similar manner as illustrated in para 8.0 above. The shear key bars cut and bent to the required shape shall be embedded in parent concrete to a minimum depth of 50 mm or longer as specified in the item. Rates shall include cost of all materials, labour and T & P etc. involved in all the operations.

10 CLEANING OF EXPOSED RCC/ CONCRETE SURFACE, INSERTING NIPPLES AND INJECTION GROUTING: -

The final chipped off concrete surface and exposed reinforcement, if any of the affected structural member should be cleaned off all loose and foreign materials by free air blast and then with water and allow it to dry.

For the honey combed portion of the concrete or cracked concrete, drill holes at least 18 mm in diameter and depth up to 60 mm or behalf the member thickness whichever is less, at the required spacing, as directed by the Engineer-in-Charge.

For cracked surface open up cracks by making V notch or groove of size 12 mm x 12 mm as directed by the Engineer-in-Charge.

Remove coarse debris and dust in opened up cracks and drilled holes by blowing air with hand operated blow out pump. Concrete surface required to be grouted shall be free from all loose and unsound material. The prepared surface should be clear of dust which could obstruct free flow of grout material and also impede its bonding with concrete surface. Saturate the concrete in vicinity of crack / honey combed concrete surface with water (but without excess water) only if the cementations / polymer admixed grout to be injected.

Insert 12 mm diameter specified injection nipples in holes drilled along cracked lines or in honey combed area of concrete and fix them by sealing on its sides with or polymer modified mortar, as directed by the Engineer-in-Charge.

Seal the crack or the honey combed surface between the nipples by means of epoxy mortar or polymer modified mortar, as approved by the Engineer-in Charge. The polymer used shall be of approved grade and polymer modified mortar shall be applied as per specifications mentioned separately for polymer modified mortar. The polymer modified mortar shall be moist cured for 3 days and allowed to gain strength before actual grouting commences.

To inject grout in nipples, the cementitious grout shall be prepared from cement (OPC-43 grade), sand (sharp, washed well graded generally conforming to zone IV of IS: 383) and water conforming of IS: 456 mixed in specified proportions as directed by the Engineer-in-Charge.

The emulsified acrylic polymer shall be as specified and shall conform to manufacturer's specification. The physical and mechanical properties of polymers shall conform to manufacturer's specification. One test shall be carried out mandatorily for every lot of acrylic polymer supplied at site, before use in the work.

The grouting equipment shall be capable of supplying mixing, stirring and pumping grout to the satisfaction of Engineer-in-Charge. It shall have capacity to inject grout at a pressure up to 7 kg / sq. cm measured at grout connections. It shall be capable cement ratio ranging from 0.5 to 1.0.

Wherever epoxy is to be used the surface of the concrete shall be dried with air blast, before grouting or applying epoxy.

The compendious grout in proportion as directed by the Engineer-in-Charge shall be prepared. It should be lump free of creamy consistency, thoroughly blended and shall be continuously stirred to keep the cement particles in suspension to retain uniform consistency in grout is injected.

In case of vertical cracks the injection shall be started at the lowest nipple and continued

until the injected grout begins to flow out at the next higher nipple. The first nipple shall then be closed and injection continued from second until grout flows out at the third and so on. The process shall be repeated until the whole surface is treated. As soon as the system is cured, the nipples shall be suitably cut.

In case of honey combed concrete, each grout hole shall be grouted individually. The sequence of injection shall be as per the directions of the Engineer –in-Charge.

The measurement of grout material shall be on the basis of only the weight of cement consumed in kg.

Pre measurements of the quantities of such grouting materials brought at site and balance quantities remaining at the end of grouting application shall be recorded separately which will determine the quantity of grout material actually injected. Adequate care is to be taken by the contractor as not to waste the grout. The quantity which can be consumed immediately within the prescribed time only shall be prepared in batches.

The quantity of grout material wasted, discarded, hardened shall not qualify for payment and shall be recorded for deduction at the end of each operation.

11. BOND COAT

Bond coat is required to be applied for adhesion of applied repair concrete or mortar to the parent concrete. For this, the surface should be thoroughly cleaned by brushes and by blowing air from hand operated pump. The surface shall then be saturated with water minimum 1 hour before application of bond coat and allow surface to attain saturated surface dry condition (SSD).

PREPARATION OF BOND COAT: The components of bond coat shall be weighed batched and mixed in specific proportions as indicated in the item. Area of chipped concrete surface shall be assessed roughly. Accordingly required quantity of acrylic polymer for bond coat shall be taken in a plastic bucket/mini drum then proportional quantity of OPC cement by weight (as per manufacturer's specifications) shall be blended slowly under continuous stirring with low speed (500 – 800 rpm) electric stirrer for minimum 2 minutes till a homogenous and lump free slurry is formed. In no case bond coat slurry shall be prepared without electric stirrer at site.

The specified bond coat shall be applied by stiff nylon bristle brush. The bond coat shall be worked well onto the concrete surface of the parent concrete including reinforcement surface ensuring that no pinholes are left. The polymer modified bonding cement slurry shall be applied to a thickness not more than 2mm. Bond coat shall be allowed to reach tacky condition before applying polymer modified mortar or pouring concrete jacket. (Area of exposed RCC unit shall be measured in sqm correct to two decimal places for the purpose of payment).

Prefabricated shuttering shall then be erected immediately. Fresh concrete / mortar shall be placed

/ applied while the bond coat is still tacky and well within pot-life / setting period. If adhesive cures to the extent of losing its tack or has set before concrete / mortar is placed / applied, the same shall be removed or slightly abraded and another coat of adhesive / bond coat shall have to be applied by the contractor at his own cost.

Freshly placed concrete shall be thoroughly consolidated to ensure full bonding of the fresh concrete with the parent concrete. If there is a failure of bond of fresh concrete/ plaster with parent concrete surface and it sounds hollow on tapping, the repair work shall

be dismantled and redone by the contractor at his own cost and to the entire satisfaction of the Engineer-in-Charge. CPWD specifications for manufacture and placing and curing of concrete shall, in general, be followed unless specified otherwise.

12 **ADDITIONAL REINFORCEMENT FOR GUNITING/ JACKETING WORK:**

The existing reinforcement bars in the R.C.C. member to be gunited shall be cleaned properly to remove all scales and rust by wire brushing and by rubbing with sand paper, sandblasting wherever possible etc. complete as directed by the Engineer-in Charge.

The additional reinforcement shall be provided to hold gunited material/concrete in position and shall be so fixed that it is creased in succeeding layer.

The additional reinforcement, if required, as per the directions of the Engineer-in Charge, shall be placed in position including cutting, straightening, binding and fixing. in position by fixing into the existing concrete by fastening to shear keys and should be secured rigidly so that it does not belly out or get displaced during guniting jacketing work. The mesh reinforcement shall be fixed in a manner so that it is firmly held at least 12mm away from the parent concrete as well as final finished surface. Also clear spacing between the reinforcement bars shall not be less than 50mm.

Additional reinforcement if required shall be tied with required lap using G. I. binding wire or welded to the parent reinforcement and also to the shear keys as directed by the Engineer-in- Charge.

Additional vertical reinforcement shall be anchored to the base of the column by boring hole of diameter 4 mm larger than the dia of reinforcement bar for a depth of 12 times the dia of the bar and secured it in the hole with epoxy as per standard procedure described in para no – 8

- 13 **ANTI CORROSIVE TREATMENT:** After cleaning off rust from reinforcement bar, coat of passivating slurry shall be applied on surface of reinforcement bar. Length of reinforcement bar to be treated with passivating coat shall be assessed roughly in advance. Accordingly required quantity of anticorrosive polymer shall be taken in a plastic bucket/mini drum and specified proportion of OPC cement by weight (as per manufacturer's specifications) shall be blended slowly under continuous stirring with electric stirrer for minimum 2 minutes till a homogenous and lump free slurry of creamy thick consistency is formed. One /Two coats of passivating slurry (as per manufacturer specifications) shall be applied on reinforcing bar by stiff nylon bristle brush ensuring no pinholes are left. In case application of two coats, the second coat shall be applied minimum six hours after application of 1st coat, The passivating coat shall be allowed to set for minimum 24 hours before operating next item. In no case passivating slurry shall be prepared without electric stirrer.

14 **POLYMER MODIFIED MORTAR:-**

Preparation of polymer modified mortar at site(PMM) : Polymer modified mortar shall be prepared with OPC cement and graded quartz sand admix with acrylic polymer. The graded coarse sand shall be obtained from mixing of 3 different grade of quartz sand at site in following proportion by weight/volume. Quartz sand of grade 8 x 16 (coarse) = Z1 Quartz sand of grade 16x 30 (medium) = Z2 Quartz sand of grade 30 x 80 (fine) = Z3 Desired proportion of Z1 :Z2:Z3 = 8:3:4 Sufficient quantity of graded quartz sand shall be prepared before mixing of mortar. The same ratio shall be maintained throughout the execution of structural repair work. Area of chipped concrete surface shall be assessed

roughly. Accordingly required quantity of acrylic polymer mortar shall be prepared for repair of RCC which can be applied within half an hour. Quantity of all components shall be found out as per theoretical consumption given in the item as per different manufacturers' specification. Calculated quantity of graded coarse sand and specified proportion of OPC cement shall be mixed in dry stage uniformly on GI mortar mixing tray. Quantity of polymer shall be taken in specified proportion of cement as per manufacturer's specifications in plastic bucket/mini drum. 85% of required quantity of water shall be taken in a bucket/mini drum (not more than 30% capacity of the bucket), then dry PMM shall be blended slowly under continuous stirring with low speed (500 – 800 rpm) electric stirrer for minimum 2 minutes and mortar shall be allowed to remain undisturbed for three minutes to dissolve polymer in the mortar. Balance quantity of water shall be added in the similar manner to form homogenous cohesive mortar of dough like consistency. Right consistency of mortar can be checked by making medium size ball of green mortar with hand. The ball should retain its shape when held on palm and at the same time it deforms easily without being cracked when it is pressed with palm.

Application of polymer modified repair mortar The quantity of mortar shall be prepared at site it can be used up within 30 minutes after mixing dry mortar with water. Small balls of green mortar shall be pressed with palm applying small force against the concrete substrate primed with bond coat (wet on wet) for a thickness not more than 12mm. Next layer of mortar shall be applied over the first layer minimum after 6 hours to build up thicker section. The surface of repaired area shall be roughly finished with trowel upto the level of original RCC surface of the structural member. Inno circumstances PMM shall be applied by trowel by increasing water in the mix.

Pre measurement of thickness shall be taken just after the surface preparation is completed. Area under repair shall be measured correct to a centimeter.

Curing: - Curing shall be started after 24 hours of application of PMM. The repaired RCC member preferably wrapped with damp hessian cloth wherever feasible. Otherwise repaired member shall be kept damped by spraying water over it with spraying machine without causing any dripping to prevent leaching of polymer content from mortar. The repaired surface shall be moist cured for 3 days followed by air curing at ambient temperature; steam curing shall not be permitted.

Testing: One mandatory test of the polymer modified mortar for every 250 sqm of plaster or part there of shall be conducted. The test shall be conducted on cube of size 75 mm, made from cement and graded quartz sand in ratio 1:3 admixed with approved polymer in specified proportion as per manufacturer specification. The test result should conform to the following strength parameter. i) Minimum compressive strength after 28 days: 20 N/mm² ii) Minimum flexural strength after 28 days: 2 N/mm²

15. Particular specifications for premixed single component polymer modified repair mortar: (PMRM) Prior to applying premixed single component polymer modified repair mortar (PMRM) to RCC substrate, other repair items i.e. rust removal from reinforcement, anti corrosive treatment, providing additional reinforcement shall be completed in advance. Only bond coat shall be applied five minutes before applying PMRM.

Preparation of polymer modified repair mortar PMRM shall be prepared in a plastic bucket/mini drum. 85% of required quantity of water shall be taken in a bucket/mini drum

(not more than 30% capacity of the bucket), then dry PMRM shall be blended slowly under continuous stirring with low speed (500 – 800 rpm) electric stirrer for minimum 2 minutes and mortar shall be allowed to remain undisturbed for three minutes to dissolve polymer in the mortar. Balance quantity of water shall be added in the similar manner to form homogenous cohesive mortar of dough like consistency. Right consistency of mortar can be checked by making medium size ball of green mortar with hand. The ball should retain its shape when held on palm and at the same time it deforms easily without being cracked when it is pressed with palm.

Application of polymer modified repair mortar The quantity of mortar shall be prepared at site it can be used up within 30 minutes after mixing dry mortar with water. Small balls of green mortar shall be pressed with palm applying small force against the concrete substrate primed with bond coat (wet on wet) for a thickness not more than 12mm. Next layer of mortar shall be applied over the first layer minimum after 6 hours to build up thicker section. The surface of repaired area shall be roughly finished with trowel upto the level of original RCC surface of the structure member. In no circumstances PMRM shall be applied by trowel by increasing water in the mix.

Curing shall be started after 24 hours of application of PMRM. The repaired RCC member preferably wrapped with damp hessian cloth wherever feasible. Otherwise repaired member shall be kept damped by spraying water over it with spraying machine without causing any dripping to prevent leaching of polymer content from mortar. The repaired surface shall be moist cured for 3 days followed by air curing at ambient temperature; steam curing shall not be permitted.

Testing One mandatory test of the polymer modified mortar for every 250 sq. m of plaster of part thereof shall be conducted. The test shall be conducted on cube of size 75 mm, made from polymer modified repair mortar. The test result should conform to the following strength parameter.

- i) Minimum compressive strength after 28 days at w/p ratio 0.16:40 N/mm²
- ii) Minimum flexural strength after 28 days at w/p ratio 0.16: 4 N/mm².

SPECIALISED ITEMS

- List of Specialized Items has been provided in Annexure-6 of SOP for CPWD Works Manual 2022

PROCEDURE FOR EXECUTION OF THE SPECIALIZED ITEMS:

Such items should be got executed only through associated agencies specialized in these fields. The contractor shall indicate the name(s) of his associated specialized agencies those fulfilling the eligibility conditions within one month of award of work to Engineer-in-Charge for approval of competent authority, incase the same has not been provided in the agreement. Specialized Agencies for works shall be approved by the competent authority. The contractors shall quote the rates after careful study of contract conditions, specifications, drawings & schedule of quantities.

It shall be the responsibility of main contractor to sort out any dispute / litigation with the Specialized Agencies without any time & cost overrun to the Department. The main contractor shall be solely responsible for settling any dispute / litigation arising out of his agreement with the Specialized Agencies. The contractor shall ensure that the work shall not suffer on account of litigation/ dispute between him and the specialized agencies / sub-contractor(s). No claim of hindrance in the work

shall be entertained from the Contractor on this account. No extension of time shall be granted and no claim what so ever, of any kind, shall be entertained from the Contractor on account of delay attributable to the selection/rejection of the Specialized Agencies.

