

INDEX

Name of Work: Construction of Semi Permanent Structure Office at 2nd floor (Semi Circular Portion) including internal Electrical works at CMFRI, Mangalore (Balance work)

Sl. No.	Details	Page no
1)	Index	1 – 2
2)	Percentage rate notice inviting tender (brief details)	3
	PART – A	4
3)	Information and instructions for Bidders for e tendering	5 – 9
4)	Notice Inviting e-Tender (CPWD-6)	10 – 15
5)	EMD - Annexure - A	16
6)	Form of Bank Guarantee - Annexure - B	17 - 18
7)	Section – I – Information And Instructions For Bidders	19-20
8)	Percentage rate contract for works (CPWD-7)	21-23
9)	Proforma of Schedules (Civil and E&M component of works)	24-32
	PART – B	33
10)	Special Conditions	34-56
11)	Particular Specification & Special Conditions for cement brought by the contractor	57-58
12)	Particular specification and special conditions for steel reinforcement brought by the contractor	59-61
13)	List of approved make of materials for Civil works	62-68
	PART – C	69
14)	Proforma Of Schedules (Electrical Works)	70-75
15)	Special conditions for all E & M components	76-82
16)	Additional conditions of contract & specifications for E&M works for development of site and bulk services	83-90
17)	Additional conditions and specification for the Internal & External electrical installations	91-94
18)	List of preferred make of materials (for Electrical works)	95-96
	PART –D	
19)	Schedule of Quantities	

Sl. No.	Details	Page no
	PART – E	
Certified that this NIT contains page numbers from 01 to 103 (One Hundred and Three pages only)		
	Assistant Engineer (C) MCSD-I, CPWD, Mangalore	Assistant Engineer (E) MyCED, CPWD, Mysuru
	Executive Engineer (C) MCD, CPWD, Surathkal	Executive Engineer (E) MyCED, CPWD, Mysuru

GOVERNMENT OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT
PERCENTAGE RATE NOTICE INVITING TENDER (BRIEF DETAILS)

NIT No.	:	11/EE/MCD/2026-27
Name of Work	:	Construction of Semi Permanent Structure Office at 2nd floor (Semi Circular Portion) including internal Electrical works at CMFRI, Mangalore (Balance work)
Estimated cost	:	Rs. 17,89,688/- (Civil: Rs. 15,51,462/- + Electrical: Rs. 2,38,226/-)
Earnest Money	:	Rs. 35,794/-
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 ECPT and the tendered amount.
Security Deposit	:	2.5% of bid value
Time Allowed	:	02 Months

The Bid forms and other details can be obtained from the website <https://etender.cpwd.gov.in>

Assistant Engineer (C)
MCSD-I, CPWD, Mangalore

Assistant Engineer (E)
MyCED, CPWD, Mysuru

Executive Engineer (C)
MCD, CPWD, Surathkal

Executive Engineer (E)
MyCED, CPWD, Mysuru

PART A

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

The Executive Engineer(C), Mangalore Central Division, Yogakshema Building, Beach Road, NITK Western Campus Surathkal, Mangaluru – 575025. Phone No. 0824-2478047, Email id: (ee-nitkspd1@cpwd.gov.in) on behalf of the President of India invites online **Composite percentage** rate bids from approved and eligible contractors of appropriate class enlisted with CPWD for the following.

S. No	Particulars	Particulars
1	NIT No.	11/EE/MCD/2026-27
2	Name of work	Construction of Semi Permanent Structure Office at 2nd floor (Semi Circular Portion) including internal Electrical works at CMFRI, Mangalore (Balance work)
3	Estimated cost put to bid	Rs. 17,89,688/- (Civil: Rs. 15,51,462/- + Electrical: Rs. 2,38,226/-)
4	Earnest Money Deposit	Rs. 35,794/-
5	Period of Completion	02 Months
6	Last date & time of Submission of bid	Up to 15.00 PM on 30/10/2026
7	Time and Date of opening of bid	At 15.30 PM on 30/10/2026

- The intending bidder must read the terms and conditions of CPWD-6 carefully. He should only submit his bid if he consider himself eligible and he is in possession of all the documents required.
- The contractor submitting the tender should read the schedule of quantities, additional conditions, additional specifications, particular specifications, CPWD - 6 and other terms and conditions given in the NIT and drawings. The bidder should also read the General Conditions of Contract for CPWD Works 2023(Construction works) with up to date correction slips, which is available as Government of India Publications. The NIT is also available with the office of Concerned Executive Engineer's. The contractor should also visit the site of work and acquaint himself with the site conditions before tendering. He should only submit his tender if he considers himself eligible and he is in possession of all the required documents. The following conditions, which already form part of the tender conditions, are specially brought to his notice for compliance while submitting the tender online. They are requested to comply following instructions.
 - Tenders with any condition including that of conditional rebates shall be rejected forthwith.
 - (a) The successful bidder shall be required to submit a **Performance Guarantee of 5% (Five Percent)** 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 ECPT and the tendered amount.

- (iii) GST, Work Contract Tax, Labour-Cess etc. as applicable shall be borne by the contractor himself. The contractor shall quote his rates considering all such taxes and hence their quoted rates should be inclusive of all the tax components.
- (iv) It will be obligatory on part of the Contractor/ Bidder to tender for and sign the tender documents for all the component parts. The department reserves right to accept tender in full or in part without assigning any reasons.

Criteria for Eligibility

The Contractors, who fulfill the following requirements, shall be eligible to apply.

- (i) The enlistment of the CPWD contractors in appropriate class should be valid on the last date of submission of bids.
 - (ii) 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.
 - (iii) The tendering jurisdiction for classes III, IV & V will be as per the CPWD enlistment rules 2026.
3. Information and instructions for bidder posted on website shall form part of tender document.
 4. The bid documents consisting of indicative architectural 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 in the office of Executive Engineer, CPWD, Mangalore and can also be downloaded from website <https://etender.cpwd.gov.in> or www.cpwd.gov.in free of cost.
 5. But the bid can only be submitted after deposition of original EMD including e- Bank Guarantee either in the office of Executive Engineer inviting bids or division office of any Executive Engineer, CPWD within the period of bid submission and uploading the mandatory scanned documents such as Insurance Surety Bonds, Account Payee Demand draft or Banker's Cheque or Fixed Deposit Receipts or/ and Bank Guarantee including e-Bank Guarantee (**for balance amount as prescribed**) from any of the Commercial Bank towards EMD in favour of **"Executive Engineer, Mysore Central Division, CPWD, Mysore"**, receipt for deposition of original EMD to division office of any Executive Engineer (including NIT issuing EE/ AE), CPWD and other documents as specified.

EMD shall be made / issued only from the account of the bidder / tenderer submitting the bid/tender. EMD made/ issued from the account other than that of the bidder/ tenderer submitting the bid, shall not be accepted

A part of earnest money (EMD) is acceptable in the form of bank guarantee also. In such cases, 50% of earnest money or Rs.20 Lakh whichever is less, will have to be deposited in shape prescribed above and balance can be accepted in form of Bank Guarantee issued by any of commercial bank. The bank guarantee submitted as a part of Earnest Money shall be valid for a period of 90 days or more from the last date of submission of bid which is to be scanned and uploaded by the intending bidders.

6. Those contractors who are not registered or have not updated their profile on the website mentioned above, are required to get registered / update their profile beforehand. The necessary training materials including the videos with step to step process are available on download section of <https://etender.cpwd.gov.in>
7. **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>**
8. On opening date, the contractor can login and see the bid opening process. After opening of tenders he will receive the competitor's bid sheets.
9. Contractor can upload documents in the form of JPG format and/or PDF format.
10. Contractor must ensure to quote rate in the column(s) meant for quoting rate in figure 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 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 bid submitted shall become invalid if:
 - a. The bidder is found ineligible.
 - b. The bidder does not deposit original EMD with division office of any Executive Engineer, CPWD.
 - c. The bidder does not upload the scan copies of all the documents stipulated in bid document.
 - d. 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
 - e. 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 /subhead in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.
12. The bid shall be opened on due date and time as mentioned in the tender document.

13. The department reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criterion.
14. **List of Documents to be scanned and uploaded within the period of tender submission:**

(i)	Insurance Surety Bond, Demand Draft/ Account Payee Banker's Cheque / FDR/ Bank Guarantee including e-Bank Guarantee of any commercial Bank against EMD. Drawn in favour of "Executive Engineer, Mysore Central Division, CPWD, Mysore".
(ii)	Copy of receipt for deposition of original EMD to division office of any Executive Engineer (including NIT issuing EE/AE), CPWD. (Annexure A)
(iii)	GST registration Certificate, if already obtained by the bidder. If the bidder has not obtained GST registration as applicable, then shall scan and upload following under taking along with other 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 the CPWD, whichever is earlier, failing which I/We shall be responsible for any delay in payments which will be due towards me/us on a/c of the work executed and/or for any action taken by CPWD or GST department in this regard.
(iv)	Copy of valid enlistment establishing approved and eligible contractors of CPWD.
(v)	The agency must upload the ERP training Certificate regarding successful completion of ERP training from ERP portal in the module of RFI.

15. All modifications/ addendums/ corrigendum issued regarding this bidding process, shall be uploaded on website only and shall not be published in any Newspaper.
- After submission of the bid the agency can re-submit revised bid any number of times but before last time and date of submission of bid as notified.
- While submitting the revised bid, agency can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) in case of item rate tender and / or revise the percentage in case of percentage rate tender, within the last time and date of submission of bid as notified.

**Executive Engineer,
Mangalore Central Division
CPWD, Mangalore
(For and on behalf of President of India)**

THE MINIMUM ELIGIBILITY CRITERIA FOR SPECIALIZED WORKS
WHEREVER APPLICABLE

A) CIVIL COMPONENT WORKS:

Sl. No	Component of specialized Civil works	Approximate cost of specialized work in Rs.	Eligibility requirement of the specialized agency
NIL			

B) ELECTRICAL & MECHANICAL COMPONENT WORKS:

Sl. No	Component of E&M works	Estimated cost put to tender in Rs. (In Crores)	Eligibility
For details of specialized agencies to be associated for specialized works of E & M Component works (Minor Component of Tender), please refer Part-C of the tender document.			

CPWD-6 FOR e-TENDERING



1. The Executive Engineer, CPWD, Mangalore on behalf of President of India invites online percentage rate composite bids from approved and eligible contractors of CPWD for the work **Construction of Semi Permanent Structure Office at 2nd floor (Semi Circular Portion) including internal Electrical works at CMFRI, Mangalore (Balance work)**

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. 17,89,688/- (Civil: Rs. 15,51,462/- + Electrical: Rs. 2,38,226/-)** 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.etender.cpwd.gov.in or 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 Months** from the date of start as defined in **schedule 'F'** or from the date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.
4. The site for the work is available.
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 from website www.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. No post-tender modification is allowed by the tenderers negotiations, if required. In case, any except through tenderer does so, the tender will be rejected and the tenderer will be debarred for future tendering in CPWD for two years by the concerned enlisting authority (in case of CPWD enlisted contractor) and by the SE Mysuru (in case of non-enlisted contractor).
7. While submitting the revised bid, contractor can revise the **percentage rate** items any number of times but before last time and date of submission of bid as notified.
8. Earnest Money in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt (FDR), Banker's Cheque or Bank Guarantee including e-Bank Guarantee (for balance amount as prescribed) from any of the Commercial bank (Drawn in favour of **"Executive Engineer, Mysore Central Division,**

CPWD, Mysore"). 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 deposit 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 upto 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 Lakh, whichever is less, shall have to be deposited in shape prescribed above, and balance may be deposited in shape of Bank Guarantee of any scheduled bank having validity for **Ninety days or more** from the last date of receipt of bids which is to be scanned and uploaded by the intending bidders.

The earnest money given by all the tenderers except the lowest tenderer shall be refunded immediately after the expiry of stipulated bid validity period or immediately after acceptance of the successful bidder, whichever is earlier. However, in case of two/ three bid system, earnest money deposit of bidders unsuccessful during technical bid evaluation etc. should be returned within 30 days of declaration of result of technical bid evaluation.

Copy of Enlistment Order and certificate of work experience and other documents as specified in the NIT 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 shall have to be submitted physically by the lowest bidder within a week after opening of bid in the office of bid 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 documents scanned and uploaded are found in order.

9. The bid submitted shall be opened at **15.30 PM on 30/10/2026**
10. The bid submitted shall become invalid and e-tender processing fee shall not be refunded if:
 - (i) The bidder is found ineligible.
 - (ii) The bidder does not deposit original EMD with division office of any Executive Engineer, CPWD.
 - (iii) The bidder does not upload scanned copies of all the documents stipulated in the bid document.
 - (iv) 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**
 - (v) **If a tenderer quotes nil percentage in percentage 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
 - a) The successful bidder shall be required to submit a Performance Guarantee of 5% (Five Percent) 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 ECPT and the tendered amount.

This guarantee shall be in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt (FDR) 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 deposit by the contractor shall be forfeited automatically without any notice to the contractor. The Earnest money deposited along with the bid shall be returned after receiving therefore said performance guarantee.

The contractor whose bid is accepted will also be required to furnish either copy of applicable licenses/ registrations or proof of applying for obtaining labour licenses, registration with EPFO, ESIC and BOCW Welfare board including Provident Fund Code No. if applicable and also ensure the compliance of aforesaid provisions by the sub-contractors, if any engaged by the contractor for the said work and Programme Chart (Time and progress) within the period specified in Schedule F.

12. The description of the work is as follows "**Construction of Semi Permanent Structure Office at 2nd floor (Semi Circular Portion) including internal Electrical works at CMFRI, Mangalore (Balance work)**"

The intending bidders are required to update their profile in CPWD e-tender portal and to upload their bids well in advance of last date of submission of tender. Any issue related to updating profile/ uploading tender can be resolved through the concerned Executive Engineer/ Assistant Engineer (Phone no. **0824-2478047 e-mail ID:ee-nitkspd1@cpwd.gov.in**) or ERP help line no 18001893286 or email ID cpwd.support@techmahindra.com. The e-tendering bidders are also advised not to wait to raise any issue till the last date of submission of bid in their own interest.

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.

Intending bidders shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidders shall be responsible for arranging and maintaining at their 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 bidders 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 bidders 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 to 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 bidders shall be bound to

perform the same at the percentage rate quoted.

16. The contractor 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 a Divisional Accountant or as an officer in any capacity between the grades of Chief 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 gazette officer in the Central Public Works Department or in the Ministry of Housing and Urban Affairs. Any breach of this condition by the contractor would render him liable to be debarred for a period up to 2 years from tendering in CPWD as decided by the accepting authority as mentioned in schedule F and his decision will be excepted from clause 25.
 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 previous 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 **30 days** from the date of opening of bids,
 - (i) If any tenderer withdraws his tender within 7 days after last date and time (24 hours basis) 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 after expiry of 7 days after last date and time (24 hours basis) 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) Withdrawal of the tender, by the tenderer, shall only be made through e-tender portal. Any other method i.e. through letter / e-mail etc. shall not be considered.
 - (iv) 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 percentage rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.
 - b) Standard C.P.W.D. Form 7 or other Standard C.P.W.D. Form as mentioned.
- 20.1 For Composite Bids**
- 20.1.1 The Executive Engineer in charge of the major component has called bids for the composite work.
 - 20.1.2 The bid document will include following four parts:

Part A: CPWD-6, CPWD-7 including schedule A to F for the major component and minor component of the work, Standard General Conditions of Contract for CPWD 2023 for Construction works as

amended/ modified upto last date of submission of bids.

Part B: General/ special conditions, particular specifications, list of preferred makes of materials, etc. applicable to major component of work.

Part C: General/ specific conditions, specifications, list of preferred makes of materials, etc applicable to minor component of work.

Part D: Schedule of quantities applicable to major and minor component of the work

Part E: Architectural drawings and Structural Drawing of the work.

- 20.1.3 The bidder must associate himself, with agencies as per NIT conditions.
- 20.1.4 The eligible bidder shall quote percentage below / above / at par of components of the work.
- 20.1.5 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. EE of major component will operate part A, part B and part D of the agreement. EE/DDH in charge of minor component(s) shall operate Part C & Part D along with Part A of the agreement.
- 20.1.6 Entire work under the scope of composite bid including major and all minor components shall be executed under one agreement.
- 20.1.7 Security Deposit will be worked out separately for each component corresponding to the estimated cost of the respective component of works.
- 20.1.8 The main contractor has to associate agencies for execution of 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).
- 20.1.9 In case the main contractor intends to change any of the above agency/agencies during the operation of the contract, he shall obtain prior approval of Engineer-in-charge of 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.
- 20.1.10 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 Engineer-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.
- 20.1.11 Running payment for the major component shall be made by EE of major discipline to the main contractor. Running payment for minor components shall be made by the Engineer-in-charge of the discipline of minor component directly to the main contractor. The CMB shall be maintained independently by Engineer-in-charge of major and minor components.
- 20.1.12A. 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.

- 20.1.13 It will be obligatory on the part of bidder to sign the contract document for all components before the first payment is released.
- 20.1.14 In case of reduction in scope of work no claim on account of reduction in value of work, loss of expected profit, consequential overheads etc. shall be entertained.

ANNEXURE - A

Receipt of deposition of Original EMD in the prescribed forms as mentioned in NIT

Receipt No. _____ dated _____

1.	Name of work	:	Construction of Semi Permanent Structure Office at 2nd floor (Semi Circular Portion) including internal Electrical works at CMFRI, Mangalore (Balance work)
2.	NIT No.	:	11/EE/MCD/2026-27
3.	Estimated Cost	:	Rs. 17,89,688/- (Civil: Rs. 15,51,462/- + Electrical: Rs. 2,38,226/-)
4.	Amount of Earnest Money Deposit	:	Rs. 35,794/-
5.	Last date of submission of bid	:	Upto 15.00 PM on 30/10/2026

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

1. Name of Contractor :
2. Form of EMD
.....#
3. Amount of original Bank :
guarantee as Earnest
Money Deposit#
4. Date of submission of EMD :
.....#

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

ANNEXURE - B

On Non-judicial stamp paper of minimum Rs. 100/-

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

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

1. Whereas the **Executive Engineer, CPWD**, Mangalore CPWD on behalf of the President of India (hereinafter called "The Government") has invited bids under(NIT number)..... dated for..... " **Construction of Semi Permanent Structure Office at 2nd floor (Semi Circular Portion) including internal Electrical works at CMFRI, Mangalore (Balance 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, CPWD**, Mangalore on behalf of the President of India (hereinafter called "The Government") has entered into an agreement bearing number..... with(name and address of the contractor) (hereinafter called "the Contractor") for execution of work of " **Construction of Semi Permanent Structure Office at 2nd floor (Semi Circular Portion) including internal Electrical works at CMFRI, Mangalore (Balance work)**" The Government has further agreed to accept an irrevocable Bank Guarantee for Rs. (Rupees only) valid upto (date)..... as **Performance Guarantee/Security Deposit/Mobilization Advance** from the said Contractor for compliance of his obligations in accordance with the terms and conditions of the agreement.

2. We, ... (indicate the name of the bank) (hereinafter referred 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.

3. We, ... (indicate the name of the Bank)..... do here by undertake to pay the amount due and payable under this guarantee without any demur, merely on a demand from the Government stating that the amount claimed is required to meet the recoveries due or likely to be due from the said Contractor. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. (Rupees only).

4. We, ... (indicate the name of the Bank) , further undertake to pay the Government any money so demanded notwithstanding any dispute or disputes raised by the contractor in any suit or proceeding pending before any court or Tribunal, our liability under this Bank Guarantee being absolute and unequivocal. The payment so made by us under this Bank Guarantee shall be a valid discharge of our liability for payment there under and the Contractor shall have no claim against us for making such payment.

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

6. We, ... (indicate the name of the Bank) further agree that the Government at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor at the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee the Government may have in relation to the Contractor's liabilities.

7. This guarantee will not be discharged due to the change in constitution of the Bank or the Contractor.

8. We, ... (Indicate the name of the Bank) undertake not to revoke this guarantee except with the consent of the Government in writing.

9. This Bank Guarantee shall be valid up to Rs..... unless extended on demand by the Government. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs..... (Rupees..... Only) and unless a claim in writing is lodged with us within the date of expiry or extended date of expiry of this guarantee, all our liabilities under this guarantee shall stand discharged.

Date:.....

Witnesses:.....

1. Signature.....
Name and address

Authorized signatory
Name
Designation
Staff code no.
Bank seal

2. Signature.....
Name and address

*Date to be worked out on the basis of validity period of 90 days 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

SECTION – I
INFORMATION AND INSTRUCTIONS FOR BIDDERS (REGARDING FILLING AND
SUBMISSION OF VARIOUS BID DOCUMENTS SPECIFIED HEREINAFTER)

1.0 GENERAL:

- 1.1 All information called for in the enclosed forms should be furnished against the relevant columns in the forms. If for any reason, information is furnished on a separate sheet, this fact should be mentioned against the relevant column. Even if no information is to be provided in a column, a “nil” or “no such case” entry should be made in that column. If any particulars / query is not applicable in case of the bidder, it should be stated as “not applicable”. The bidders are cautioned that not giving complete information called for in the application forms or not giving it in clear terms or making any change in the prescribed forms or deliberately suppressing the information may result in the bidder being summarily disqualified. Bids made in any other method than specified e-tendering process and those received late will not be entertained.
- 1.2 References, information and certificates from the respective clients certifying suitability, technical knowledge or capability of the tenderer should be signed by an officer not below the rank of Executive Engineer or equivalent.
- 1.3 The bidder may furnish any additional information which he thinks is necessary to establish his capabilities to successfully complete the envisaged work. He is, however, advised not to furnish superfluous information.

2.0 Definitions

- 2.1 In this document the following words and expressions have the meaning hereby assigned to them:
- 2.2 **Employer:** Means the President of India, acting through the Executive Engineer, CPWD, Mangalore.
- 2.3 **Contractor/ Bidder/ Agency/ Firm/ Applicant:** Means the individual, proprietary firm, firm in partnership, limited company private or public or corporation duly enlisted as approved and eligible contractor of CPWD in appropriate class.
- 2.4 “Year” means “Financial year” unless stated otherwise.

3.0 Method of application:

- 3.1 If the bidder is an individual, the application shall be signed by him above his full type written name and current address.
- 3.2 If the bidder is a proprietary firm, the application shall be signed by the proprietor above his full typewritten name and the full name of his firm with its current address.
- 3.3 If the bidder is a firm in partnership, the application shall be signed by all the partners of the firm above their full typewritten names and current addresses, or, alternatively, by a partner holding power of attorney for the firm. In the latter case a certified copy of the power of attorney should accompany the application. In both cases a certified copy of the partnership deed and current address of all the partners of the firm should accompany the application.
- 3.4 If the bidder is a limited company or a corporation, the application shall be signed by a duly authorized person holding power of attorney for signing the application accompanied by a copy of the power of attorney. The bidder should also furnish a copy of the Memorandum of Articles of Association duly attested by a Public Notary.

4.0 FINAL DECISION MAKING AUTHORITY

The Employer reserves the right to accept or reject any bid and to annul the process

and reject all bids at any time, without assigning any reason or incurring any liability to the bidders.

5.0 SCOPE OF WORK

The details of the work given in Section-I are provisional. They are liable to change and must be considered only as advance information to assist the bidder.

6.0 SITE VISIT

The bidder is advised to visit the site of work, at his own cost, and examine it and its surroundings to himself collect all information that he considers necessary for proper assessment of the prospective assignment.

7.0 CRITERIA FOR ELIGIBILITY

The Contractors, who fulfill the following requirements, shall be eligible to apply.

7.1 Criteria for eligibility

- (i) The enlistment of the contractors with CPWD in appropriate class and category should be valid on the last date of submission of bids.
- (ii) 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.

8.0 AWARD CRITERIA

8.1 The employer reserves the right, without being liable for any damages or obligation to inform the bidder, to:

- (a) Amend the scope of work and value of contract.
- (b) Reject any or all the applications without assigning any reason.

8.2 Any effort on the part of the bidder or his agent to exercise influence or to pressurize the employer would result in rejection of his bid. Canvassing of any kind is prohibited.

**Executive Engineer,
Mangalore Central Division
CPWD, Mangalore
(For and on behalf of President of
India)**

**GOVERNMENT OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT**

STATE: Karnataka **REGION:** Bangalore
BRANCH: B&R **DIVISION:** Mangalore.

COMPOSITE PERCENTAGE RATE TENDER & CONTRACT FOR WORKS

Tender for the work of: **Construction of Semi Permanent Structure Office at 2nd floor (Semi Circular Portion) including internal Electrical works at CMFRI, Mangalore (Balance work)**

- (i) To be uploaded online by **15.00 PM on 30/10/2026** through website **www.etender.cpwd.gov.in** or www.cpwd.gov.in to Executive Engineer, CPWD, Mangalore.
- (ii) The Bid to be opened online in presence of tenderers who may be present at **15.30 PM on 30/10/2026** in the office of Executive Engineer, CPWD, Mangalore.

T E N D E R

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 and 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 respects with the Specifications, Designs, Drawings and instructions in writing as referred 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.

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

I/We have deposited EMD for the prescribed amount in the office of concerned Executive Engineer as per the bid document.

A copy of earnest money deposit receipt of prescribed amount deposited in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee (as prescribed) issued by a Commercial Bank, is scanned and uploaded (strike out as the case may be).

If I / We, fail to furnish the prescribed performance guarantee within prescribed period, I / We agree that the said President of India or his successors, in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I / We fail to commence work as specified, I / We agree that President of India or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said performance guarantee absolutely. The said performance guarantee shall be a guarantee to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at

the rates to be determined in accordance with the provision contained in Clause 12.2, 12.2(C) and 12.3 of the tender form.

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

I / We undertake and confirm that eligible similar work(s) has/ have not been got executed through another contractor on back-to-back basis. Further that, if such a violation comes to the notice of Department, then I/we shall be debarred from the 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 therefrom to any person other than a person to whom I/we/am/are authorized to communicate the same or use the information in any manner prejudicial to the safety of the State.

Dated:

Witness: -

Address: -

Occupation

Signature of Contractor **

Postal Address: - **

Telephone No. Fax:

E-Mail:

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)

Dated: -..*** For & on behalf of the President of India.

Signature.....

Designation.....

*** To be filled in by the Executive Engineer

** To be filled in by the contractor

PROFORMA OF SCHEDULES
(Civil and E&M component of works)

	SCHEDULE 'A' (Schedule of Work)	:	As per NIT Document
	SCHEDULE 'D' Extra schedule for specific requirements / document for the work, if any	:	As per bid document (General/ Specific Conditions Specification of Civil and Electrical works)
	SCHEDULE 'E' Reference to General Conditions of contract	:	Applicable GCC is <u>General Conditions of Contract 2023 (Construction Works)</u> as modified / corrected up to the previous day of last date of submission of bids
	NAME OF WORK	:	Construction of Semi Permanent Structure Office at 2nd floor (Semi Circular Portion) including internal Electrical works at CMFRI, Mangalore (Balance work)
	Estimated cost of work	:	Rs. 17,89,688/- (Civil: Rs. 15,51,462/- + Electrical: Rs. 2,38,226/-)
(i)	Earnest Money	:	Rs. 35,794/-
(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 ECPT and the tendered amount.
(iii)	Security Deposit	:	2.50% of tendered value
	SCHEDULE 'F'		
	GENERAL RULES & DIRECTIONS		
(i)	Officer inviting tender	:	Executive Engineer, CPWD, Mangalore or his successor thereof.

	DEFINITIONS: -		
2(v)	Engineer -in- Charge for Civil component	:	Executive Engineer, CPWD, Mangalore or his successor thereof.
	Engineer -in- Charge for E & M component	:	Executive Engineer(E), CPWD, Mysore or his successor thereof.
2(vii)	Accepting Authority	:	As per Delegation of financial powers
2(x)	Percentage on cost of materials and Labour to cover all overheads and profits	:	15%
2(xi)	Standard Schedule of Rates for Civil	:	Delhi Schedule of Rates–2023 for Civil with correction slips upto last date of submission of tender including extension, if any. (With prevailing cost index and correction factor (1.2051*0.973) 17.25%applicable for Mangalore)
	Standard Schedule of Rates: for E&M	:	As per NIT Document In Part C
2(xii)	Department	:	Central Public Works Department
9(ii)	Standard CPWD Contract Form	:	Standard CPWD Contract GCC 2023 (Construction works) & Form GCC 2023 & CPWD-7 as amended / modified Form 7 modified and corrected up to the previous day of last date of submission of bid.
	Clause 1		
(i)	Time allowed for submission of Performance Guarantee, Programme Chart including labour deployment schedule and procurement schedule for Civil and E&M work (Time and Progress) and Applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board or proof of applying there of 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.	:	03 Days
Within 07 days from the date of award of work, the Contractor has to submit a detailed programme chart indicating target completion dates for all Civil and E&M activities, along with intermediate dates from his all consultants, sub-consultants,			

vendors, sub-vendors, sub-contractors, and associated agencies.

The Contractor shall also submit a detailed procurement schedule for all Civil and E&M materials, indicating the dates of finalization of make/model and the scheduled dates of supply at site and also a labour deployment schedule covering all Civil and E&M activities shall be submitted.

The programme chart shall be deemed valid only if submitted along with all the above details. Any programme chart submitted without the required details shall be treated as invalid.

If the Contractor fails to submit the programme chart within 07 days from the date of award of work, or submits an incomplete/invalid programme chart, recovery at the rate of ₹10,000/- (Rupees Ten Thousand only) per day shall be made without notice, from the 8th day onwards until a complete and valid programme chart, along with all required schedules, is submitted.

	Clause 2		
	Authority for fixing compensation under Clause- 2	:	Superintending Engineer, CPWD, Mysore or successor thereof or any other authority as notified by the CPWD Directorate from time to time.
	Clause 5		
(i)	Authority to convey the decision of shifting of milestone and extension of time.	:	Executive Engineer, CPWD, Mangalore or his successor thereof.
(ii)	Authority to decide rescheduling of milestone and extension of time.	:	Superintending Engineer, CPWD, Mysore or his successor thereof
(iii)	Shifting of date of start in case of delay in handing over of site.	:	Superintending Engineer, CPWD, Mysore or his successor thereof
(iv)	Time allowed for execution of work	:	02 Months
(v)	Number of days from the date of issue of letter of acceptance for reckoning date of start	:	10 days or date of handing over of site whichever is later.

DETAILS OF MILESTONES

The Contractor shall submit a Programme Chart (Time and Progress) for each mile stone along with performance guarantee and get it 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 and further to ensure good progress during the execution of the work, the contractor shall in all cases in which the time allowed for any work, exceeds one month (save for special jobs for which a separate programme has been agreed upon) complete the work as per mile stones given below.

Sl No	Description of milestone (physical)	Time allowed (from date of start)	Amount to be withheld in case of non achievement of milestone
1	1/4th (of the whole work)	1/4th (of the whole work)	In the event of not achieving the necessary progress as assessed from the running payments, 1% of the tendered value of work will be withheld for failure of each mile stone.
2	1/2 (of the whole work)	1/2 (of the whole work)	
3	3/4 (of the whole work)	3/4 (of the whole work)	
4	Full	Full	

Note: The withhold milestone will only be released when subsequent milestone is achieved within the specified time. For EOT and Rescheduling of milestones, provisions as per GCC shall be followed. The Engineer-incharge may release withheld amount on account of non achievement of milestone(s) against Bank Guarantee/FDR of an equivalent amount valid upto stipulated date of completion (to be extended further, if required) issued by a commercial bank.

Authority to decide

1	To convey the decision of shifting of Mile stone and Extension of time.	Executive Engineer, CPWD, Mangalore or his successor thereof.
2	To decide Rescheduling of mile stones and extension of time	Superintending Engineer, CPWD, Mysore or his successor thereof
3	Shifting of date of start in case of delay in handing over of site.	Superintending Engineer, CPWD, Mysore or his successor thereof

PROFORMA OF SCHEDULES

Clause 5 Schedule of handing over of site

Full site available

Clause 5.1 (iv)	
Clause 6 (Electronic Measurement Book):	Applicable – Through RFI Portal of ERP
Clause-7:	
Gross work to be done together with net payment / adjustment of for advances for material collected, if any, since the last such payment for being eligible to interim payment (for Civil work)	8 Lakh
Note: 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). The contractor shall neither have any right or claim any extra towards delay in interim payments nor any claim for EOT.	
Clause-7A:	
Whether Clause 7A shall be Applicable	Yes, applicable. (DG/CON/Construction 2023/15 Dated 31.01.2025) No Running Account Bill shall be paid for the work till the applicable labour licences, registration from EPFO, ESIC and BOCW Welfare Board, (whatever applicable) are submitted by the contractor to the Engineer-in-charge.
Clause-8:	
Competent authority to inspect & issue final completion certificate	Major component (Civil Works): Executive Engineer, CPWD, Mangalore or his successor thereof.
	Minor component (E&M Works): Executive Engineer(E), CPWD, Mysore or his successor thereof.
Clause-10C:	
Whether Clause 10C shall be applicable	Applicable.
Component of labour expressed as percent of value of work:- Civil : 25% and E&M : 20%	
Clause-10CC:	
Whether clause 10CC shall be applicable	Not Applicable
Clause-11:	

Specifications specified in	Detailed Specifications, Particular Specifications etc. included in this bid document
Specifications to be followed for execution of work for Civil works	CPWD Specifications 2019 Vol.1 and Vol.2 with corrections slips up to the last date of submission/uploading of tender.
Specifications to be followed for execution of work for Electrical works	As per NIT Document In Part C
Others	All relevant BIS codes of practice, National Building Construction Standards 2026, Energy Conservation Building Code (ECBC), Structural & Non- structural elements for Fire safety, Harmonized Guidelines and Standards for Universal Accessibility in India, The Indian Electricity Act, Indian Electricity Rules, Central Electricity Authority rules, Local Bodies & Statutory bodies Norms and all other relevant Codes, Guidelines, Regulations, Recommendations, Norms etc. It includes all volumes and latest version of all publications including all revisions and amendments.

Note:

1. All above specifications shall be applicable along with all correction slips, amendments up to the previous day of the last date of submission/ uploading of Bid.
2. In the event of any discrepancy, ambiguity, variation, etc. in various contract provisions / documents, the following order of precedence shall apply, and the Contractor shall comply accordingly:
 - (i) Description of Schedule of Quantities
 - (ii) Tender Drawings
 - (iii) Particular Specifications and Special Conditions, if any.
 - (iv) CPWD Specifications.
 - (v) General Conditions of Contract 2023 for construction works of CPWD
 - (vi) Indian Standard Specifications of B.I.S., ASTM, BS, National Building Code 2016 or other foreign origin codes mentioned in tender document
 - (vii) Manufacturers' specifications & as decided by Engineer-in-charge.
 - (viii) Sound Engineering practices. Standard text books.
 - (ix) If none of the above is available decision of Engineer-in-Charge with prior approval of accepting authority will be final.

Clause-12:

Type of work		Construction work
12.2 (C)	Deviation limit beyond which Clauses 12.2 (C) shall apply for building work.	100% (Hundred percent)
	(i) Deviation Limit beyond which clauses 12.2 (c)	100% (Hundred percent)

	shall apply for foundation work (except items mentioned in earth work subhead in DSR and related items)	
	Deviation Limit for items mentioned in earth work Subhead of DSR and related items	100% (Hundred percent)
(The completion cost of construction work shall not exceed 1.25 times of the contract amount. Work executed beyond above this limit shall neither be recorded nor paid)		
Clause-16:		
Competent Authority for deciding reduced rates.	Superintending Engineer CPWD, Mysore or successor thereof	
Clause 17:		
Defect Liability period:	12 months from the date of completion of work	
Clause-18:		
List of mandatory machinery, tools & plants to be deployed by the contractor at site (Civil and E&M)	As per details attached in the relevant pages of this bid document	
Clause 19: 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.		
Clause 19C, 19D,19G		Applicable.
Clause 19C	Rs. 1000/- for each default	Authority to decide penalty for each default. Engineer in charge of respective discipline/ any other authority as notified by the CPWD Directorate.
Clause 19D	Rs. 2500/- for each default	
Clause 19G	Rs. 2500/- for each default per day	
Clause 19 (K)	Rs. 500/- per tradesman per day	
Enhanced penalty per day for Continues default	Rs. 5000/-	
Clause 24		
Life Cycle Cost		The contractor shall be responsible for safety, quality and soundness of the buildings including structural elements beyond maintenance period. The contractor shall have obligation to rectify such defects minimum upto 5(Five) years

	from the date of completion of the work.
Clause-25:	
Conciliator	The Additional Director General(B), CPWD, Bangalore or successor thereof
Arbitrator Appointing Authority	The Superintending Engineer, CPWD, Mysore or successor thereof.
Place of Arbitration	Bangalore or as decided by the Arbitration Appointing Authority

Clause-32(i): Requirement of Technical Representative(s) and Recovery Rates							
Sl. No.	Minimum Qualification of Technical Representative	Discipline	Designation	Minimum Experience	Number of (major + minor component)	Rate at which recovery shall be made from contractor in the event of non-deployment.	
						Figures	Words
1	Graduate Engineer or Diploma Engineer	Civil+ Electrical	Project Planning/quality/ Billing Engineer	2 or 5 Years respectively	1+1	Rs.15000/- per month	Rs. Fifteen Thousand only per month.

Note:

- 1) Assistant Engineers retired from government service who are holding Diploma will be treated at par with graduate engineers.
- 2) Diploma holder with minimum 10 years relevant experience with a reputed construction co. can be treated at par with Graduate Engineers for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50% of requirement of degree engineers.
- 3) The Contractor shall submit a certificate of employment of the technical representative(s) (in the form of copy of Form-16 or CPF deduction issued to the Engineers employed by him) along with every Running account bill/final bill and shall produce evidence if at any times so required by the Engineer-in-charge.
- 4) The Recovery on account of non-deployment of technical staff shall be made by the Engineer in Charge of the respective Discipline / Component.

Clause-38 :		
i)	Schedule/statement for determining	Delhi Schedule of Rates 2023

	theoretical quantity of cement & bitumen based on Delhi Schedule of Rates	with Amendments/ Correction slips up to last date of submission of Tender.
ii)	Variations permissible on theoretical quantities:	
(a)	Cement For works with estimated cost put to tender not more than Rs.25 lakh For works with estimated cost put to tender more than Rs.25 lakhs	3% Plus/Minus 2% Plus / minus.
(b)	Bitumen for all works.	2.5% Plus only and nil on minus side.
(c)	Steel reinforcement and structural steel sections for each diameter, section and category.	2% Plus/minus
(d)	All other materials	Nil

RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION

Sl. No.	Description of Item	Rates in figures and words at which recovery shall be made from the Contractor	
		Excess beyond permissible variation	Less use beyond permissible variation)
1.	Ordinary Portland Cement (OPC)	Nil	10% extra rate over the invoice rate at the time of execution of the items involving the materials as specified.
2.	Portland Pozzolana Cement (PPC)		
3.	Steel Reinforcement TMT Bar of all diameters		
4.	Structural steel		

Clause-41

The security deposit of the work shall be refunded if no labour complaint has been received from the labour officer till the due date of its payment as per clause 17 of applicable GCC. If a labour complaint is received during this period, the Engineer-in-charge shall, after issue of notice in this regard to the contractor, deduct the amount required to settle the complaint from his security deposit and refund the balance amount.

PART B

SPECIAL CONDITIONS**1. GENERAL**

- 1.1 The Contractors are advised to inspect and examine the site and its surroundings and satisfy themselves with the nature of site, the means of access to the site, the constraints of space for stacking material / machinery, labour etc., constraints put by local regulations, if any, weather conditions at site, general ground / subsoil conditions etc. or any other circumstances which may affect or influence submission of their bids. The site is available for work. Any discrepancy in the architectural drawings shall be immediately brought to the notice of the Engineer-in-charge.
- 1.2 The Contractor shall, if required by him, before submission of the tender, inspect the architectural drawings in the Office of the concerned Executive Engineer. The department shall not bear any responsibility for the lack of knowledge and also the consequences, thereof to the Contractor. The information and data shown in the drawings and mentioned in the bid documents have been furnished, in good faith, for general information and guidance only. The Engineer-in-Charge, in no case, shall be held responsible for the accuracy thereof and/or interpretations or conclusions drawn there from by the Contractor and all consequences shall be borne by the Contractor. No claim, whatsoever, shall be entertained from the Contractor, if the data or information furnished in bid document is different or in-correct otherwise or actual working drawings are at variance with the drawings available for inspection or attached to the bid document. It is presumed that the Contractor shall satisfy himself for all possible contingencies, incidental charges, wastages, bottlenecks etc. likely during execution of work and acts of coordination, which may be required between different agencies. Nothing extra shall be payable on this account.
- 1.3 The work shall be carried out, all in accordance with true intent and meaning of the specifications, the drawings and other terms & conditions in the bid documents all taken together, regardless of whether the same may or may not be particularly shown on the drawings and/or described in the specifications, provided that the same can be reasonably inferred there from may be several incidental works, which are not mentioned in the bid document but will be necessary to complete the work in all respects. All these incidental works / costs which are not mentioned in bid document but are necessary to complete the work in all respects shall be deemed to have been included in the rate quoted by the contractor. 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 work and are necessary to complete the work in all respects) on account of the directions of Engineer-in-charge. Nothing extra shall be payable on this account.