For specialized items, the main contractor cannot work as a specialized agency unless his name is already included in the list of approved specialized agencies for these items. The contractor shall get these items executed through the specialized agencies as approved by competent authority.

ELIGIBILITY CONDITIONS FOR APPROVAL OF SPECIALIZED AGENCIES:

The Contractor shall submit his proposal for the approval of the Engineer-in-Charge, the names of specialized agencies of repute along with their technical capability /experience proposed to be engaged by him. The agency must be currently actively engaged in execution of the said specialized item and must have satisfactorily executed similar work during last 5 (Five) years as below:

- Three works each of value not less than 40% of corresponding cost of the specialized item

or

Two works each of value not less than 60% of corresponding cost of the specialized item

or

- One work of value not less than 80% of corresponding cost of the specialized item

For calculation purpose only cost of the specialized item as per accepted tendered value of the all the items corresponding to the specialized item under consideration. For ascertaining the above criteria, contractor shall provide certified copy of Income tax TDS certificates for payments made, work order copy, completion certificate, performance certificate against each completed similar work for verification by Engineer in charge. In case required and directed by Engineer in charge, contractor shall get such similar completed work inspected by Engineer in charge and contractor shall extend all necessary help for same at no extra cost to the department. Decision as to approve or reject the proposed specialized agency based on the inspection of the completed work shall be final and binding on the contractor and no claim, whatsoever, shall be admissible on this account and the contractor shall be required to propose another specialized agency as per the required eligibility criteria.

The responsibility of the quality of work executed by the specialized agency shall be owned jointly by the specialized agency and main agency. However, prime responsibility shall be owed by the main agency.

SPECIAL CONDITIONS FOR CEMENT:

The contractor shall procure 43 grade Ordinary Portland Cement (OPC) conforming to IS:8112/Portland Pozzolana Cement (PPC) conforming to IS: 1489 (Part-I) as required in the work, from reputed manufacturers of cement as per preferred make list or from any other reputed cement Manufacturer having a production capacity not less than one million tonnes per annum as approved by SDG for the region. 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 within a week's time of written order from the Engineer-in-charge to do so.

The cement shall be brought at site in bulk supply of approximately **20 tonnes** or as decided by

Insertion : Nil Correction : Nil Omission : Nil AE(P)... / EE(C).....

the Engineer-in-Charge.

The cement godown of the capacity to store a minimum of **1000 bags** of cement shall be constructed by the contractor at site of work for which no extra payment shall be made.

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

The cement shall be got tested by the Engineer-in-Charge and shall be used on the work only after satisfactory test results have been received. The contractor shall supply free of charge the cement required for testing including its transportation cost to test laboratories. The cost of tests shall be borne by the contractor.

The actual issue and consumption of cement on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of cement shall be worked out as per procedure prescribed in clause 42 of the contract and shall be governed by conditions laid therein. In case the cement consumption is less than theoretical consumption including permissible variation, recovery at the rate show prescribed shall be made. In case of excess consumption, no adjustments need to be made.

The cement brought to site and the cement remaining unused after completion of the work shall not be removed from site without the written permission of the Engineer-in-Charge.

The damaged cement shall be removed from the site immediately by the contractor on receipt of a notice in writing from the Engineer-in-Charge. If he does not do so within three days of receipt of such notice, the Engineer-in-Charge shall get it removed at the cost of the contractor.

Cement bags shall be stored in separate godowns to be constructed by the contractor at his own cost as per sketch (which is only indicative and actual size will depend on the site requirements) given in CPWD specifications/GCC with weather proof roofs and walls. Each godown shall be provided with a single shutter door with two locks. The key of one lock shall remain with Engineer-in-charge or his authorized representative and that of the other lock with the authorized agent of the contractor at the site of work so that the cement is issued from the godown according to the daily requirements with the knowledge of both parties and proper account for the same is maintained in the standard proforma.

Separate cement registers showing the receipt of the OPC and PPC shall be maintained at site.

The contractor shall construct separate godowns for storage of OPC & PPC at site and nothing extra on this account shall be payable.

SPECIAL CONDITIONS FOR STEEL REINFORCEMENT BARS:

The Contractor shall procure IS marked TMT bars of various grades from Primary Steel manufacturer as per preferred make list or any other steel manufacturer or their authorized dealers as approved by *Chief Engineer CSQ (Civil) Unit, Directorate of CPWD.*

a) 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.

b) Selection Criteria of steel manufacturers:

The supply of reinforcement steel for all CPWD works should have following selection criteria of steel manufacturers:

Steel producers of any capacity using iron ore/processed iron ore as the basic raw material adopting advanced refining technologies as given hereunder:

- (i) DRI-EAF (Direct Reduced iron – Electric arc furnace) Or
- (ii) BF-BOF (Blast furnace – Basic oxygen furnace) Or
- (iii) COREX-BOF (COREX – Basic oxygen furnace)

For production of liquid steel to finish product at single/multiple locations with NABL or any other similarly placed accrediting Government body which operates in accordance with ISO/IEC17011 and accredits labs as per ISO/IEC 17025 conforming to IS:1786-

2008(Amendement-1 November 2012).

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.

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 or written orders from the Engineer-in- Charge to do so.

The steel reinforcement bars shall be brought to the site in bulk supply of **10 tonnes** or more as decided by the Engineer-in-charge.

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.

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 tonnes	For consignment above 100 tonnes
Under 10mm dia. Bars	One sample for each 25 tonnes or part thereof	One sample for each 40 tonnes or part thereof
10mm to 16mm dia bars	One sample for each 35 tonnes or part thereof	One sample for each 45 tonnes or part thereof
Over 16mm dia bars	One sample for each 45 tonnes or part thereof	One sample for each 50 tonnes or part thereof

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.**

The actual issue and consumption of steel on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of steel shall be worked out as procedure prescribed in clause 42 of the contract and shall be governed by conditions laid therein. In case the consumption is less than theoretical consumption including permissible variations recovery at the rate so prescribed shall be made. In case of excess consumption, no adjustment needs to be made.

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

In case the contractor brings surplus quantity of steel, the same after completion of the work will be removed from the site by the contractor at his own cost after approval of the Engineer-in- Charge.

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

The standard sectional weights referred to as in Table 5.4 under para 5.3.4 in CPWD Specifications for works 2019 Vol. 1 will be considered for conversion of length of various sizes of MS bars, Tor steel bars and TMT bars into standard weight.

Records of actual sectional weight shall also be kept dia-wise & 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.

If the derived weight as in para 2.14 above is lesser than the standard weight as in para 2.13 above, the derived actual weight shall be taken for payment. If the derived actual weight is found more than the standard weight then the standard weight as worked out in para 13 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.

Mixing of different type of steel/different grades of steel shall not be allowed in the same structural members as main reinforcement to satisfy clause 26.1 of IS:456.

Tolerances on Nominal Mass (individual sample) shall be as under:

S. No.	Nominal size mm	Tolerances on the Nominal Mass (in %age)
1	Upto and including 10 mm	-8%
2	Over 10 upto& including 16 mm	-6%
3	Over 16 mm	-4%

19.0 For certain items, if frequency of tests is not mentioned in the CPWD Specifications, then relevant IS code shall be followed and tests shall be carried out as per the frequency specified therein.

20.0 Door/window frames/shutters and other factory-made materials shall be procured from reputed and approved manufacturers or their authorized dealers as approved by Engineer in

charge. Decision of Engineer-in-charge in this regard shall be final and binding.

- 21.0** All CP brass water supply fittings and fixtures mentioned anywhere in the agreement shall be single lever in case of mixers and quarter turn in case of rest and shall be of make and model as per the list of approved makes provided in the agreement.
- 22.0** All the CP brass/ SS Fittings and fixtures for toilets like towel rod, towel rack, rob hook, angle valve and other such wellness products shall be of make and model as per the list of approved makes provided in the agreement, except otherwise mentioned.
- 23.0** CP brass nipple/GI hexa nipple of appropriate dia and length, wherever required to be provided, shall be of make as per list of approved makes and nothing extra shall be paid on this account and the overall quoted cost shall be deemed to be inclusive of all such provisions.
- 24.0** All sanitary wares and fittings shall conform to IS standards and to be procured from approved makes. The contractor shall submit minimum three samples of different makes of approved make list for all fittings and fixtures proposed to be used to the Engineer-in-charge for his approval and decision of engineer-in-charge regarding selection of any sample shall be final and binding. The approved samples shall remain with the Engineer-in-charge till the completion of the work.
- 25.0** The items of stainless steel railing mentioned in the agreement shall be modular in construction as per the list of approved makes provided in the agreement. Welding as means of jointing shall be resorted to in exceptional cases only with the approval of engineer-in-charge.
- 26.0** Items of aluminium provided for shutter and fixed portion in the agreement shall be of section compatible with euro hinges/ butt hinges/concealed hinges/3d hinges or rollers for used in casement / sliding shutters as directed by the engineer-in-charge for which nothing extra shall be paid and the decision of engineer-in-charge in this regard shall be final and binding.
- 27.0** All the aluminium doors and windows shall be factory fabricated through specialized agencies as per the list of approved makes. In case no agency is provided in the list of approved makes, specialized agency shall be got approved from engineer-in-charge after submitting all required document like previous work done, completion certificate, copy of work order, IT TDS certificates for the work done etc. as may have been prescribed in the agreement to the satisfaction of the engineer-in-charge including inspection of work if required. The decision of engineer-in-charge regarding acceptance or rejection of such agency proposed by the contractor shall be final and binding. In no case fabrication of aluminium door and windows shall be allowed at site.
- 28.0** As per direction of engineer-in-charge, contractor shall have to strictly abide and follow all the terms and conditions prescribed by ministry of environment and forest (MoEF), GOI, NGT, CPCB, state PCB, Gujarat Govt., District Administration available on their website or any other appropriate government authority for construction works in Gujarat or elsewhere, for which nothing extra shall be paid on this account except for provided otherwise in the agreement. The quoted rate shall be deemed to be inclusive of all such provision and conditions and provisions as aforementioned. In case of non-fulfillment of any of the conditions/provisions prescribed by the aforementioned authorities, as the case may be, engineer-in-charge shall get it done at the risk and cost of contractor after giving him a notice in writing and such decision of engineer-in-charge shall be final and binding to the contractor.
- 29.0** Contractor shall be mandatorily be required to provide to the engineer-in charge certified copies of original invoices of all kind of materials, T&P etc. being used or procured for this agreement alongwith running bills. Failure to provide any of such information to engineer-in-charge to his satisfaction shall render the contractor ineligible for payment for such items and no claim what so ever on this account shall be admissible and decision of engineer-in-charge in this regard shall be

final and binding.

- 30.0** Contractor shall provide minimum three samples of three different makes for each item of work as per the list of approved makes for the approval of engineer-in-charge. It shall be the description of engineer-in-charge to approve any of the three samples to be submitted by the contractor and decision of engineer-in-charge in this regard shall be final and binding.
- 31.0** The site for execution of work is very congested and there is very limited/no space for labour hutments, batching plant or stacking of construction materials. Therefore, the agency shall have to arrange space outside the campus at its own risk and cost for labour huts, batching plant and stacking of materials required for construction, cost of which may be factored in, while quoting for the work. No claim, whatsoever, shall be admissible on account of hindrance or additional cost being incurred for these activities.
- 32.0** Rates quoted by the tenderers shall be deemed to be inclusive of loading, unloading, carrying away and dumping the malba, rubbish or additional earth being generated during construction or due to dismantling, outside the campus including all lifts and leads, at any government approved location (if any) or any other suitable location in conformity with the laws of land at contractors risk and cost. The entire responsibility and any kind of legal and financial liabilities arising out of such activity including identification of suitable dumping ground (government/private) shall lie completely over the contractor.
- 33.0** Only river sand/fine aggregates shall be allowed for concrete/mortar/plaster works. M sand shall not be allowed.
- 34.0** Item of chain link fencing, gabions shall be of heavy zinc coating not less than 270 gsm or as provided in the agreement and specifications, whichever is higher.
- 35.0** The ridges used in metal sheet roofing shall be cut and notched down as per the directions of the Engineer in charge in the trough/valley portions of the metal sheet roofing. In case of pre coated metal profile sheet roofing, self-tapping/drilling screws as per the specifications shall be provided on each crest/ridge on each purlin. The quoted rates shall be inclusive of all such operations and nothing extra shall be paid on this account.
- 36.0** All corner joints of tiles in dado shall be made by chamfering the edges of tiles to 45 degree to produce a fine mitred joint and filling same with matching grout. Nothing extra shall be paid on this account.
- 37.0** All joints of stones in wall claddings shall be made as per the architectural drawings or directions given by Engineer in charge. Making of all kind of such stone joints such as V groove, butt joint, partial butt joint etc., including polishing of the edge of stone in such groove/joint shall be deemed to be included in the quoted cost, unless mentioned otherwise and nothing extra shall be paid on this account.
- 38.0** Moisture barrier membrane required in the items of modular expansion joint shall be of EPDM membrane of minimum 1.1 mm thickness of make as approved by Engineer in charge. The cost of such membrane and fixing it using epoxy adhesive and putty is deemed included in the quoted cost of such item of expansion joint and nothing extra shall be paid on this account.
- 39.0** Painting on interior and exterior surfaces of building shall be done using rollers only and nothing extra shall be paid on this account.
- 40.0 ROYALTY:** Contractor shall comply with all statutory rules and regulations w.r.t royalty and other levies and taxes. Royalty at the prevalent rates prescribed by govt., shall be paid by the

Insertion : Nil Correction : Nil Omission : Nil AE(P)... / EE(C).....

Contractor or his associate supplier as per Government rules, on all applicable materials such as boulders, metals, all sizes stone aggregates, brick aggregates, coarse and fine aggregates, moorum, river sand, gravels, earth and bajri etc. collected by him for the execution of the work, directly to the revenue authority of the state government concerned. Further, contractor needs to submit proof of submission of full royalty to the state government or local authority. Nothing extra shall be payable on this account.

- 41.0** The hindrances in execution of work, if any, whether on part of the contractor or department or FM clause, as required under clause 5 for determining extension of time/rescheduling of milestones etc., with or without levy of compensation, shall be judged/worked out/based on the correspondences and site order book records between the department and the contractor.