- 1.4 The contractor(s) shall give to the local body, police and other authorities all necessary notices etc. that may be required by law and obtain all requisite licenses for temporary obstructions, enclosures etc. and pay all fees, taxes and charges which may be leviable on account of these operations in executing the contract. He shall make good any damage to the adjoining property whether public or private and shall supply and maintain lights either for illumination or for cautioning the public at night.
- 1.5 Proper temporary barricading by fencing with colour coated G.I. sheets/Green net, shall be carried out by the contractor at the start of work as per direction of Engineer-in-charge in order to physically define the boundaries of the plot for restricted entry to only those involved in the work and also to prevent any accidents, at the same time without causing any inconvenience to the traffic and the users of the handed over buildings in the adjacent plots. It shall be done by providing, erecting, maintaining temporary protective barricading of minimum 3.0 meters in height, made in panels, with each panel having MS frames / MS scaffolding pipes of suitable size and stiffness, with 24 gauge thick colour coated GI corrugated sheet or suitably stiffened plain GI sheet/ green net fixed on frames. He shall also provide and erect temporary protective barricades within the plot, if required, to prevent any accident. Temporary protective roofing near the entrance to the building, under construction, shall be made to protect the visiting officials from getting hurt by falling debris etc. Also, one or more coat of enamel paint of shade as approved and directed by the Engineer-in-charge shall be applied on the panels and "CPWD" shall be painted over that in suitable sizes, shapes and numbers as directed by the Engineer-in-charge. It shall be dismantled and taken away by the Contractor after the completion of work at his own cost with the approval of the Engineer-in-charge. Nothing extra shall be payable on this account.
- 1.6 The Contractor to make the building environment Barrier free and accessible to all as per the provisions in the drawings and as per norms of NBC 2016. Bidder shall refer CPWD website www.cpwd.gov.in for any further clarification. Nothing extra shall be payable on this account. (Provision of lift for vertical movement shall be as per drawings).
- 1.7 The contractor shall take all precautions to avoid accidents by exhibiting necessary caution boards day and night. In case of any accident to labours/ contractual staff the entire responsibility will rest on the part of the contractor and any compensation under such circumstances, if becomes payable, shall be entirely borne by the contractor.
- 1.8 The work shall generally be carried out in accordance with the "CPWD Specifications 2019 Vol. I & II" with correction slips issued up to previous day of the last date of submission of bids, Additional/ Particular Specifications, Architectural/ Structural drawings and as per instructions of Engineer-in-charge.

Any additional item of the work, if taken up subsequently, shall also conform to the relevant CPWD specifications as mentioned above.

- 1.9 The several documents forming the tender are to be taken as mutually complementary to one another. Detailed drawings shall be followed in preference to small scale drawings and figured dimensions in preference to scale dimensions.
- 1.10 In case of any difference or discrepancy between the schedule of quantities, the specifications and/or Drawings, the following order of preference shall be observed.
 - (i) Description of Schedule of Quantities.
 - (ii) Drawings.
 - (iii) Particular specifications and Special Coniditions, if any.
 - (iv) CPWD Specifications including correction slips issued up to the last date of uploading/submission of tender.
 - (v) General Conditions of Contract for CPWD 2023 for Construction works including correction slips issued up to the last date of uploading/submission of tender.
 - (vi) Indian Standards Specifications of B.I.S.
 - (vii) ASTM, BS, or other foreign origin codes mentioned in tender document.
 - (viii) Manufacturers' specifications and as decided by the Engineer-in-Charge.
 - (ix) Decision of Engineer-in-Charge
- 1.11 The works to be governed by this contract shall cover delivery and transportation up to destination, safe custody at site, insurance, erection, testing and commissioning of the entire work.
- 1.12 The works to be undertaken by the contractor shall inter-alia include the following:
 - (i) Preparation of SHOP drawings and 'AS BUILT' drawings
 - (ii) Obtaining of Statutory permissions wherever applicable and required.
 - (iii) Pre-commissioning tests as per relevant standard specifications, code of practice, Acts and Rules wherever required.
 - (iv) **Warranty obligation for the equipment and / or fittings/fixtures supplied by the contractor:** Contractor shall provide all the shop drawings or layout drawings for all the co-ordinated services before starting any work or placing any order of any of the services etc. These shop drawings/layout drawings shall be got approved from Engineer-in-charge before implementation and this shall be binding on the contractor. The contractor shall submit material submittals along

with material sample for approval of Engineer-in-Charge prior to delivery of material at site.

- 1.13 The work shall be carried out in accordance with the approved architectural drawings and structural drawings. Before commencement of any item of work, the contractor shall correlate all the relevant architectural and structural drawings, Specifications etc. issued for the work and satisfy himself that the information available from there is complete and unambiguous. The figure and written dimension of the drawings shall be superseding the measurement by scale. The discrepancy, if any, shall be brought to the notice of the Engineer-in-charge before execution of the work. The contractor alone shall be responsible for any loss or damage occurring by the commencement of work on the basis of any erroneous and or incomplete information and no claim whatsoever shall be entertained by the department on this account. The delay caused on account of non-timely action by the contractor in resolution of the differences whatsoever shall not be considered as valid ground for extension of time unless otherwise accepted by Engineer- in-charge.
- 1.14 The contractor shall take instructions from the Engineer-in-Charge regarding collection and stacking of materials at suitable place. No stacking of materials or excavated earth or building rubbish shall be stacked on areas where other buildings, roads, services and compound walls are to be constructed. The stacking shall take place as per stacking plan. However, if any change is required, the same shall be done with the approval of Engineer-in-Charge.
- 1.15 The contractor shall bear all incidental charges for cartage, storage and safe custody of materials, if any, issued by department as well as to those materials also arranged by the contractor.
- 1.16 Any cement slurry added over base surface (or) for continuation of concreting for better bond is deemed to have been built in the execution of work and nothing extra shall be payable or extra cement considered in consumption on this account.
- 1.17 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.
- 1.18 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 require 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 conform, 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 at the risk and cost of the contractor.

- 1.19 Use of Manufactured sand (M-sand) is allowed in all items of work except plastering works without any cost adjustment i.e. without any extra payment to contractor or without any recovery from contractor. For plastering P-Sand/river sand should be used.
- 1.20 The contractor shall submit all the shop drawings of various services like sanitary, plumbing, water supply lines etc and services mention in Part C and obtain the approval of EIC before execution.
- 1.21 Water tanks, taps, water supply & drainage pipes, fittings & accessories should conform to bye- laws of local body/corporation, where CPWD specifications are not available. The Contractor should engage approved, licensed plumbers for the work and get the materials (fixtures/fittings) tested, by the municipal Body/ Corporation authorities wherever required at his own cost. The Contractor shall submit for the approval of the Engineer-in-charge, the name of the plumbing agency (along with their working experience in recent past) proposed to be engaged by him.
- 1.22 The contractor shall make his own arrangements for water and for obtaining electric connections if required and make necessary payments directly to the State Govt. departments concerned. Contractor shall get the water tested from laboratory approved by the Engineer-in-charge at regular interval as per the CPWD Specifications. All expenses towards collection of samples, packing, transportation etc. shall be borne by the contractor.
- 1.23 **PREVENTION OF NUISANCE AND POLLUTION CONTROL**
- (i) The contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the owners, tenants or occupiers of adjacent properties and to the public in general and to prevent any damage to such properties from pollutants like smoke, dust, noise. The contractor shall use such methodology and equipment so as to cause minimum environmental pollution of any kind during construction and minimum hindrance to road users and to occupants of the adjacent properties or other services running adjacent/near vicinity. The contractor shall make good at his cost and to the satisfaction of the Engineer-in-charge, any damage to roads, paths, cross drainage works or public or private property whatsoever caused due to the execution of the work or by traffic brought thereon by the contractor. All waste or superfluous materials shall be carried away by the contractor, without any reservation, entirely to the satisfaction of the Engineer-in-charge.
 - (ii) Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to the nearby occupants/users of building(s), if any.

1.24 SECURITY AND TRAFFIC ARRANGEMENTS

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

- 1.25 As the site is restricted the huts for labour are not to be erected at the site of work by the contractors.
- 1.26 No payment shall be made for any damage caused by rain, snowfall, flood or any other natural calamity, whatsoever during the execution of the work. The contractor shall be fully responsible for any damage to the govt. property and the work for which payment has been advanced to him under the contract and he shall make good the same at his risk and cost. The contractor shall be fully responsible for safety and security of his material, T&P/Machinery brought to the site by him.
- 1.27 The contractor shall construct suitable godowns, yard at the site of work for storing all other materials so as to be safe against damage by sun, rain, damages, fire, theft etc. at his own cost and also employ necessary watch and ward establishment for the purpose at his cost.
- 1.28 All materials obtained from contractor shall be got checked by the representative of Engineer-in- Charge on receipt of the same at site before use.
- 1.29 Royalty at the prevalent rates shall have to be paid by the contractor on all the boulders, metals, shingles sand and bajri etc. collected by him for the execution of the work, direct to the Revenue authority or authorized agent of the State Government concerned or Central Government. If pursuant to or under any law, notification or order any royalty, cess or the like becomes payable by the Government of India and does not any time become payable by the contractor to the State Government, Local authorities in respect of any material used by the contractor in the works, then in such a case, it shall be lawful to the Government of India and it will have the right and be entitled to recover the amount paid in the circumstances as aforesaid from dues of the contractor.
- 1.30 The contractor shall be responsible for the watch and ward/guard of the buildings, safety of all fittings and fixtures including all equipment, services provided by him against pilferage and breakage during the period of Installations and thereafter till the building is physically handed over to **CMFRI Authorities**

i.e. Client Department. No extra payment shall be made on this account and no claim shall be admissible on this account.

- 1.31 The contractor shall keep himself fully informed of all acts and laws of the Central & State Governments, all orders, decrees of statutory bodies, tribunals having any jurisdiction or authority, which in **any manner may affect those engaged or employed and anything related to carrying out the work**. All the rules & regulations and bye-laws laid down by Collector and any other statutory bodies shall be adhered to, by the contractor, during the execution of work. The contractor shall also adhere to all traffic restrictions notified by the local authorities. The extra sewerage charges (one time charges for commencement of work) required to be paid to the Municipal Corporation/ other statutory bodies shall be paid by the department and need not be considered by the contractor.

All statutory taxes, levies, charges (including water and sewerage charges, charges for temporary service connections and / or any other charges) payable to such authorities for carrying out the work, shall be borne by the Contractor. The water charges (for municipal water connection as well as tanker water) shall be borne by the contractor. Also, if the contractor obtains water connection for the drinking purposes from the municipal authorities or any other statutory body, the consequent sewerage charges shall be borne by the contractor. The contractor shall arrange to give all notices as required by any statutory / regulatory authority and shall pay to such authority all the fees that is required to be paid for the execution of work. He shall protect and indemnify the department and its officials & employees against any claim and /or liability arising out of violations of any such laws, ordinances, orders, decrees, by himself or by his employees or his authorized representatives. Nothing extra shall be payable on these accounts. The fee payable to statutory authorities for obtaining the various permanent service connections and Occupancy Certificate for the building shall be borne by the department.

- 1.32 For works below ground level the contractor shall keep that area free from water. If dewatering or bailing out of water is required, the contractor shall do the same at his own cost and nothing extra shall be paid except otherwise provided in the tender document.
- 1.33 The contractor shall make all necessary arrangements for protecting works already executed from rains, fog or likewise extreme weather conditions and for carrying out further work, during monsoon including providing and fixing temporary shelters, protections etc. Nothing extra shall be payable on this account and also no claims for hindrance shall be entertained on this account.
- 1.34 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. Further, no claim for hindrance shall be entertained on this account.

- 1.35 The contractor will take reasonable precautions to prevent his workman and employees from removing and damaging any flora (plant/vegetation) from the project area.

1.36 **SETTING OUT**

- (i) The contractor shall carry out survey of the work area, at his own cost, setting out the layout of building in consultation with the Engineer-in-charge & proceed further. Any discrepancy between architectural drawings and actual layout at site shall be immediately brought to the notice of the Engineer-in-charge. It shall be responsibility of the contractor to ensure correct setting out of alignment. Total station survey instruments only shall be used for layout, fixing boundaries, and centre lines, etc., Nothing extra shall be payable on this account.
- (ii) The contractor shall establish, maintain and assume responsibility for grades, lines, levels and benchmarks. He shall report any errors or inconsistencies regarding grades, lines, levels, dimensions etc. to the Engineer-in-charge before commencing work. Commencement of work shall be regarded as the contractor's acceptance of such grades, lines, levels, and dimensions and no claim shall be entertained at a later date for any errors found.
- (iii) If at any time, any error appears due to grades, lines, levels and benchmarks during the progress of the work, the contractor shall, at his own expense rectify such error, if so required, to the satisfaction of the Engineer-in-charge. Nothing extra shall be payable on this account.
- (iv) The contractor shall ascertain and confirm the site levels with respect to benchmark from the concerned authorities. The contractor shall protect and maintain temporary/ permanent benchmarks at the site of work throughout the execution of work. These benchmarks shall be got checked by the Engineer-in-charge or his authorized representatives. The work at different stages shall be checked with reference to bench marks maintained for the said purpose. Nothing extra shall be payable on this account.
- (v) The approval by the Engineer-in-charge, of the setting out by the contractor, shall not relieve the Contractor of any of his responsibilities and obligation to rectify the errors/ defects, if any, which may be found at any stage during the progress of the work or after the completion of the work.
- (vi) The contractor shall be entirely and exclusively responsible for the horizontal, vertical and other alignments, the level and correctness of every part of the work and shall rectify effectively any errors or imperfections therein. Such rectifications shall be carried out by the Contractor at his own cost to the entire satisfaction of the Engineer- in-charge.

- (vii) The rate quoted by the contractor is deemed to be inclusive of site clearance, setting out work (including marking of reference points, centre lines of buildings), construction and maintenance of reference bench mark(s), taking spot levels, construction of all safety and protection devices, barriers, barricading, signage, labour safety, labour welfare and labour training measures, preparatory works, working during monsoon, working at all depths, height and location etc. and any other incidental works required to complete this work. Nothing extra shall be payable on this account.

- 1.37 The rate offered is inclusive of providing sunken flooring in bathrooms, kitchen etc. and nothing extra on this account is admissible.

1.38 **INTEGRATED SERVICE DRAWINGS**

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 False Ceiling and wall panelling. 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 maintenance of these services. Nothing extra shall be payable on this account.

1.39 **TOOLS AND PLANTS**

The contractor should have own constructions equipment required for the proper and timely execution of the work. Nothing extra shall be paid on this account. No tools and plants including any special T&P etc. shall be supplied by the department and the contractor shall have to make his own arrangements at his own cost. No claim of hindrance (or any other claim) shall be entertained on this account.

1.40 **SCAFFOLDING**

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

- 1.41 The contractor shall do proper sequencing of the various activities by suitably staggering the activities so as to achieve early completion. The contractor is to deploy adequate equipment, machinery and labour as required for the

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

- 1.42 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.

1.43 **PRESERVATION AND CONSERVATION MEASURES**

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

1.44 **RESPONSIBILITY**

- (i) The contractor shall protect and indemnify the CPWD and its officials & employees against any claim and /or liability arising out of violations of any such laws, ordinances, orders, decrees, by himself or by his employees or his authorized representatives. Nothing extra shall be payable on these accounts.
- (ii) The fee payable to statutory authorities for obtaining the various permanent service connections and Building Use Certificate for the building shall be borne by the CPWD.
- (iii) The contractor shall assume all liability, financial or otherwise in connection with this contract and shall protect and indemnify the CPWD from any and all damages and claims that may arise on any account. The Contractor shall indemnify the department CPWD against all claims in respect of patent rights, royalties, design, trademarks- of name or other protected rights, damages to adjacent buildings, roads or members of public, in course of execution of work or any other reasons whatsoever, and shall himself defend all actions arising from such claims and shall indemnify the department in all respect from such actions, costs and expenses. Nothing extra shall be payable on this account.

1.45 **CO-OPERATION WITH OTHER CONTRACTORS/ SPECIALIZED AGENCIES / SUB-CONTRACTORS**

- (i) The Contractor shall take all precautions to abide by the environmental related restrictions imposed by any statutory body having jurisdiction in Karnataka as well as prevent any pollution of streams, ravines, river bed and waterways. All waste or superfluous materials shall be transported by the Contractor, entirely to the satisfaction of the Engineer- in-Charge and disposed at designated places only. Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to the occupants / users of adjoining buildings. No claim what so ever on account of site constraints mentioned above or any other site constraints, lack of public transport, inadequate availability of skilled, semi-skilled or unskilled workers in the near vicinity, non-availability of construction machinery spare parts and any other constraints not specifically stated here, shall be entertained from the Contractor. Therefore, the tenderers are advised to visit site and get first-hand information of site constraints. Accordingly, they should quote their tenders. Nothing extra shall be payable on this account.
- (ii) The Contractor shall cooperate with and provide the facilities to the sub-Contractors and other agencies working at site for smooth execution of the work. The contractor shall indemnify the Department (CPWD) against any claim(s) arising out of such disputes. The Contractor shall:
 - (i) Allow use of scaffolding, toilets, sheds etc.

- (ii) Properly co-ordinate their work with the work of other Contractors.
 - (iii) Provide control lines and benchmarks to his Sub-Contractors and the other Contractors.
 - (iv) Provide electricity and water at mutually agreed rates.
 - (v) Provide hoist and crane facilities for lifting material at mutually agreed rates.
 - (vi) Co-ordinate with other Contractors for leaving inserts, making chases, alignment of services etc. at site.
 - (vii) Adjust work schedule and site activities in consultation with the Engineer-in-Charge and other Contractors to suit the overall schedule completion.
 - (viii) Resolve the disputes with other Contractors/ sub-contractors amicably and the Engineer-in-Charge shall not be made intermediary or arbitrator.
- (iii) The work should be planned in a systematic manner so as to ensure proper co-ordination of various disciplines viz. sanitary & water supply, drainage, rain water harvesting, electrical, fire-fighting, information technology, communication & electronics and any other services.
 - (iv) 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 supplied free of cost by the department unless otherwise specifically mentioned) and the contractor shall fix the same at time of casting of concrete, stone work and brick work, if required, and nothing extra shall be payable on this account.
 - (v) The contractor shall conduct his 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 off 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 in a proper co –ordination manner and shall perform it in proper sequence to the complete satisfaction of others

1.46 **SUPERVISION OF WORK**

The Contractor shall depute Site Engineer & skilled workers as required for the work. He shall submit organization chart along with details of Engineers and supervisory staff. It shall be ensured that all decision making powers shall be available to the representatives of the Contractor at site itself to avoid any likely

delays on this account. The Contractor shall also furnish list of persons for specialized works to be executed for various items of work. The Contractor shall identify and deploy key persons having qualifications and experience in the similar and other major works, as per the field of their expertise. If during the course of execution of work, the Engineer-in-Charge is of the opinion that the deployed staff is not sufficient or not well experienced; the Contractor shall deploy more staff or better-experienced staff at site to complete the work with quality and in stipulated time limit. Principle Technical representative of the Contractor having experience in similar nature of work as mentioned in the clause 32 under Schedule F of this agreement, shall always be available at the site during the actual execution of the work. The recovery as mentioned in schedule F per month per person shall be effected from the Contractor in the event of not fulfilling this provision.

1.47 **RATES:**

The rates quoted by the Contractor shall be deemed to be inclusive of;

- a) The cost of all scope of works mentioned in the bid document.
- b) 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 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 approved 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.
- c) 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.
- d) Ancillary and incidental facilities required for execution of work like labour camp, stores, 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, water storage tanks, installation and consumption charges of temporary electricity, telephone, water etc. required for execution of the work, liaison and pursuing for obtaining various No Objection Certificates, completion certificates from local bodies etc., 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.

- e) For completing the work in time, the Contractor shall be required to work in two or more shifts (including night shifts) as per the directions of Engineer in Charge. 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.
- f) The scope of work includes cost of all materials, manpower, equipment, T&P, fixtures, accessories, royalties, taxes, watch & ward and all other essential elements for completion and maintenance of works as aforesaid whatsoever.
- g) All material shall only be brought at site as per program finalized with the Engineer-in- Charge. Any pre-delivery of the material not required for immediate consumption shall not be accepted and the payment for this account shall not be paid by the department.
- h) The approval accorded by CPWD before acceptance of tender is only for tender evaluation. Any changes, modifications, revisions etc. required to be done by CPWD, client, local bodies, proof consultants etc. in accordance with applicable standards will have to be done at contractor's cost and nothing extra shall be payable.
- i) The rates quoted by the tenderer, shall be firm and inclusive of all taxes and levies (including works contract tax, GST, construction labour welfare cess).

1.48 SAFETY PRACTICES

- (i) **Warning/ Caution Boards:** All temporary warning / caution boards / glow signage display such as "Construction Work in Progress", "Keep Away", "No Parking", Diversions & protective Barricades etc., shall be provided and displayed during day time by the Contractor, wherever required and as directed by the Engineer-in-Charge. These glow signage and red lights shall be suitably illuminated during night also. The Contractor shall be solely responsible for damage and accident caused, if any, due to negligence on his part. Also, he shall ensure that no hindrance, as far as possible, is caused to general traffic during execution of the work. This signage shall be dismantled & taken away by the Contractor after the completion of work, only after approval of the Engineer-in- Charge. Nothing extra shall be payable on this account.
- (ii) **Sign Boards:** The Contractor shall provide and erect a display board of size and shape as required and paint over it, in a legible and workman like manner, the details about the salient features of the project, as required by the Engineer-in-Charge. The Contractor shall fabricate and put up a sign board in an approved location and to an approved design indicating name of the project, Client/Owner,

Engineer-in-charges, Structural Consultants, Department etc. besides providing space for names of other Contractors, Sub-Contractors and specialized agencies within 15 days from issue of award letter. Nothing extra shall be payable on this account. In case of non-compliance/ delay in compliance in this, a penalty @ Rs. 1000/- for each default will be imposed which will be recovered from the immediate next R/A Bill of the Contractor.

- (iii) Nylon net (50x50mm aperture and 4mm dia) at site shall be fixed to hooks etc., along periphery of building at various levels required and as directed by Engineer-in-charge for safety of the working staff for which nothing extra will be paid on this account.
- (iv) No inflammable materials including P.O.L shall be allowed to be stored in huge quantity at site. Only limited quantity of P.O.L may be allowed to be stored at site subject to the compliance of all rules / instructions issued by the relevant authorities and as per the direction of Engineer –in- Charge in this regard. Also, all precautions and safety measures shall be taken by the Contractor for safe handling of the P.O.L products stored at site. All consequences on account of unsafe handling of P.O.L shall be borne by the Contractor.

1.49 **QUALITY ASSURANCE**

- (i) The proposed building 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 exposed finish form work, specialized flooring work, silicon sealant and backer rod fixing in expansion joints, factory made door- window shutters, proper slope maintaining in toilet units, sanitary- water supply installation, water proofing treatment, will specially require engagement of skilled workers having experience particularly in execution of such items.
- (ii) The contractor shall ensure quality construction in a planned and time bound manner. Any sub-standard material / work beyond set out tolerance limit shall be summarily rejected by the Engineer-in-charge & contractor shall be bound to replace / remove such sub-standard / defective work immediately. If any material, even though approved by Engineer-In-Charge is found defective or not conforming to specifications shall be replaced / removed by the contractor at his own risk & cost.
- (iii) In addition to the supervision of work by CPWD engineers, the Consultants deployed by CPWD/Quality control team of CPWD shall also be carrying out regular and periodic inspection of the ongoing activities in the work and deficiencies, shortcomings, inferior workmanship pointed out by them shall be communicated by CPWD engineers to the contractor. Upon receipt of instructions from Engineer-in-Charge these are also to be made good by necessary improvement, rectification, replacement upto his complete

satisfaction. Special attention shall be paid towards line and level of internal and external plastering, exposed **smooth surface of RCC members by providing fresh shuttering plates, rubberized linings to all the shuttering joints**, accurate joinery work in wooden doors and windows, thinnest joints in stone/tiling / cladding work, non-hollowness in floor and dado tiles work, protection of scratches over flooring by impounding layer of plaster of Paris, water tight pipe linings, absence of hollow vertical joints in brick masonry, proper compaction of filled up earth etc. to achieve an Institution of International standards and up keeping of quality assurance shall be of paramount importance, as such.

- (iv) The Contractor shall submit, within 20 days after the date of award of work, a detailed and complete method statement for the execution, testing and Quality Assurance, of such items of works, as directed by the Engineer-in-Charge and Quality assurance program submitted by the contractor got approved from the SE Mysore. All the materials to be used in the work, to give the finished work complete in all respects, shall comply with the requirements of the specifications and shall pass all the tests required as per specifications as applicable or such specifications / standards as directed by the Engineer-in- Charge. However, keeping the Quality Assurance in mind, the Contractor shall submit, on request from the Engineer-in- Charge, his own Quality Assurance procedures for basic materials and such items, to be followed during the execution of the work, for approval of the Engineer-in-Charge.
- (v) All materials and fittings brought by the contractor to the site for use shall conform to the samples approved by the Engineer-in-charge which shall be preserved till the completion of the work. If a particular brand of material is specified in the item of work in Schedule of Quantity, the same shall be used after getting the same approved from Engineer-In-Charge. Wherever brand / quality of material is not specified in the item of work, the contractor shall submit the samples as per suggested list of brand names given in the tender document / particular specifications for approval of Engineer-In-Charge. For all other items, materials and fittings of ISI Marked shall be used with the approval of Engineer-In-Charge. Wherever ISI Marked material / fittings are not available, the contractor shall submit samples of materials / fittings manufactured by firms of repute conforming to relevant specifications or IS codes and use the same only after getting the approval of Engineer-In-Charge.
- (vi) The Contractor shall procure and provide all the materials from the manufacturers / suppliers as per the list attached with the tender documents, as per the item description and particular specifications for the work. The equivalent brand for any item shall be permitted to be used in the work, only when the specified make is not available. This is, however, subject to documentary evidence produced by the contractor for non-availability of the brand specified and also subject to independent verification by the Engineer-in-Charge. In exceptional cases, where such approval is required, the decision of Superintending Engineer as regards equivalent make of the material shall be final and binding on the Contractor. No claim, whatsoever, of any kind shall be

entertained from the Contractor on this account. Nothing extra shall be payable on this account. Also, the material shall be procured only after written approval of the Engineer-in-Charge.

- (vii) All materials procured by agency / contractor shall be got checked by the Engineer-in-Charge or his authorized supervisory staff on receipt of the same at site before use.
- (viii) The tests, as necessary, shall be conducted in the laboratory approved by the Engineer-in-Charge. The samples shall be taken for carrying out all or any of the tests stipulated in the particular specifications and as directed by the Engineer-in-Charge or his authorized representative.
- (ix) **All the registers of tests carried out at Construction Site or in outside laboratories and all material at site (MAS) registers including cement register shall be maintained by the contractor which shall be issued to the contractor by Engineer-in-charge. All the entries in the registers will be made by the designated Engineering Staff of the contractor and same shall be regularly reviewed by JE/AE/AEE/EE. Contractor shall be responsible for safe custody of all the registers.**
- (x) The Contractor shall at his own risk and cost make all arrangements and shall provide all such facilities including material and labour, the Engineer-in-Charge may require for collecting, preparing, forwarding the required number of samples for testing as per the frequency of test stipulated in the contract specifications or as considered necessary by the Engineer-in-Charge, at such time and to such places as directed by the Engineer-in-Charge. Nothing extra shall be payable for the above.
- (xi) The Contractor or his authorized representative shall associate in collection, preparation, forwarding and testing of such samples. In case he or his authorized representative is not present or does not associate him, the result of such tests and consequences thereon shall be binding on the Contractor. The Contractor or his authorized representative shall remain in contact with the Engineer-in-Charge or his authorized representative associated for all such operations. No claim of payment or claim of any other kind, whatsoever, shall be entertained from the Contractor.
- (xii) 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.
- (xiii) 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 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.

- (xiv) **All expenditure to be incurred for testing of samples e.g. packaging, sealing, transportation, loading, unloading etc. including testing charges shall be borne by the contractor.**
- (xv) All the hidden items such as water supply lines, drainage pipes, conduits, sewers etc. are to be properly tested as per the design conditions before covering and their measurements in computerized measurement book duly test checked shall be deposited with Engineer in charge or his authorized representative, prior to hiding these items.
- (xvi) Water tanks, taps, sanitary, water supply and drainage pipes, fittings and accessories should confirm to bylaws and municipal body / corporation where CPWD Specifications are not available. The contractor should engage licensed plumbers for the work and get the materials (fixtures/fittings) tested by the Municipal Body/Corporation authorities wherever required at his own cost.
- (xvii) The contractor shall give performance test of the entire installation(s) as per the standing specifications before the work is finally accepted and nothing extra whatsoever shall be payable to the contractor for the test.
- (xviii) The contractor shall have to execute guarantee bonds in respect of water proofing works as per Performa enclosed.
- (xix) The Contractor shall arrange electricity at his own cost for testing of the various electrical installations as directed by Engineer-in-Charge and for the consumption by the contractor for executing the work. Also, all the water required for testing various electrical installations, fire pumps, wet riser / fire-fighting equipment, fire sprinklers etc. and also testing water supply, sanitary and drainage lines, water proofing of underground sump, overhead tanks, water proofing treatment etc. shall be arranged by the contractor at his own cost. Nothing extra shall be payable on this account.

1.50 SUBMISSION AND DOCUMENTATION

- (i) 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. He should also keep at site at least one set of BIS Codes and other relevant codes at site and produce the same if asked for by Engineer-In-Charge. In case of noncompliance, these codes will be purchased from the Market and actual cost of purchase will be recovered from the next RA Bill of the Contractor.
- (ii) The Contractor shall make available four (04) sets of completed Building Drawings, "As Built Drawings" along with literatures, manuals, warranty certificates etc. of various installed fittings, fixtures and equipment for the completed projects. This shall be the prerequisite for payment of final bill.
- (iii) The Contractor shall make available three (03) sets of all drawings of internal and external services i.e. Water Supply, Sanitary line and Drainage lines. This shall be the prerequisite for payment of final bill. These drawings shall have the following information.
 - Run off for all piping and their diameters including soil, waste pipes and vertical stacks.
 - Ground and invert level of all drainage pipes together with locations of all manholes and connections, up to outfall.
 - Run off for all water supply lines with diameters location of control valves, access panels etc.
- (iv) The contractor shall make available four (04) sets of **Computerized Standard Measurement Books** (SMBs) through CPWD ERP portal having measurement of all the permanent standing in a building.
- (v) The Performance Guarantee shall not be released to the contractor until the aforesaid drawings are submitted to the Engineer-in-Charge.
- (vi) The contractor will submit computerized measurement sheet for the work carried out by him for making payment as per Clause-6 of the **CPWD General Conditions of Contract 2023 for Construction works (with correction slips upto the last date of submission of tender)**. For casting of RCC members and other hidden items the corrected and duly test checked measurement sheets of reinforcement or that of other hidden items shall be deposited with Engineer in charge or his authorized representative, before casting of RCC or other hidden items. The delay in submission of corrected and duly checked measurement sheet may, therefore, delay casting of RCC or execution of hidden item for which no hindrance shall be recorded.

- (vii) To avoid delay, contractor should submit all samples well in advance so as to give timely orders for procurement.

TEMPORARY WATER/ ELECTRICITY/ TELEPHONE CONNECTION

- (i) Arrangement of temporary telephone connection, water and electricity required by Contractor, shall be made by him at his own cost and also necessary permissions shall be obtained by him directly from concerned authorities, under intimation to the Department. Also, all initial cost and running charges, and security deposit, if any, in this regard shall be borne by him. The Contractor shall abide by all the rules/ bye laws applicable in this regard and he shall be solely responsible for any penalty on account of violation of any of the rules/byelaws in this regard. Nothing extra shall be payable on this account. **The contractor can use ground water by digging bore well from the site premises. He shall maintain the bore log details, static water table, yield, and drawdown level of the bore well and the same shall be handed over to the department. After completion of work he can take out the submersible pump and the bore will become property of employer.**
- (ii) The Contractor shall be responsible for maintenance of watch and ward of the complete installation and water / electricity meter and shall also be responsible for any pilferage, theft, damage, penalty etc. in this regard. The Contractor shall indemnify the Department against any claim arising out of pilferage, theft, damage, penalty etc. whatsoever on this account. Security deposit for the work shall be released only after No Dues Certificates are obtained from the local Authorities from whom temporary electric/ water / telephone connection have been obtained by the Contractor. Nothing extra shall be payable on this account.
- (iii) The Department shall in no way be responsible for either any delay in getting electric and/or water and/or telephone connections for carrying out the work or not getting connections at all. No claim of delay or any other kind, whatsoever, on this account shall be entertained from the Contractor. Also contingency arrangement of stand-by water & electric supply shall be made by the Contractor for commencement and smooth progress of the work so that work does not suffer on account of power failure or disconnection or not getting connection at all. No claim of any kind whatsoever shall be entertained on this account from the Contractor. Nothing extra shall be payable on this account.

1.51 **CLEANLINESS OF SITE**

- (i) The Contractor shall not stack building material/malba/muck on the land or road of the local development authority or on the land owned by the others, as the case may be. So the muck, rubbish etc. shall be removed periodically as directed by the Engineer-in-Charge, from the site of work to the approved dumping grounds as per the local byelaws and regulations of the concerned authorities and all necessary permissions in this regard from the local bodies shall be obtained by the Contractor.

Nothing extra shall be payable on this account. In case, the Contractor is found stacking the building material/malba as stated above, the Contractor shall be liable to pay the stacking charges/penalty as may be levied by the local body or any other authority and also to face penal action as per the rules, regulations and bye-laws of such body or authority. The Engineer – in-Charge shall be at liberty to recover, such sums due but not paid to the concerned authorities on the above counts, from any sums due to the Contractor including amount of the Security Deposit and performance guarantee in respect of this contract agreement.

- (ii) The contractor shall take instructions from the Engineer-In-Charge regarding collection and stacking of materials at any place. No excavated earth or building rubbish shall be stacked on areas where other buildings, roads, services and compound walls are to be constructed.
- (iii) The site of work shall be always kept clean due to constraints of space and to avoid any nuisance to the users of buildings in the adjacent plots. The Contractor shall take all care to prevent any water- logging at site. The waste water, slush etc. shall not be allowed to be collected at site. It may be directly pumped into the creek with prior approval of the concerned authorities. For discharge into public drainage system, necessary permission shall be obtained from relevant authorities after paying the necessary charges, if any, directly to the authorities. The work shall be carried out in such a way that the area is kept clean and tidy. All the fees/charges in this regard shall be borne by the Contractor. Nothing extra shall be payable on this account

1.52 **FINAL TESTING OF THE INSTALLATION**

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

1.53 **GENERAL CLARIFICATIONS**

- (i) Wherever any reference to any Indian Standards occurs in the documents relating to this contract, the same shall be inclusive of all amendments issued thereto or revisions thereof, if any, up to the date of receipt of tenders.
- (ii) Unless otherwise specified in the schedule of quantities, the rates for all items of work shall be considered, as inclusive of pumping out or bailing out water, if required throughout the construction period for which no extra payment shall be made. This shall also include water encountered from any source such as rains, floods, sub soil water table being high and/or due to any other cause whatsoever.
- (iii) All stone aggregate and stone ballast shall be of hard stone variety to be obtained from approved quarries.
- (iv) Coarse sand should be obtained from approved sources. The same shall be clean and sharp angular grit type. The coarse sand shall be screened before using, if required. If the sand brought to site is dirty, it must be washed in clean water to bring the sand to the required specifications. Nothing extra shall be payable on this account.
- (v) The rates for all items of work, shall unless clearly specified otherwise, include cost of all operations and all inputs of labour, material, T & P, scaffolding, wastages, watch and ward, other inputs, all incidental charges, all taxes, CESS, VAT/GST, duties, levies etc. required for execution of the work.

1.54 DEFECT LIABILITY PERIOD:

- (i) The defect liability / maintenance period shall be 12(twelve) months after the date of completion of work for this contract agreement. The Security Deposit shall be released as per the procedure prescribed under clause-17 of GCC -2023 for Construction works and for this, the contractor shall have to produce a certificate stating that no defects are pending for rectification from the Engineer-in-charge, but subject to other provisions specified elsewhere in the contract agreement.

1.55 COMPLIANCE OF DIRECTIVES OF HON'BLE NATIONAL GREEN TRIBUNAL (NGT) DATED 04.12.2014 AND 10.04.2015 AND EIA GUIDANCE MANUAL ISSUED IN FEBRUARY 2010.

The contractor shall comply with following guidelines on the matter in pursuance of orders passed by Hon'ble National Green Tribunal.

- 1) The contractor shall not store / dump construction material or debris on metalled road.
- 2) The contractor shall get prior approval from Engineer-in-charge for the area where the construction material or debris can be stored beyond the metalled road. This area shall not cause any obstruction to the free flow of traffic / inconvenience to the pedestrians. It should be ensured by the contractor that no accidents occur on account of such permissible storage.
- 3) The contractor shall take appropriate protection measures like raising wind breakers of appropriate height on all sides of the plot/area using CGI sheets

or plastic and/or other similar material to ensure that no construction material dust fly outside the plot area.

- 4) The contractor shall ensure that all the trucks or vehicles of any kind which are used for construction purposes/or are carrying construction material like cement, sand and other allied material are fully covered. The contractor shall take every necessary precautions that the vehicles are properly cleaned and dust free to ensure that enroute their destination, the dust, sand or any other particles are not released in air/contaminate air.
 - 5) The contractor shall provide mask to every worker working on the construction site and involved in loading, unloading and carriage of construction material and construction debris to prevent inhalation of dust particles.
 - 6) The contractor shall provide all medical help, investigation and treatment to the workers involved in the construction of building and carry of construction material and debris relatable to dust emission.
 - 7) The contractor shall ensure that C&D waste is transported to the C&D waste site only and due record shall be maintained by the contractor.
 - 8) The contractor shall compulsory use of wet jet in grinding and stone cutting.
 - 9) The contractor shall comply all the preventive and protective environmental steps as started in the MoEF guidelines, 2010.
 - 10) The contractor shall carry out on-road-inspection for black smoke generating machinery. The contractor shall use cleaner fuel.
 - 11) The contractor shall ensure that all DG sets comply emission norms notified by MoEF.
 - 12) The contractor shall use vehicles having pollution under control certificate. The emissions can be reduced by a large extent by reducing the speed of a vehicle to 20 kmph. Speed bumps shall be used to ensure speed reduction. In cases where speed reduction cannot effectively reduce fugitive dust, the contractor shall divert traffic to nearby paved areas.
 - 13) The contractor shall ensure that the construction material is covered by tarpaulin. The contractor shall take all other precaution to ensure that no dust particles are permitted to pollute air quality as a result of such storage.
 - 14) Nothing shall be paid extra for fulfilling of all the above conditions except for the items existing in the schedule of quantities. For such items, work done shall be paid on the basis of the agreement rates.
- 1.56 **In case of reduction in scope of work**, no claim on account of reduction in value of work, loss of expected profit, consequential overheads etc. shall be entertained.