1. LIST OF APPROVED MAKES OF MATERIALS

Approved makes of materials to be used in the work are as given in the table below. In case of non-availability of these makes, the Engineer-in-charge may allow use of alternative makes. Only BIS marked materials shall be used in the work. Non-BIS marked materials may be permitted by the Engineer-in-charge only when BIS marked materials are not manufactured or the non BIS marked/approved materials confirm to higher specifications and life cycle than the corresponding criteria of BIS certified items.

LIST OF PREFERRED MATERIALS & SPECIALIZED AGENCIES

MATERIALS	APPROVED BRANDS
Ordinary Portland Cement / Portland Pozzolana Cement	Ultra Tech, A.C.C., Ambuja, Birla, Vikram, Shree cement, Century cement,
White Cement	J.K., Birla
Reinforcement Steel	Tiscon, SAIL, TATA, RINL, Jindal Steel & Power Ltd., JSW Steel Ltd., APL Apollo
Parallel Threaded Couplers	DEXTRA, G-TECH, Spplisetek, ISHITA
Re-barring Chemical	HILTI, 3M INDIA, Fischer
Structural Steel/Tubes	Tata Steel, SAIL, RINL, Jindal, JSPL, APL Apollo
Plasticizer, Super Plasticizer, Admixtures, Other construction chemicals	MC Bauchemie, Sika, Fosroc, BASF, Dr. Fixit, CICO, Asian
AAC Block	ULTRA TECH, BILTech, SIPOREX, Ecolite, Aerocon, ACC, B.G SHIRKE, BILT, WONDER, ECO GREEN
ACC Block Adhesive	ACC, ULTRA TECH, J.K., FERROUS CRETEM, BAL ENDURA, AEROCON, ARDEX ENDURA
Polymer modified cementitious grout / Tile Adhesive	ARDEX ENDURA, LATECRETE, FOSROC, BASF, ACC, ECO GREEN.
Waterproofing Compound	DOCTOR FIXIT (Pidilite), BASF, CICO, SIKA, Fosroc, STRUCO, STP Ltd.
Water Proofing Base Coat	UNO
Silicon based water repellent/ Weather Sealant	GE Plastics, Dow Comings, Wacker, BASF, Pidilite
Poly-Sulphide Sealant	Fosroc, Pidilite, Sika, BASF
Plywood	ARCHID PLY, KITPLY, GREEN PLY, CENTURY, Anchor.
Flush door shutters	KENWOOD, ARCHID PLY, KUTTY FLUSH DOORS, Greenply, A-1 Teak, Century Ply, Duro, Anchor
High-pressure laminate	Formica, Merino, Greenlam, Century, Decolam, Kitply, Action TESA, Sunmica
Rolling Shutter with Grills	STANDARD, SWASTIK, SHUBDHAR, SONA
Aluminium Extrusions	HINDALCO, JINDAL

Dash Fastners	HILTI,FISHER,CANON
SS Hardware and accessories for Doors and fire doors	DORMA, HAFELE, GEZE, ,KICH, Archware, Ozone
S.S. railing and other Stainless-steel works	Salem Steel, Jindal or equivalent
Hardware for Kitchen cabinet, ward robe and shelves	Godrej, EBCO, KAFF, SLEEK,
Particle board	Action TESA, Greenlam, Merino, Kitply
Melamine Polish	ASIAN PAINTS (MELAMYNE GOLD), PIDILITE INDUSTRIES (WUDFIN), ICI DULUX (TIMBERTONE)
Cement Based Wall putty	Birla wall care, JK White , Berger, Asian Paints
Oil Bound Washable Distemper / Dry Distemper	Asian paint :(Professional Acrylic Distemper), NEROLAC : Beauty Acrylic Distemper Berger: Bison Acrylic Distemper Dulux ICI : .
1st Quality Acrylic Distemper / Dry Distemper	Asian Paints :(Tractor Aqua Lock Paint), Berger : Commando Or equivalent paints of Nerolac or ICI-Dulux , .
Acrylic Emulsion Paints	Asian Paints :(Professional Premium Interior Emulsion Paints), Nerolac :Beauty Gold Berger : Rangoli total care ICI-Dulux : Super Cover,
Plastic Emulsion Paint	Asian Paints :(Apolite Heavy Duty Premium Emulsion Paint), Nerolac : Impression Berger : Easy Clean ICI-Dulux : 3 in 1
Premium Acrylic Emulsion Paints (Interior)	Asian Paints :(Royal Luxury Emulsion), Nerolac : Impression Berger : Silk ICI-Dulux : Velvet touch JENSON & NICHOLSON,
Textured Exterior Paint	Asian paints, Nerolac, Berger Paints, Ultratech Paints, Luxtreme, SPECTRUM, INSPIRA.
Acrylic Smooth Exterior Paint	Asian Paints :(Apex/Professional Premium Exterior Emulsion), Nerolac : XL Berger : weather Coat, PEARL, PEARL-ULTIMA (Advance Anti-Algal Weather Proof Paint) ICI-Dulux : Weather Shield
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
Synthetic Enamel Paint	Asian Paints : Apolite Premium Gloss Enamel, Nerolac : Synthetic Hi Gloss Berger : Luxol Hi Gloss ICI-Dulux : Gloss Synthetic Enamel
Cement Primer	NEROLAC, Berger, BP White (Berger), Decoprime WT (Asian), White primer (ICI),. .

<i>Steel Primer (Red Oxide Zinc Chromate Primer)</i>	<i>Asian paints, Berger, ICI , NEROLAC</i>
<i>Wood Primer</i>	<i>Asian paint (Wood Primer- White/Pink), Berger ICI , NEROLAC</i>
<i>Epoxy Paint</i>	<i>ICI, NEROLAC, ASIAN, BERGER, Kansai Akzo Nobel.</i>
<i>Fire Paint</i>	<i>ASIAN PAINTS, Akzonobel Coatings India Ltd, PROMAT, Jotun</i>
<i>Gypsum Plaster</i>	<i>Gyproc, Asian Paints, Birla ,Ferrous Crete, Ultra Tech.</i>
<i>Gypsum Board</i>	<i>SAINT GOBAIN,BORAL</i>
<i>Cement based Ready Mix Plaster</i>	<i>Ultratech, Wallplast, Buildwell, ACC.</i>
<i>EPDM Gasket</i>	<i>Amee Rubber Industries Pvt. Ltd., Bohra Rubber, Osaka</i>
<i>Dash / Anchoring Fasteners</i>	<i>Hilti, Fischer, Arrow, Kundan, Trixel, Wurth</i>
<i>Mortice lock</i>	<i>Godrej,Harrison</i>
<i>SPIDER FITTINGS</i>	<i>DORMA,HAFELE</i>
<i>Aluminium Structural Members - Windows, Glazing and Partitions</i>	<i>Hindalco, Indalco, Jindal Aluminium Ltd.</i>
<i>Aluminum composite panel(ACP)</i>	<i>ALSTRONG,ALUCOBOND,ALUDECOR</i>
<i>FLOOR SPRING/DEAD LOCK/DOOR CLOSERS/PANIC BAR</i>	<i>DORMA,GEZE,HAFELE,DEFINE</i>
<i>ALL TYPE OF SILICONE</i>	<i>DOW CORNING,GE SILICON</i>
<i>Metallic False Ceiling</i>	<i>Armstrong, Hunter Douglas, SAINT GOBAIN, DEXUNE, Interach,</i>
<i>Floor & Wall Tiles : Ceramic / Vetrified tiles / Antiskid / Matt / Glazed</i>	<i>KAJARIA, JOHNSON, NITCO, SOMANY, RAK, Marbito.</i>
<i>Phenol bonded Bamboo wood flooring</i>	<i>Lemi wood, S. M. Flooring or equivalent</i>
<i>POLYCARBONATE SHEET</i>	<i>SUNPOL, GALENA, ALCOX, GE PLASTIC, LEXAN, DANPALON, Coxwell, Lexan, Tufite, Danpalon/Palaram</i>
<i>Chequered Tiles, Paver Block & Kerb Stone</i>	<i>Super Tiles, Hind Mosaic, Vyaara, Kajaria, Ultra Designer Tile, Nitco, Vitco.</i>
<i>Vitrified paver tiles</i>	<i>Kajaria, Johnson, Nitco, RAK, SOMANI</i>
<i>Clear / Float / Frosted Glass / Mirror</i>	<i>ST. GOBAIN, MODIGUARD, ASAHI,PILKINGTON</i>
<i>Vitreous Chinaware sanitary work</i>	<i>Parryware, Hindware, Jaquar, Cera.</i>
<i>Bathroom accessories (Towel ring, Towel rack, Soap Dish Holder, etc)</i>	<i>Cera, Jaguar, Archware</i>
<i>GULLY TRAPS(S.W.)</i>	<i>PERFECT,PARRY,CHERRY</i>
<i>Plastic seat with Lid</i>	<i>Parryware, Hindware,Seabird, Jaquar</i>
<i>Sanitary ware</i>	<i>Parryware, Hindware, Jaquar, Cera</i>
<i>Water supply CP Fittings & Accessories</i>	<i>Jaquar,Grohe,Kolher.</i>
<i>PVC water tank</i>	<i>Sintex, National Plastic, Kaveri</i>
<i>Stainless Steel Sink</i>	<i>Nirali, Cera, Jaquar, Neelkantha, STAR, JAYNA, NIRALI</i>

C P Brass fillings	Jaquar,Grohe,Kolher.
C P Brass,Flush Valve	Jaquar,, zoloto, leader
GI Pipes	Zenith / Tata / Jindal,SURYA,ASIAN
GI Fittings	Unik, Zoloto, AVR,R-BRAND
Valves	Zoloto, Sant, KIRLOSKAR, LEADER
HDPE Pipe	Reliance, Jain Pipes, ORIPLAST, Supreme
DI Pipes AND Fittings	ELECTROSTEEL, Kesoram, JINDAL, TATA DUCTURA, Neco, Kapilansh
Centrifugally Cast (Spun) Iron Pipes & Fittings	Neco, Kapilansh, SKF,BIC
Hubless CI Pipes & Fittings	Neco, Kapilansh, SKF,
CI Manhole covers, Frames & GI Gratings	Neco, Kapilansh, SKF
SFRC Covers	KK spun pipes, Jain spun pipes, SS industries
RCC Pipes	Jain Spun Pipes,LAKSHMI,SOOD & SOOD,PRAGATI, K.K.Spun Pipe, The Indian Hume Pipe Co.Ltd., Patel Hume Pipes.
UPVC / CPVC Pipe & Fittings	Finolex Supreme, Prince, Astral, Ashirwad, Raksha.
UPVC DOORS & windows (Profile makers & their authorized Fabricators only)	Fenesta, Kommerling, Aluplast, Duroplast.
UPVC DOORS & windows Hardware	Rotto, Dorset, Kinlong
FRP chajja, FRP Shutters & Frame	Fibreways ,Bhutt FRP
Anodised Aluminium Doors Fittings (ISI Marked only)	Classic , Shalimar , Prestige
PVC Shutters & Frame	Plastiwood, DUROPLAST,POLYLINE,POLYWOOD,.
Steel Door / Window Frames	SenHarvik, Shiv Mular, Steel Plast, AGEW,
SBR COMPOUND (For REPAIR MORTAR & WATER PROOFING SLURRY)	MASTER EMACO SBR2 OF BASF, SIKA LATEX POWER, CICO LATEX sbr
Acrylic Polymer FOR BOND COAT AND POLYMER MODIFIED MORTAR	Anuvi Chemical, Sunanda Specialty Coating Pvt. Ltd,
Rust remover	Anuvi Chemical, Sunanda Specialty Coating Pvt. Ltd,
Rust Passivator	Anuvi Chemical, Sunanda Specialty Coating Pvt. Ltd,
READYMADE SINGLE COMPONENT POLYMER MODIFIED REPAIR MORTAR	MASTER EMACO S 348 OF BASF, ANUVI CHEMICAL, SUNANDA SPECIALITY COTING PVT.LTD, SKG CONSTN.
MICRO CONCRETE	DR. FIXIT , BASF , FOSROC
Stone Ware Pipes Grade-A (ISI Marked only)	Sonya, Supertech, Cherry
PTMT (ISI Marked only)	Prayag , Polytuf.
APP Sheet	Asian, Dr. Fixit, SIKA.

Note:-1. The above makes are subjected to the compliance of Make in India norms.

**GUARANTEE BOND TO BE EXECUTED BY CONTRACTOR FOR REMOVAL OF DEFECTS
AFTER COMPLETION IN RESPECT OF WATER PROOFING WORKS**

(BASEMENT /LOWER GROUND FLOOR / UNDER GROUND TANK / ROOF/ ETC.)

The Agreement made this _____ day of _____ Two thousand and _____
between _____ son of _____
(hereinafter called the Guarantor of the one part) and the
PRESIDENT OF INDIA (hereinafter called the Government of the other part).

WHEREAS THIS agreement is supplementary to a contract (hereinafter called the contract)
dated _____ and made between the GUARANTOR OF THE ONE part
and the Government of the other part, whereby the contractor, inter alia, undertook to render the
buildings and structures in the contract recited completely water and leak-proof.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the effect that the said
structures will remain water and leak-proof for **10 (Ten) years** from the date after the maintenance
period prescribed in the contract.

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

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

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

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

That if guarantor fails to make good all defects or commits breach there under then the
Guarantor will indemnify the principal and his successors against all loss, damage, cost expense or
otherwise which may be incurred by him by reason of any default on the part of the GUARANTOR in
performance and observance of this supplementary agreement. As to the amount of loss and/or
damage and/or cost incurred by the Government the decision of the Engineer-in-Charge will be final
and binding on the parties.

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

SIGNED, SEALED AND delivered by OBLIGOR in the presence of :

1.
2.

SIGNED FOR AND ON BEHALF OF THE PRESIDENT OF INDIA BY
_____ *in the presence of:*

1.
2.

TO BE EXECUTED BY THE CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF ALUMINIUM DOORS, WINDOWS VENTILATORS, STRUCTURAL GLAZING & ALUMINIUM COMPOSITE PANEL WORKS

The agreement made this_____day of Two Thousand and _____ between _____son of _____ (hereinafter called the GURANTOR of the one part) and the PRESIDENT OF INDIA (hereinafter called the Government of the other part.)

WHEREAS THIS agreement is supplementary to a contract (Hereinafter called the Contract) dated_____and made between the GUARANTOR OF THE ONE PART AND the Government of the other part, whereby the contractor inter alia, undertook to render the work in the said contract recited structurally stable, leak proof and sound material, workmanship, anodizing, colouring, sealing.