**PARTICULAR SPECIFICATION AND SPECIAL CONDITIONS
FOR CEMENT BROUGHT BY THE CONTRACTOR**

1. The contractor shall procure Portland Pozzolana Cement (conforming to IS:1489:2015(Part-I & Part-II) OR Ordinary Portland Cement of 43 grade (conforming to IS:8112:2013) as required in the work, from reputed manufacturers of cement such as **ACC, Ultratech, Zuari cement and Dalmia Bharat cement or (from any other reputed cement manufacturer having a production capacity not less than one million tonnes per annum) as approved by the Additional Director General, CPWD, Bangalore.**
2. The tenderers may also submit a list of names of cement manufacturers which they propose to use in the work. The tender accepting authority reserves right to accept or reject name(s) of cement manufacturer(s) which the tenderer proposes to use in the work. No change in the tendered rates will be accepted if the tender accepting authority does not accept the list of cement manufacturers, given by the tenderer, fully or partially.
3. Supply of cement shall be taken in 50kg bags bearing manufacturer's name and ISI marking. Samples of cement arranged by the contractor shall be taken by the Engineer-in-Charge and got tested in accordance with provisions of relevant BIS codes. In case test results indicate that the cement arranged by the contractor does not conform to the relevant BIS codes, the same shall stand rejected and shall be removed from the site by the contractor at his own cost within a week's time of written order from the Engineer-in-Charge to do so. Every fresh cement batch should be brought to site atleast 30 days before they are to be used / consumed in the work.
4. The actual consumption of cement on work shall be regulated and proper accounts be maintained by the contractor. The theoretical consumption of cement shall be worked out as per procedure prescribed in clause 38 of the contract and shall be governed by the conditions laid therein. In case the cement consumption is less than theoretical consumption including permissible variation, recovery at rate so prescribed shall be made. In case of excess consumption, no adjustment shall be made. Cement brought to site and cement remaining unused after completion of work shall not be removed from site without written permission of the Engineer-in-charge.
5. Damaged cement shall be removed from the site immediately by the contractor on receipt of a notice in writing from the Engineer-in-charge. If he does not do so within 3 days of receipt of such notice, the Engineer-in-charge shall get it removed at the cost of the contractor.

6. The cement bags shall be stacked on proper floors consisting of two layers of dry bricks laid on well consolidated earth at a level of at least one foot above ground. The stacks shall be in rows of 2 and 10 bags high with minimum of 0.6m clear. Bags should be placed horizontally continuous in each line. Actual size / shape of go down shall be as per site requirement and nothing extra shall be paid on this account. The decision of Engineer-in-charge regarding capacity shall be final.
7. Cement register for the cement shall be maintained at site. The account of daily receipts and issues of cement shall be maintained in the register in the proforma prescribed and signed daily by contractor or his authorized agent.

PARTICULAR SPECIFICATION AND SPECIAL CONDITIONS FOR

STEEL REINFORCEMENT BROUGHT BY THE CONTRACTOR: -

1. (a) The Contractor shall procure ISI marked TMT bars of various grades from the approved steel manufacturers as per the list of approved makes forming part of this document or their authorized dealers having valid BIS license for IS: 1786 latest version with upto date amendments and further confirming to the **OM No. CSQ/SE (TAS)/steel/2024/262 (H), dated 14.08.2024.**

The procured steel should have the following qualities:

- i. Excellent ductility, bendability and elongation of the 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 the finished product.
 - iv. Steel should carry the quality of corrosion and earthquake resistance.
 - v. Quality steel with the achievement of proper levels of Sulphur and phosphorus as per IS: 1786 latest revision.
- 5.0 The steel reinforcement bars shall be stored by the contractor at site of work in such a way as to prevent their 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.
- 8.0 The actual issue and consumption of steel on work shall be regulated and proper accounts shall be maintained as provided in clause 10 of the contract. The theoretical consumption of steel shall be worked out as per procedure prescribed in **clause 38** of the contract and shall be governed by conditions laid therein. In case the consumption is less than theoretical consumption including permissible variations leading to under designing of the structure, the work shall be summarily rejected, otherwise recovery at the rate so prescribed shall be made after ensuring structural soundness and stability. In case of excess consumption, no adjustment needs to be made.
- 9.0 The steel brought to site and the steel remaining unused shall not be removed from site without the written permission of the Engineer-in-charge.
10. The contractor shall submit original vouchers from the manufacturer for

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

- 11.0 Reinforcement including authorized spacer bars and laps shall be measured in length of different diameters as actually (not more than as specified in the drawings) used in the work nearest to a centimeter. Wastage and unauthorized overlaps shall not be measured.
- 12.0 The standard sectional weights referred to as in Table 5.4 in para 5.3.4 in CPWD Specifications will be considered for conversion of length of various sizes of M.S. Bars, Steel Bars and T.M.T. bars into Standard Weight.
- 13.0 Records of actual Sectional weights shall also be kept dia-wise and lot-wise. The average sectional weight for each diameter shall be arrived at from samples from each lot of steel received at site. The decision of the Engineer-in-Charge shall be final for the procedure to be followed for determining the average sectional weight of each lot. Quantity of each diameter of steel received at site of work each day will constitute one single lot for the purpose. The weight of steel by conversion of length of various sizes of bars based on the actual weighted average sectional weight shall be termed as Derived Actual Weight. However, for the stipulated issue of steel reinforcement up to and including 10mm diameter bars, the actual weight of steel issued shall be modified to take into account the variation between the actual and the standard coefficients and the contractors'
- 14.0 (a) If the Derived Weight as in sub-para (13) above is less than the Standard Weight as in Sub-para (12) above then the Derived Actual Weight shall be taken for payment provided, if it is within the following tolerances specified in IS1786 latest version, otherwise whole lot will be rejected.

Tolerances on Nominal Mass

Nominal Size in mm	Tolerance on Nominal mass Percent		
	Batch	Individual Sample*	Individual sample for coil**
Up to and including 10	± 7	-8	± 8
a) Over 10 up to and including 16	± 5	-6	± 6
b) Over 16	± 3	-4	± 4

* For individual sample plus tolerance is not specified.

**For coils batch tolerance is not specified.

- c) If the Derived Actual Weight is found more than the Standard Weight, the Standard Weight as per in sub-para (12) 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.

LIST OF PREFERRED MAKE OF MATERIALS (FOR CIVIL WORK)

NOTE:

1. A List of Preferred Brand Names of Various Materials / Products are shown below for usage in execution of work. However, Approved equivalent material of any other Specialized Companies / Firms may also be used, in case it is established that the Brands Specified below are not available in the market or in other unavoidable circumstances and subject to Approval of the alternate Brand by the Superintending Engineer, CPWD, Mysore.
2. It must be ensured, in general, that all materials to be used in the works shall bear BIS Certification mark. In case where for a particular material / product, BIS Certification Mark is not available, then the material proposed to be procured can be used subject to the condition that it should conform to CPWD specifications and relevant BIS codes. In such cases written approval of the Engineer-in-Charge shall be obtained before use of such material in their works.
3. The list given below does not absolve the Executing Agency from their responsibility for using these products. It is only after, they are satisfied about the quality and performance, the products shall be used. To achieve this, proper check on the quality of the product, actually to be used, should be exercised.

SI No	Materials	Approved Make
1	White cement	J.K. WHITE, BIRLA WHITE, ASIAN PAINTS.
2	Chemical Admixtures	ARDEX ENDURA, FOSROC, MC Bauchemie, SIKA, BASF, Pidilite, CHOKSEY CHEMICALS, BOSTIK, MYK ARMENT PVT LTD.
3	Expansion joint board	SUPREME INDUSTRIES, SIL FILL OR EQUIVALENT, STP LTD
4	Damp proof material	ARDEX ENDURA, IMPERMO, DURASEAL, ACCO-PROOF, ASIAN PAINTS.
5	NON METALIC SURFACE HARDNER	ARDEX ENDURA, FOSROC, SIKA, PIDLITE,
6	INJECTION GROUTING	ARDEX ENDURA, FOSROC, SIKA, BASF, CICCIO, ASIAN PAINTS, MYK ARMENT PVT LTD.
7	DELETED	DELETED
8	RMC / DMC	ULTRATECH, LAFARGE, ACC, RMC INDIA
9	BITUMEN	INDIAN OIL, HINDUSTAN PETROLEUM, MANGALORE REFINERIES, BHARAT PETROLIUM
10	Steel work / TMT bars	IS MARKED TMT BARS OF TATA, JSPL, JSW, RINL, VSP OR THEIR AUTHORIZED DEALERS:
11	Structural Steel	IS MARKED TMT BARS OF TATA, JSPL, JSW, RINL OR THEIR AUTHORIZED DEALERS:
12	AAC blocks	Xtralite from Ultratech, Aerocon from HIL, Siporex

SI No	Materials	Approved Make
		India limited, NCL,Maxlite
13	EPOXY MORTAR	ARDEX ENDURA, FOSROC, SIKA, BASF, ULTRATECH, BOSTIK, PIDILITE,ASIAN PAINTS.
14	CC BLOCKS/ FLYASH BLOCKS	SIPOREX, SUNVIK, HIL
15	FRP DOOR FRAME	MEENA, RAWJI, FIBERTECH, ASTRALWIN DOORS, SMP MAGMA
16	FRP DOOR SHUTTERS	MEENA, RAWJI, FIBERTECH, ASTRALWIN DOORS, SMP MAGMA
17	PVC DOOR SHUTTER AND FRAME	RAJASHREE, SINTEX DUROPLAST, SMP MAGMA
18	Wooden Flush Doors	KITPLY, CENTURY, GREENPLY, ARCHID PLY, Kutty, KAILASH.
19	Water proof Ply WOOD	DURO, KITPLY, CENTURY, ARCHID PLY, GREENPLY
20	Commercial Ply.	DURO, KITPLY, CENTURY, ARCHID PLY, GREENPLY
21	Laminate	FORMICA, DECOLAM, CENTURY, ROYAL TOUCH, Greenlam
22	HIGH PRESSURE LAMINATES	MERINO, GREENLAM, DECOLAM, CENTURY, ROYAL TOUCHE
23	PRELAMINATED PARTICLE BOARD	NOVOPAN, KITLAM, ARCHID PLY, CENTURY
24	NATURAL WOOD VENEER	ARCHID, ANCHOR, DURAIN, KITPLY, NATIONAL ACTION TESA
25	POLYSTER POWDER COATED SHADES	NEROLAC, BERGER, AKZONOBEL, ASIAN
26	Gypsum board	Saint Gobain, Lafarge, Boral Board, Armstrong
27	FALSE CEILING CALCIUM SILICATE	ARMSTRONG, AEROLITE, RAMCO
28	FALSE CEILING MINERAL FIBRE	SAINT GOBAIN, ARMSTRONG, ANUTONE, HIMALAYAN
29	Melamine Polish	ASIAN PAINTS, MALAMYNE GOLD WUDFIN OF PIDILITE INDUSTRIES TIMBERTONE OF ICI DULUX
30	Door Hardware	DORMA, HAFELE, KICH, OZONE, DORSET, BACKERS FS, GODREJ
31	Hydraulic door closers / Floor springs	DORMA, KICH, GODREJ, Hardwyn, DORSET
32	Locks / Latches	GODREJ, HARRISON, LINK, Dorset, DORMA
33	FIRE CHECK DOOR	BANGALORE PROTECH, SHAKTI, NAVAIR, KENWOOD, VEROTECH, SHAKTI HARMON,BHAWANI
34	SMOKE SEAL STRIP	IMPROTED PROMAT / ASTRO FLAME
35	Fire Rated Hardware	Dorma, Ingersol rand, Geze, DORSET BACKERS FS
36	Stainless steel screws for fabrication and fixing of windows.	Kundan, puja, Atul, GRIPWELL, NAKODA

SI No	Materials	Approved Make
37	Butt / ball bearing Hinges	Haffle, DORMA, DORSET, GODREJ
38	Piano Hinges	Jolly, Garg, AMIT, Jyoti
39	Nuts Bolts/ Screws	Kundan, Puja, Atul, IT, BOLT MASTER, GRIPWELL, NAKODA
40	Acoustic Insulation	U.P. Twiga Ltd, Lloyd Insulation, Saint Gobain, ARMSTRONG
41	Glass/ reflective Glass	MODI FLOAT, SAINT GOBAIN, ASAHI, GLAVERBEL
42	UPVC windows / VENTILATION	FENESTA, REHAU, ENCRAFT, DUROPLAST WINTECH, NCL, MADHU INDUSTRIES, LG,
43	SOURCE FOR TEMPERING REFL. GLASS / CLEAR	FUSO, SAINT GOBAIN, GURIND, IMPACT SAFETY
44	Fire rated Glass	Pyoswiss of Saint Gobain, pyran of schott, pilkington
45	Vitrified Tiles TO BE OF 1ST QUALITY DOUBLE CHARGED AND TO BE MANUFACTURED IN THE MOTHER PLANT.	KAJARIA, JOHNSON, RAK CERAMICS, NITCO, SOMANY, MURUDESWAR CERAMICS Ltd.
46	Glazed Ceramic Tiles	JOHNSON, KAJARIA, NITCO, RAK CERAMICS, SOMANY, MURUDESWAR CERAMICS Ltd.
47	False Floor	Hewetson, Unifloor, Unitile, kebao, Pinnacle
48	Engineered wood/LAMINATE flooring	Armstrong, wernel, Pergo, ACTION TESA, WELSPUN
49	Cement Concrete Parking tiles	NITCO, NTC, HINDUSTAN, PODDAR Eurocon, Dazzle ultra.
50	Interlocking Concrete Blocks	NITCO-(ROCKARD), BHARAT- (NILSAN) REGENCY, bESANT bEATONS
51	CLAY TILES ON ROOF	KENJAI, JOHNSON, COMMON WEALTH TRUST (IND) LTD
52	TILE ADHESIVE	ARDEX ENDURA, CICO, PIDILITE, PERROUS, FOSROC, SIKA, ASIAN PAINTS
53	CHEQUERED TERRAZO TILES	NITCO, BHARAT, PODDAR
54	SYNTHETIC CARPET TILES	TOLI, HOLLITEX, STANDARD CARPETS, WELSPUN
55	GLASS MOSAIC TILES	ITALIA, PALLADIO, BISAZZA
56	PAINT/PRIMER/OIL BOUND DISTEMPER ACRYLIC PAINT	ASIAN PAINTS, ICI DULUX, NEROLAC, BERGER
57	WATER PROOF CEMENT PAINT	SNOWCEM INDIA LTD, ASIAN PAINTS, ICI DULUX, NIPPON PAINTS
58	SYNTHETIC ENAMEL PAINT	BERGER, NEROLAC, ASIAN, ICI DULUX
59	ACRYLIC TEXTURED PLASTER	ASIAN PAINTS, ICI DULUX, NEROLAC, BERGER
60	FIRE RETARDANT PAINT	JOTUN, HILTI, AKZONOBEL, NIPPON, ASIAN PAINTS
61	MIRROR GLASS	MODI GUARD, SAINT GOBAIN, ASAHI, ATUL
62	ANTI CORROSIVE BITUMASTIC PAINT	ASIAN / BERGER / SHALIMAR
63	EPOXY PAINT	BERGER PAINTS, ASIAN PAINTS, MRF, ARDEX ENDURA

SI No	Materials	Approved Make
64	EPOXY COATING	ARDEX ENDURA, BASF, FORSOC, LATICRETE, MRF, ASIAN PAINTS
65	STRUCTURAL SILICON/ WEATHER SILICON	DOW CORNING / WACKER / GE
66	ACRYLIC EXTERIOR PAINT	ASIAN PAINTS, ICI DULUX, BERGER, NEROLAC
67	ALUMINIUM SYSTEMS / ANODIZED ALUMINUM FITTINGS FOR DOORS / WINDOWS / WINDOWS	HARDIMA, EVERITE, SIGMA (ISI MARKED) JYOTHI
68	STAINLESS STEEL FITTINGS	DORSET, GODREJ, DORMA, OZONE, KITCH
69	ALUMINIUM SECTIONS	JINDAL, HINDALCO, INDALCO
70	FRICTION STAY HINGES	EBCO, HAFELE, SEVAX
71	ALUMINIUM COMPOSITE PANEL (ACP)	ALUCOBOND, EUROBOND, DURABUILD, 4Mann
72	E.P.D.M. GASKETS	ANAND / ROOP / BOHRA / HANU / AMEE RUBBER
73	WATER PROOFING COMPOUND	SIKA, ACCOPROOF, IMPERMO, FOSROC PIDILITE, ARDEX ENDURA, BOSTIK, BERGER, ASIAN PAINTS, MYK ARMENT PVT LTD.
74	MEMBRANE WATERPROOFING SYSTEM	BASF, TEXSA, WR GRACE, PIDILITE, HYDRO TECH LTD. ARDEX ENDURA, BOSTIK, FOSROCK, ASIAN PAINTS, MYK ARMENT PVT LTD.
75	POLYMER BASED CONTENTIOUS WATER PROOF COATINGS	ARDEX ENDURA, BASF, MC-BAUCHEMIE, SIKA, FORSOLOC, PIDILITE, BERGER, ASIAN PAINTS, MYK ARMENT PVT LTD.
76	WATER STOPS	ARDEX ENDURA, HYDROTITE, BASF, HYDROSWELL, PIDILITE, BOSTIK, ASIAN PAINTS, MYK ARMENT PVT LTD.
77	PVC PERFORATED PIPES	REX POLYEXTRUSION LTD, AKASH ENTERPRISES, ZENPLAS PIPES PVT. LTD
78	MS PIPES	TATA, JINDAL, APOLLO
79	POLYSULPHIDE SEALANT	PIDILITE, CHEMETALL-RAJ, FOSROC, CHOKSEY CHEMICALS, TUFF SEAL, ASIAN PAINTS, MYK ARMENT PVT LTD.
80	BITUMEN IMPREGNATED BOARD	SHALITEX OR EQUIVALENT
81	POLYETHYLENE BACKER ROD	SUPREME IND. LTD. OR EQUIVALENT
82	FALSE CEILING MEMBERS (PERIMETER, CEILING SECTION, INTERMEDIATES, ANGLES ETC.)	ARMSTRONG, GYP. ROCK (SAINT GOBAIN)
83	WELDING ROD	ADVANI, ESAB
84	METAL DECK SHEET	TATA, JINDAL, ALFA, KAILASH ROOFIN
85	SHEAR STUD / CONNECTOR	KOCO OR EQUIVALENT
86	CLAMP. REBAR, CHEMICAL FASTENER	HILTI, FISCHER, WURTH, AXEL

SI No	Materials	Approved Make
87	ANCHOR FASTENERS / BOLTS	HILTI, FISHER, CANON, BOSCH, AXEL
88	MASKING TAPES	3M, SUN CONTROL, WONDER POLYMER
89	DASH FASTENERS	HILTI, FISHER, CANON, BOSCH, AXEL
90	STAINLESS STEEL BOLTS, WASHERS AND NUTS	ATUL / HILTI / GRIPWELL / NAKODA
91	GRC JALI	TERRAFIRMA, ECOVISION, BIRLA WHITE GRC, EVEREST GRC
92	STAINLESS STEEL	SALEM, JINDAL, SAIL
93	POLYCARBONATE SHEET	DANPALON, ALCOX, POLYGAL, V.A. CORPORATION, ALFA, GE, LEXON, TUFLITE
94	PT STRANDS	DP WIRES, TATA, USHA MARTIN
95	ADHESIVE (MANUFACTURE SPECS)	ARDEX ENDURA, DUNLOP, VAMORGANIC, SIKA, FOSROC, PIDLITE, BOSTIK, ASIAN PAINTS
96	GROUTS	KERAKOLL, WEBER, ARDEX ENDURA, BOSTIK, FOSROCK, PIDILITE, ASIAN PAINTS, MYK ARMENT PVT LTD.
97	SOLAR STUDS / MEDIAN MARKERS	3M, AVERY DENNISON, NIKKALITE
98	POLYCARBONATE CONVEX MIRRORS, RUBBERISED ROAD HUMP	UNIQUE SAFETY SOLUTIONS
99	AIR TRANSFER GRILLS	COOL GRILLS PUNE, SYSTEMAIR INDIA
100	THERMAL INSULATION TREATMENT	PIDILITE, BASF, BERGER, ARDEX ENDURA
101	VITREOUS WC / WASH BASIN	PARRYWARE, HINDWARE, CERA, JAQUAR
102	GULLYTRAPS	PERFECT, PARRY
103	STAINLESS STEEL SINKS	NILKANTH, AMC, COBRA, NIRALI, DIAMOND, HINDWARE
104	C. P. BRASS FITTINGS	JAQUAR, PARKO, MARC, HINDWARE, PARRYWARE, KINGSTON
105	GI PIPES	TATA, JINDAL, HISSAR
106	GI PIPE FITTINGS	ZOLOTO, UNIK, HB, ICS
107	RCC PIPES	INDIAN HUME PIPE, MOHAN HUME PIPE, BANGALORE CEMENT PIPES
108	SPUN CAST IRON COVERS & GRATINGS	NECO, SKF/ BENGAL IRON CORPORATION
109	SPUN CAST IRON PIPES	NECO, SKF/ BENGAL IRON CORPORATION
110	SPUN CAST IRON FITTINGS	NECO, SKF/ BENGAL IRON CORPORATION
111	SWR PVC PIPES AND FITTINGS	SUPREME, FINOLEX, PRINCE, ASTRAL
112	CPVC PIPE AND FITTINGS	SUPREME, ASHRIVAD, FINOLEX, PRINCE, FLOWGARD, ASTRAL, PRAYAG
113	UPVC PIPES	SUPREME, PRINCE, FINOLEX
114	WATER SUPPLY VALVES	ZOLOTO, LEADER, ARCO
115	CI MANHOLE COVER	NECO, BIC
116	SFRC COVER AND GRATING	TULSHI CONCRETE, KK, ADVENT, NEWTECH
117	AIR RELEASE VALVES	KIRLOSKAR, RBM, KARTAR
118	CI DOUBLE FLANGE SLUICE	KIRLOSKAR, RBM, KARTAR

SI No	Materials	Approved Make
	VALVE	
119	PLASTIC ENCAPSULATED FOOT REST	KK INDIA, KGM, ACCURATE BUILDCON
120	GUN METAL VALVES	ZOLTO, LEADER, SANT, ANDCO INDIA
121	CI DOUBLE F LANGED SLUICE VALVES	KIRLOSKAR, IVS, BURN, ZOLOTO, LEADER
122	CI DOUBLE FLANGED NON-RETURN VALVES	KIRLOSKAR, FLUIDTEH, ZOLOTO
123	SANDWICH PU PANELLED ROOFING SHEETS	LLOYD INSULATION (INDIA) LTD., JINDAL, MECTEC PVT LTD., TATA
124	GALVALUME SHEET	LLOYD (INDIA) LTD., JSW, TATA BLUESCOPE
125	CRYSTALLINE WATER PROOFING ADMIXTURE AND COMPOUND	PENETRON, KRYTON, PIDILITE, FOSROC. ASIAN PAINTS, MYK ARMENT PVT LTD.
126	STAINLESS STEEL WATER SUPPLY PIPES	JINDAL, SWASTIK, RAMPPART, J-PRESS.
127	HERMETICALLY SEALED PERFORMANCE GLASS, TOUGHENED, DGU, SGU, TOUGHENED LAMINATED GLASS	AUTHORISED TOUGHENERS OF (MODI GUARD, SAINT GOBAIN, ASAHI, AIS/GLAVERBEL, PILKINGTON
128	ORDINARY PORTLAND CEMENT (43 grade)AND PORTLAND POZZOLONA CEMENT	ACC CEMENT,ULTRATEC CEMENT, COROMANDAL CEMENT,0020 BIRLA CEMENT, CHETTINADU CEMENT, BHARATI CEMENT , DALMIA CEMENT. ZUARI CEMENT, JAYPEE CEMENT ,MAHA CEMENT, J.K.CEMENT , AMBUJA CEMENT , CENTURY CEMENT, PENNA CEMENT , RAMCO CEMENT
129	PLASTICISER AND SUPER PASTICISER	AS PER CEMENT MANUFACTURER'S RECOMMENDATION,MYK ARMENT PVT LTD
130	EXPANSION JOINT BITUMEN BOARD	DURA BOARD HD100, DURAFILL
131	HIGH DENSITY PRELAMINATEDEBOARD	PERGO, GREEN PLY INDUSTRIES LTD.
132	SS BUTT HINGES	OZONE , DORMA, GEZE
133	REFLECTIVE GLASS	SAINT GOBAIN , ASAHI , PILKINGTON, MODI FLOAT, GLAVERBEL
134	PREMIER ACRYLIC SMOOTH EXTERIOR PAINT WITH SILICON ADDITIVES	ASIAN PAINT, ICI DULUX, NEROLOC BERGER
135	CEMENT BASED WALL PUTTY	JK WALL PUTTY, BIRLA WALLCARE, ASIAN PAINTS
136	FLUSHING CISTERN	KOHLER, GROHE, JAQUAR
137	PE-AL-PE COMPOSITE PIPES	KITECH, VECTUS, JINDAL
138	PVC /HDPE WATER STORAGE TANKS	VECTUS, SYNTEX, SUPREME

SI No	Materials	Approved Make
139	WATER SUPPLY FIXTURES	JAQUAR, HINDWARE
140	ANODISED ALUMINIUM FITTINGS FOR DOORS AND WINDOWS	DEFNE, SCHUECO, BHORUKA, KAWANEER, HARDIMA, EVERITE, JYOTHI, SIGMA
141	STRUCTURAL GLAZING	MODI, SAINTGOBAIN, ASAHI, GLAVERBEL
142	MULTI WALLED POLYCARBONATE ROOFING SHEETS	DANPALON, LEXAN GE, DPI DAYLIGHT.
143	WALL PANELLING	ANUTONE, HIMALAYAN ACCOSTICS, ARMSTRONG.

GOVERNMENT OF INDIA

CENTRAL PUBLIC WORKS DEPARTMENT

NOTICE INVITING TENDER

Name of the Work: Name of Work: Construction of Semi permanent structure office at 2nd floor including internal Electrical works for Canteen at CMFRI, Mangalore.

PART C

PROFORMA OF SCHEDULES (ELECTRICAL WORKS)	CPWD
---	-------------

(Performa for Electrical Works in case of CompositeTenders)
(Operative Schedules to be supplied separately to each intending tenderer)

SCHEDULE 'A'

Schedule of quantities: As per NIT

SCHEDULE 'B'

Schedule of materials to be issued to the contractor: -

SR. NO.	DESCRIPTI ON OF ITEM	QUANTITY	RATES IN FIGURES & WORDS AT WHICH THE MATERIAL WILL BE CHARGED TO BE CONTRACTOR	PLACE OF ISSUE
1	2	3	4	5
NIL				

SCHEDULE 'C'

Tools and plants to be hired to the contractor: -

Sr. No.	Description	Hire charges per day	Place of issue
1	2	3	4
NIL			

SCHEDULE 'D'

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

: As per NIT

SCHEDULE 'E'

Reference to General Conditions of contract

: G.C.C. – 2023 , Corrected as per CON
Circular up to last date of submission of bid.

NAME OF WORK

Name of Work: Construction of Semi permanent structure office at 2nd floor including internal Electrical works for Canteen at CMFRI, Mangalore.

Estimated cost of work (Elect.)	: Rs. 2,38,226/- (Electrical)
(i) Earnest Money	: As per Major components
(ii) Performance Guarantee	: As per Major components
(iii) Security Deposit	: As per Major components

SCHEDULE 'F'

GENERAL RULES & DIRECTIONS

(i) Officer inviting tender	: As per Major components
-----------------------------	---------------------------

DEFINITIONS: -

- 2(vi) Engineer -in- Charge : Executive Engineer (Elect),
: C.P.W.D., Mysore (for E&M works).
Or his successor
- 2(viii) Accepting Authority : As per Major components
- 2(x) Percentage on cost of materials and Labour to cover all overheads and profits : 15%
- 2(x)(a) Standard Schedule of Rates: : Delhi Schedule of Rates (Electrical) – 2025.
- 2(xi) Department : Central Public Works Department
- 9(ii) Standard CPWD Contract Form : As per Major components
- Clause 1
- (i) Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance : As per Major components
- (ii) Maximum allowable extension with late fee at 0.1% / day of PG amount beyond the period provided in (i) above. : As per Major components
- Clause 2
- Authority for fixing compensation under Clause- 2 : As per Major components
- Clause 5
- Number of days from the date of issue of letter of acceptance for reckoning date of start : As per Major components

Mile Stone Table (Electrical):

Time allowed for execution of work – As per Major components

Sr. No.	Description of Milestone (Physical)	Time allowed in days (from the date of start)	Amount to be withheld in case of non-achievement of milestone. (% of tendered amount of respective Electrical component)
As per Major components			

Note 1: Withheld amount shall be released if and when subsequent milestone is achieved within respective time specified. The main contractor will ensure that electrical components of the work are executed in time without giving any chance for slippage of milestone an account of delay in execution of associated electrical works by him. However, in case milestones are not achieved by the contractor for the work, the amount shown against milestone shall be withheld by the Engineer-in-Charge of the respective components.

Note 2: Intending tenderer may submit phasing of activities / milestones on the basis of their resources and methodology at the time of tendering correspondence to physical milestones / stages indicated in the above table. These shall be formed part of the agreement after approval of the accepting authority, otherwise it would be assumed that agency agrees with the above mentioned physical milestones.

Time allowed for execution of work : As per Major components

Authority to decide:

- (i) To convey the decision of shifting of Mile stone and Extension of time. : Executive Engineer, CPWD, Mysore (Engineer in Charge or Engineer in Charge of Major Component in case of Composite Contracts, as the case may be)
 - (ii) To decide Rescheduling of mile stones and extension of time. : As per Major components (Superintending Engineer in Charge)
 - (iii) Shifting of date of start in case of delay in handing over the site. : As per Major components
- Clause 6 : As per Major components

Clause 7

Gross work to be done together with net payment /adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment. : **Rs. 2.00 Lakhs**

Clause 7 A :

Whether Clause 7 A shall be applicable – Yes (DG/CON/Construction 2023/15 dtd 31.01.2025)

Clause 7B: : As per major components

Clause 8: : As per major components

Clause 8A:

Whether Clause 8A shall be applicable : As per major components

Clause 10A

List of testing equipment to be provided

By the contractor at site lab : As per major components

Clause 10B(ii)

Whether Clause 10 B (ii) shall be applicable : As per major components

Clause 10C : Not Applicable

Clause 10CC

: As per major components
(As mentioned in Table 2 of major components)

Clause 11

Specifications to be followed

CPWD General Specification for electrical work
Part-I Internal – 2023, Part-II External-2023,
Part V Wet Riser & Sprinkler Systems – 2020,
: Part VI Fire Detection and Alarm System –
2018, HVAC Works-2024 and Part VIII Gas
Based Fire Extinguishing System 2013 as
amended up to last date of submission of bid.

Clause 12		
Type of work		: Construction work
Maximum percentage of quantity of items of work to be Executed beyond which rates are to be determined in Accordance with Clause 12.2 (C)		: Refer below
12.2 (C)	Deviation limit beyond which Clauses 12.2 (C) shall apply for all items of building work.	100% (Hundred percent)

(The completion cost of construction work shall not exceed 1.5 times of the contract amount.
Work executed beyond above this limit shall neither be recorded nor paid)

Clause 16 :- Competent Authority for deciding reduced rates	:	As per Major components
Clause 18 :- List of mandatory machinery, tools & plants to be deployed by the contractor at site.	:	As required for timely execution of work as per direction of Engineer-in-charge.

Clause 19: Modified provision.

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.

Clause 19C, 19D, 19G, ... Applicable.

Clause 19C authority to decide penalty for each default:	As per Major Component.
Clause 19D authority to decide penalty for each default	
Clause 19G authority to decide penalty for each default	

Clause 19 (C)	As per Major Component.
Penalty for each default	
Clause 19 (D)	
Penalty for each default	
Clause 19 (G)	
Enhanced penalty per day for Continues default	

Clause 25 : As per major components

Clause 32(i): Requirement of Technical Representative (S) and Recovery Rate for each of following E&M components

SI. No.	Minimum Qualification of Technical Representative	Discipline	Designation	Minimum Experience	Number	Rate at which recovery shall be made from contractor in the event of non-deployment.	
						Figures	Words
1	As per Major Component						

Note:

Assistant Engineer retired from Government services that are holding Diploma will be treated at par with Graduate Engineers.

Diploma holder with minimum 10 years relevant experience with a reputed construction co. can be treated at par with Graduate Engineers for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50% of requirement of degree engineers.

The contractor shall submit a certificate of such employment of the technical representative(s) (in the form of copy of Form-16 or CPF deduction issued to the Engineers employed by him) along with every account bill/final bill and shall produce evidence if at any times so required by the Engineer-in-charge.

Clause-41

The security deposit of the work shall be refunded if no labour complaint has been received from the labour officer till the due date of its payment. If a labour complaint is received during this period, the Engineer-in-charge shall, after issue of **notice in this regard to the contractor, deduct the amount required to settle the complaint from his security deposit and refund the balance amount.**

SPECIAL CONDITIONS FOR ALL E & M COMPONENTS

1. The applicant should either himself meet the eligibility conditions for the respective E&M components or otherwise he will have to associate with agencies, fulfilling the eligibility requirements and hence consent letter from at least One eligible Associate Agency of the respective components of E&M work shall also be submitted as per attached Proforma as per Form "P".
In case the main contractor is himself eligible (as per eligibility criteria) for executing any specific minor component and intends doing the job himself, he may not be required to associate with another agency for that minor component of work. In such cases the main contractor also has to submit the documents as per eligibility criteria mentioned for associated agency of individual E&M component.
2. The main tenderer has to submit the following documents for association of contractor within one month of award of work.
 - (i) In support of the eligibility conditions of the proposed Associated Contractor, copy of their registration documents, Electrical License, GST Documents duly attested by the applicants (Main Contractor) shall be submitted to the EE(C) who will submit these documents to the **Executive Engineer (Electrical), CPWD, Mysore, or his successor** for deciding the eligibility. Each such Associated Contractor will certify that they are not debarred as on the day of application for sale of tender. Proposal for associating agency for minor components of work shall be submitted in Form- "N" of this tender document from each associate independently for all electrical and mechanical components.
 - (ii) The main contractor will submit MOU signed with eligible associated. The MOU in the enclosed Form "Q" shall be signed by both the parties main contractor i.e. as 1st party and associated contractor as 2nd party. Independently for all electrical and mechanical components
3. In the event of the concerned E&M agency not performing satisfactorily or failure of associate contractor to complete the E&M work, the main contractor on written directions of the department, shall remove the Associate contractor deployed on the work and shall submit name of new associate who fulfill the conditions mentioned in NIT to execute the leftover work without any loss of time or variation in cost to the department. Such associates shall also give an undertaking along with the main tenderer but both of them together will stand 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 contractor and paid partly by the Dept., 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 Associated Contractor will be allowed without prior approval of the Engineer-in-charge of the work.
4. In respect of all works i.e., Internal Electrical Installation, Fire Fighting and fire alarm System, UPS, LAN, CCTV, IP - **EPABX**, Solar Photovoltaic, Street lights etc., the materials shall be procured only from the original equipment manufacturers/authorized dealers of OEM. The contractor shall submit all documentary details in fulfillment of this conditions regarding

procurement of materials including relevant test certificates.

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 main contractor has to enter into agreement with contractor associated by him for execution of minor component. Copy of such agreement shall be submitted to Executive Engineer(E) in charge of minor component as well as E.E. in charge of major component.
8. The associate contractor shall attend the inspection of the work by the Engineer-in- Charge of E&M works as and when required.
9. It is the responsibility of the main contractor for the liaisoning work with local bodies like ESCOM/ electrical Inspector / Chief fire officer of state Govt. for obtaining service connections/ Lift / Fire related clearances for installation, operation license after final installation, for final NOC AND CLEARANCE for fire protection system and lift for occupation of the building from Fire officer of state govt. as per local by- laws, obtaining service connection from local distribution company.
10. **Before completion of defect liability period of one year, the main contractor has to submit security deposit of 5% of 80% of the price quoted by him for SITC of LED fittings for the remaining 4 years warranty period for LED fittings in acceptable form i.e. FDR/ Bank guarantee to concern Executive Engineer (E). The Security Deposit deducted from the bills of contractor shall be refunded to the main contractor only after submission of above security deposit for LED fittings by main contractor, failing which this LED security deposit shall be deducted from Security Deposit deducted for total work and balance amount only will be refunded after completion of defect liability period. The LED Security Deposit will be released after completion of warranty period of 5 years to the main contractor.**

Executive Engineer (E)
CPWD, Mysore

THE MINIMUM ELIGIBILITY CRITERIA FOR E&M COMPONENTS AND SPECIALIZED WORKS WHEREVER APPLICABLE

The Main contractor shall have to associate other agency(s) for execution of each of the work(s), which fulfils the eligibility criteria as defined after taking prior approval. The main Contractor and the associated specialized agencies shall give required affidavit to confirm their association. Tender accepting authority may approve change of sub agency in case it is required during the currency of contract. However, the main contractor shall also be eligible to carry out himself any or all these works without associating any specialized agency provided:-

a) He fulfills the following prescribed eligibility criteria respectively for these work(s).

Sl. No	Component Of E&M works	ECPT in Lakhs	Eligibility
1.	IEI, fans & fittings etc.	2.38	The main contractor shall either himself possesses electrical license of appropriate voltage level issued by competent authority or may associate with contractor registered in Buildings & Roads category of appropriate class in CPWD for execution of this sub head of work having valid Electrical contractor license of appropriate voltage level issued by competent authority.

Note:

The value of executed works shall be brought to current costing level by enhancing value of work at simple rate of 7% per annum calculated from the date of completion to last date of submission of tender. For other conditions, refer special conditions specified in NIT.

The applicant shall either himself meet the eligibility conditions for the respective E&M packages or otherwise, he will have to associate an agency meeting the eligibility requirements as given in this tender document and submit the details as per Form "N" given in this tender document.

The applicant/ main contractor has to submit consent letters as per Form "P", given in this tender document from the eligible associate agency of the respective component of E&M work for each of the component of E& M works by clearly indicating the component of work.

The main contractor will have to submit an affidavit of MOU signed with eligible associated contractor. The MOU in the enclosed Form "Q" shall be signed by both contractors, Main contractor as 1st party and associated contractor as 2nd party, independently for each E&M component.

Completion certificates of the work, TDS documents, valid license, MOU documents, GST registration/approval documents as the case may be, duly attested by the main agency and proposed associated agency shall be submitted within time line duration as mentioned in Milestone under clause 5 or 15 days after the award of the work whichever is earlier.

FORM –N**PROPOSAL FOR ELIGIBLE ASSOCIATING AGENCIES FOR MINOR COMPONENTS OF WORK (as applicable)**

I/we hereby propose the following agencies as per mentioned against each for executing corresponding minor components of work. Their consent letter are also attached.

Sl. No	Name of Associated Contractor	Category and class of registration	Enlistment copy/completion Certificates attached	Monetary Limit of work	Validity of registration	Consent letter attached (Yes/No)
1.	IEI, fans & fittings etc.					

Note: Self Attested photocopies of enlistment order, valid electrical contractor license, work experience certificates of each agency for each component of E&M work shall be submitted.

Signature of contractor

FORM –PCONSENT LETTER FROM ELIGIBLE ASSOCIATE AGENCY OF
MINOR COMPONENT OF WORK

NAME OF WORK: **Name of Work: Construction of Semi permanent structure office at 2nd floor including internal Electrical works for Canteen at CMFRI, Mangalore.**

1. I / We hereby give my consent to associate with M/s....., for executing the minor component of work of (Mention category).
2. I / We will execute the work as per specifications and conditions of the agreement and as per directions of the Engineer –in-Charge for the corresponding minor work till the completion of the work.
3. I / We will be responsible for necessary action to handover the installations and for rectification of defects and repair during the maintenance / warranty period.
4. Also I / We will employ full time technically qualified Engineer / supervisor for the minor component of the work as required for the work. I / We will attend inspection of officers of the department as and when required.

Date:

Signature with date of Major component Signature with date of Associate/
Minor Component

Contractor
Address

Contractor
Address

1. Witness with address

(From major component contractor side)

2. Witness with address

(From minor component contractor side)

FORM -QMEMORANDUM OF UNDERSTANDING (M.O.U)
(to be submitted for each and every E&M component)

1. M/s. (Name of the firm with full address) Enlistment Status
Valid Upto:
(Henceforth called the main Contractor)
2. M/s. (Name of the firm with full address) Enlistment Status
Valid Upto:
(Henceforth called Associated Contractor)

For the execution of E& M components for the work of **Name of Work: Construction of Semi permanent structure office at 2nd floor including internal Electrical works for Canteen at CMFRI, Mangalore.** as per schedule specifications, terms and conditions of the tender.

We state that M.O.U 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 this MOU allows. Both the parties shall be paid consequent to the execution as per agreement to the extent this MOU permits. In case of any dispute, either of us will go for mediation by the Engineer In charge. Any of us may appeal against the mediation to the Superintending Engineer, CPWD, Mysore. His decision shall be final and binding on both of us.

We have agreed as under:

1. The Associated Contractor will execute all electrical works in the wholesome manner as per terms and conditions of the agreement.
2. The Associated Contractor shall be liable for disciplinary action if he fails to discharge the action(s) and other legal action as per agreement.
3. All the machinery and equipment, tools and tackles required for execution of the electrical works, as per agreement, shall be the responsibility of the Associated Contractor.
4. The site staff required for the electrical work shall be arranged by the Associated Contractor as per terms and conditions of the agreement.
5. Site order book maintained for the said work shall be signed by the main contractor as well as by the Engineer of the Associated Contractor and

by Associated Contractor himself.