AND WHEREAS THE GURANTOR agreed to give a guarantee to the affect that the saidwork will remain structurally stable, leak proof and guaranteed against faulty material and workmanship, defective colouring, sealing and finishing for 2 (Two) years to be reckoned from the date after the expiry of maintenance period prescribed in the contract.

NOW THE GUARANTOR hereby guarantee that work executed by him will remain structurally stable, leak proof and guaranteed against faulty material and workmanship, defective, colouring, sealing and finishing for two years to be reckoned from the date after the expiry of maintenance period prescribed in the contract.

The decision of the Engineer-in-charge with regard to nature and cause of defects shall be final.

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

That if the guarantor fails to make good all the defects or commits breach there under, then the guarantor will indemnify the principal and his successor against all loss, damage, cost expense orotherwise which may be incurred by him by reason of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and/or damage and/or cost incurred by the Government, the decision of the Engineer-in-charge will be final and binding on both the parties.

IN WITNESS WHEREOF these presents, have been executed by the obligator

_____ and _____ by _____ for and on behalf of the PRESIDENT OF INDIA on the day, month and year first above written.

SIGNED, sealed and delivered by OBLIGATOR in the presence of:

1. _____
2. _____

SIGNED FOR AND ON BEHALF OF THE PRESIDENT OF INDIA BY

_____in the presence of :

1. _____
2. _____

1. 2.

GUARANTEE TO BE EXECUTED BY CONTRACTORS FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF ACRYLIC PAINT WORKS.

This agreement made this ----- day of -----Two thousand and ----- between ----- son of ----- of -----
(herein after called the Guarantor of the part) and the PRESIDENT OF INDIA
(herein after called the Government of the other Part)

WHEREAS THIS AGREEMENT is supplementary to a contract (hereinafter called for Contract) dated ----- and made between the GUARANTOR of the one part and the GOVERNMENT of the other part, hereby the Contractor inter alia, under took that the acrylic painting work done on building will remain non flaking and uniform colouring without patches.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to effect that the said Acrylic painting will remain non flaking and uniform colouring without patches for five years from the date of completion of work.

NOW THE GURANTOR hereby guarantee that Acrylic painting done by him will remain non flaking and uniform colouring without patches and the minimum guarantee period of such painting shall be five years to be reckoned form the date of the completion of work.

Provided that the guarantor will not be responsible for damage caused due to earthquake or misuse of buildings or alteration and for such purpose. The decision of the Engineer-in-Charge with regard to cause of damage shall be final and binding.

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

That if the guarantor fails to make good the defects or commits breach there under then the guarantor will indemnify the principal and his successors against all loss, damage cost, expenses or otherwise which may be incurred by him by reasons of any default on the part of GUARANTOR in performance and observance of this supplementary agreement as to the amount of loss and / or damage and / or cost incurred by the Government and the decision of the Engineer-in-Charge will be final and binding on both the parties.

An amount equivalent to 2% of item will be deducted from R. A. Bills as security and the same will be refunded after five years from the date of completion of work.

IN WITNESS WHEREOF these presents have been executed by the obligator ----- and by -----
----- and for and on behalf of the PRESEDENT OF INDIA on the day, month and year first above written.

SIGNED sealed and Delivered by (OBLIGATOR) in the presence of

SIGNED FOR AND BEHALF OF THE PRESIDENT OF INDIA
BY

In the presence of

- 1.
- 2.

TO BE EXECUTED BY THE CONTRACTOR FOR REMOVAL OF DEFECTS

AFTER COMPLETION IN RESPECT OF WATER SUPPLY AND SANITARY INSTALLATIONS

The agreement made this _____ day of _____ Two Thousand and _____ between _____ son of _____ (hereinafter called the GUARANTOR of the one part) and the PRESIDENT OF INDIA (hereinafter called the Government of the other part.)

WHEREAS THIS agreement is supplementary to a contract (Hereinafter called the Contract) dated _____ and made between the GUARANTOR OF THE ONE PART AND the Government of the other part, whereby the contractor inter alia, undertook to render the work in the said contract recited structurally stable workmanship, finishing and use of sound materials.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the effect that the said work will remain structurally stable and guaranteed against faulty workmanship, finishing, manufacturing defects of materials and leakages, etc.

NOW THE GUARANTOR hereby guarantee that work executed by him will remain structurally stable after expiry of maintenance period prescribed in the contract for the minimum life of 02 (Two) year to be reckoned from the date after the expiry of maintenance period prescribed in the contract.

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

During this period of guarantee, the guarantor shall make good all defects to the satisfaction of the Engineer-in-charge calling upon him to rectify the defects failing which the work shall be got done by the Department by some other contractor at the Guarantor's cost and risk. The decision of the Engineer-in-Charge as to the cost, payable by the Guarantor shall be final and binding.

That if the guarantor fails to make good all the defects commits breach thereunder, then the guarantor will indemnify the principal and his successor against all loss, damage, cost expense or otherwise which may be incurred by him by reason of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and/or damage and or cost incurred by the Government, the decision of the Engineer-in-charge will be final and binding on both the parties.

IN WITNESS WHEREOF these presents, have been executed by the obligator _____ and _____ by _____

for and on behalf of the PRESIDENT OF INDIA on the day, month and year first above written.

SIGNED, sealed and delivered by OBLIGATOR in the presence of:

1. _____

2. _____

SIGNED FOR AND ON BEHALF OF THE PRESIDENT OF INDIA BY _____
_____ in the presence of :

1. _____

2. _____

Schedule of Quantity							
N/W	Renovation work of Vice Chancellor's Bungalow at IRMA Campus, Anand (Gujarat).						
SL No		Qty	Unit	Rate	Amount	DSR No.	
1	REINFORCED CEMENT CONCRETE					5	
1.1	Centering and shuttering including strutting, propping etc. and removal of form for					5.9	
1.1.1	Suspended floors, roofs, landings, balconies and access platform	10	Sqm	927.25	9273	5.9.3	
2	MASONRY WORK					6	
2.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:					6.1	
2.1.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	2	Cum	7370.65	14741	6.1.1	
2	CLADDING WORK					8	
2.1	Marble work gang saw cut (polished and machine cut) of thickness 18 mm for wall lining (veneer work), backing filled with a grout of average 12 mm thick in cement mortar 1:3 (1 cement : 3 coarse sand), including pointing with white cement mortar 1:2 (1 white cement : 2 marble dust) with an admixture of pigment to match the marble shade (To be secured to the backing by means of cramps, which shall be paid for separately).					8.1	
2.1.1	Raj Nagar Plain white marble/ Udaipur green marble/ Zebra black marble.					8.1.1	
2.1.1.1	Area of slab upto 0.50 sqm	2	Sqm	5742.55	11485	8.1.1.1	
2.1.1.2	Area of slab over 0.50 sqm	8	Sqm	5938	47504	8.1.1.2	
2.2	Extra for providing opening of required size & shape for wash basin/ kitchen sink in kitchen platform	2	Each	978.7	1957	8.5	
2.3	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	120	Sqm	1267.95	152154	8.31	
3	WOOD & PVC WORK					9	

3.1	Providing and fixing bright /matt finished Stainless Steel handles of approved quality & make with necessary screws etc all complete.					9.165	
3.1.1	125 mm	4	Each	119.2	477	9.165.1	
3.1.2	100 mm	10	Each Set	90.45	905	9.165.2	
3.2	Providing and fixing 19mm thick both side balancing lamination factory pressed BWP grade marine ply as per IS 710 of approved brand boxes,shelves,racks,almirah,cupboard and drawer etc. including necessary nails,screws etc. complete as per direction of Engineer-in-charge.	20	Sqm	2593.15	51863	9.169	
3.3	Providing and fixing stainless steel fancy handle of approved make fixed with SS screws etc. complete as per direction of Engineer-in-charge.					9.17	
3.3.1	200 mm	4	Each	186.65	747	9.170.1	
3.4	Providing and fixing stainless steel soft closing spring hinges at 0 degree hinges (hydraulic type) of approved make/brand to cupboard shutters with full threaded steel screws including making necessary recess in board and finished etc. complete as per direction of Engineer-in-charge.	10	Each	272	2720	9.171	
3.5	Providing and fixing stainless steel soft closing heavy type telescopic drawer channels of approved make 500 mm long with screws etc. complete as per directions of Engineer- in-charge.	10	Each Set	885.1	8851	9.172	
3.6	Providing and fixing ready made 304 grade stainless steel Modular kitchen basket and accessories such as right angle basket (Plain Cup & Saucer, plant, Partition, Bottle rack, Thali, Cutlery) kitchen utensil basket, Dinner set basket, kitchen grain basket, Multipurpose basket as per site requirement including finishing (wherever required) and fittings. The same shall be fixed with necessary stainless steel nuts & bolts, Stainless Steel screws & telescopic channel etc. as per direction of Engineer-in-charge. (For payment purpose only weight of Stainless steel basket shall be considered excluding weight of all fixing accessories such as nuts, bolts, fasteners telescopic basket channels etc. Payment of providing and fixing telescopic channel shall be paid separately)	50	kg	533.25	26663	9.173	
4	STEEL WORK					10	

4.1	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.					10.16	
4.1.1	Hot finished welded type tubes	370	Kg	194.4	71928	10.16.1	
4.2	Providing and fixing mild steel round holding down bolts with nuts and washer plates complete.	10	Kg	97.2	972	10.19	
5	FLOORING					11	
5.1	Providing and laying Vitrified tiles in floor in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid on 20 mm thick cement mortar 1:4 (1 cement: 4 coarse sand) jointing with grey cement slurry @3.3 kg/sqm including grouting the joints with white cement and matching pigments etc. The tiles must be cut with the zero chipping diamond cutter only . Laying of tiles will be done with the notch trowel, plier, wedge, clips of required thickness, leveling system and rubber mallet for placing the tiles gently and easily.					11.41A	
5.1.1	Glazed Vitrified tiles Matt/Antiskid finish of size					11.41A.3	
5.1.1.1	Size of Tile 600 x 600 mm	20	Sqm	1464.85	29297	11.41A.3.1	
6	ROOFING					12	
6.1	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-Charge) of total coated thickness 0.50mm (base metal of minimum 0.45mm thickness with total coating thickness of 0.05mm) with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	20	Sqm	738.65	14773	12.50	

Insertion : Nil

Correction : Nil

Omission : Nil

AE(P)... / EE(C).....

7	FINISHING					13	
7.1	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	680	Sqm	156.05	106114	13.80	
7.3	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.					13.83	
7.3.1	With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre	680	Sqm	142.8	97104	13.83.3	
7.4	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content.					13.85	
7.4.1	Two coats	800	Sqm	70.35	56280	13.85.1	
7.5	Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete	800	Sqm	19.75	15800	13.88	
7.6	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :					13.99	
7.6.1	One or more coats on old work	185	Sqm	102.8	19018	13.99.1	
8	REPAIRS TO BUILDING					14	
8.1	Repair to plaster of thickness 12mm to 20 mm in patches of area 2.5 sqm and under, including cutting the patch in proper shape, raking out joints and preparing plastering the wall surface with white cement based polymer modified self curing mortar, including disposal of rubbish, all complete as per the direction of Engineer-In-Charge.	50	Sqm	670.95	33548	14.75	
9	Dismantling and Demolishing					15	
9.1	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.					15.2	
9.1.1	Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	1	cum	2434.25	2434	15.2.1	
9.2	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-					15.7	

	charge.						
9.2.1	In cement mortar	1	Cum	2060.2	2060	15.7.4	
9.3	Dismantling tile work in wall,floors and roofs laid in cement mortar including stacking material within 50 metres lead.					15.23	
9.3.1	For thickness of tiles 10 mm to 25 mm	140	Sqm	73.4	10276	15.23.1	
9.4	Dismantling of flushing cistern of all types (C.I./PVC/Vitrious China) including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead.	4	Each	112.05	448	15.52	
9.5	Dismantling of C.I. sluice valve including stacking of useful materials within a lead of 50 metres	2	Each	319.5	639	15.53	
9.6	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	6	Cum	709.95	4260	15.6	
10	SANITARY INSTALLATIONS					17	
10.1	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS : 13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required :					17.1	
10.1.1	Kitchen sink without drain board					17.10.2	
10.1.1.1	610x510 mm bowl depth 200 mm	2	Each	4940.8	4940.8	17.10.2.1	
12	NEW TECHNOLOGIES AND MATERIALS					26	

12.1	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid door/window/Clerestory windows & other Frames/Chowkhat comprising of virgin PVC polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) fabricated with miter joints after applying PVC solvent cement and screwed with full body threaded star headed SS screws having minimum frame density of 750 kg/cum, screw withdrawal strength of 2200 N (Face) & 1100 N (Edge), minimum compressive strength of 58 N/mm ² , modulus of elasticity 900 N/mm ² and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixed in position with M.S hold fast/lugs/SS dash fasteners of required dia and length complete as per direction of Engineer-In-Charge. (M.S hold fast/lugs or SS dash fasteners shall be paid for separately).					26.86	
12.1.1	Frame size 50 x 100 mm	6	Mtr	947.7	5686	26.86.3	
12.2	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid decorative type flush door shutter of required size comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/mm ² , modulus of elasticity 850 N/mm ² and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant. WPC to be laminated with PVC foil of minimum 14 microns thick of approved design pasted with hot melt adhesive on both faces of shutter and fixing with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk S.S screws, all as per direction of Engineer-In- Charge. (Note: stainless steel butt hinges and necessary S.S screws shall be paid separately)					26.88	
12.2.1	35 mm thick	3	Sqm	5432.85	16299	26.88.2	
				Total	821216.8		

	Add Cost after using correction factor on DSR 2023 on account of GST @0.973% on 821216.8/-				799044		
	Add Cost Index @11% on SR Item				87895		
				Total	886939		
13	NON SCHEDULE					NS	
13.1	Dismantling G.I. pipes all complete work after taking out the pipes, manually/ by mechanical means including stacking of pipes within 50 metres lead as per direction of Engineer-in-charge :					NS-1	MR
13.1.1	15 mm to 40 mm nominal bore	75	Mtr	17.4	1305	NS-1.1	MR
13.2	Providing and fixing white vitreous china Floor mounting water closet of approved approved shape including dual flushing cistern with floor mounting frame including installation kit and drain pipe, including UF soft close slim seat cover ,cistern fittings ,nuts ,bolts and gaskets etc complete (Make Jaquar WC cat No ONS-WHT-10753P180UFSMZ with Dual flushing Cistern or equivalent model as per preferred make list) etc complete.	4	Each	36988.85	147955	NS-2	MR
13.3	Providing and fixing table top white vitreous china wash basin (Make Jaquar Cat No OPS-WHT-15905 or equivalent) of approved brand and manufacturer with all fixing accessories , complete in all respects including cutting and making good the walls where required all complete as per manufacturers specification and direction of Engineer-in-charge.	4	Each	7686.4	30746	NS-3	MR
13.4	Providing and fixing 32 mm dia C.P. brass waste coupling and C.P. brass Presmatic Pillar Cock of approved make and model to existing wash basin, including all necessary fittings, connectors, washers, nuts, bolts, PTFE tape, making connections with existing water supply and waste disposal system, testing and commissioning complete as required. (Make: Jaquar Waste Coupling Cat. No. ALD-CHR-705 and Presmatic Pillar Cock Cat. No. LAG-CHR-91235NK or equivalent as per approved make list)	4	Each	8705.55	34822	NS-4	MR
13.5	Providing and fixing 15mm C.P. connecting pipe 450mm long with C.P. brass nuts, washers(Jaquar Cat no. ALD-CHR-805B and equivalent) complete in all respects.	8	Each	341.7	2734	NS-5	MR

13.6	Providing and fixing health faucet (ABS body with chrome finish) with 1 metre long easy flex tube in chrome finish flexible tube with hook of (Jaquar model No. ALD-CH R-565GA or equivalent model as per preferred make list) and manufacturer, fixed to PVC rawl plug with SS screws all complete as per manufacturers specification and direction of Engineer-in-charge.	4	Each	1503.05	6012	NS-6	MR
13.7	Providing and fixing of C.P. brass 600 mm (minimum) long towel Rail , with or without hangers of (Jaquar model No. ACN -CHR-1111SM or equivalent model as per preferred make list) and manufacturer, fixed to PVC rawl plug with SS screws all complete as per manufacturers specification and direction of Engineer-in-charge.	12	Each	2527	30324	NS-7	MR
13.8	Providing and fixing of C.P. brass wall mixer with 15mm or 20mm inlet with provision for over head shower with long bend pipe on upper side, connecting legs and wall flanges of (Jaquar model No. FLP-CHR-5273P MGD or equivalent model as per preferred make list) and manufacturer including cutting and making good the walls, if required all complete in all respects as per manufacturers specification and direction of Engineer-in-charge.	4	Each	8964.6	35858	NS-8	MR
13.9	Providing and fixing C.P. brass Two way bib cock of (Jaquar model No. FUP-CHR-29041PM or equivalent model as per preferred make list) and manufacturer all complete as per manufacturers specification and direction of Engineer-in-charge.	4	Each	2424.15	9697	NS-9	MR
13.1	Providing and fixing in position 125x125 mm stainless steel grating with frame(Item code F860056CP of hindware or equivalent) for floor trap/floor drain including fix to floor with cement mortar.	8	Each	280.55	2244	NS-10	MR
13.11	Providing and fixing beveled edge Mirror of 6 mm thickness with 12 mm thick BWP grade Ply wood backing (including applying coat), SS studs base 60mm dia, cylinder with threaded hole both side with neoprene washer(spacing of stud should not increase 900mm centre to centre). Gap between dado and mirror should be sealed with silicon . work to be carried out as per drawing and directed by Engineer-in-charge	16	Sqm	5826.85	93230	NS-11	MR

13.13	Providing and fixing overhead shower of Rectangular shape single flow with air effect (ABS Body and Face plate Chrome plated) with Rub it cleaning system of approved brand and manufacturer with 15 or 20 mm inlet all complete in all respects as per direction of the Engineer-in-charge.	4	Each	9312.55	37250	NS-12	MR
	190x295 mm (minimum) diameter (Jaquar model No. OHS -1637 or equivalent model as per preferred make list) with shower arm or 300 mm length (Jaquar model no. SHA-CHR-479L300S or equivalent)						
13.13	Providing and fixing C.P. brass Short body bib cock with wall flange of (Jaquar model No. FUP-CHR-29037PM or equivalent model as per preferred make list) and manufacturer conforming to IS standards, all complete in all respects as per direction of the Engineer-in-charge:					NS-13	MR
13.13.1	15 mm nominal bore	4	Each	2283.35	9133	NS-13.1	MR
13.14	Providing and fixing C.P. brass angle valve for basin mixer and geyser points with wall flange of (Jaquar model No. FUP-CHR-29053PM or equivalent model as per preferred make) and manufacturer conforming to IS:8931, all complete in all respects as per direction of the Engineer-in-charge:					NS-14	MR
13.14.1	15mm nominal bore	4	Each	1824.8	7299	NS-14.1	MR
13.15	Providing and fixing C.P. brass Sink cock with wall flange of (Jaquar model No. FUP-CHR-29347PM or equivalent model as per preferred make list) and manufacturer conforming to IS standards, all complete in all respects as per direction of the Engineer-in-charge:	4	Each	3503.2	14013	NS-15	MR
13.16	Finishing walls with Acrylic Interior Rustic textured of required shade and pattern of texture including the cost of scaffolding for rustic texture work on wall at any floor level all complete as per the direction of Engineer in charge.	120	Sqm	300	36000	NSR	
	Total				1385561		

Executive Engineer(C)-II,
CPWD, Vadodara.

PART-C

E & M SERVICES

**(Proforma of Schedules (Electrical work), Terms and condition and preferred makes,
Schedule of Quantities(Elect. work).**

Name of work:- *Renovation work of Vice Chancellor's Bungalow at IRMA Campus, Anand
(Gujarat).*

PROFORMA OF SCHEDULES	CPWD
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PROFORMA OF SCHEDULES (ELECTRICAL WORKS)
(Separate Performa for Civil, Electrical & Horticultural Works in case of Composite Tenders)
(Operative Schedules to be supplied separately to each intending tenderer)

Schedule A to F(Electrical Works) Minor Component

(Operative Schedules to be supplied to each intending bidder)

SCHEDULE "A"

Schedule of Electrical quantities(as per PWD-3) :- *As per enclosed schedule of Quantities.*

Estimated Cost of work Part-II: Minor component(electrical)	:	₹ <u>1,02,611.00</u>
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SCHEDULE "B"

Schedule of materials to be issued to the contractor:

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

SCHEDULE "C"

Tools and plants to be hired to the contractor

Sl. No.	Description	Hire charges per day	Place of issue
1	2	3	4
All the required T&P shall be arranged by the contractor.			

SCHEDULE "D"

Extra schedule for specific requirements / document for the work, if any:	<i>As per Proforma of Schedule of major component</i>
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Name of work:- **Renovation work of Vice Chancellor's Bungalow at IRMA Campus, Anand (Gujarat).**

SCHEDULE "E"

Reference to General Conditions of Contract:	General Conditions of contract for CPWD-2023 for Construction works already amended by circular bearing No. DG / CON / construction 2023 / 04. (with all amendments up to last date receipt of tender including extension, if any)
i. Estimated cost of works:	As per Proforma of Schedule of major component
Electrical Items of Work	As per Proforma of Schedule of major component
ii. Earnest money:	As per Proforma of Schedule of major component
iii. Performance Guarantee:	As per Proforma of Schedule of major component
iv. Security deposit:	As per Proforma of Schedule of major component

SCHEDULE 'F' (GENERAL RULES & DIRECTIONS)

Officer inviting tender:	As per Proforma of Schedule of major component
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2(v)	Engineer-in-Charge for Electrical Items of Work	Executive Engineer(E), CPWD, Vadodara
2(vii)	Accepting Authority	As per Proforma of Schedule of major component
2(x)	Percentage on cost of materials and labour to cover all overheads and profits	15%
2(xi)	Standard Schedule of Rates: Electrical Items of Work	DSR (Electrical) 2022 and 2025 with correction slips upto last date of submission of tender including extension,if any and market rates
2(xii)	Department	Central Public Works Department

9(ii)	Standard CPWD contract Form:	As per Proforma of Schedule of major component
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.	As per Proforma of Schedule of major component

	ii. Maximum allowable extension with late fee @ 0.1% per day of Performance Guarantee amount beyond the period provided in (i) above	As per Proforma of Schedule of major component	
Clause 2	Authority for fixing Compensation under Clause 2	As per Proforma of Schedule of major component	
Clause 5	Number of days from the date of issue of letter of acceptance for reckoning date of start	As per Proforma of Schedule of major component	
Clause 5	Description of milestone(physical)	Time allowed from date of start	Amount to be withheld for non-achievement of milestone
Mile stone(s) as per the table mentioned in Part A			

Authority to decide:

(i) Extension of time	As per Proforma of Schedule of major component		
(ii) Rescheduling of milestones	As per Proforma of Schedule of major component		
(iii) Time allowed for execution of work	As per Proforma of Schedule of major component		
Authority to decide:	As per Proforma of Schedule of major component		
Clause 6	As per Proforma of Schedule of major component		
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	As per Proforma of Schedule of major component	
Clause 7A	Whether Clause 7A shall be applicable	Yes	
Clause 7B	Whether Clause 7B shall be applicable	Yes	
Clause 8A	Authority to decide compensation on account if the contractor fails to submit Completion Plans	As per Proforma of Schedule of major component	
	The amount to be payable by the contractor, if he fails to submit completion plans	Rs. 50000/- for Electrical works	
Clause 10A	List of testing equipment's to be provided by the contractor at site lab	As per direction of Executive Engineer (Elect.)	

Clause 10 B (ii)	Whether clause 10-B (ii) shall be applicable.	<i>Not applicable</i>
Clause 10 C	Component of labour expressed as percent of value of work	<i>Not applicable</i>
Clause 10 CC	Clause 10CC to be applicable in contracts with stipulated period of completion exceeding the period shown in next column	<i>As per Proforma of Schedule of major component</i>
Clause 11	Specification to be followed for execution of work - For Electrical Items of Work	<i>CPWD General Specifications for Electrical Works</i> <i>Part-I Internal - 2023</i> <i>Part-II External - 2023</i> <i>Part-IV Sub Station – 2013</i> <i>Part V Wet Riser & Sprinkler Systems – 2020</i>
All above Specifications shall be applicable with correction slips up to the last date of submission / uploading of bid. Note: As per DG / CON / 312, no substitute item is allowed.		

Clause 12		
12.2	Deviation limit beyond which clause 12.2 & 12.3 shall apply for building work.	100 %
Clause 16	Competent Authority for Deciding reduced rates - For Electrical Items of work.	SE(Vadodara), CPWD Or successor thereof
Clause 18	List of mandatory machinery, tools& plants to be deployed by the contractor at site	As mentioned in NIT
Clause 19C	Authority to decide for each default	<i>As per Proforma of Schedule of major component</i>
Clause 19D	Authority to decide for each default	<i>As per Proforma of Schedule of major component</i>
Clause 19G	Authority to decide for each default	<i>As per Proforma of Schedule of major component</i>

Clause 25

i)	Conciliator	<i>As per Proforma of Schedule of major component</i>
ii)	Arbitrator Appointing Authority	<i>As per Proforma of Schedule of major component</i>
iii)	Place of arbitration	<i>As per Proforma of Schedule of major component</i>

Arbitrator appointment	Notice for appointment of arbitrator	<i>As per Proforma of Schedule of major component</i>
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Clause 32	Requirement of Technical Representative(s) and Recovery Rate
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As per Proforma of Schedule of major component

Clause 38

(i)	(a)	Schedule / statement for determining theoretical quantity of cement, bitumen etc on the basis of Delhi Schedule of Rates	<i>Not applicable</i>
(ii)		Variations permissible on theoretical quantities:	
	(a)	Cement	<i>Not applicable</i>
	(b)	Bitumen for all works	<i>Not applicable</i>
	(c)	Steel Reinforcement and structural steel sections for each dia, Mtr, section and category	<i>Not applicable</i>
	(d)	All other materials	NIL

RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION

Sl. No	Description of items	Rates in figures and words at which recovery shall be made from the contractor	
		Excess beyond permissible variation	Less use beyond the permissible variation
NIL			

Eligibility criteria for main agency with respect to associated electrical agency to be engaged by main contractor for executing the electrical & mechanical works.

1. The main contractor will have to submit Name (s) of the proposed associate contractor (for each of the E & M works), as per milestone, who fulfil the eligibility criteria for the relevant package. The documents will have to be submitted in detail as required, which will be checked as per NIT for approval of the associate contractors. It will be essential that proposed electrical associate agency qualify the eligibility criteria for package given in NIT document.
2. The department reserves the right to allow the main firm to submit additional Documents / additional names of the associates in case of the deficiencies in documents or in case of no associate getting qualified in respect of certain package. The same will have to be complied with the main contractor within the time allowed. The decision of the department shall be firm & binding on the intending bidders.
3. The main contractor should submit the Consent letter (willingness) and Affidavit of MOU from at least one eligible associate agency of the respective package of E&M work for each of the package of E& M works by clearly indicating the component of work after award of work. The Willingness and Affidavit of MOU shall be signed by both contractors, Main contractor as 1st party and associated contractor as 2nd party, independently for Name of work & Package specified.
4. If the main contractor fails to associate agency for execution of minor components of work after award of work and as per milestone or furnishes incomplete details or furnishes details of ineligible agencies even after the tenderer is given due opportunity, the entire scope of such component of work shall be withdrawn from the contractor and the same shall be got executed by the Engineer-in-Charge at the risk and cost of the main contractor.
5. In support of the eligibility conditions of the proposed associated electrical contractor, copy of their registration documents, Electrical Contractor's License, GST documents, valid electrical licence for Gujarat state, eligibility documents by competent authority shall have to be submitted. The credentials for work experience submitted by associate contractor shall be for work executed by him in Central / state Government, Government undertaking, autonomous bodies. Such associate electrical contractor will certify that they are not debarred as on the day of application for sale of tender.
6. In event of the concerned E & M contractor not performing satisfactorily or failure of associate / sub-contractor to complete the E&M work, the main contractor on the written direction of the department, shall remove the Associate / sub-contractor deployed on the work and shall submit name of new associate who fulfils the conditions mentioned in NIT to execute the left-over work without any loss of time or variation in cost to the department in this regard. Such associates shall also enter into Agreement with the main contractor and shall meet all the guarantee for the equipments already supplied for which payment has been released by the department in part. If any equipment supplied for the work, during the currency of the earlier Associate / sub-contractor and paid partly by the department, becomes redundant / not in a position to be installed and commissioned and put to beneficial use due to change in contractor for execution of E&M work, the main contractor shall be liable for replacement of the equipment(s) at no cost to Department, No change of Associate Electrical Contractor will be allowed without prior approval of the CPWD competent officer.