6. All the correspondence regarding execution of the electrical work shall be done by the department with the Associated Contractor with a copy to the main contractor. In case of non-compliance of the provisions of agreement, the main contractor, as well as the associated contractor shall be responsible. The action under clauses 2 and 3 shall be initiated and taken against the main contractor.

Signature Of Main Contractor

Signature Of Associated Contractor

Date:

Date

Place:

Place:

1. Witness with address

2. Witness with address

(From major component contractor side)

(From minor component contractor side)

ADDITIONAL CONDITIONS OF CONTRACT & SPECIFICATIONS FOR E&M WORKS FOR DEVELOPMENT OF SITE AND BULK SERVICES FOR: Name of Work: Construction of Semi permanent structure office at 2nd floor including internal Electrical works for Canteen at CMFRI, Mangalore.

GENERAL AND COMMERCIAL CONDITIONS:

This section covers the various commercial conditions applicable and to be read in connection with the conditions of contract of the standard form (CPWD-7 / 8) of the department (CPWD) forming part of the tender papers. In the event of any discrepancy between these two, the requirements of the former will be followed.

These additional conditions and additional specifications are applicable to all E&M works in general. For specific tenders some of the E&M services may not be a part of the particular tender. In such cases the conditions and specifications which are not related to the works or components thereof mentioned in the schedule of work shall not apply for that particular tender.

All the E & M works shall be carried out as per direction and to the entire satisfaction of the Engineer-in-charge.

Unless otherwise specified in the following conditions, the work shall, in general, be carried out as per following specifications:

CPWD General Specifications for Electrical Works – Part-I (Internal), 2023 amended up to date.

CPWD General Specifications for Electrical Works – Part-II (External), 2023 amended up to date.

CPWD General Specifications for Electrical Works – Part VIII Gas Based Fire Extinguishing System 2013 amended up to date.

CPWD General Specifications for Electrical Works – Part-V (Wet Riser & Sprinkler Systems) 2020 amended up to date.

CPWD General Specifications for Electrical Works – Part-VI (Fire Detection and Alarm System) 2018 amended up to date.

CPWD General Specifications for Heating, Ventilation & Air-Conditioning (HVAC) - 2024 Relevant BIS specifications amended up to date.

Indian Electricity Act 2013 and Indian Electricity Rules 1956 amended up to date.

Local Fire Regulations applicable at the place of installation.

Relevant and applicable foreign standards and specifications amended up to date.

Any other relevant act or rules and local byelaws.

Commercial and additional conditions and specifications for E & M works for this tender.

The work shall be carried out by CPWD enlisted contractor of appropriate Class as per Composite category with valid Electrical license and supervisor license only and other criteria as per norms. In case the main contractor is not fulfilled the criteria, he should engage a suitable agency as associated contractor, for execution of this work. Name of electrical agency shall be given in consent letter Performa along with enlistment details of the agency

Executive Engineer (Elect.) shall be the Engineer-in-Charge as far as electrical works are concerned. It will be obligatory on part of the main contractor to sign the tender documents for the entire component. The main contractor has to enter in agreement (MOU) with the

Contractor associated by him for execution of minor component. Copy of such agreement shall be submitted to EE/DDH of minor component as well as EE in charge of major component

Running payment for Electrical/Mechanical components shall be made by the EE (E) directly to the main Contractor. The main contractor shall make the payment to associated Contractor within 15 days of receipt of each running account payment

The main contractor shall be responsible for coordinating the activities of all works and will ensure progress of works as per laid down program.

Normally, there shall be no change in associated contractor for minor component work during the execution of the work. If at all, a change is necessitated, the same should be acceptable to the department and such acceptable contractor shall fulfill the conditions laid down for the selection of the associated contractor in the tender document.

If the specifications for any item or its component are not available in the CPWD specifications cited above, relevant BIS specification as amended up to date shall be followed, whether or not the specific reference of a particular BIS specification has been made in this specification / tender document.

Wherever any reference to any Indian Standard specification occurs in the document relating to this contract the same shall be inclusive of all amendments issued thereto or revisions thereof, if any, up to the date of opening of tenders.

All materials should conform to relevant BIS specifications wherever the same exists in absence of stipulation in this tender document.

Where manufacturers furnish specific instructions / recommendations relating to the materials used in this job and/or their installation, covering points not specifically mentioned in these documents, these instructions shall be followed in all cases and shall be deemed to be included in the schedule of work whether they have been specifically mentioned or not.

Manufacturer's catalogue / literature on installation, testing, maintenance and troubleshooting of major equipment's shall be submitted to the department while handing over the installation.

MATERIALS TO BE USED IN THE WORK:

All materials used in the work shall be new and of good quality, conforming to the relevant specifications as per good engineering practice.

All the materials proposed to be used in the work should be got approved from Engineer in Charge before use in work.

The materials to be supplied / provided by the contractor in execution of the work should be ISI marked, wherever applicable and of make as specified in the agreement. Where the make of any particular material is not specified in the contract document, the material shall be supplied as per makes desired by the engineer-in-charge.

It will be the responsibility of the contractor / bidder to ensure use of genuine materials in the work. The department reserves the right to get (any / all materials / components) inspected by the manufacturer or their authorized representatives at any stage of the execution of work. If any of the materials, equipment supplied and used in work is found spurious at any stage, then the department reserves the right to ask the contractor to replace it by genuine one and make suitable recovery and / or withheld suitable amount till it is done,

even if any payment against that material is already made.

The department may ask for any valid document like manufacturer's test certificate, document for purchase of the material, document for import / shipment of imported materials etc. as deemed fit by the engineer-in-charge to ascertain genuinity of material supplied by / used in the work by the contractor. The contractor shall remain bound to submit all such documents to the department failing which payment may not be made or if already paid may be recovered / withheld from subsequent running account payment.

Copies of all purchase documents for all equipment's, accessories, fittings, fixtures etc. which carry guarantee / warrantee shall be handed over to the department in suitable form so that proper guarantee of materials are available to the department.

All the equipment's and their components and all the materials to be used in the work shall be suitable for the environmental conditions at the location of the work.

The materials to be supplied in this work shall be scheduled in such a way that miles stones are achieved and no shortfall is there. At the same time materials should be brought at sight in phases in such a manner so that they are not brought much in advance at site and dumped in work site for long period before installation and guarantee / warrantee of the materials are available for full period as per tender conditions. If the materials / equipment's are supplied at site much before actual use in work, the department shall not remain bound to make payment for such items of work involving the said materials / equipment's. The decision of the engineer in charge will be final and binding on all.

Dismantle materials, if any, should be returned to the department unless otherwise anything in contrary has been specifically stated in the tender document / BOQ.

RATES:

Unless otherwise provided in the schedule of quantities of the work the rates tendered by the contractor shall be all inclusive and shall apply to all heights, lifts, leads and depths of the building and nothing extra shall be payable to him on this account.

The rates for all items of work shall, unless clearly specified otherwise, include cost of all labours, materials and other inputs involved in the execution of the item irrespective of whether they have been specifically mentioned in the tender document or not.

This being an indivisible works contract, GST etc. are not payable separately. The rates tendered shall be firm and inclusive of all taxes, duties, cess and levies as applicable, and all charges for packing, forwarding, insurance, freight and delivery, installation, testing and commissioning at site, watch and ward etc. including temporary constructional storage, risks, over head charges, general liabilities / obligations and clearance from local bodies and State Fire Services, as applicable. Nothing extra shall be paid. However, fees payable to the local bodies / authorities for such clearance etc. shall be borne by the department.

In case the same item (s) appear more than once in the schedule of work / BOQ under the same sub head or among the different subhead of works, the lowest rate quoted for that item (s) shall be considered for the particular item (s) wherever appeared in any part of BOQ / Schedule of works for the purpose of tender evaluation although web generated e-price bid may incorporate different quoted rate for same item (s) as per the quoting pattern of the tenderer. The tendered amount thus worked out shall be final & shall be binding on the contractor. (Applicable for item rate tender).

ACCIDENT:

The department (CPWD) shall not have any responsibility or liability in case of any accident injury to the personnel to the contractor at work site or to the general public at the work site due to mishandling equipment by the personnel of the contractor or any other similar reason. The responsibilities and liabilities for such accidents and incidents shall be borne in full by the contractor.

AFTER SALES SERVICE:

The contractor shall ensure adequate and prompt after sales service in the form of maintenance personnel and spares as and when required with a view to minimize the break down period. Particular attention shall be given to ensure that all spares are easily available during the normal life of the installation.

REMOVAL OF SURPLUS MATERIALS AND TOOLS:

After completion of work the agency shall remove his men, materials and debris etc. from site.

QUALITY OF WORK AND WORKMANSHIP:

The contractor shall be entirely responsible and answerable for all the works done by him regarding quality, adherence to the laid down specifications, terms and conditions, warranty/guarantee etc. and he shall be liable to bear any compensation that may be levied by the department under any of the clauses of the agreement.

The materials having ISI mark shall have precedence over the one conforming to IS Specifications.

The contractor is advised to visit the site before quoting for his tender to apprise himself about the site environments and other conditions. Drawings and inventories can be seen in the office of the Engineer – in – charge.

SITE ORDER BOOK:

The contractor or his authorized representative shall sign the site order book and comply with the remarks entered therein by the representative of the department.

WATCH AND WARD:

The contractor will make his own storage of his own materials. The watch and ward of the materials and of the installations would be responsibility of contractor till the work is completed / handed over to the department. Nothing extra shall be paid to the contractor on this account.

Making payment to the contractor in any form against supply of materials / equipment's / components or execution thereof shall not absolve the contractor of his responsibility of watch and ward of the equipment's / materials etc. and their satisfactory functioning until the same is taken over by the department after successful installation, testing, commissioning and running in period.

No separate storage space will be provided to the contractor for storage of his materials and equipment's to be brought at site and used in execution. The available open site space may however be used by the contractor for storage purposes in which case he may build up temporary store at available site space at his own cost.

VARIATION IN QUANTITY:

Quantities shown against each item of work or supply are tentative which may vary on either side (plus or minus). This variation shall, in general, be governed by clause No. 12 of the clauses of contract of CPWD form 7 / 8. The contractor should ensure from the Engineer-in-charge and from the site condition the actual quantity required / to be used / to be supplied before bringing the materials at site. In case the actual quantity of material required at the site is less than the stipulated quantity, the contractor cannot claim to supply entire quantity stipulated in the schedule of quantities of work as well as cannot demand for payment thereof. The contractor shall therefore, be very careful about the quantity of materials to be supplied / brought at site. The decision of the Engineer-in-charge in this regard shall be final and binding on the part of the contractor. Even if initial payment for supply of materials is made in any form for bringing material at site and if it is found at later stage that the actual requirement is less as per site requirement or as per decision of the Engineer-in-charge, the contractor shall have to take back the additional quantity brought / supplied at site and necessary adjustment shall be made from his next bill on this account. No claim in this regard shall be entertained.

NATURAL CALAMITY:

No payment will be made to the contractor for any damage caused by rain, snow fall, floods, dampness, fire, sun or any other natural cause whatsoever during the execution of work. The damage to the work due to above reason, if any, shall have to be made good by the contractor at his own cost and no claim on this account shall be entertained.

INSPECTION AND TESTING:

The Engineer-in-charge or his authorized representative may inspect any material at manufacturers works and may witness routine tests as per relevant Indian Standard Specifications or other relevant specifications at manufacturers works.

The contractor shall give in writing advance notice to the Engineer-in-charge and arrange for such inspection / presence for testing at manufacturers work. The TA/DA etc. of the departmental personnel who will be deputed to witness the tests etc. shall be borne by the Department.

The Engineer-in-charge or his authorized representatives shall have, at all the reasonable times, access to the contractor's premises or works or other works where manufacturing / fabrication shall be done and shall have the power, at all reasonable times, to inspect and examine the materials and workmanship during its manufacture or fabrication.

Inspection of imported materials at foreign works shall however not be carried out by the department. These materials shall be inspected and tested at site. Manufacturers' original test certificates and document of import / shipment should be provided to the department along with the materials without which no payment should be made to the contractor.

The contractor shall arrange for all the materials and labour required in connection with inspection of equipment or for any testing to be carried out at his works / manufacturers' works or at site of installation. Notice of such inspection / presence for testing shall be given by the contractor to the Engineer-in-charge at least fifteen days in advance.

Notwithstanding approval for such tests / inspection of equipment's / components by the Engineer-in-charge or his authorized representative, the contractor shall be required to perform site tests as desired by the Engineer-in-charge and prove the correctness of ratings and performance of equipment's / components and materials supplied and / or installed by him as per contract specifications and conditions at his own cost.

The Engineer-in-charge reserves the right to reject any equipment / machinery / material should it, on tests after installation, be found not to comply with contract specifications or its performance is not satisfactory.

Final inspection and testing will be done by the engineer-in-charge or his representative as per details to be indicated by the engineer-in-charge.

It shall be the responsibility of the contractor to get the installation inspected and passed by the local authorities concerned, as may be required by the local bye laws. The contractor will extend all help including test facilities to the representatives of the local bodies. In case the contractor fails to make desired facilities available during inspection, the department reserves the right to provide the same at the risk and cost of the contractor. The observation of the local authorities will be promptly attended by the contractor. The installation will be accepted by the department only after receiving clearance from the local bodies / fire authorities. The inspection charges leviable by the local / statutory authorities for the inspection shall however, be borne by the department.

COMPLETION DRAWING AND MANUAL :

In addition to the mode and form of submission of completion drawings and manuals as stipulated in the relevant CPWD Specifications for various sub-heads of E&M works, the contractor shall also submit soft copy of the completion drawings in CD / DVD.

POWER SUPPLY AND WATER SUPPLY :

No Power & Water Supply shall be provided by the department for the purpose of execution of the E&M work, except for testing and commissioning of installations. The contractor shall make his own arrangement in this regards. The power supply for testing and commissioning will be given at one point inside the premises and the contractor shall have to make arrangement for required cabling work and switch gears for extension of the power to the required location for testing. This will be applicable to all sub-heads of E&M works.

WORKS TO BE DONE BY THE CONTRACTOR :

Unless otherwise mentioned in the tender documents, the following works shall be done by the contractor and therefore, their cost shall be deemed to be included in their tendered cost – whether specifically indicated in the schedule of quantity / work or not:

Foundations for equipment / structures / fuel tank / pumps including vibration isolation spring / pads.

All minor building works necessary for installation of equipment such as making of openings in walls / floors, either of RCC or brick masonry, foundation trench for fuel line and cable, making of opening in walls or in floors and restoring them to their original condition / finish and necessary grouting etc. as required.

Dismantling of brick wall, if any, for inserting / positioning / placement of equipment, Control panel / Diesel Tanks or for taking ducting / cable tray / pipes and rebuilding / making good the same to its original position / finish.

Making good all damages caused to the structure during installation and restoring the same to their original finish.

Supply and installation of all necessary angle / channel / flat iron supports and brackets etc. for installation of the substation equipment, D.G. Sets / Diesel Tanks / Exhaust Piping /

Water and fuel piping / Cabling / electric Panels / bus-trunking / pumps / air-conditioning ducts / air-conditioning equipment and their sub assemblies / accessories on floor / wall / Shaft / terrace and at other places, as may be necessary including their installations in position.

Responsibility to ensure safety of all materials against pilferage and damage till the installation is handed over to the department.

All scaffolding as may be necessary for installation of Exhaust piping / Cabling / Electric Panels / exhaust pipe / DOWNCOMER and sprinkler pipes / ducts and all other equipment and their sub assemblies / accessories on floor / wall / Shaft / terrace and at other places during erection work and subsequent removal.

Painting of all exposed metal surfaces of equipment and components with appropriate / approved colour as required and as desired by the Engineer – in - charge.

All electrical works including cables / wires, earthing etc. as specified in Schedule of work. Small wiring, inter-connection etc. inclusive of all materials and accessories necessary to comply with the regulations as well as proper and trouble-free operation of the equipment.

Closing of the cable entry points in sub-station/electrical panel rooms etc. where ever applicable against seepage of water rodents etc.

Approval / clearance of the complete installation shall be obtained by the contractor from CPCB / State Pollution Control Board / Local Bodies / Central Electricity Authority (CEA) / other licensing authorities wherever required. However, application shall be made by the Department and any statutory fee, as applicable, shall be paid by the department directly to the government authorities concerned.

DATE OF TAKING OVER OF THE INSTALLATION & DATE OF ACCEPTANCE:

The date of taking over of the installations under any sub-head of E&M works shall be the date of taking over the complete building (s) after due completion of the entire composite work and after complete test and trial run of all the major equipment under all sub-heads of E&M works to the entire satisfaction of the engineer-in-charge.

Subject to the guarantee clause, date of taking over the installation after stipulated period of trouble-free operation of all the E&M works shall be the date of acceptance.

ORDER OF PREFERENCE:

Should there be any difference or discrepancy between the description of items as given in the Schedule of Quantities, technical specifications for individual items of work (including additional and commercial conditions) and IS Codes etc., the following order of preference shall be followed:

- Description of Schedule of quantities
- Particular Specifications and special conditions, if any
- Drawings
- CPWD Specifications
- General Conditions of Contract 2023 for Construction works of CPWD
- Indian standard specifications of BIS
- Manufacturers specifications & as decided by Engineer-in-charge
- Relevant IS or any other international code in case IS code is not available

The responsibility of execution of Specialized E&M works under scope of NIT shall lie with Main composite Contractor only. He is required to furnish the documents/certificates in support of his experience to execute the mentioned specialized E&M as mentioned in the NIT after award of work. If the main agency does not have required experience, they must associate Specialized Agency/Agencies to execute the mentioned E&M components of the work having requisite experience as per "THE MINIMUM ELIGIBILITY CRITERIA FOR E&M COMPONENTS AND SPECIALIZED WORKS WHEREVER APPLICABLE" mentioned in the NIT.

ADDITIONAL CONDITIONS AND SPECIFICATIONS FOR THE WORK OF INTERNAL & EXTERNAL ELECTRICAL INSTALLATIONS

The wires / cables used for point wiring, circuit wiring, sub-main wiring, power wiring and other wirings shall be done by FRLS grade PVC insulated copper conductor single core cable of 1100 V grade and of makes as specified in the list of accepted makes of materials.

All the wires should be terminated to the switch box / DB / MCB etc. by crimping with suitable size tinned copper lugs, unless the wire is single stranded. For termination to switches soldering is permissible. Nothing extra shall be paid on this account.

Hidden / concealed items and earthing work shall be done in the presence of the Engineer-In-charge of the work or his authorized representative only. The contractor shall give due notice for such work in advance to the department.

The wireman / electrician engaged shall possess valid electrical workman permit in appropriate category as per rule.

The drawing showing layout of the main board, allied equipment, if any, shall be got approved by the contractor from the engineer-in-charge before fabrication and execution.

All hardware, fastening material viz nuts, bolts, washer and screws etc. to be used on work shall be of zinc / cadmium plated iron.

The contractor shall have to furnish the insulation test report, earth test report, along with all required detailed of electrical load on the prescribed Performa for the electric connection from the supply company.

The contractor shall submit the completion certificates and completion plan as per clause 1.26 of General specification for Electrical work (Part-I internal)-2023

The chases in wall shall be done by chase cutting machines, for which the contractor shall arrange adequate numbers of chase cutting machines (chase cutters) for cutting chases in wall etc. for laying of conduit within the scope of work nothing extra shall be paid.

The contractor shall be entirely responsible and answerable for all the works done by him regarding quality, adherence to the laid down specifications, terms and conditions, warranty/guarantee etc. and he shall be liable to bear any compensation that may be levied by the department under any of the clauses of the agreement.

The contractor is advised to visit the site before quoting for his tender to apprise himself about the site environment and other conditions. Drawings and inventories can be seen in the office of the Engineer – in – charge.

The contractor will make his own storage of his own materials. The watch and ward of the materials and of the installations would be responsibility of contractor till the work is completed / handed over to the department. Nothing extra shall be paid to the contractor on this account.

The contractor should use only the approved makes of materials in the work specified in the NIT.

The agency will provide lay out drawing prepared by his Engineer with consultation with Engineer-In-Charge or his representative for approval before executing of work.

All multi data Mtrs specified in item shall be suitable to measure voltage, current, PF, Kwh, frequency etc.