7. Executive Engineer (E) shall be the Engineer-in-charge as far as for all electrical & mechanical services / works are concerned.
8. The main contractor shall be responsible and liable for proper and complete execution of the Electrical work and ensure coordination and completion of both civil and electrical work.
9. The main contractor has to enter into agreement with contractor(s) associated by him for execution of E&M subheads. Copy of such agreement shall be submitted to Engineer-in-charge of work. In case of change of associate contractor, the main contractor has to enter into agreement with the new contractor associated by him.
10. The associate or sub-contractor shall attend the inspection of the work by the Engineer-in-charge of E&M works as and when required. The contractor executing the electrical work should have valid license for LT / HT as applicable and as described in eligibility criteria.
11. Verifiable completion certificates of the work eligibility documents as the case may be, duly attested by the applicant shall be submitted. Valid Electrical Contractor's license, as the case may be, duly countersigned by the applicant as well as signed by the associate contractors shall also be submitted. Self-attested GST documents in respect of the associated agencies as well as signed by associate firms shall be submitted.
12. For the different E & M package, the main contractor will have himself / to engage the associate electrical contractor / specialized agency in the respective specialized works / package after award of work and as per milestone as per following:-
 - (i) The main contractor should either himself meet the eligibility conditions for the respective E & M packages or otherwise he will have to associate an agency meeting the eligibility criteria.
 - (ii) Main contractor will have to submit willingness certificate & MOU for each of the package for Associate agencies by clearly indicating the applicable E & M Package.
 - (iii) The composite category contractor is also be eligible to carry out any or all of these works without associating any specialized agency provided :-
 - a. Contractor fulfils the prescribed eligibility criteria respectively for specialized package.
 - OR
 - b. Contractor directly procures the equipment of approved make from manufacturer and gets it installed from authorized agency / service provider of the manufacturer or specialized agency as per eligibility criteria.

The eligibility criterion for Associate agency for different E& M components are given below. They will have to submit willingness certificate for each of the component of the Electrical work for Associate agencies by clearly indicating the applicable component of the work.

- a) The firm should have successfully completed similar works during the last 7 years ending up to last day of previous month of submission of application by main contractor to department. The main contractor will submit the associate agency related documents for approval to Executive Engineer (Elect), as per milestone for each E&M Packages.
- b) The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum, calculated from the date of completion to the last date of submission of application by main contractor to department.

NOTE : The package cost mentioned in below is for the purpose of eligibility criteria only, package wise total cost is given as below which is rough cost and should not be used or interpreted for any other purpose

SPECIAL CONDITIONS FOR ALL SPECIALIZED / E & M COMPONENTS

The 1st lowest tenderer has to submit the following documents for association of electrical contractor at least 7 days after to depositing performance guarantee.

1. The applicant should submit the willingness from an eligible electrical contractor to get associated with the applicant for execution of the electrical component of works in wholesome manner and as per the conditions set out in the MOU to be entered into, between the one who is awarded the work and the associated eligible electrical contractor.
2. In support of the eligibility conditions of the proposed associated electrical contractor, copy of their registration documents, Electrical Contractor's License, GST Documents duly attested by the applicants (Main Contractor) shall be submitted to the EE(E). Each such electrical contractor will certify that they are not debarred as on the day of application for sale of tender.
3. The main contractor will submit MOU signed on non-judicial paper with eligible registered electrical contractor of CPWD) only. The MOU in the enclosed form shall be signed by both the parties i.e., main contractor as 1st party and associated electrical contractor as 2nd party.
4. In the event of the concerned E&M agency not performing satisfactorily or failure of associate sub-contractor to complete the E&M work, the main contractor on the written direction of the department, shall remove the Associate / sub-contractor deployed on the work and shall submit name of new associate who fulfil the conditions mentioned in NIT to execute the leftover work without any loss of time or variation in cost to the department in this regard. Such associates shall also enter into tripartite Agreement / Contract along with the main tenderer and the departmental officer and shall meet all the guarantee for the equipment's already supplied for which payment has been released by the Department. in part. If any equipment supplied for the work, during the currency of the earlier Associate / sub-contractor and paid partly by the Department, becomes redundant / not in a position to be installed and commissioned and put to beneficial use due to change in agency for execution of E&M work, the main contractor shall be liable for replacement of the equipment(s) at no cost to Department. No change of Electrical Contractor will be allowed without prior approval of the department.
5. Executive Engineer (E) shall be the Engineer-in-charge as far as electrical works are concerned. Separate tender schedule abbreviated CPWD-8 and Special Conditions for Electrical Work are appended with this tender It will be obligatory on the part of the contractor / tenderer to sign the tender documents for all the component parts.
6. The main contractor shall be responsible and liable for proper and complete execution of the Electrical work and ensure coordination and completion of both civil and electrical work.
7. The associate or sub-contractor shall sign a tripartite Agreement / Contract along with the main tenderer and the departmental officer, for technical compliance of specification, guarantee etc.
8. The associate or sub-contractor shall attend the inspection of the work by the Engineer-in- Charge of E&M works as and when required.

Important Note:

- a) The **defect liability period** of all the wiring, cabling, equipments and components of all the packages should be **ONE YEAR** from the date of completion or handing over to the client whichever is later and **all the LED fittings shall be guaranteed for a period of 5 years.**
- b) The work shall be executed as per drawing provided by department. Any minor variation in quantity that are necessary to complete the work and hidden items of the works which not included in the NIT but requires to completion of the all the respective packages should be carried out by the contractor, nothing extra shall be paid on this account .
- c) The contractor should be referring all the Drawings, Schedule of Items, Inventory of equipments & components, Specifications of all the packages, Manufacturer's specifications, all the CPWD specifications, GCC for EPC Tender, Specification of local authorises and related conditions & specifications. If any changes or queries shall be intimated before execution to the Engineer in charge and final decision shall be taken by department.
- d) All the electrical and mechanical works, equipments & components should be executed as per specifications & schedule of items given in the respective packages with latest technology / features in the all the electrical & mechanical equipments and component / works at the time of execution / approval by the engineer in charge. No extra payment shall be paid in this account.
- e) Shop Drawing of All E & M Services to be prepared by Contractor & Submit the same for vetting from department before starting of work execution, nothing extra shall be paid on this account.
- f) The Coordination Drawings Considering Reflected Ceiling Plan and all Electrical services Layouts shall have to be submitted by Contractor to CPWD for approval before execution of work at Site.
- g) The Fire extinguishers in all Electrical Rooms, UPS room, Battery Room and all other service rooms to be provided as per Fire Safety Norms and as per NBC. Nothing extra shall be paid on this account.
- h) The External Cabling shall be as per External cable route drawing and external Lighting Drawing and if any missing details in the drawings, the same shall be executed as per decision made by Engineer-in -charge according to site conditions, nothing extra shall be paid in this account.
- i) In case of contradiction in specification and quantity if any among item description, special condition and drawings then higher specification will prevail. Nothing extra shall be paid on this account.

***CONSENT LETTER FROM ASSOCIATED
ELECTRICAL CONTRACTORS***
for Package C1

I, _____ hereby give my /
our consent to work as associated electrical contractor for the composite work of *Renovation work of Vice
Chancellor's Bungalow at IRMA Campus, Anand (Gujarat).* I / We will be responsible for necessary action
to hand over the installation and for rectification of defects and repair during the maintenance period. I / We will execute the
work as per CPWD specification and additional conditions of the contract.
I / We will also engage suitable Engineer and qualified staff for the work as per condition of the contract. I / We further
certify that the particulars shown in certificate for associated electrical agency and pertaining to me / us are correct.

Date:

Signature of Associated Electrical contractor with seal.

[Note: Copy of enlistment order of the CPWD registered associate contractor, duly attested by notary shall be submitted
along with consent letter **for each package.**]

Signature of the Main contractor with date and seal

MANUFACTURERS' AUTHORIZATION FORM

(To be submitted at the time of association of agency)

No.----- dated

To

Dear Sir: _____

We _____ who are established and
reputable manufacturers of _____

(Name & Descriptions of goods offered) having factories at

(*address of factory*) do hereby authorize M / s _____ (*Name and address of Agent*) to submit a bid, and sign
the contract with you for the goods manufactured by us against the above IFB.

We hereby extend our full guarantee and warranty as per Clause 15 of the Commercial Conditions of Contract for the goods
and services offered for supply by the above firm against this IFB.

Yours faithfully,

(Name)

(Name of manufacturers)

Note: This letter of authority should be on the letterhead of the manufacturer and should be signed by a person competent and
having the power of attorney to legally bind the manufacturer. (The list of items for which this is required should be
indicated by Department)

UNDERTAKING FROM OEM / MANUFACTURER

It is to certify that as OEM / Manufacturer giving undertaking to support all the spare parts and its allied accessories etc. of **Electrical Items for (07) Seven year** on payment basis for the healthy functioning of the equipments apart from the one-year unconditional guarantee of the item against any manufacturing defects and malfunctioning under defect liability period from the date of commissioning of equipment.

(Signature of Contractor / Agency)

(Signature of OEM / Manufacturer)

Note: This certificate in regard for following equipments:-

Package C1 Internal electrical installation & fans etc.

Eligibility Criteria

SN	Name of Package	Package Amt.	Eligibility criteria	Similar Work
Package C1	Internal electrical installation & fans and etc.	₹ 1,02,611/-	3 similar works, each of value not less than 40% of package cost OR two similar works, each of value not less than 60% of package cost OR One work of value not less than 80% of package cost.	Providing Internal & External EI Work

MEMORANDUM OF UNDERSTANDING

[M.O.U] BETWEEN

(TO BE SUBMITTED BEFORE START OF WORK)

- 1] M / S [Name of the firm with full address) Enlistment Status
Valid Up to:
[Henceforth called the main contractor]

And

- 2] M / S [Name of the firm with full address) Enlistment Status
Valid Upto:
[Henceforth, called Associated Electrical Contractor or Electrical Contractor]

Name of work: *Renovation work of Vice Chancellor's Bungalow at IRMA Campus, Anand (Gujarat).*

We state that M.O.U's. between us will be treated as an agreement and has legality as per Indian Contract Act (amended upto date) and the department (CPWD) can enforce all the terms and conditions of the agreement for execution of the above work. Both of us shall be responsible for the execution of work as per the agreement to the extent of the MOU allows.

We have agreed as under:

- 1- The associated electrical contractor will execute all electrical works in the wholesome manner as per terms and conditions of the agreement. Any type of internal transaction between the electrical contractor and main contractor shall be as per their convenience and mutual understanding without involving the department. Security deposit shall be deducted as per agreement.
- 2- The electrical contractor shall be liable for disciplinary action and other legal actions as per agreement if he fails to discharge obligation as per this agreement besides forfeiture of the security deposit.
- 3- All the machinery and equipment's, tools and tackles required for execution of the electrical works. As per agreement shall be the responsibility of the electrical contractor.
- 4- The site staff required for the electrical work shall be arranged by the electrical contractor as per terms and conditions of the agreement.

SIGNATURE OF MAIN CONTRACTOR

SIGNATURE OF ASSOCIATED Specialized
ELECTRICAL CONTRACTOR

Date:

Date

Place:

Place

Insertion : Nil

Correction : Nil

Omission : Nil

AE(P)... / EE(C).....

WILLINGNESS CERTIFICATE

(To be submitted before start of work)

Name of work: *Renovation work of Vice Chancellor's Bungalow at IRMA Campus, Anand (Gujarat).*

I hereby give my willingness to work as specialized electrical contractor for the above-mentioned work.

I will execute the work as per specifications and conditions for the agreement and as per direction of the Engineer-in-charge. Also I will employ full time technically qualified supervisor for the works. I will attend inspection of officers of the department as and when required.

Date:

Signature of Contractor

CHAPTER: 1- General Information for Electrical Works

Note: Electrical work or E & M works have been interchangeably used. They mean the same thing.

Name of work: *Renovation work of Vice Chancellor's Bungalow at IRMA Campus, Anand (Gujarat).*

Package C1: Internal electrical installation & fans etc.

Structure of the tender document:

The E&M works have been sub-divided in to following packages.

Package C1	Internal electrical installation & fans etc.
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CHAPTER: 2 - GENERAL CONDITIONS FOR ALL E&M PACKAGES

Mode of Submission of Tenders.

The tender documents as called for the tender for all the Sub Heads of Civil and E&M works shall be submitted together to the Executive Engineer (E), CPWD, Vadodara before the date stipulated for opening of tenders.

The tenderer is advised not to leave blank or write irrelevant information in the schedules. 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 / those item(s) in other items and rate for such items will be considered as “zero” and work will be required to be executed accordingly.

The competent authority on behalf of President of India reserves to himself the right of accepting the whole or any part of the tender and the tenderers shall be bound to perform the same at the rate quoted. In such case, the Department also reserves the right to award the balance part of the tender and / or any other contracts to other agencies at the sole discretion of the Department. The decision of the Department in this regard shall be final and binding on the contractor and no claim of whatsoever nature shall be entertained from the contractor on this account.

The Contractor shall assume all liability, financial or otherwise in connection with his 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 reason whatsoever and shall himself defend all actions arising from such claims and shall keep the department saved harmless and indemnified in all respect from such actions, costs and expenses. Nothing extra shall be payable on this account.

Before commencing the work, the Contractor shall, without in any way limiting his obligations and liabilities, insure at his own cost and expense against any damage or loss or injury, which may be caused to any person or property. Nothing extra shall be payable on this account.

The Tenderer may, before submission of the tender, inspect the CPWD specifications in the office of the Engineer-in-Charge. The department shall not bear responsibility for the lack of knowledge and also the consequences thereof to the Contractor. The information and data shown in the drawings and mentioned in the tender document have been furnished in good faith and for general information and guidance only. The Engineer-in-Charge in no case shall be held responsible for the accuracy thereof and / or interpretations or conclusions drawn there from by the Contractor and all consequences shall be borne by the Contractor and no claim, whatsoever, shall be entertained from the Contractor, if the data or information furnished in tender document is different from data / drawing for actual construction issued after the award of work or in-correct otherwise. It is presumed that the Contractor has satisfied himself for all possible contingencies, situations, bottlenecks and acts of coordination, which may be required between different agencies.

INCIDENTAL CHARGES:

All incidental charges of any kind including cartage, storage, wastage and safe custody of material etc. shall be borne by the Contractor and no claim whatsoever shall be entertained on this account.

QUALITY ASSURANCE:

The Contractor shall make available, on request from the Department, for record, copies of challans, cash memos, receipts and other certificates, if any, vouchers towards the quantity and quality of various materials procured and the same shall be kept in record. These shall also provide information on the name of the manufacturer, manufacturer's product identification, manufacturer's instructions, warning, date of manufacturing and test certificates from manufacturers for the product for each consignment delivered at site, shelf life, if any, for the department to ensure that the material have been procured from the approved source and of the approved quality, as directed by the Engineer-in-Charge. Day to day account of receipt of such material shall be maintained at site of work and shall be regulated by the department. Nothing extra shall be payable on this account.

STORAGE OF MATERIALS:

Storage and safe custody of all materials shall be the sole responsibility of the Contractor. Nothing extra shall be payable on this account.

QUALITY CONTROL AND TESTING OF MATERIALS:

All the material to be used on works shall bear ISI certification mark unless otherwise the make is specified in the item or special conditions appended with this tender document. In case ISI mark material or the materials mentioned in the tender documents are not available, the opinion of Engineer-in-charge, which shall be final and binding, the material to be used shall conform to CPWD specifications applicable in this tender or IS Code. In such cases Engineer-in-charge shall satisfy himself about the quality of such material and give his approval in writing. Only articles classified as first quality by the manufacturers shall be used unless otherwise specified. All material not having ISI mark shall be tested as per relevant ISI specification. The Engineer in charge may relax the condition regarding testing if the quantity of the materials required for the work is small. In all cases of use of ISI marked materials proper proof of procurement of materials from authentic manufacturers shall be provided by the contractor to the entire satisfaction of Engineer-in-charge. All materials equivalent to the one specified should be got approved by the Engineer-in-charge before using the said materials in the work.

If the department desires to send any samples of materials for testing in a accredited laboratory, the Contractor at his own expense shall supply all materials, labour for preparing and testing samples as required by the Engineer-in-Charge. The testing shall be carried out in the presence of the representative of the Engineer- in- Charge. The testing charges shall be borne by the Department only when the samples satisfy the provision specified and conform to the requirement of the relevant specifications. If the results show that the samples do not satisfy the relevant specification, the testing charges shall be borne by the contractor.

No foreign exchange shall be made available by the department for importing (purchase) of equipments, plants, machinery, materials of any kind. No delay and no claim of any kind shall be entertained from the Contractor on account of variation in the foreign exchange rate and / or any Custom duties / charges or any other levies.

COORDINATION WITH OTHER AGENCIES

The Contractor shall carry out his work so as not to interfere with or hinder the progress or completion of the work being performed by other Contractors or by the Engineer in charge and shall as far as possible arrange his work and shall place and dispose off the materials being used or removed so as not to interfere with the operations of other Contractors or 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.

NO WAIVING OF LEGAL RIGHTS AND POWERS

The Engineer-in-Charge shall not be precluded or stopped from taking any measurements, and framing of estimates or detaining any certificates made either before or after the completion and acceptance of the work and payment, from showing the true amount and character of the works performed and materials furnished by the Contractor and from showing that any such measurements, estimates or certificates untrue or incorrectly made and that Engineer-in-charge shall not be precluded or stopped from recovering from the Contractor such damages as it may be sustained by reasons of his failure to comply with the terms and conditions of the contract.

The tenderers shall take into account the element of wastage(s) those are likely to be there in all elements of the work and quote his price, taking that into account. The tenderers shall study all the items from the point of view of wastage(s), which are likely to take place.

Electric Power Supply and Water Supply

It is the responsibility of the contractor to arrange required power supply and water supply for installation and testing purposes during the contract period. Nothing extra shall be paid on this account.

CHAPTER – 3 : ADDITIONAL CONDITIONS (GENERAL) FOR ALL E & M PACKAGES

1. Unless otherwise specified following specifications shall be followed for the E & M works:
2. General Specifications for Heating, Ventilation & Air-Conditioning (HVAC) – (Amendments), 2024
3. CPWD General Specifications for Electrical Works Part-I Internal - 2023
4. CPWD General Specifications for Electrical Works Part-II External - 2023
5. CPWD General Specifications for Electrical Works Part-III-Lift & Escalators - 2003, Amendment No. 1
6. CPWD General Specifications for Electrical Works Part-IV Sub Station – 2013
7. CPWD General Specifications for Electrical Works Part V Wet Riser & Sprinkler Systems – 2020
8. CPWD General Specifications for Electrical Works Part VI Fire Detection and Alarm System – 2018
9. CPWD General Specifications for Electrical Works Part VIII Gas Based Fire Extinguishing System 2013
10. Any additional item of work, if taken up subsequently, shall also confirm to the relevant CPWD specifications mentioned above.

Should there be any difference or discrepancy between the description of items as given in the schedule of quantities, particular specifications for individual items of work (including special conditions) and I.S. Codes etc., the following order of preference shall be observed:

- i) Description of items as given in Schedule of quantities.
- ii) Additional conditions
- iii) Special conditions and particular specifications.
- iv) General Conditions of Contract for CPWD works and CPWD Specifications.
- v) I.S. Codes.
- vi) Decision of Engineer-in-Charge.

Taxes and duties

- The work shall be treated on indivisible works contract basis and the rates tendered shall be for complete items of works inclusive of all taxes, duties, and levies etc. and all charges for items contingent to the work, such as packing, forwarding, insurance, freight and delivery, installation, testing, commissioning etc at site i / c temporary constructional storage, risk, overhead charges, general liabilities / obligations etc.
- Work contract tax for the work shall be included within the quoted rates for the various items
- The C / D forms for concession of CST will not be issued to firms for procurement of materials.
- All Statutory deductions as applicable rates will be made from the Contractors bill.

INSPECTION OF SITE

The Contractors are advised to inspect and examine the site and its surroundings and satisfy themselves with the nature of site, the means of access to the site, the constraints of space for stacking material / machinery, labour etc. constraints put by local regulations, if any, weather conditions at site, general ground / subsoil conditions etc. or any other circumstances which may affect or influence their tenders. The site is available for work. The contractor shall, immediately on issue of letter of acceptance of tender, make arrangements for starting the work.

The nomenclature of the item given in the schedule of quantities gives in general the work content but is not

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exhaustive i.e. does not mention all the incidental works required to be carried out for complete execution of the item of work. The work shall be carried out, all in accordance with true intent and meaning of the specifications and the drawings taken together, regardless of whether the same may or may not be particularly shown on the drawings and / or described in the specifications, provided that the same can be reasonably inferred there from. There may be several incidental works, which are not mentioned in the nomenclature of each item but will be necessary to complete the item in all respect. All these incidental works / costs which are not mentioned in item nomenclature but are necessary to complete the item shall be deemed to have been included in the rates quoted by the contractor for various items in the schedule of quantities. No adjustment of rates shall be made for any variation in quantum of incidental works due to variation / change in actual working drawings. Also, no adjustment of rates shall be made due to any change in incidental works or any other deviation in such element of work (which is incidental to the items of work and are necessary to complete such items in all respects) on account of the directions of Engineer-in-Charge. Nothing extra shall be payable on this account.

Unless otherwise provided in the Schedule of Quantities, the rates quoted by the Contractor shall be inclusive of carrying out the works at and / or upto all heights, lifts, leads and depths. The contractor shall make all arrangements for the same. Nothing extra shall be payable on this account.

All ancillary and incidental facilities required for execution of work like labour camp, stores, fabrication yard, offices for Contractor, watch and ward, temporary ramp, temporary structure for plants and machineries, installation and consumption charges of temporary electricity, telephone, water etc. required for execution of the work, liaison and pursuing for obtaining various No Objection Certificates, completion certificates from local bodies etc., protection works, barricading, testing facilities / laboratory at site of work, facilities for all field tests and for taking samples etc. during execution or any other activity which is necessary (for execution of work and as directed by Engineer-in-Charge), shall be deemed to be included in rates quoted by the Contractor, for various items in the schedule of quantities. Nothing extra shall be payable on these accounts.

INTEGRATED PROGRAM CHART

The Contractor shall prepare and submit to the Engineer-in-charge, an integrated program chart. The integrated program chart submitted by the contractor shall not have any discrepancy with the financial milestones attached in the contract agreement. The contractor shall execute the work according to the program submitted to and approved by the Engineer-in-Charge.

INTEGRATED SERVICE DRAWINGS

Before taking up the work, the contractor shall prepare integrated drawings for various civil and electrical works showing details of lay out plan including sectional elevations and submit the same for the approval of Engineer-in-Charge. Integrated drawings shall be prepared and submitted by the Contractor as per local Byelaws and as per the site conditions to facilitate convenient installation as well as maintenance. Nothing extra shall be payable on this account.

PROCEDURE FOR APPROVAL OF MATERIALS, SHOP FLOOR DRAWINGS AND COMMENCEMENT OF WORK

Within prescribed time period as per the mile stone the contractor shall visit the site and submit following documents for approval

- List of makes & Model numbers of all items of equipments and accessories for **Packages C1**
- Catalogues of the equipments to be supplied. along with design details, technical specification Pump safety certifications etc. as required for each product.
- Shop floor drawings of each package shall be submitted separately for approval. It is the responsibility of the tenderer to get the makes, models and shop floor drawings approved by the department. The makes and models offered should be as per the specification and BOQ of the NIT. The decision of Engineer-in –charge is final in this regard. The materials can be brought to site only after the due approval of drawings, makes, models from the department.

SUPERVISION OF WORK:

The Contractor shall depute Site Engineers & skilled workers as required for the work. He shall submit organization chart along with details of Engineers and supervisory staff. It shall be ensured that all decision-

Insertion : Nil Correction : Nil Omission : Nil AE(P)... / EE(C).....

making powers shall be available to the representatives of the Contractor at site (**IRMA, Anand**) itself to avoid any likely delays on this account. The Contractor shall also furnish list of persons for specialized works to be executed for various items of work. The Contractor shall identify and deploy key persons having qualifications and experience in the similar and other major works, as per the field of their expertise. If during the course of execution of work, the Engineer-in-Charge is of the opinion that the deployed staff is not sufficient or not well experienced; the Contractor shall deploy more staff or better-experienced staff at site to complete the work with quality and in stipulated time limit.

SPECIALIZED AGENCIES:

The main Contractor has to associate approved specialized agencies for the E&M components **Packages C1**, as listed in “information and instructions for contractors for e- Tendering” of NIT.

The contractor shall ensure that the all the specialized agencies under him shall fulfill all the conditions of previous clause (Supervision of work) for the entire period of the contract.

PROTECTIVE / SAFETY MEASURES:

Necessary protective and safety equipments shall be provided to the Site Engineer, workers & Supervisory staff by the Contractor at his own cost for use at site.

DISPLAY PERMISSIONS:

The Contractor shall display all permissions, licenses, registration certificates, bar charts, other statements etc under various labour laws and other regulations applicable to the works, at his site office.

TOOLS AND PLANTS:

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.

The Contractor shall maintain all the work in good condition till the completion of entire work. The Contractor shall be responsible for and shall make good, all damages and repairs, rendered necessary due to fire, rain, traffic, floods or any other causes. The Engineer-in-Charge shall not be responsible for any claims for injuries to person / workmen or for structural damage to property happening from any neglect, default, want of proper care or misconduct on the part of the Contractor or of any other of his representatives, in his employment during the execution of the work. The compensation, if any, shall be paid directly to the Department / authority / persons concerned, by the Contractor at his own cost.

For completing the work in time, the Contractor might be required to work in two or more shifts (including night shifts). No claim whatsoever shall be entertained on this account, not with-standing the fact that the Contractor may have to pay extra amounts for any reason, to the laborers 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.

SUBMISSION OF AS BUILT DRAWINGS:

The Contractor shall submit 3 sets of “AS BUILT” drawings, for all packages (laminated hard copies + soft copy) on completion of the work.

DEFECT LIABILITY PERIOD

The defect liability / free maintenance period shall be **Twelve months** after the date of completion of work of this contract agreement.

DEALING WITH INCONSISTENT RATES:

There are certain items of work which are appearing in Schedule of Quantities of more than one package like laying of conduits, cable laying etc. The Contractors shall quote the same rates for the identical items which appear in more than one place. If different rates are quoted by the tenderers for such identical items, the same shall be rationalized by considering the lowest quoted rate for such items, for evaluation and acceptance of tender.

Payment terms for E&M packages: The following percentage of contract rates shall be payable against the stages of work shown herein:

Stage	Items	On initial inspection of materials and delivery at site in good condition on pro-rata basis	On completion of pro-rata installation	On completion of testing and commissioning	Obtain NOC from fire authority and handing over
Package	Percentage of Rate on pro rate basis				
		As per work progress			
Package C1	Internal electrical installation & fans etc.	70	10	10	10

CHAPTER – 4 : SPECIAL CONDITIONS FOR E&M WORKS FOR COMPOSITE TENDER

The successful bidder shall execute the work packages as a part of the complete contract. He shall associate himself with an appropriate specialized agency as detailed below

Details of specialized agencies to be associated by the successful bidder for executing the E&M packages.

Package No.	Name of Packages	Associated Specialized Agency Acceptable to the Department
C1	Internal electrical installation & fans etc.	Eligibility as per Part-A& Eligibility criteria for E&M work

The main contractor will obtain written willingness from the **associated agencies, for all the E&M packages**, he intends to associate for the specific job as per criteria given in condition No. 4.1 above. The main contractor shall submit this Consent Letter duly completed and signed along with following information (duly signed by him and the associated Contractor) within prescribed period for the approval of competent authority of the **department or Engineer-In-Charge of E&M Services.**

- Name of the firms & addresses.
- Enlistment Status of the agencies registered / Annually pre-qualified with CPWD with number and date(Copy of enlistment order shall be enclosed)
- Valid up to (mention date):
- Monetary Limit of work:
- Whether debarred from tendering etc.:
- Consent Letter as per enclosed Performa:

The successful bidder / main contractor shall get their associate agency approved for each package of E&M components as below before start of the work.(**Associate agency should have submit appropriate credential for association**)

- a) The proposed associate agency shall be CPWD enlisted / annually prequalified in CPWD for the respective class and category of E&M component.
- b) The main contractor shall also enter in to a ‘Memorandum of understanding’ with the approved associate contractor / agencies on Non-Judicial Stamp Paper as per the enclosed Performa and submit this ‘MOU’ duly completed (duly signed by him and the associated Contractor) before commencement of work.

If for specific reasons the main contractor wants to change the associate contractor during the currency of the contract, he can be permitted to do so by the Engineer-in-Charge. The substitute should fulfil the requisite qualification as given in Para-4.1 above.

In the event of the concerned associate not performing satisfactory or not completing the work, the department can also direct the main contractor to remove the associate agency deployed on the work and ask him to deploy another associate contractor who fulfils the eligibility conditions. The new associate contractor will be bound to execute the left-over work without any loss of time or variation in cost to the department. Such associate agency shall be permitted after the approval of the Engineer in Charge and shall enter into a memorandum of understanding as per the enclosed proforma along with the main contractor.

The main agency will be responsible for all acts of omission and commission of the associate contractors including the changed one(s) as referred in Para 4.3 & 4.4 above.