The department reserves the right to send such materials to the manufacturers / authorized

test laboratory to verify the genuineness and quality of the product.

The work shall be carried out in engineering like manner and bad workmanship shall be rejected summarily. For redoing the job, no claim of the contractor shall be entertained on this account.

Payment terms: On account payments for part work (after stipulated and statutory deductions) as assessed by the Engineer – in-charge for the applicable items in the Contract shall be payable at part rates not exceeding the percentage indicated against the stages of work mentioned below:

Items of MCBDB, MCB, MCCB, UG Cable, fire extinguishers, LED fittings, RO units etc.

S.N	Stage of work	Percentage of Rate
a	On initial inspection of material and delivery at site in good condition on pro-rata basis	80%
b	On completion of installation on pro-rata basis	10%
c.	On completion of testing and commissioning	5%
d	At the time of payment of final bill	5%

Items connected with point wiring, circuit wiring, sub-main wiring, power point wiring and light plug wiring

S.N	Stage of work	Percentage of Rate
a	On laying of conduits with accessories, switch boxes, etc. on pro-rata basis	40%
b	On drawing of wires including terminations, switches, sockets etc. on pro-rata basis	40%
c.	On completion of item and after testing and commissioning	15%
d	At the time of payment of final bill	5%

For other items, the part rates will be decided by the Engineer-In-Charge of the work and shall be binding on the contractor.

LUMINAIRES:

A sample of each item of schedule of supply shall be handed over by the bidder in the office of the Engineer – in – charge (Electrical) before procurement of the fittings. These samples shall be returned back afterwards.

The make of luminaries shall be strictly as per the tender conditions. The contractor must submit technical literature & photometric data, LM 79 and LM 80 type test certificates along with write up of the luminaries to be supplied by him.

Copy of type test certificate for all types of luminaries as per BIS, including type test certificate from a Central / State government or public sector laboratory or a laboratory recognized / accredited by the Central / State Government for such tests for the light fittings shall be submitted before acceptance of the fittings.

Contractors should obtain an undertaking from the manufacturer that they have a system of quality control to ensure consistent good quality of the finished product and as such has a scheme of inspection of the light fittings. They should agree for inspection of the light fittings and testing as per relevant IS and other standards in their labs.

GUARANTEE: All the electrical light fittings with all its components shall be guaranteed for a minimum period of five year or for a period for which the manufacturer gives their normal guarantee whichever is longer from the date of

completion / acceptance of the installation. All the LED type of luminaries including all accessories and drivers shall be guaranteed for a minimum period of 5 years or for the normal period of guarantee provided by the manufacturer whichever is longer from the date of completion / acceptance of the installation. The contractor shall remain responsible for replacement / repair of the fittings free of cost if they are found not operating / glowing during maintenance / warrantee period.

The main contractor has to submit security deposit of 5% of 80% of the price quoted by him for SITC of LED fittings for the remaining 4 years warranty period for LED fittings in acceptable form i.e. FDR/ Bank guarantee to concern Executive Engineer (E). The Security Deposit deducted from the bills of contractor shall be refunded to the main contractor only after submission of above security deposit for LED fittings by main contractor, failing which this LED security deposit shall be deducted from Security Deposit deducted for total work and balance amount only will be refunded after completion of defect liability period. The LED Security Deposit will be released after completion of warranty period of 5 years to the main contractor

It will be the obligatory on the part of the contractor to get all the light fittings and fixtures and their components / accessories inspected by authorized engineer / personnel of the manufacturer of the fittings at site after the materials are received at site and obtain certificate that the materials reached at site are genuine and manufactured by them.

All MCCBs with ICS = 100% ICU shall only be provided except mentioned.

All the MCCBs / RCCBs/ MCBs/ MCB DBs shall be of similar make. MCBs shall be of 10 KA rating. For incomer MCCBs in panel's earth leakage protection shall be provided. The KA rating for MCCB shall be as per the item.

The contractor will have to arrange for insulation and other tests like cable test etc. as per rules in the presence of the representative of Engineer-in-Charge as and when required by him and submit the test report in triplicate before the work can be considered as complete.

The contractor shall be responsible for the safe custody of the electrical installation in the building, including fitting and fixtures till the installations handed over to the department. He should make his own arrangement for proper watch and ward at his risk and cost. No claim will be entertained on this account.

The work is to be carried out in workman like manner and generally in accordance with the plans. However, the contractor will be bound to carry out the work with minor deviation over the plan supplied if desired by the Engineer-in-Charge of the work.

Stage payment to the contractor for various minor components of work shall be regulated as per CPWD Specifications. For works for which the % payment is not specially mentioned in the specification, the rate of stage payment shall be decided by Engineer-in-Charge.

Any Damage done to the building during the execution of electrical work shall be made good immediately at his own cost to the entire satisfaction of the Engineer-in-Charge.

All PVC insulated copper conductor cables used for the work shall be FRLS type with ISI mark and of make as per approved list.

Wherever makes of LT panels/Feeder pillars are not specifically mentioned in schedule/particular sub work specification, the same shall be fabricated by panel builders with in house facilities for seven or more tank treatment process and powder coating. They also shall have approval from CPRI for panels with rating not less than the bus bar rating of the item.

Drawings of all panels and fabricated equipment shall be submitted to the Engineer-In Charge got approved before fabrication.

The connections, inter-connections, earthing and inter-earthing shall be done by the contractor wherever required to be done for energization of the installation and nothing extra shall be paid on this account.

General arrangement of Feeder Pillar shall be got approved before fabrication work starts. Drawing with details shall be submitted to the Engineer-in-Charge and got approved before fabrication.

Cable route and pole locations shall be marked in drawing / site and got approved by the Engineer-in-charge or his representative before commencement of work.

LIST OF PREFERRED MAKES OF MATERIALS

NOTE:

1. A List of Preferred Brand Names of Various Materials / Products are shown above for usage in execution of work. However, Approved equivalent material of any other Specialized Companies / Firms may also be used, in case it is established that the Brands Specified above are not available in the market or in other unavoidable circumstances and subject to Approval of the alternate brand by the Superintending Engineer, CPWD, Mysore.
2. It must be ensured, in general, that all materials to be used in the works shall bear BIS Certification mark. In case where for a particular material / product, BIS Certification Mark is not available, then the material proposed to be procured can be used subject to the condition that it should conform to CPWD specifications and relevant BIS codes. In such cases written approval of the Engineer – in – Charge shall be obtained before use of such material in their works.
3. The list given above does not absolve the Executing Agency from their responsibility for using these products. It is only after, they are satisfied about the quality and performance, the products shall be used. To achieve this, proper check on the quality of the product, actually to be used, should be exercised.
4. LMS 79 and LM80 certificate shall submitted along with LED fittings and also test certificates shall be submitted from third party NABL accredited lab.

Internal Electrical Installations

S.No.	Name of the Product	Approved Makes
1.	PVC insulated copper conductor FRLS/HFFR cable ISI Marked	Havells/RR Kabel/KEI/ Polycab
2.	MCB / ELCB/RCCB / DB	Legrand/Siemens/Schneider/ Lauritz Knudsen Electrical & Automation
3.	XLPE UG Aluminium/Copper LT Cable	Havells/ KEI/ RR Kabel/ Polycab
4.	Cable glands and cable lugs	Jainsons / Comet / Dowells / Prabath/ Polycab/ Gripwel/ Raychem.
5.	DWC/ HDPE	Gemini / Rex /Duraline/prince/supreme
6.	PVC Conduit (ISI Marked) medium class	Avonplast/AKG/Precision
7.	GI Pipe(ISI Marked)	Jindal / TATA / SAIL.
8.	Modular Switches & Sockets, Fan Regulator,RJ-45 Data Socket / GI Boxes/TV/Telephone sockets	Legrand - Arteor / Northwest - Artisa / Schneider - zencelo
9.	BLDC Fans (Ceiling Fans)	Atomberg –Efficio /Havells /Orient
10.	Exhaust Fan / Wall Fans / Pedestal Fans	Orient/Havells/Almonard
11.	LED Fittings	Phillips / Wipro / Lighting Technologies
12.	Electrical LT Panel Boards/ Feeder Pillars/ Meter Boards/ Control & Relay Panels.	Manufacturer having in-house 7 tank process, powder coating facility, CNC Machine having CPRI approval for relevant bus bar rating (The decision of the Engineer – in- charge will be final and binding).
13.	Moulded Case Circuit Breaker/ Motor protection circuit breaker Electric	Legrand/Siemens/Schneider/Lauritz Knudsen Electrical & Automation

S.No.	Name of the Product	Approved Makes
14.	CMS	Legrand/OBO/MK
15.	MS Conduits (ISI Marked)	AKG/BEC/RMCON / Steel Kraft
16.	Fire Extinguisher	Ceasefire/Kanex/Minimax/Naffco

Executive Engineer(E)
CPWD, Mysore

SCHEDULE OF QUANTITY (CIVIL PORTION)					
Name of work: Construction of Semi Permanent Structure Office at 2nd floor (Semi Circular Portion) including internal Electrical works at CMFRI, Mangalore					
Sl no.	Description of the Item	Quantity	Unit	Rate	Amount in Rupees
1	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor, etc., up to floor five level, excluding the cost of centering, shuttering and finishing :				
1.1	1:2:4 (1 Cement : 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 20 mm nominal size derived from natural sources)	0.50	Cum	11602.74	5801.00
2	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement :				
2.1	1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) : 3 graded stone aggregate 20 mm nominal size)	0.60	Cum	12725.76	7635.00
3	Centering and shuttering including strutting, propping etc. and removal of form for :				
3.1	Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	3.00	Sqm	987.88	2964.00
4	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.				
4.1	Thermo-Mechanically Treated bars of grade Fe-500D or more	35.00	Kg	126.46	4426.00
5	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 5 in superstructure above plinth level up to floor V level in all shapes and sizes in :				
5.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	8.00	Cum	10677.29	85418.00
6	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size,approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.				
6.1	Granite stone slab all colour and texture except black, Cherry/ Ruby red				
6.1.1	Area of slab over 0.50 sqm	4.00	Sqm	4512.84	18051.00
7	Providing and fixing aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with necessary screws etc. complete :				
7.1	250x10 mm	2.00	Each	135.02	270.00
8	Providing and fixing aluminium handles ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with necessary screws etc. complete :				
8.1	125 mm	4.00	Each	77.68	311.00

Sl no.	Description of the Item	Quantity	Unit	Rate	Amount in Rupees
9	Providing and fixing partition upto ceiling height consisting of G.I. frame and required board, including providing and fixing of frame work made of special section power pressed/ roll form G.I. sheet with zinc coating of 120 gms/sqm(both side inclusive), consisting of floor and ceiling channel 50mm wide having equal flanges of 32 mm and 0.50 mm thick, fixed to the floor and ceiling at the spacing of 610 mm centre to centre with dash fastener of 12.5 mm dia meter 50 mm length or suitable anchor fastener or metal screws with nylon plugs and the studs 48 mm wide having one flange of 34 mm and other flange 36 mm and 0.50 mm thick fixed vertically within flanges of floor and ceiling channel and placed at a spacing of 610 mm centre to centre by 6 mm dia bolts and nuts, including fixing of studs along both ends of partition fixed flush to wall with suitable anchor fastener or metal screws with nylon plugs at spacing of 450 mm centre to centre, and fixing of boards to both side of frame work by 25 mm long dry wall screws on studs, floor and ceiling channels at the spacing of 300 mm centre to centre. The boards are to be fixed to the frame work with joints staggered to avoid through cracks, M.S. fixing channel of 99 mm width (0.9 mm thick having two flanges of 9.5 mm each) to be provided at the horizontal joints of two boards, fixed to the studs using metal to metal flat head screws, including jointing and finishing to a flush finish with				
9.1	66mm overall thickness partition using 8mm thick, double skin multipurpose cement board, Type-B, Category-III as per IS : 14862:2000 reinforced with cellulose fibre manufactured through autoclaving process (High pressure steam cured) with suitable fibre cement screws	33.00	Sqm	2418.82	79821.00
10	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.				
10.1	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works.	512.00	Kg	202.38	103619.00
11	Providing and fixing precoated galvanised iron profile sheets (JSW AZ150) (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 150 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.	43.00	Sqm	866.11	37243.00
12	Providing and fixing thermal insulation with Resin bonded rock wool conforming to IS: 8183, density 48 kg/m3, 50 mm thick, wrapped in 200 G virgin Polythene bags placed over existing false ceiling and held in position by criss- crossing GI wire.	136.50	Sqm	370.59	50586.00
13	12 mm cement plaster of mix :				
13.1	1:6 (1 cement: 6 fine sand)	128.50	Sqm	390.87	50227.00
14	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade:				
14.1	New work (Two or more coats applied @ 1.43 ltr/10 sqm over and including priming coat of exterior primer applied @ 0.90 litre/10 sqm)	110.00	Sqm	200.63	22069.00
15	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.				
15.1	On steel work	21.00	Sqm	283.47	5953.00

Sl no.	Description of the Item	Quantity	Unit	Rate	Amount in Rupees
16	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.	222.00	Sqm	182.98	40622.00
17	Wall painting with acrylic emulsion paint, 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.				
17.1	Two coats.	280.00	Sqm	161.17	45128.00
18	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content.				
18.1	With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre.	280.00	Sqm	86.71	24279.00
19	Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40 mm dia M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube chollies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after. The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineer-in-charge. The elevational area of the scaffolding shall be measured for payment purpose. The payment shall be made once irrespective of duration of scaffolding. Note: - This item to be used for maintenance work judiciously, necessary deduction for scaffolding in the existing item to be done.	336.00	Sqm	396.62	133264.00
20	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass/ stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :				
20.1	For fixed portion				
20.1.1	Powder coated aluminium (minimum thickness of powder coating 50 micron)	227.00	Kg	622.51	141310.00
21	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately).				
21.1	Powder coated aluminium (minimum thickness of powder coating 50 micron)	234.00	Kg	743.93	174080.00
22	Providing and fixing 12mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS:12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge.				
22.1	Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side.	24.50	Sqm	1335.90	32730.00

SCHEDULE OF QUANTITIES (ELECTRICAL PORTION)

Name of Work: Construction of Semi permanent structure office at 2nd floor including internal Electrical works for Canteen at CMFRI, Mangalore.						
Sl.No	Description	Quantity	Unit	Rate		Amount
	CHAPTER 1 - WIRING					
	WIRING IN PVC CONDUIT					
1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS/HFFR PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable PVC box and earthing the point with 1.5 sq.mm. FRLS/HFFR PVC insulated copper conductor single core cable etc as required.					
1.1	Group C	20.00	Point	1613.00	Point	32260.00
2	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required					
2.1	4 X 10 sq. mm + 2 X 6 sq. mm earth wire	10.00	Mtrs	1261.00	Metre	12610.00
3	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel/ PVC conduit as required.					
3.1	3 x 1.5 sq. mm	50.00	Mtrs	122.00	Metre	6100.00
3.2	6 x 1.5 sq. mm	30.00	Mtrs	228.00	Metre	6840.00
3.3	3 x 4 sq. mm	50.00	Mtrs	260.00	Metre	13000.00
3.4	6 x 4 sq. mm	30.00	Mtrs	496.00	Metre	14880.00
4	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.					
4.1	20 mm	50.00	Mtrs	177.00	Metre	8850.00
4.2	25 mm	80.00	Mtrs	197.00	Metre	15760.00
4.3	32 mm	30.00	Mtrs	245.00	Metre	7350.00
5	Supplying and fixing of PVC cable management system with canal base and canal front with accessories such as internal coupler, joint cover, bends, end cover etc. complete as required.					
5.1	32 mm x 20 mm	50.00	Mtrs	352.00	Metre	17600.00
6	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.					
6.1	6 pin 15/16 amp socket outlet	4.00	Nos	256.00	Each	1024.00
6.2	20 A DP Switch with Indicator	4.00	Nos	683.00	Each	2732.00
7	Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	6.00	Nos	470.00	Each	2820.00
8	Supplying and fixing following size/ modules, PVC box along with modular base & cover plate for modular switches in recess etc as required.					
8.1	1 or 2 Module (75mmX75mm)	8.00	Nos	217.00	Each	1736.00
9	Supplying and fixing suitable size PVC box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required.	4.00	Nos	951.00	Each	3804.00
10	Supplying and fixing suitable size PVC box with modular plate and cover in front on surface or in recess, including providing and fixing 2 Nos. 3 pin 5/6 A modular socket outlet and 2 Nos. 5/6 A modular switch, connections etc. as required. (For light plugs to be used in non residential buildings).	4.00	Nos	1056.00	Each	4224.00

Sl.No	Description	Quantity	Unit	Rate		Amount
	MCCB, MCB & DB'S					
11	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)					
11.1	4 way (4 + 12), Double door	1.00	Nos	5121.00	Each	5121.00
12	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
15.1	Single pole	12.00	Nos	333.00	Each	3996.00
18	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
18.1	40 amps	1.00	Nos	1227.00	Each	1227.00
20	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
20.1	40 amps	1.00	Nos	4039.00	Each	4039.00
	SH-II :Fittings and Fans					
24	LED Panel light 2x2 ft. (System lumen efficacy ≥105 <120 lm/Watt)					
	Supplyi installation, Testing & Commissioning of Panel light 2x2ft., of following body material and construction as per IS:10322 with driver as per the requirement with Driver efficiency >85%, Operating voltage AC 140-270V, freq 50/60 hz, Operating temp range -15° to 40° C, internal surge protection of 2.5KV with Short & Open circuit protection, THD <10%, P.F.≥0.95, IP20, CRI >80, UGR (Unified Glare Rating)<19, Flicker free, (flicker should be below 5%), life time (LED,Driver & electrical circuitry), of min 50000 Burning Hours with, 70% of initial Lumen maintained till life ends as per LM80 extrapolation IES TM-21-11 report, CCT 3000°K/4000°K /5700°K/6000°K /6500°K (As per ANSI Bin), SDCM (Standard Deviation Color Matching)<3, Max. power consumption should not more than the specified rating and Fixture shall be of relevant BIS standard and trade mark certificate(T.C.).					
	Manufactures Word Mark/ Name Engraved/Embossing /Screen printing on housing. complete in all respect i/c connections with 1.5sq.mm FRLS, PVC insulated copper conductor single core cable & earthing etc. as required with Min. 5 year OEM warranty. System lumen efficacy ≥ 105 <120 lm/Watt output LM79 & LM80 Test report from NABL lab for all testing required for LED fixtures as per BIS shall be submitted. Shape size & CCT shall be as approved by Engineer in-Charge as per requirement. (Thermal management: heat sink of aluminum housing such that LED junction temp. shall not rise above 90°C)					

Sl.No	Description	Quantity	Unit	Rate		Amount
	Powder coated die cast / Extruded aluminium Body (Thickness ≥ 1.20 mm)					
24.1	36 watt	12.00	Nos	2934.00	Each	35208.00
25	Supply, installation, testing and commissioning of Heavy Duty exhaust fan of 300 mm sweep, 1400 RPM suitable for operation on 230V single phase 50 Hz AC supply in the existing opening including making hole to suit the size of the above fan, making good the damages connections, etc as required.	2.00	Nos	2944.00	Each	5888.00
26	Supply, Installation, Testing and Commissioning of ceiling fan with Brush Less Direct Current (BLDC) Motor, class of insulation: B, 3 nos. metal (Aluminum alloy) blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, steel/Al body Power Factor not less than 0.9, Service Value (CM/M/W) minimum as below, 350 RPM (tolerance as per IS : 374-2019), THD (Total Harmonic Distortion) less than 10%, suitable for operation with regulator for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 degree C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC Ceiling Fan compliant to IS 374:2019 fan Supply, earthing etc. complete as req					
26.1	1200mm, service value ≥ 6.0 CM/Min/Watt, airdelivery 210 CM/Min (Minimum)	6.00	Nos	3153.00	Each	18918.00
	FIRE EXTINGUISHER					
27	Providing and fixing 4.5 Kg carbon dioxide (CO2) type fire extinguishers confirming to IS 7285 - 1976 with ISI marked fitted with value as per IS 3224 with ISI marked and cylinders fully charged etc i/c installation with suitable brackets on wall as required.	1.00	Nos	8750.00	Each	8750.00
28	Providing and fixing 6 Kg (net powder weight) ABC powder stored pressure type fire extinguisher with controllable discharge mechanism, discharge hose, pressure guage etc conforming to IS: 15683-2006 with latest amendments etc i/c installation with suitable brackets on wall as required.	1.00	Nos	3489.00	Each	3489.00
					Total	238226.00