Bills for the works shall be presented to the Executive Engineer (Electrical) for **Packages C1** by the main contractor. The Executive Engineer (Electrical) / CPWD / Vadodara Electrical Division shall examine them for pass and payment of Running Bills.

The main contractor shall be responsible for co-coordinating the activities of all the works and will ensure progress of all works as per the laid down program. The main contractor shall also arrange for proper storage of the

accessories at site and will be responsible for their watch ward.

The Associated Electrical Contractor or his representative is bound to sign the site order book as and when required by the Engineer-in-charge and will comply with the remarks therein.

The work completion certificate for E&M works shall be issued in favour of the associated E&M contractor engaged for the particular subhead.

The whole work will be treated as complete only when all the parts are completed and completion certificate of each component issued by the competent authority as per CPWD manual. The main contractor is responsible for making good of all defects as pointed out by the competent authority for **Packages C1** while inspecting the works for issue of completion certificate. The main contractor should **give warranty of Electrical Items for 24 months from the date of handing over installations to the client department**. The SD of the main contractor can be released only after the due certification from EE(E), CPWD, Vadodara that the system is in good working condition and there is no defect at the end of warranty period.

In case the main contractor wants to change the associate electrical contractor during the currency of the contract he shall obtain prior permission of the NIT accepting authority. The substitute should fulfil the requisite qualification as given elsewhere in the documents.

The contractor shall use any of the makes as per approved makes for use in the work after obtaining the approval of the Engineer-in-charge.

After the award of the work, the contractor has to take note of the inventory of electrical items as per agreement from the Assistant Engineer- in charge and conduit layout drawing pipe, cable lay out for external lighting drawing to be submitted to the Assistant Engineer (E) in charge well before the casting of slab for approval. The main contractor is responsible for necessary co-ordination in this regard.

After completion of the work the detailed completion plan to be submitted in hard copy as well as in AutoCAD format in CD's, along with test reports (as per CPWD General Specification for electrical work Part-I internal 2013). Without complying the above requirement, the work will be treated as incomplete.

All cutting and making holes and finishing the same in building should be responsibility of the main contractor.

Drawing of panels / feeder pillar should be approved before placing order and should be inspected by the Engineer from department before bringing the same to site.

All drawing should be submitted in AUTOCAD format only.

Air Conditioning work to be carried out with proper workmanship so that cutting of holes in the walls etc. to be made well in advance after due approval from the Asst. Engineer- in- charge at site. The main contractor should be responsible for co-ordination work and making good and proper finishing.

The completion Certificate for the whole work can be issued only after the completion of the all the electrical work as per agreement and specification only.

Department reserves the full right to check the genuineness of the material supplied at site. The materials should be brought to site only after getting it approved by the Engineer-in-charge well in advance. The test certificate, delivery challans for materials to be submitted along with material. If department feels that material to be tested by national test house or laboratories then the sample to be sent for testing. If the materials fail the testing, then cost of testing should be borne by the contractor.

The drawings like conduit layout need to be got approved from Assistant Engineer in charge well before casting slab. The drawings should be signed by the site engineer of the contractor and to be submitted to the office well in time for approval.

All drawings like panels, electrical distribution drawing to be submitted well before execution of work.

Any delay in the above will be in the account of contractor only.

It is the responsibility of the main contractor for the liasoning work with local bodies like electrical Inspector of state govt. for obtaining lift related clearances for installation, operation license after final installation, for final NOC for fire protection system for occupation of the building from Fire officer of state govt. as per local by- laws, obtaining service connection from local distribution company. The main contractor is responsible for all the liasoning work and nothing extra will be paid on this account. Any delay w.r.t. obtaining license / NOC / connection etc will be on account of main contractor only. Statutory inspection charges if any can be paid by the department on submission of vouchers / bills from appropriate statutory authorities.

Package C1 (Internal electrical installation & fans etc.)

PARTICULAR SPECIFICATION

The work shall be generally carried out in accordance with tender specifications and the following specification rules

- CPWD General Specification for electrical work 2023 Internal – Part- I & External-II 2023 and as amended up to date.
- Indian Electricity Act 2003 amended up to date
- National Electrical Code
- Indian Electricity Rule 1956 amended up to date
- National Building Code 2016.

All the items / equipments specifications shall confirm to relevant section of CPWD General Specification for electrical works 2023 Internal – Part- I & External-II 2023 and as amended up to date.

The work shall be generally carried out in accordance with tender specifications and the following specification rules

- a) CPWD General Specification for electrical work 2023 Internal – Part- I & External-II 2023 and as amended up to date.
- b) Indian Electricity Act 2003 amended up to date
- c) National Electrical Code
- d) Indian Electricity Rule 1956 amended up to date
- e) National Building Code 2005.

1. All materials required to be used on works shall be got approved from the Engineer-in-charge well in advance.
2. No T & P shall be provided.
3. Earthing, cement concrete works and testing of the installation shall be done in presence of the Engineer -in-charge or his authorized representative.
4. On completion of work the contractor shall test the installation and produce test certificate in accordance with the CPWD specification failing which a recovery @ 2.5% of Estimated cost subject to a ceiling of Rs. 15000 / - shall be made from the bill of the contractor.
5. Water and electricity shall be arranged by contractor for installation at site of work. However, on completion of the work, the Department shall provide electricity for the testing and final handing over of the installation.
6. G.I. pipes shall be medium class as per ISI specification & shall be of single piece without any Joints.
7. All debris at site shall have to be removed by the contractor before handing over the installation to the department.
8. General arrangement of the drawing of switch board shall be got approved from Engineer-in- charge before commencement of its fabrication.
9. The successful tenderer shall make his own arrangement for storage and watch and ward of materials whether the same brought by him or supplied by the department. He shall remain responsible for watch and ward of installation and other fittings till these are commissioned and handed over to the department.

Insertion : Nil Correction : Nil Omission : Nil AE(P)... / EE(C).....

10. Cement required for the work shall have to be procured by the Contractor himself. Electrical Contractor will make recess in brick work by cutting chases for provision of conduits and metal boxes according to the elevation drawings for electrical services. Electrical contractor will fix the conduits and boxes and there after close the chases up to the surface of masonry work in cement mortar 1:4 (1 cement :4 sand). Thereafter surface of chases shall be plastered and finished by the contractor to ensure smooth and even surface. Nothing extra shall be paid to the contractor for above operations irrespective of whether the chases are carried out before or after plastering of the wall.
11. Contractor is advised to visit the site of work to have an idea for the execution of work, failure to do so will not absolve him of responsibility to do the work as specified in agreement.
12. All the light and fans points should be properly earthed with 1.5 sq. mm, FRLS PVC insulated copper wire.
13. Termination of wiring inside the DB's and main board should be done by crimped Copper lugs connections, for which no extra payment will made.
14. Ceiling rose shall be provided for all point wiring.
15. All metallic parts must be properly bonded to the earth. Earthing lugs shall be provided to all copper earth wires and shall be fixed whenever required by means of anodized bolts and nuts.
16. Any damage made to wall ceiling etc. of the building made by the contractor shall have to be made good up to the original finish as per requirement within the tendered amount. Nothing extra will be paid on this account.
17. The quoted rate should be inclusive of all taxes, levies, works contract taxes, duties etc.
18. Concealed metal boxes & modular accessories shall be of same make.
19. Number of inspection boxes for conduit should be barest minimum, rather these should be avoided.
20. Steel Fish wire of proper gauge shall be drawn in the conduit while laying in the slab or on wall.
21. The shop drawing shall be got approved from the Engineer-in-charge before start of work.
22. Modular accessories shall be of same make.
23. Size of conduit shall be suitable for provision for insulated copper wire for earthing.
24. Before starting the fabrication, the contractor shall prepare drawings of the Main Board shall be got approved from the Engineer-in-Charge. The Panel Board shall be fabricated with sheet metal of thickness as specified in the schedule of quantity with powder coated painting.
25. The panel / Feeder Pillars shall be provided with M.V. danger notice / plates.
26. Lifting hooks and suitably louvers shall be provided in the panels.
27. The panel / feeder pillar is to be got fabricated from C.P.R.I. approved fabricator.
28. All MCCB should be Ics=Icu and have extended rotary handle with spreader link.
29. All MCBs should be "C" curve and have minimum breaking capacity rating 10 KA.
30. Any damage made to wall / ceiling etc of the building by the contractor shall have to be made good in the original finish within the tendered amount.
31. The contractor shall use any of the following makes for use in the work as below after obtaining the approval of the Engineer-in-charge.
32. Contractor shall warrantee for LED fittings for any manufacturing defect for a period of 1 year & Guarantee for driver & LED for a period of 5 years from the date of installation.
33. Contractor shall submit the LED fitting test report compliance applicable standard test IES LM 79 & LM80 for Models supplied at site.
34. The total system luminous efficacy (LM / Watt) shall not less than 100.

Insertion : Nil Correction : Nil Omission : Nil AE(P)... / EE(C).....

35. Contractor shall submit all the test results as per CPWD Specification along with completion certificate.
36. Completion plan to be submitted in triplicate.
37. The contractor must deploy Engineer and electrical Supervisor having proper certificate as per I.E. rule.
38. The contractor must submit labour license (if applicable) and ESI, EPF etc. as labour laws to the office before start of work.
39. All materials brought to site should be got approved from the Engineer-in-Charge before being used. Test reports of all the materials should be given. Department reserve the right to check the genuineness of the materials.
40. Labour laws as per the GCC 2023 must be strictly complied to.
41. Civil works like making repairs of walls and painting of walls after fixing of the outlets are to be done by the contractor. Completion will be issued only after the making the walss, ceiling floors etc. in good finished state. The rates quoted should be inclusive all rates nothing extra will be paid other than quoted rates.
42. The contractor must be submitting sketch drawing of pole before fabrication from the Eng-in-charge.
43. Payment shall be made to contractor as per budgetary / Authorization and L.O.C./Deposit available from client department. The contractor cannot claim anything extra due to the delay in payment of bills etc. As and when respective fund will be available payment will be made to the contractor.
44. **Guarantee / Warranty:** -The contractor will be required to submit the guarantee / Warranty of light fixtures from the manufacturer to the department and the contractor will stand performance guarantee of LED fittings / fixtures supplied and installed by them for a period **of 24 months** from the date of completion of the work / handing over of the installation whichever is earlier. A bank guaranty amounting to the total agreement value of LED fixtures shall be deposited by the bidder before release of PG the validity of bank guaranty should be **5 years** from the date of completion of work. It will be released after successful completion of guarantee / Warranty period of 60 months as mentioned above. If any light fixture fails to perform or is out of order will be replaced by the department out of available stock & the defective fixtures will be handed over to the contractor for replacement / repair. The defective light fixture will have to be repaired / replaced by the contractor with in a period of 15 day from the date of handing over otherwise the amount of this performance guarantee shall be forfeited absolutely. The guarantee / warranty shall be counted from the day of handing over of the building.

NOTE: - Only NABL Acc. Lab. Reports will be accepted as per respective IS Code / BIS for all items mentioned above.

Preferred Make List (for E&M Services)

LIST OF PREFERRED MAKES FOR ELECTRICAL AND MECHANICAL PACKAGES

The contractor shall obtain prior approval from the Engineer-in-Charge before placing order for any specific material. The contractor shall make a detailed submittal with catalogues and highlighted proposed specification.

Wherever applicable, the Engineer-in-charge may approve any material equivalent to that specified in the tender subject to proof being produced by the Contractor for equivalence to his satisfaction

The Engineer-In-Charge shall verify that manufacturers must have valid IS Certification as on date for materials wherever applicable. The contractor has to comply PPP (MII) 2017, Make in India Policy.

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

Sr. No.	Description of items / equipment's	Approved Makes
1.	PVC insulated FRLS Copper wire / Telephone wire / co-axial TV cable / Submersible cable	Polycab/ Havells/ finolex/RR Kabel
2	LED Fitting	Philips / Havells / Wipro / Crompton / Osram / Halonix/Jaquar
3	Chiimney	Faber / Glenn / Hindware

Note:-

The above makes of materials are subject to the compliance of make in India norms.

Make of the any other material not mentioned above shall got prior approval from the Engineer – in – charge before use at site.

Schedule of Quantity (Electrical)

Name of work: Renovation work of Vice Chancellor's Bungalow at IRMA Campus, Anand (Gujarat).

Sl.No	Description	Unit	Total Qty.	Rates.	Amount
1	Supply, Installation, Testing & Commissioning of 30-36 watt colour changing 3 in 1 LED Batten Light fitting 4 feet long on wall/ceiling suitable for operation on 230 volts , 50 hz AC power supply & connection with 3x1.5 Sq.mm. PVC insulated sheathed copper conductor wire etc. as required	Each	15	1303.00	19545
2	Supply, Installation, Testing & Commissioning of Decorative Wall Bracket light fitting including 7-10 watt LED Bulb on wall suitable for operation on 230 volts , 50 hz AC power supply & connection with 3x1.5 Sq.mm. PVC insulated sheathed copper conductor wire etc. as required	Each	10	2066.00	20660
3	Supply, Installation, Testing & Commissioning of surface mounted 15-20 watt colour changing 3 in 1 LED Light fitting on ceiling / wall suitable for operation on 230 volts , 50 hz AC power supply & connection with 3x1.5 Sq.mm. PVC insulated sheathed copper conductor wire etc. as required	Each	5	1570.00	7850
4	Supply, Installation, Testing & Commissioning of Kitchen Chimney on ceiling / wall suitable for operation on 230 volts , 50 hz AC power supply & connection with suitable size PVC insulated sheathed copper conductor wire having Chimney specification of Hood Dazzle BLDC, Width: 900 MM (3 Feet), Matt Black finish, Heat Autoclean, Gesture & 9 Speed Touch With Remote Control,, 1.5 W LED Lamp, Filter less, BLDC Motor, Suction Capacity 1500 Cub Mtr / hour, 150 Watt, Duct / Duct less Ventilation etc. as required	Each	1	54556.00	54556
	TOTAL				102611



Central Public Works Department



NIT No. : 02/EE(C)-II/Vadodara/2026-27

NAME OF WORK- *Renovation work of Vice Chancellor's Bungalow at IRMA Campus, Anand (Gujarat).*

PRICE BID

Name of the Contractor				
Name of component	Estimated cost	percentage above or below the estimated cost	% in Figures	Total Cost
Civil Work (Major Component)	Rs.13,85,561/-			
Electrical Work (Minor Component)	Rs.1,02,611/-			
GRAND TOTAL	Rs.14,88,172/-			
GRAND TOTAL IN WORDS		---		

